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ACCOUNTING IN THE ERA OF DISRUPTION:
BUILDING RESILIENCE WITH ARTIFICIAL INTELLIGENCE

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*Accounting in the Era of Disruption:
Building Resilience with Artificial Intelligence*

FACULTY OF ACCOUNTANCY UNIVERSITI TEKNOLOGI MARA PERAK 2023

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PREFACE

The Faculty of Accountancy, Universiti Teknologi MARA (UiTM) Perak Branch is organizing the 5th International Conference on Accounting Research and Education 2023 (iCARE2023) on 17 – 18 October 2023, with the theme: -

"ACCOUNTING IN THE ERA OF DISRUPTION: BUILDING RESILIENT WITH ARTIFICIAL INTELLIGENCE"

This conference provides a platform for academics, researchers, practitioners, and students from around the world to exchange research ideas pertaining to accounting and related fields, such as internal reporting, auditing, management accounting, corporate governance, risk management, performance evaluation, education technology, business management, and others. Additionally, this conference provides a wealth of chances to learn new things, exchange technical insights, connect with colleagues, and communicate with business partners.

iCARE 2023, is a collaborative conference with five higher education institutions, including the Accounting Research Institute (Malaysia), Universitas Paramadina (Jakarta, Indonesia), Kalbis Institute (Jakarta, Indonesia), Universitas Pembangunan Jaya (Banten, Indonesia), and Universitas Islam Indonesia (Yogyakarta, Indonesia).

We are pleased to note the significant number of paper submissions from participants all over Malaysia and Indonesia. Fifty-nine research papers were selected and included in this proceeding.

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Malaysian Firms and the ESG Score:
The Key to Unlocking Peak Performance

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Abstract

ESG reporting has become increasingly popular among organizations and socially responsible communities. Stakeholders and fund managers believe companies with high ESG disclosures achieve better operating performance, higher returns, and lower firm-specific risk. Despite inconclusive evidence, sustainability scholars continue investigating the relationship between sustainability disclosure and financial performance. This article aims to provide quantitative evidence of a firm's sustainability reporting through non-financial voluntary disclosures. The ESG score consists of three components: Environmental, Social, and Governance, and this study investigates the relationship between ESG scores and firm performance in Malaysian listed firms. Using multiple regression analysis, the study examines one independent variable (ESG score) and three critical performance indicators (Return on Assets, Return on Equity, and Market Valuation) while controlling for firm size, sales growth, and leverage. The study's 370 firm-year observations from 2012 to 2021 demonstrate that the Return on Assets, Return on Equity, and Market Valuation models are empirically significant. The study uses ESG score data retrieved from Refinitiv Eikon Datastream, which provides detailed information on the constituents and underlying indicators affecting the corresponding ESG score. The findings of this study will be helpful to investors, policymakers, and other related agencies, as it is among the first empirical studies to examine the impact of ESG scores on the performance of Malaysian listed firms in terms of Return on Assets, Return on Equity, and Market Valuation.

Keywords
ESG reporting, ESG score, firm performance, Return on Assets, Return on Equity, Market Valuation

1. Introduction
Environmental, Social, and Governance (hereafter ESG) focuses on three key areas: environmental factors (such as climate change, resource usage, and pollution), social factors (such as employee welfare, human rights, and community engagement), and governance factors (such as board composition, executive compensation, and shareholder rights). It looks at the broader impact of the organization's activities on stakeholders and the planet. ESG reporting involves disclosing relevant ESG metrics and performance indicators that reflect an organization's environmental, social, and governance performance. It requires identifying and quantifying relevant ESG factors, establishing targets and benchmarks, and reporting progress over time. ESG reporting frameworks such as the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) provide guidelines for standardized reporting.

ESG reporting provides investors with a way to identify and understand critical issues that aren't typically accounted for on a traditional balance sheet yet have a crucial impact on a company's risks and opportunities. Investors are increasingly adopting ESG, which will continue to become embedded in corporate strategies. Investors request new tools to evaluate companies' performance from an ESG perspective as the ESG market grows. Although reporting an ESG indicator is not mandatory in annual company statements, more companies are reporting their progress in terms of corporate sustainability (Serban et al., 2022). However, ESG substantially limits investors' options because companies perform well in terms of stock market price but act against the practices supported by the ESG framework (Serban et al., 2022). According to Serban et al. (2022), the ESG indicator aims to highlight that these practices lead to superior company performance beyond ethical concerns.

The ongoing discussion on the link between ESG and financial performance remains unresolved due to a lack of clear evidence and consensus among researchers. While some research represents a negative connection between ESG and financial performances, others show a catalytic effect (i.e., positive) or no effect. As a result, there is some disagreement over the direction in which financial success is linked to environmental, social, and governance outcomes. Hence, this paper aims to fill the literature gap by examining the importance of ESG scores and their impact on firm performance. The author proposes a conceptual paper to provide a framework for investigating the practices of ESG, enhancing the theories, and determining the long-term effect of ESG scores on firm performance. It portrays positive and negative relationships between ESG scores and the performance of the companies. The paper contributes to the literature on ESG data quality, ESG scores' reliability, and whether ESG data can accurately reveal a firm's financial performance. Data quality has vital implications for rating agencies and investors, companies, and researchers to improve their awareness of the impact of ESG scores on firm performance. Investors can use the information in their business research and valuation tools when ESG indicators appropriately reflect a firm's performance on ESG concerns. Businesses can incorporate sustainability initiatives into their operational procedures and investment plans; researchers will be better able to identify links between ESG measurements and financial performance.

The remainder of the paper is presented as follows. The following section reviews the relevant literature review. The third section presents the sample, variables, and methodology for estimating the model. The fourth section lays out the findings and empirical results. In the last section, we present our conclusion.

2. Literature Review

2.1 Importance of Environmental, Social, and Governance (ESG)

Investors have become more interested in companies that operate with the principles of the ESG because compliance with the ESG principles is much more sustainable, have more resources for development in the long term, spend time optimizing their activities, and have better financial performance (Egorova et al., 2022). Due to that concern, the United Nations Principles for Responsible Investment (hereafter PRI) promotes incorporating ESG factors into investment decision-making, encouraging investors to take greater responsibility for their investments. A framework like PRI helps investors comprehend sustainable investments and make more responsible judgments. Through involvement, best practices sharing, and learning, PRI supports a network of international investor signatories striving to include ESG concerns in their investment and ownership decisions.

Apart from that, several companies have been willing to integrate ESG practices into different fields of their business (Landi et al., 2022). In practice, management consulting firms and investors widely use ESG scores as a significant index to understand a firm's overall corporate social responsibility (hereafter CSR) performance. ESG essentially evaluates a firm's environmental, social, and corporate governance practices and combines the performances of these practices (Gillan et al., 2021). Despite the relatively late appearance of the concept of ESG, studies on the association between ESG and firm value or financial performance are abundant (Miralles-Quirós et al., 2018; Han & Yu, 2016).

In a nutshell, ESG indicators are non-financial factors that have become increasingly important and popular among investors (Serban et al., 2022). Furthermore, these academics and industry experts have employed a variety of terms within the category of ESG; however, regardless of whether the word is Socially Responsible Investing (hereafter SRI), Corporate Social Performance (hereafter CSP), or ESG, the studies assess sustainability by measuring roughly the same metrics. ESG reporting also impacts a company's financial and environmental performance. Weber (2014) examines the ESG reporting of China's Top 100 green companies and indicates that excellent ESG reporting contributes to higher financial returns and corporate environmental performance. According to Chen et al. (2015), Human Rights, Society, and Product Responsibility have a strong and positive link with the return on equity. Despite the increased availability of ESG information, ESG reporting remains insufficient for non-financial analysis.

2.2 ESG Scores

ESG rating agencies are independent businesses with a focus on ESG scores. Many rating agencies offer ESG scores, but some of the more well-known ones are Bloomberg ESG Data Services, Dow Jones Sustainability Index, MSCI ESG Research, Sustainalytics, Refinitiv Eikon Datastream (previously Thomson Reuters Eikon), S&P Global, ISS ESG, Vigeo/EIRIS, Fitch Ratings, and Moody's Investors Service.

The Refinitiv database's ESG score has been widely used in academic publications (Reber et al., 2022; Shakil, 2021). Investors can compare a company's performance to competitors in its industry and businesses from other sectors by assigning an ESG score ranging from 0 to 100. Companies with high ESG scores may be more attractive to investors

because they share the company's values or believe it is sufficiently protected from future risks brought on by pollution or bad corporate governance. An investor worried about ESG may avoid a company with a lower ESG score.

In addition, this ESG data provider offers the best global coverage compared to other ESG rating providers. Over 630 company-level ESG metrics are captured and calculated by Refinitiv. A subset of 186 of the most relevant and similar variables for each industry power the overall business evaluation and scoring (Refinitiv, 2021). These are categorized into ten areas that reformulate the three pillar scores and the final ESG score, reflecting the company's ESG performance, commitment, and effectiveness based on information that has been made publicly available (Refinitiv, 2021). Three pillars-environmental, social, and corporate governance are used to group the category ratings, and their weights are standardized.

2.3 Measures of Financial Performance

Although the body of empirical literature on a company link's ESG and financial performance is vast, it remains inconclusive. Studies report positive, negative, and neutral relationships between ESG and a company's financial performance. Due to that, prior studies that investigate the relationship between ESG scores and success have utilized the following metrics: stock returns (e.g., Brammer et al. 2006), return on assets (ROA) (e.g., Xie et al. 2019), and return on equity (ROE) (e.g., Atan et al. 2018). Griffin and Mahon (1997) report that 80 performance metrics were employed in the surveyed literature despite the study being a little dated (51 research studies). Firm size, ROE, and ROA are three of the eighty most frequently utilized measures. Despite adopting ROA as the most prevalent accounting metric, Velte (2017) underlines the value of using market-based accounting metrics as a proxy for financial performance. He conducted his investigation using Tobin's Q and this metric. Several other researchers, like Atan et al. (2018) and Dalal and Thaker (2019), also employ the same two variables. However, the authors of this paper considered the value of a company to be given by market capitalization for the following rationale: if investors guide their investments in company shares by applying investing principles, then the impact of investment decisions influences the market price of shares and, consequently, a company's market capitalization. In previous literature and practical approaches, market capitalization is considered a metric for establishing the value of a company from a market perspective (Serban et al., 2022).

2.4 Relationship between ESG Scores and Firm Performance

ESG is becoming a part of the firm's non-financial indicators, including sustainability, ethics, and corporate governance issues. Therefore, companies place increasing emphasis on improving and publishing their ESG ratings. The environmental, social, and governance pillars of the ESG score are each divided into several categories. The company's success in terms of sustainability is represented by the ESG score, which is the average of all assessment ratings for each pillar. Based on data that has been made publicly available, the ESG score evaluates the company's efficiency and performance. The company performs more sustainably when its ESG score exceeds (Melinda & Wardhani, 2020).

There has been a considerable amount of prior research related to ESG. Plumlee et al. (2015) studied the relationship between voluntary disclosure and the company's value. The research uses companies in the United States. The study's results found that disclosure significantly positively affected firm value. The study also found that the practical future cash flow component was significantly related to disclosure quality. From 2001 to 2006, Lima Crisóstomo et al. (2011) investigated the connection between CSR, firm value, and the financial performance of Brazilian corporations. The results indicate that CSR is value-destroying in Brazil since a significant negative correlation was found between CSR and firm value. Additionally, a neutral relationship characterizes the mutual effect between CSR and financial accounting performance.

Deswanto and Siregar (2018) used a sample of 211 companies listed on the Indonesian stock exchange between 2012-2014 to investigate the connections between environmental information disclosure and financial performance, environmental performance, and corporate value. According to the study's findings, environmental disclosure unaffected financial performance. Additionally, research demonstrates that environmental performance positively impacts environmental information disclosure. However, disclosure of environmental information does not impact company value or mediate the relationship between the effects of financial performance and environmental performance on firm value. Setiadi and Suhardjanto (2017) find a considerable beneficial effect of environmental disclosure on business value in the Indonesian context. Malarvizhi and Matta (2016) investigated the relationship between environmental disclosure and corporate performance in India. They also discover no association between the extent of environmental disclosure and corporate performance. Their findings suggest corporations share environmental information regardless of financial performance to sustain the global ecosystem. Another study by Haninun et al. (2018) found that environmental performance and disclosure positively affect financial performance.

Among all the studies, much of the extant literature has focused on the impact of ESG disclosure on firm performance or on how a single pillar of ESG affects firm performance. Regarding specific contexts, what emerges is looking at previous studies focusing on the relationship between ESG and firm performance, but the results remain inconclusive (Orlitzky et al., 2003). Many studies show a positive relationship (Pham et al., 2022; Kim & Li, 2021; Zhao et al., 2018), while others show a negative (Velte, 2017; Lee et al., 2009) or neutral (Junius et al., 2020; Atan et al., 2018) relationship. The scarce focus on the firm performance tested through accounting-based measures and the lack of alignment of the results is apparent even in more extensive studies covering several years of data.

An overview of the mixed empirical findings is presented in Table 1.

Table 1: Review of Empirical Literature
Source: Created by Authors for the Purpose of the Study

Authors (Year)	ESG Measure	Performance Measure	Country	Findings
Pulino et al. (2022)	ESG Score Environmental Score Social Score Governance Score (Refinitiv)	EBIT, ROA	Italian	Positive
Koundouri et al. (2021)	STOXX Europe ESG Leaders 50 index (Sustainalytics)	ROA, ROE, Profit margins	Europe	Positive
Kaiser (2020)	ESG (Refinitiv)	Risk-adjusted return	Europe, U.S.	Positive
Shabbir et al. (2020)	ESG Disclosure Score ENV Disclosure Score SOC Disclosure Score GOV Disclosure Score (Annual Published Reports)	ROA, ROC, Excess stock returns	Pakistani	Positive
Duque-Grisales & Aguilera-Caracuel (2019)	ESG Score E Score S Score G Score (Thomson Reuters' Asset4 database)	ROA	Brazil, Chile, Colombia, Mexico, and Peru	Negative
Xie et al. (2019)	ESG disclosure score (Bloomberg)	Corporate efficiency (Revenue earned, ROA)	International (74 countries)	Positive
Atan et al. (2018)	ESG (Bloomberg)	ROE, Tobin's Q, WACC	Malaysia	Neutral
Zhao et al. (2018)	ESG performance index	ROCE as financial performance indicator & Debt to Equity ratio	China	Positive
Velte (2017)	ESG rating (Thomson Reuters Datastream)	ROA, Tobin's Q	Germany	Positive Neutral
Wang & Sarkis (2017)	ESG (Bloomberg)	ROA, Tobin's Q	The U.S.	Positive
Brammer et al. (2006)	ESG scores (EIRIS Sustainability Ratings)	Stock returns	The U.K.	Negative

2.5 The Conceptual Framework

An analysis of existing studies showed that the link between ESG and company value is uncertain (Kim & Oh, 2019) because it is influenced by how a company's value is measured and the fact that ESG investing practices among investors are still in their infancy (Serban et al., 2022). Their studies focus on or isolate a single dimension of ESG. Since the ESG score is based on a company's performance in the environment (E), social (S), and governance (G) sub-factors in equal proportion, a company can participate in individual E, S, and G activities at different levels. However,

limited ESG research studies on all three environmental, social, and governance dimensions in a single setting (Zuraida et al., 2016). Therefore, this article examines the need for overall ESG scores and their impact on the firm performance of listed companies.

Figure 1 shows the conceptual framework of this study. This conceptual framework demonstrates the relationship between one independent variable (ESG score) and three dependent variables (ROA, ROE, and Market Valuation) as a proxy for firm performance.
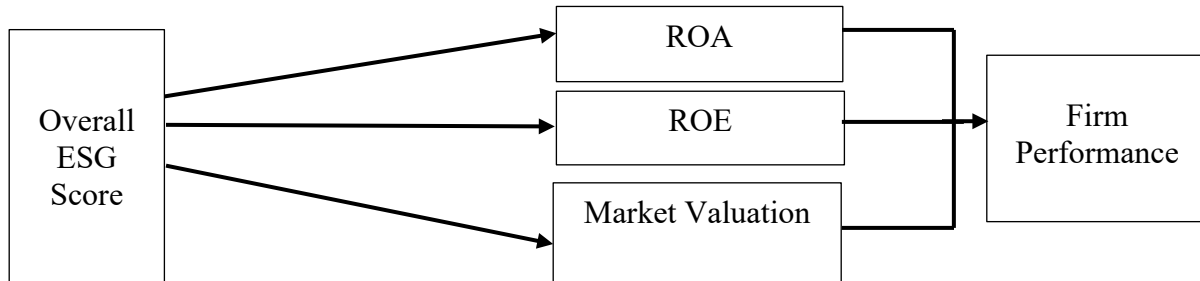
Figure 1: Conceptual Framework

The model is based on stakeholder theory, first proposed by R. Edward Freeman in 1984, which inspired the creation of the sustainability report and the ESG (Velte, 2017). According to the stakeholder theory, for management to succeed, they must have a positive relationship with their stakeholders. More specifically, Freeman (2010) defined a stakeholder as any person or entity that can influence an organization's performance or that organization's success impact. The good governance approach, commonly referred to as a stakeholder theory, encourages stakeholder-oriented management that considers all stakeholders and maximizes value through CSR governance and ESG activities. Stakeholders, particularly investors, have increased their use of ESG data in recent years. Companies are conscious that ESG disclosure is essential to projecting a positive reputation and image to their stakeholders as they take on environmental challenges (Tarmuji et al., 2016).

Hill and Jones (1992) elaborate on how the management of stakeholder relationships might act as a monitoring tool to help managers focus on financial goals (Orlistzky et al., 2016). Due to that, the stakeholder theory is more dominant as most studies show a positive relationship between a company's ESG performance and financial performance. As the literature review describes, the stakeholder theory assumes superior financial performance for companies that successfully integrate ESG activities into their business operations. Based on this theory, stakeholders' satisfaction is pivotal to achieving good financial performance.

3. Methods
3.1 Study Population, Sample, and Resources of Data
This study uses a quantitative approach with secondary data. Authors choose the sample based on the availability of relevant data for the selected firms during the specified period. It depends on the selected sample, 370 firm-year observations derived from the Malaysian Listed Firms (excluding Financial Institutions) from 2012 to 2021. The data used in this study were collected from Refinitiv Eikon Datastream (formerly known as Thomson Reuters Eikon). Refinitiv Eikon Datastream is the most reliable and comprehensive international financial and accounting data (Refinitiv Eikon Datastream, 2021).

3.2 The Study Variables
We used data on ESG scores (ESG) from Refinitiv. Based on publicly reported data, ESG scores from Refinitiv are designed to measure a company's relative ESG performance, commitment, and effectiveness transparently and objectively across ten (10) main themes (emissions, environmental product innovation, human rights, shareholders, etc.). The score is expressed from 0 to 100 percent. ESG score of Refinitiv Eikon is extensively used by several researchers in their studies (e.g., Shakil, 2021). The independent variables include the ROA (Net Income/Total Assets), ROE (Net Income/Shareholders' Equity), and Market Valuation.

The authors recognize that these variables could introduce complicating factors and intend to manage them in the study. This control is crucial for guaranteeing that any connections noted between ESG scores and a company's performance are not solely the result of differences in factors such as company size (Total Assets), sales growth [(Current Year Revenue – Last Year Revenue)/ Last Year Revenue], or leverage (Debt). To put it differently, the study

incorporates additional variables as controls to prevent potential inaccuracies in the model. Consequently, the analysis considers various control variables that account for corporate size (SIZE), sales growth (GROWTH), and leverage (LEV).

4. Results and Discussion

The results of the analysis of ESG and firm performance are presented as follows:

4.1 Descriptive Analysis

Table 2 tabulates the descriptive statistics for the dependent, independent, and control variables through mean, standard deviation, minimum, and maximum. From Table 2, the mean value of ROA is 4.3457, with a standard deviation of 7.6647. The minimum value of -46.7652 and maximum value of 50.4268 connote that the gap in ROA is considered to be wide. The mean value of ROE is 0.1635, and the standard deviation is 0.4860. Compared with ROA, the gap in ROE is relatively smaller, as indicated by the minimum and maximum values of -3.3208 and 3.6991, respectively. On average, the firms' market valuation is RM18490.25 million, with a standard deviation of RM17,470.89 million. The highest market valuation of the sample is RM79,937.08 million, while the lowest market valuation is RM212.59 million. The size of the firms, which is represented by firms' total assets, shows that its mean value is RM25,077.54 million. Similar to the market valuation, the total assets range is wide, as indicated by the lowest total assets of RM9.54 million and the highest total assets of RM182,600.60 million. The mean value of sales growth is 0.0481. The standard deviation of 0.2513 shows that the sales growth is relatively low among the selected firms, with maximum and minimum values of 2.1839 and -0.7239, respectively. It seems that the firms are relatively highly leveraged, as the average is 104.6951. There is a wide range of leverage levels, as indicated by a minimum of 0 and the highest amount of 899.8892.

Table 2: Descriptive Statistics

	Mean	STD	Min	Max
ROA	4.3457	7.6647	-46.7852	50.4268
ROE	0.1635	0.4860	-3.3208	3.6991
MV (million)	18490.25	17470.89	212.59	79937.08
SIZE (million)	25077.54	27785.53	9.54	182600.60
GROWTH	0.0481	0.2513	-0.7239	2.1839
LEV	104.6951	129.2489	0.0000	899.8892

4.2 Correlations Matrix

The correlation analysis is performed to determine the existence of multicollinearity among the selected variables. Table 3 connotes that the multicollinearity problem does not exist since the maximum correlation value is 0.750, which does not exceed the threshold of 0.8 (Gujarati, 2003).

Table 3: Correlation Matrix.

	ROA	ROE	MV	ESG	SIZE	GROWTH	LEV
ROA	1						
ROE	.750***	1					
MV	.411***	.244***	1				
ESG	-.191***	-0.092*	0.066	1			
SIZE	-.189***	-.215***	.558***	-0.023	1		
GROWTH	.161***	0.079	0.092*	-0.014	-0.007	1	
LEV	.110**	.440***	-0.020	0.040	0.000	-0.064	1

4.3 Regression Analysis

This study adopted multiple regression analysis in examining the relationship between ESG and firm performance after controlling for firm size, sales growth, and leverage. The results from the multiple regression analysis are shown in Table 4.

$PERFit = \alpha + \beta_1 ESG_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \varepsilon_{it}$

Table 4: Multiple Regression

	ROA		ROE		MV	
	Coefs	**t Stat**	**Coefs**	**t Stat**	**Coefs**	**t Stat**
Intercept	39.214	4.739***	2.399	5.013***	3.518	7.104***
ESG	-0.086	-4.026***	-0.003	-2.526 **	0.002	1.892*
SIZE	-1.359	-3.899***	-0.097	-4.814***	0.273	13.065***
GROWTH	5.031	3.342***	0.202	2.321**	0.201	2.229**
LEV	0.008	2.599***	0.002	10.012***	0.000	-0.391
Adj. R square	0.105		0.2554		0.320	
F value		11.839***		32.6429***		44.480***

***significant at 0.01 level, ** significant at 0.05 level, * significant at 0.10 level

Results in Table 4 show that ROA, ROE, and market valuation models are empirically significant. The explanatory power of all models is regarded to be high, as indicated by the F-test's p-values of less than 1%. There is a significant relationship between ESG and firm performance even though the impact of economic performance differs from the market performance, as evidenced by the p-values of each model being less than 1%.

Using ROA and ROE as the firm's performance measure, ESG is negatively related to the firm performance. This finding aligns with previous studies suggesting that higher ESG scores may detriment the firm performance in emerging countries (Duque-Griales & Aguilera-Caracuel, 2019; Garcia & Orsato, 2020). Even though ESG disclosure may benefit the firm's stakeholders, the deviation from shareholder's maximization wealth may reduce the firm's operational and financial performance (Friedman, 2009). Lack of efficiency and bad investment decisions may also negatively impact economic performance (Porter & van der Linde, 1995).

The results are different when market valuation is used to measure performance. ESG has a marginal positive relationship with market valuation. Consistent with Alareeni and Hamdan (2020) and Ahmad et al. (2021), a higher ESG score enhances the firm's market performance. Supporting the stakeholder theory, the higher transparency level and more significant stakeholders' involvement in the decision-making process contribute to the firms' objectives and encourage better capital market performance (Cheng et al., 2014; Nekhili et al., 2019).

Concerning control variables, more prominent firms have lower economic performance measured by ROA and ROE. Contrary to Pulino et al. (2022), the finding is similar to Saygili et al. (2022), Bahadori et al. (2021) and Atan et al. (2018). However, the relationship between size and market valuation is significantly positive, which implies more prominent firms tend to have higher market value. High-growth firms are found to perform better regardless of the performance measures used. Such firms have better growth potential and more investment opportunities to generate additional income, leading to higher firm performance (Doan, 2020). In line with Atan et al. (2018), it is proposed that firms with higher debts are suggested to have better economic performance.

5. Conclusion

ESG reporting engages with various stakeholders, including shareholders, investors, employees, clients, and committees, to foster transparency regarding a company's performance. The study's discoveries will substantially contribute to the existing body of empirical research on the influence of ESG factors on business success.

Furthermore, the study acknowledges the growing significance of ESG considerations within the corporate sphere, where investors and stakeholders increasingly incorporate these financial metrics into their assessments of companies. This investigation utilized ROA, ROE, and MV metrics to assess a firm's financial performance and extrapolate insights about its prospects. It underscores the absence of a consensus and definitive evidence regarding the correlation between ESG and financial performance, underscoring the need for further research. The study's conceptual framework aligns with stakeholder theory, emphasizing the importance of taking all stakeholders into account and maximizing value through ESG initiatives.

Lastly, this study examines the most critical ESG factors that impact financial success. Given the absence of conclusive data and consensus among scholars, the ongoing debate regarding the association between ESG and companies' financial performance remains unresolved. Some studies indicate a positive or neutral effect, while others suggest a negative relationship between ESG and financial outcomes. Consequently, the direction of the link between financial performance and ESG results remains a topic of debate. In summary, this study contributes valuable insights to the discourse surrounding ESG and firm performance, laying the groundwork for future research in this dynamic and vital field.

Acknowledgement

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Just A Click Away: Repercussion of Risk, Trust and Satisfaction of Facebook Marketplace

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Abstract

With the continuous growth of social media, the functions expanded from a networking site to e-commerce platform. Facebook is no exception, with the launch of Facebook Marketplace for its users to enjoy the convenience of online shopping. The platform allows Facebook users to sell and buy amongst themselves through word-of-mouth marketing. This, however, comes with another alarming problem, online scams. It has been apparent that many have fallen victims of such scams. Thus, this study aims to investigate the repercussions of risks towards trust and satisfaction which affects the intention to recommend Facebook Marketplace. This study employs prospect theory and data was analysed with PLS-SEM software. The results showed that there is a relationship between risk and trust as well as with satisfaction while trust influences both satisfaction and along with satisfaction, they may influence intention to recommend. However, the risks faced by the users do not directly affect the intention to recommend. With this, the platform should ensure that users have trust and satisfaction on the platform to ensure continuity on the usage of Facebook Marketplace as the intention to recommend could help to expand the usage of the platform both contributing to the success of Facebook and also creating a significant platform for users to continue with the customer-customer (C2C) business model.

Keywords
Facebook, e-commerce, scam, risk, intention to recommend

1. Introduction
The advancement of technology is no surprise to anyone. Technological development is seen in the progression of internet capacity as well as availability of devices and growth of users' awareness and digital literacy. As of 2023, more than half of the world's population are internet users with 7.33 billion (91% of population) mobile phone users (McCain, 2023). Globally, on average, users spent 6 hours online with about 2 hours spent daily on social media. Malaysia is no exception, as most Malaysians reported a higher daily average of 8 hours using the internet similarly, 2 hours on social media. (Howe, 2023). Amongst the many social media network available, Facebook, one of the big five of the technology companies is the most popular globally with 2.9 billion active monthly users. In Malaysia the number of Facebook users have continued to rise and amounts to about 75% of the total Malaysian population (Statista Research Department, 2023).

With the internet, comes the growth of e-commerce. The industry was valued at US$9 trillion in 2019 and is expected to continue to grow in the next decade (Grand View Research, 2020). Expansion in the industry is not only seen in business-to-consumer (B2C) market but also in the consumer-to-consumer market (C2C allowing consumer to sell any product or provide services to another consumer through a third-party platform such as eBay, Amazon and Etsy (Beer, 2023). Online marketplace were the main choice of consumers when dealing with e-commerce market as compared to retailer sites or other direct-to-consumer sites available (Chevalier, 2023a). This created the rise of social commerce, a way in which business or individuals utilises their social media account to promote as well as sell any products or services (Ginee, 2021). Such activities stray away from other online market places and commerce are carried out in platforms such as Facebook Marketplace, which has now grown into one of United States largest social media shopping platform that predominantly created for C2C activities (Enberg, 2022).

While social commerce does come with several benefits, there also some challenges and issues of the platform. Customers may not necessarily look for shopping experiences when they are on their social media accounts, which could reduce intention to purchase along with the irrelevant content and traffic that could distract consumers from online shopping (Firework, 2022). Furthermore, there are reports indicating poor customer experience through such platforms which could affect trust and satisfaction of consumers leading to poor sustainability of such platforms (Firework, 2022). Another issue is the several fear consumers have towards social commerce. One of the main fear is technophobia as well as concerns on data protection especially in terms of their financial information expose during payment (Chrimes et al., 2019).

One other concern is in terms of fraud and scams that spread in social media platforms. About 38% of global scams were from online shopping (Coppola, 2023) and while websites were the main means of online shopping scam, social media came second in 2022 as a common technique used by scammers to target victims (Chevalier, 2023b). Malaysians is reported to lose RM100,000 daily through online scams and Malaysian police reported Facebook as the first choice of online scammers over other platforms such as Mudah.my, Instagram, Shoppe and Whatsapp (Kong, 2020). Some of the common Facebook Marketplace scams are related to inadequate and inferior quality of product when sellers provided bootleg or broken items, shipping scams, advanced and additional payments requested by sellers as well as trying to move their conversation and dealings away from the platform (Whitmore, 2023). Such issues create and continue to increase exposure of risk to consumers which would reduce their trust and satisfaction towards the platform affecting their intention to recommend to friends and family.

With this, the aim of this study is to understand the repercussions of risk towards consumer trust and satisfaction and the effects towards intention to recommend Facebook Marketplace. The platform is chosen as it is proven to be one of the top social commerce platforms and also with its high exposure to scams both globally and in Malaysia. This study hopes that it can provide practical implication towards any business or individuals that are utilising social commerce in their business activities in understanding consumers preferences better and trying to reduce exposure of buyers towards the risk in hope of gaining better profitability from such platforms.

2. Literature Review

In understanding the repercussions of risks towards the behaviours of consumers, this study employs prospect theory which discusses how buyers' decision making comes down to the choice between prospect and gambles (Kahneman et al., 1979). They react differently based on the risks they are exposed to as such situation leads to various uncertainty and unpredictable outcomes (Al-Ansi et al., 2019). The various types of risk would provide significant impact on the trust and satisfaction of users which will result in an impact towards intention to recommend (Al-Ansi et al., 2019).

Such risks can range from various risk and environmental factors including health, social, quality, financial and time-loss risk. For the purpose of this study, four risks are analysed and categorised at general risks. First, quality risk which is associated with the product and how much the purchases made by a consumer meets their expectation (Bhatnagar et al., 2000). In the C2C and social commerce industry, as the seller are not well-known or established businesses, customers tend to have concerns on the integrity and quality of the product promoted by other consumers leading to high quality risk. Next is the financial risk, a risk that arises from concerns from having to incur additional costs resulted from the choice of platform as well as suffering from any loss of money or product not providing value for money returns (DeFranco & Morosan, 2017; Deng & Ritchie, 2018). Psychological risk is associated with any unwanted stress or negative emotions arising from the choices made by a consumer which can also be linked to various fears and self-doubt (Deng & Ritchie, 2018; Simpson & Siguaw, 2008). The fourth risk is time-loss risk in which consumer may worry that their choice of platforms and the overall buying experience might be time consuming (Deng & Ritchie, 2018). Such risks may have an impact towards trust and satisfaction. Trust relates to the confidence users feel when they are using the platform which enhances their trustworthiness towards revealing their identity and other personal information to other social media users (Khan et al., 2023). Satisfaction relates to the evaluation consumers made at the end of a consumption and is reached when expectation towards the product purchased or services received are met (Nguyen-Phuoc et al., 2021).

In the world of social commerce, word-of-mouth marketing (WOM) in which informal promotional techniques is used from recommendations made by previous users of the product, services or the marketplace itself. It is believed that WOM may have a long-term effect and any negative perception could be catastrophic to the business (Karlíček et al., 2014). WOM comes from recommendations of past users based on their experiences which are often shared in their personal social media accounts (Ferreira et al., 2023). This is an example of post behaviour based on one users satisfaction and trust which could drive them to encourage others to also experience the same thing (Wang et al., 2023).

2.1 General Risks and Trust and Satisfaction

Previous studies have provided significance of risks towards both trust and satisfaction of users (Al-Ansi et al., 2019; Nguyen-Phuoc et al., 2021). Generally, the risks would have a negative effect as the higher the risks, the lower the trust and satisfaction a user feels upon completion of a transaction. With that, it would have an impact towards intention of users to recommend the platform to others. Hence, this study hypothesized that:

H1: There is a significant relationship between general risks and trust of users of Facebook Marketplace.
H2: There is a significant relationship between general risks and satisfaction of users of Facebook Marketplace.
H3: There is a significant relationship between general risks and intention of users to recommend Facebook Marketplace.

2.2 Trust, Satisfaction and Intention to Recommend

Trust is vital in influencing satisfaction (Zhang, 2020). It also creates a strong rapport and relationship between buyers and sellers as well as the platform the commerce dealing is being held at (Wang et al., 2023). With such relationship, trusts would have a significant influence on consumers behavioural intention (Jiang & Lau, 2021). Hence, this study believes that:

H4: There is a significant relationship between trust and satisfaction of users of Facebook Marketplace.
H5: There is a significant relationship between trust and intention of users to recommend Facebook Marketplace.
H6: There is a significant relationship between satisfaction and intention of users to recommend Facebook Marketplace.

Figure 1 provided depicts the relationship between the variables of this study.
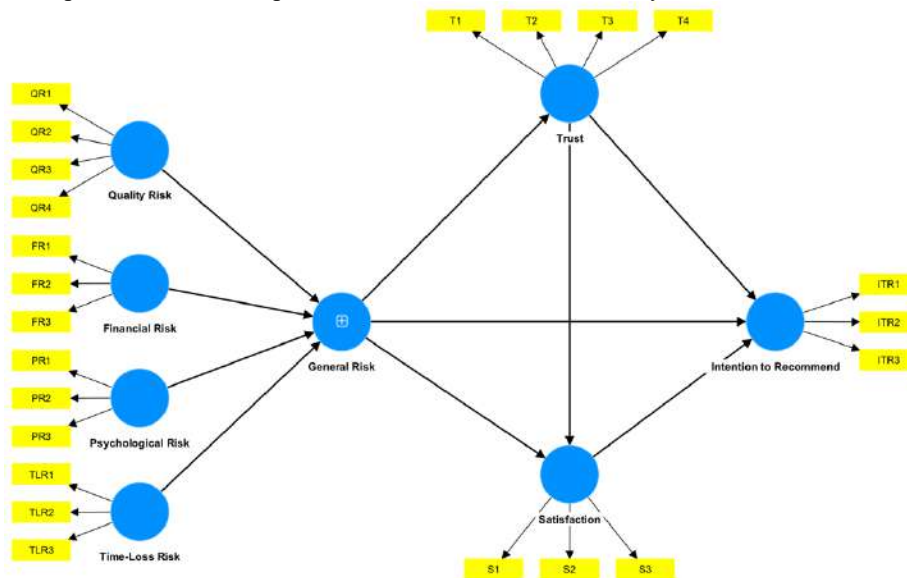
Figure 1: Proposed Conceptual Framework (developed for the study)

3. Methods

This study employed quantitative approach and as the study predominantly focuses on Malaysians who have made purchases through Facebook Marketplace. As of 2022, there are over 20 million users of Facebook in Malaysia over the total about 33 million population of the country (Ahmad Naim, 2022; Department of Statistics Malaysia, 2023). Based on the large population, a minimum of 384 samples were required to ensure representation of the population (Krejcie & Morgan, 1970). Primary data was collected via self-administered questionnaire which was distributed through various social media platforms in the last quarter of 2022 with a filtering question ensuring that only respondents who have made purchases in Facebook Marketplace were accepted.

The measures of this study were utilised from previous study (Al-Ansi et al., 2019) and have been adapted to suit the context of this study. Four items were used to measure quality risk while three items each were used to measure financial, psychological and time-loss risk. Four items were used to measure trust and three items each were used in measuring satisfaction and intention to recommend. All the items were measured using a 5-point Likert scale

ranging from 1 (strongly disagree) to 5 (strongly agree). The first section was collecting demographic information of respondents which included gender, age, most frequent type of product purchased and reporting of scam experience. The other sections were to collect data in relation to the variables of this study.

Samples were selected through a non-probability method of convenience sampling as there is no scientific base to be used in selection of samples and those that are most accessible through social media were chosen (Majid, 2018; Shukla, 2020). A total of 454 responses were collected after pilot study of 30 respondents indicated that no amendments on the items of measurements were needed. After data editing and data cleaning, 387 data were deemed usable consisting of 166 (42.9%) female and 221 (57.1%) male respondents. The data included respondents from various age group with 1 (0.3%) below 18 years old; 124 (32%) were 18 to 25 years old; 116 (30%) were 26 to 41 years old; 94 (24.3%) were 42 to 57 years old and 52 (13.4%) were 58 years old and above. Respondents were asked on the most frequent product categories based on the 25 categories of product in the platform and the result showed that the top three frequently bought products were clothing and shoes, health & beauty product and other miscellaneous items. It was also found that 94 (24.3%) respondents have reported incidents of scams experienced through the platform.

Data of this study were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) through the Smart PLS 4.0.9.3 software as the model is found to be common in determining the causal relationship between the variables (Hair et al., 2019). The model of the study was assessed through measurement and structural models through higher order models (Ringle et al., 2022). From the former, the data were tested for reliability and validity. Convergent validity is tested through item reliability (loadings), composite reliability (CR), Cronbach's Alpha (α) and average variance extracted (AVE) while the discriminant validity is tested with the heterotrait-monotrait (HTMT) ratio of the correlations which is now a common replacement of Fornell and Larcker Criterion along with cross loadings (Achjari, 2004; Hair et al., 2021). The structural model assessment were utilised to understand the model fit, path coefficients and hypotheses testing (Hair et al., 2019)

4. Results and Discussion
4.1 Measurement model assessment
From Table 1, the loadings of all items are from 0.842 to 0.960 which are well above the recommended and ideal value of 0.78 which shows that the construct are reliable as they were able to explain 50% of the indicator's variance (Hair et al., 2019). The CR and α from Table 1 were all well above the satisfactory value of 0.7 signifying reliability of the construct (Hair et al., 2019) and the value of AVE were above 0.50 indicating that there is adequate convergent validity of the items and not problematic (Achjari, 2004; Hair et al., 2021). For the discriminant validity, the recommended HTMT ratios were used and values closer to 1 would indicate lack of discriminant validity and from table 2, discriminant validity is present in all construct except between trust and satisfaction (Ab Hamid et al., 2017; Hair et al., 2021). Nonetheless, from table 3, the cross loadings demonstrated that discriminant validity existed in all items as the items load higher to the construct they are reflecting as compared to others (Achjari, 2004)

Table 1: Result of Convergent Validity

	Items	Loadings	α	CR	AVE
Quality Risk	4	0.842 – 0.868	0.880	0.918	0.736
Financial Risk	3	0.882 – 0.904	0.871	0.921	0.796
Psychological Risk	3	0.901 – 0.934	0.906	0.941	0.841
Time-Loss Risk	3	0.898 – 0.906	0.885	0.929	0.813
Trust	4	0.926 – 0.946	0.956	0.968	0.882
Satisfaction	3	0.949 – 0.952	0.946	0.965	0.902
Intention to Recommend	3	0.938 – 0.960	0.948	0.967	0.906

Table 2: Result of Discriminant Validity - HTMT Ratio

	Intention to Recommend	Quality Risk	Financial Risk	Psychological Risk	Time-Loss Risk	Trust
Intention to Recommend						
Quality Risk	0.236					
Financial Risk	0.209	0.863				
Psychological Risk	0.233	0.556	0.612			
Time-Loss Risk	0.270	0.600	0.619	0.728		
Trust	0.648	0.427	0.366	0.372	0.369	
Satisfaction	0.679	0.394	0.352	0.399	0.476	0.931

Table 3: Result of Discriminant Validity – Cross Loadings

	QR	FR	PR	TLR	T	S	ITR
QR1	**0.862**	0.675	0.437	0.472	-0.300	-0.282	-0.105
QR2	**0.842**	0.569	0.374	0.441	-0.306	-0.279	-0.169
QR3	**0.859**	0.654	0.437	0.449	-0.353	-0.312	-0.228
QR4	**0.868**	0.699	0.462	0.471	-0.383	-0.361	-0.237
FR1	0.670	**0.890**	0.471	0.472	-0.297	-0.300	-0.136
FR2	0.653	**0.882**	0.490	0.490	-0.258	-0.249	-0.160
FR3	0.705	**0.904**	0.502	0.502	-0.339	-0.305	-0.212
PR1	0.507	0.572	**0.917**	0.651	-0.336	-0.347	-0.212
PR2	0.439	0.474	**0.934**	0.608	-0.303	-0.349	-0.190
PR3	0.424	0.450	**0.901**	0.537	-0.313	-0.321	-0.194
TLR1	0.566	0.566	0.604	**0.901**	-0.303	-0.396	-0.186
TLR2	0.404	0.437	0.592	**0.898**	-0.263	-0.367	-0.248
TLR3	0.465	0.468	0.576	**0.906**	-0.351	-0.414	-0.237
T1	-0.332	-0.291	-0.340	-0.329	**0.946**	0.838	0.604
T2	-0.383	-0.314	-0.316	-0.323	**0.939**	0.842	0.511
T3	-0.360	-0.309	-0.297	-0.284	**0.946**	0.837	0.625
T4	-0.398	-0.344	-0.349	-0.341	**0.926**	0.810	0.581
S1	-0.329	-0.295	-0.376	-0.415	0.850	**0.952**	0.644
S2	-0.361	-0.332	-0.321	-0.413	0.826	**0.949**	0.581
S3	-0.337	-0.284	-0.356	-0.413	0.847	**0.949**	0.610
ITR1	-0.203	-0.177	-0.210	-0.236	0.597	0.631	**0.958**
ITR2	-0.215	-0.188	-0.182	-0.195	0.548	0.585	**0.938**
ITR3	-0.200	-0.179	-0.226	-0.269	0.618	0.623	**0.960**

4.2 Structural model assessment

Based on the goodness-of-fit as per Table 4 indicates that the model is a good fit with a value of 0.624 in which a value higher than 0.36 is considered as a good fit (Wetzels et al., 2009). There is a slightly low adjusted R^2 value for the construct with trust at 0.181 adjusted R^2 but for both satisfaction and intention to recommend the value of 0.788 and 0.423 respectively is at an acceptable level indicating that the variance in the construct can be explained by the model (Achjari, 2004; Hair et al., 2019). It signified that risks were able to explain 18% of the variation of trust, 78% variation in satisfaction and 42% of variation in users' intention to recommend.

Furthermore, the results of cross-validated redundancy measure Q^2 through the blindfolding assessment were valued at 0.543 for general risk, 0.160 for trust, 0.708 for satisfaction and 0.383 for intention to recommend. The threshold of 0 (small), 0.25 (medium) and 0.50 (large) were used, thus, there were large predictive relevance of the path model for both general risk and satisfaction while there is small and medium relevance for both trust and intention to recommend, respectively.

As aforementioned, the hypotheses of this study were to test the relationship and repercussions of the risks towards trust, satisfaction and intention to recommend Facebook Marketplace. The results are as per Table 6. H1, H4, H5 and H6 were supported at p value < 0.01 while H2 were supported at p value < 0.05 indicating there is a significant relationship between the respective variables. Unfortunately, H3 is rejected signifying that there is no significant relationship between the general risks and intention to recommend.

Table 4: Result of goodness-of-fit

	AVE	Adjusted R^2
Quality Risk	0.736	
Financial Risk	0.796	
Psychological Risk	0.841	
Time-Loss Risk	0.813	
Trust	0.882	0.181
Satisfaction	0.902	0.788
Intention to Recommend	0.906	0.423
Average AVE	**0.839**	**0.464**
AVE x R^2	0.389	
Goodness-of Fit $\sqrt{AVE \times R^2}$	**0.624**	

Table 5: Results of path coefficients (hypotheses testing)

	Standardised beta coefficient (β)	t-value	p-value	Result
H1: General Risk → Trust	-0.428	9.239	0.000	Supported**
H2: General Risk → Satisfaction	-0.083	3.173	0.002	Supported*
H3: General Risk → Intention to recommend	0.041	1.394	0.163	Rejected
H4: Trust → Satisfaction	0.850	43.021	0.000	Supported**
H5: Trust → Intention to recommend	0.227	4.108	0.000	Supported**
H6: Satisfaction → Intention to recommend	0.461	7.286	0.000	Supported**

* *p < 0.05*
** *p < 0.01*

5. Discussion and Conclusion

Based on the results of this study, there is a significant relationship between risks and trust as well as with satisfaction (H1 and H2 supported). The negative relationship is noted as aforementioned, risks generate fear and would then lower and positive perception or feelings users have which reduces trust and satisfaction. The result is in line with previous studies who have found similar relationship (Al-Ansi et al., 2019; Tuu & Olsen, 2009). Consumers who were able to detect the possibility of any of the risks may then influence their perception towards Facebook Marketplace. However, despite the impact towards trust and satisfaction, risks were found to not directly impact intention to recommend (H3 rejected) similar to findings by Al-Ansi et al. (2019).

The study also found that trust have a positive relationship towards satisfaction intention to recommend, supporting H4 and H5 and that satisfaction would influence intention to recommend, supporting H6. This is similar to findings from previous studies (Belanche et al., 2012; Wang et al., 2023). Trust and satisfaction both influences the intention to recommend. As mentioned earlier, recommendation is often given to friends and family as well as through social media in which users often provide them as a result of the rapport they have towards the platform as well as the feeling of satisfaction towards all expectations they have upon purchasing in Facebook Marketplace.

As a conclusion, this study hopes to be able to provide users of Facebook Marketplace and any other social commerce platform with a better understanding of the dimensions of risks they could be exposed to as well as the impact of those risks towards the behaviour of users. Intention to recommend is vital in ensuring that users would continue using the platform as well creating WOM to influence others to engage in social commerce in the same platform which would generate profitability and sustainability towards both the platform and the e-commerce industry as a whole.

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Qualitative Approach to Developing a KASH Model as a Training Strategy

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Abstract

The KASH model has proven to be very effective in improving the long-term performance of an organization's entire resource base, including people, processes, plant and machinery, equipment, energy/power, operational efficiencies and effectiveness, and so on. In this case, the automotive industry is one of the significant sectors contributing to Malaysian economic growth, accounting for 22.1% of the gross domestic product. The paper aims to gain a better understanding of the effectiveness of the KASH model in organizations and the application of the KASH model as a training strategy that can help managers achieve their goals. The KASH model seeks to explore these four characteristics to improve individual commitment and organizational effectiveness. KASH characteristics influence our ability to succeed in our personal and professional lives. According to the KASH model, poor attitudes and bad habits combined with a lack of knowledge and skills result in low commitment and performance. The KASH model, on the other hand, demonstrated that the success of an organization is determined not only by knowledge and skills but also by individual attitudes and habits. Most people are fired because of their attitude and habits instead of a lack of knowledge or skills (performance and commitment issues) (training issues). To explore the possibility of employing the KASH model as a training strategy in Malaysia's automotive industry. This study used a qualitative method based on semi-structured interviews. Thus, the study's population of employees, trainers, and training managers from various Malaysian automotive firms, with a population of 700,000 expected in 2020. According to semi-structured interviews, employees from a variety of businesses responded positively. As a result, the KASH model was proposed as a training method for increasing employee commitment to their jobs across all industries.

Keywords
KASH Model, Training Strategy, Qualitative Approach, Organizational Effectiveness

1. Introduction

The paper aims to gain a better understanding of the effectiveness of the KASH model in organizations and the application of the KASH model as a training strategy that can help managers achieve their goals. Unemployment is a worldwide problem, not just in Malaysia (Ramli et al., 2018; Borhan et al., 2023). As a result, training is an essential component of any business because it motivates employees to become more productive at work by improving knowledge, skills, attitudes, or habits through the learning process to achieve a successful outcome (Andriani et al. 2018; Sartori et al. 2018; Yoo et al. 2018; Ibrahim et al. 2017; Vasudevan, 2014; Vasudevan et al., 2023). Training may influence skill, attitude, and habits because these four aspects are essential for workers and the choice of employers to move the business in line with economic growth. Employers are dissatisfied with technical and vocational graduates, particularly in terms of personal quality has been exacerbated by the lack of recognition for vocational graduates who worked as technologists or technical staff (Mustapha, 2017). It demonstrates Malaysia's critical need for professional and semi-skilled labor, especially technical graduates. As a result, techniques training plays an essential role in enhancing highly skilled workers in Malaysia by providing excellent education to employees who are passionate about technical and vocational skills (Yaakob et al., 2020; Al-Ali, 2021; Soon et al., 2021). It occurs not only as a result of workers' lack of skills or the interaction with stochastic factors in the workplace process

but also as a result of a lack of procedures that channel workers' skills with their customs and attitudes in the pursuit of a correct alignment (Kazimoto, 2016).

Due to drastic changes in technology and increasing convolution in work processes, automotive industries have recognized new demands for skilled laborers and training implementation for employees from this sector, which has been critical in recent days for business sustainability because training is a vital strand for successful implementation of organization's practice through the involvement of Malaysian automotive industry employees in producing quality AlManei et al., 2017; Dedy et al., 2016; Doolani et al., 2020; Ragothaman and Palei, 2020; Kamaruddin, 2018; Mustapha and Rahmat, 2013; Nordin et al., 2010). Furthermore, training can provide numerous benefits to employees in the automotive industry, including the ability to broaden their knowledge, skills, and potential to thrive as team members, advance their career development, and increase their job satisfaction (Cabrera-Moya et al., 2023; Doolani et al., 2020; Hanaysha, 2016). Surprisingly, empirical evidence showed that only 50% of these employees applied the knowledge and skills they had learned to their work after attending training provided by their employers, and others are still lacking (Mustapha and Rahmat, 2013; Dawal et al., 2009). It can harm overall performance at both the individual and organizational levels. Gaps in knowledge or skills can be filled through training programs; it was proven by empirical study, the researchers (Goniewicz et al., 2021) claimed that the training program is successfully accomplished and can retain the healthcare staff's knowledge and skills. Moreover, previous studies (Adepoju et al., 2021) also indicated that a low level of knowledge in the construction 4.0 technologies will cause a low level of training among professionals perhaps the result showed a high gap in skills. However, the professional attitude in giving full commitment is also affected in health sectors (Banazadeh et al., 2021), hospitals (Kortteisto et al., 2021), industrial companies (Piwowar-Sulej, 2021), educational robotics or technologies (Papadakis et al., 2021), travel industry (Gajić et al., 2021), and hotel industry (Salem, 2021) due to unskilled workers as cited in Vasudevan et al., (2023). KASH model is a training strategy or tool that evaluates a person's capacity to execute an individual job with numerous features or aspects that can be characterized as professional by their level of professional commitment. Training programs or hands-on experience are the best way to handle the KASH model. The importance of this model determines the effectiveness of training levels in increasing employees' professional commitment and organizational productivity. None of the training focuses on both aspects of technical and individual development as the KASH model does.

2. Literature Review

Knowledge, Attitude, Skills, and Habits (KASH) identified professional employee identity as an essential aspect that is receiving increasing attention among researchers in the fields of human resource development (HRD) and organizational management due to its impact on the formation of effective and efficient employees (Jain, 2020; Jones et al., 2020). Employee involvement as a professional has been recognized as a determining factor of success for organizations in the age of globalization (Holdener et al., 2020; Mukaihata et al., 2020). Employees who have a high level of knowledge, attitude, skills, and habits in using existing resources to improve organizational efficiency and effectiveness are more likely to be engaged (Ahmed et al., 2020; Witasari et al., 2020; Sadq et al., 2020; Clardy, 2021; Mikolajczyk, 2021).

The Ministry of Human Resources Strategic Plan 2016-2020 is a five-year document that describes strategic planning and direction for the ministry. In this scenario, the KASH model (Westphal et al., 1990; Westphal et al., 1991) will be examined and proposed for future use in all industries' Human Resource Strategic Plans, ensuring that all workers meet the company's requirements while working in the industry due to product and service quality, productivity, and efficiency (Amrina et al., 2021; Anwar et al., 2021; Dung et al., 2021; Tarigan et al., 2021; Tien et al., 2021; Verma et al., 2021). This strategic plan encompasses the organization's role, which includes policy formation and labor enforcement, skill development, knowledge management, attitude development, habit changes, and support services, all of which are critical to the country's economic success. Furthermore, the KASH Strategic Plan's approach is expected to help develop workforce competitiveness, integrity, professional commitment, and work ethic. As a result, as Malaysians strive to achieve a common goal, this becomes the driving force behind a strong work culture. Furthermore, the organization will ensure that this strategic plan is always progressive, responsive, and dynamic to achieve the organization's vision of employee training development as a national leader in human resource development and management (Berman et al., 2021; Greer, 2021; Zhykharieva et al., 2021). This study was analyzed to meet the strategic plan's goal, and Figure 1 shows the KASH model as a training method.
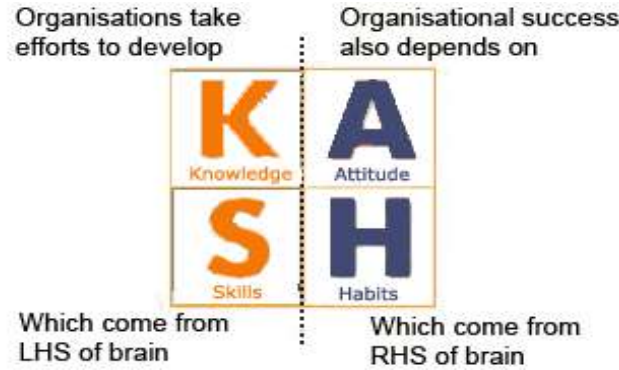
Figure 1. KASH Model as a Training Strategy
Source: SAN Techno Mentors Pvt. Ltd

2.1 Theme and Hypothesis Development

Authors identified sub-themes and classified them into three central themes, which are summarized in Table 1 with relevant quotes extracted from participants. These three core themes are (1) training and development's need of employees; (2) knowledge sharing and skill development and; (3) impact of training.

Table 1 Summary of themes and sub-themes

Theme	Sub-theme	Description	Example
Training and development's need of employees	Focus on employees' learning for current role and future development	Providing trainings for various aspects outside the employee's current role.	"For research and development, we are focused on acquiring technical know-how from someone else and bring it here for my departmental staff…"
	Link between employees' training and performance	Providing hand-on trainings to gain practical experience	"I would say that It's based on results. It's based on…performance."
Knowledge sharing and skill development	Culture of knowledge sharing and skill development within the organization	Encouraging individuals to share their knowledge with others	"Through trusting your own team and building your own culture within your team."
	Lack of effective training and knowledge sharing practices	No improvement in work practices due to lack of proper system and process	"… [In terms of the effectiveness of training] of big challenge at present due to infrastructure…"
Impact of training	Variety of training methods used	The delivery and content of the training, the role of the trainer, and the use of technology to track employee training and assess their knowledge.	…"Role play and simulation tools…can simulate participation of employees [in training sessions as well.]"

Source: Vasudevan et al., 2023

H₁: Knowledge link between employees' training and performance

Employee training directly impacts their performance, both positively and negatively, and may result in behavioral changes and the knowledge and experience gained during training (Wijayanti, 2019; Muardi and Rohmawan, 2022). Furthermore, acquiring information through training enables employees to develop new skills, which adds value and

leads to a competitive advantage to improve their organization's performance in areas such as sales and so on (Wijayanti, 2019; Azeem et al., 2021).

H₂: Attitude link between culture of knowledge sharing and skill development within organization
Knowledge sharing, reading, and organization foster a learning attitude in employees, allowing them to learn new skills and apply them on the job (Battistelli, 2019; Nair and Munusami, 2020). It enables them to improve their skills while having fun (Battistelli, 2019; V Nair and Munusami, 2020). As such, attitude is the strong tendency to behave in a specific manner; all workers in the automotive industry are aware of the application of knowledge and abilities while performing routine tasks. As a result, the attitude developed during training is an essential aspect of the program (Wijayanti, 2019).

H₃: Skills link between employees' learning for current role and future development.
Acquiring the necessary skills is critical for an employee's and an organization's overall development (Baird and Parayitam, 2019; Karim et al., 2019). As a result, experts believe that increasing an employee's performance will directly impact their ability to complete tasks quickly, on time, and professionally (Muardi, 2022; Karim et al., 2019). As a result, training is critical to providing and improving employees' abilities to meet their demands in carrying out their jobs and beyond (Muardi, 2022; Ozkeser, 2019).

H₄: Habit link between effective training and knowledge sharing practices.
Efficient training techniques, effective trainers, and information-sharing practices in automotive organizations will foster their employees' habits of better-absorbing knowledge and skills and applying them in their daily jobs (Tashtoush et al., 2022). Continuous improvement may instill in them the habit of staying focused on the training and may lead to participation in additional coaching provided by their company. Surprisingly, training appeared to be less successful in some automobile companies based on the interview data.

3. Methods
This study employs a qualitative research approach with a phenomenological design to gather underlying responses from the participants. This design allows us to explore and verify the stakeholders' insights and experiences regarding the training conducted within the automotive industry. This study's target population comprises employees, trainers, and training managers from automotive organizations in Malaysia. Phenomenological design requires 3 to 10 participants to share their viewpoints on a given phenomenon (Creswell, 2013). This study involves 6 participants from each segment of employees, trainers, and training managers. These participants were approached as they had attended or conducted training for at least 20 hours in the last 3 months. An interview protocol was initially prepared by referring to the typology of the KASH model. Knowledge, Attitude, Skills, and Habits are the key components of this interview protocol. A few probing questions were added to facilitate the interview process. One participant from each segment (i.e., employer, trainer, training manager) was approached in person for the preliminary data collection stage. The preliminary interview was to identify the appropriateness of the instrument's main questions besides observing the participants' non-spoken language *[Participants stated that there is a dedicated department under HR for training programs that provide training within or even outside their scope of responsibilities].* The research instrument was then amended based on the feedback obtained from the participants of preliminary interviews. Our team pre-determined 30 participants who met the study's requirements and obtained their consent prior to the scheduled interviews. The interview sessions were carried out remotely [note; I suggest conducting interviews over Microsoft Team as it allows us to do real-time transcription or any other platform that can ease us for the transcription]. Each session lasted about 45 minutes. All the sessions were recorded. In this study, the researchers used a thematic analysis approach to analyze the data upon completing the coding process.

4. Results and Discussion
The authors identified sub-themes and classified them into three central themes while analyzing the data, which are relevant quotes extracted from participants. These three core themes are (1) employee training and development needs; (2) knowledge sharing and skill development; and (3) training impact.

Theme 1: Training and development need of employees
The first theme is concerned with organizations emphasizing the importance of employees learning to help them with their work responsibilities. Participants stated that HR has a dedicated department for training programs that provide training within or even outside of their scope of responsibilities.

"Besides technical abilities, the company takes the initiative to give you training from other aspects outside automotive... [that is] outside engineering [or] finance for non-finance people," [Participant One].

"For research and development, we are focused on acquiring technical know-how from someone else and bringing it here for my departmental staff," [Participant Six added].

Theme 2: Knowledge sharing and skill development
The first theme is the significance of cultivating a culture of knowledge-sharing and skill development within organizations. Every participant agreed that organizations have a culture of collaboration and teamwork, but there were challenges with effective knowledge-sharing practices observed. Nonetheless, they agree that learning is an essential part of their job, and they need to incorporate it into the company culture and hold employees accountable for the learning outcomes derived from training.

"Culture of sharing amongst each other is important, especially when there is homework [provided by trainers]," said [Participant Four]. We will discuss our points of view in groups and share them."

Likewise, [Participant Two] stated, "By trusting your team and creating your own culture within your team."

Participant Six had the same realization as [Participant Four]. "Teamwork is good-knowledge sharing culture...to everyone to be able to apply it...if they have something, they will come up and tell all," said [Participant Six].

Theme 3: Impact of training based on the skills and habit
Employees are allowed to learn various training programs, including finance topics that are out of the scope of their job, to improve their skills and habits. Organizations would even hire foreign trainers to provide a different perspective on the content to the participant. Training outcomes can be achieved by utilizing various training methods, such as hands-on training and simulation tools. Employees' learning efforts would be valued while fostering a creative mindset and improving communication skills for increased productivity.

"...notes and interaction are [important] tools to facilitate training sessions," said [Participant Five]. Role-playing and simulation tools...can simulate employee participation [in training sessions as well]."

[Participants three and five] agreed that "...physical training is a better platform than online training... Trainers should be well-versed in their respective fields... They [should] know the industry's insider story... They should share their experiences with us, as they have faced various challenges..."

5. Conclusion
A KASH model-based process for developing employee professional commitment must be precisely based on its four components (Knowledge, Attitude, Skill, and Habits). It is the ideal combination of developing training processes based on employees' backgrounds and experiences, as well as the support of a model for increasing the organization's levels of effectiveness. Employees who were committed had a stronger desire to stay with the company, a more proactive attitude towards their responsibilities, and a higher level of professional commitment. As a result, including aspects of identity in training strategies that take into account each person's habits and attitudes increases the sense of professional commitment. The KASH model prompted researchers to propose appropriate theories to strengthen the model's support. In this case, the effectiveness of KASH elements in developing employees' professional commitment to the workplace is underpinned by the Social Identity Theory and Marcia's Identity Status Theory.

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Integrity Branding for Business Sustainability: The Case of Blue Bird Taxi

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Abstract

The taxi industry is facing unprecedented challenges. This is because the traditional business model of old players in the taxi industry has been disrupted by the digital technology that startup companies have carried out. One of how Blue Bird Taxi Company remains relevant to the changes that are taking place is through the implementation of integrity branding, which emphasizes the importance of ethical and moral values in building reputation and consumer loyalty. The application of integrity branding is becoming increasingly popular because consumers emphasize ethical and sustainable business practices. This research aims to describe the implementation of integrity branding at Blue Bird Taxi Company. This study analyzes the challenges and opportunities in implementing integrity branding in the taxi industry and strategies to deal with them. Integrity branding has the potential to differentiate a taxi company from its competitors, as well as build trust and credibility with consumers. Integrity is vital because it can strengthen the company's reputation in the long term. The company will enhance the application of norms that seek to maintain the trust of its stakeholders. In providing services to external consumers, excellent service is provided. To employees as internal consumers, the company strives to fulfill the rights of employees. To the company's suppliers or partners, the company will also satisfy the company's obligations properly. To investors, the company will undoubtedly have transparency regarding organizational performance so that investors will obtain results by their rights. By identifying the main ethical and moral principles important to consumers in the taxi industry and developing an integrity branding strategy aligned with consumer values, this research provides a practical guide for taxi companies who are willing to differentiate themselves through ethical business practices and sustainability.

Keywords

Integrity, branding, ethics

1. Introduction

The taxi industry is facing unprecedented challenges. This is because the traditional business model that old players in the taxi industry have carried out has been disrupted by digital technology carried out by Startup Companies, which has caused changes in consumer preferences in choosing a taxi. Old players in the taxi industry, such as Bluebird, are also facing increasingly fierce competition from Startups engaged in application-based transportation, such as Gojek, Grab, Maxim, and others. Therefore, in an environment like this, like it or not, taxi companies must differentiate themselves from their competitors by building strong relationships with customers to survive. One of how Bluebird Taxi Company remains relevant to the changes that are taking place is through the implementation of integrity branding, which emphasizes the importance of ethical and moral values in building reputation and consumer loyalty. Integrity branding or brand integrity is a concept that is known in the field of marketing and branding. This concept refers to the ethical and moral principles in the branding process, intending to build trust and credibility with consumers. The use/implementation of integrity branding is becoming increasingly popular as consumers increasingly emphasize ethical and sustainable business practices. Integrity branding can differentiate a taxi company from its competitors by building trust and credibility with consumers. Integrity branding, which emphasizes the importance of ethical and moral values in building reputation and consumer loyalty, can be a promising strategy for a taxi company facing increasingly competitive challenges.

Bluebird is a transportation company operating in Jakarta and several major cities in Indonesia. Bluebird founder, Mrs. Mutiara Djokosoetono, was inspired by a fairy tale from Europe about a girl's hope and prayer for happiness that finally came proper because of the kindness of a bluebird. Bluebird was initiated by the Golden Bird Company, later known as Chandra Taksi, as a car rental service company specifically serving foreign journalists and

other customers visiting Jakarta. At its inception in 1972, the fleet owned by this company only numbered 25 taxis. Bluebird then pioneered the imposition of metered taxi fares, equipping its air-conditioned fleet with radio communications. Not only that, but after starting to grow, this company expanded into limousine taxis, car rental businesses, and charter buses in 1979. Bluebird also launched the Silver Bird executive taxis services in 1993. After more than a decade, Bluebird Group now has four main divisions.

For many residents of Jakarta and other big cities in Indonesia, Bluebird Group is not just a taxi company but has become part of their lifestyle. If New York is known for its yellow taxis and London for its black cabs, then Jakarta has Bluebird: a fleet of blue taxis that always adorn Jakarta's busy streets (Bluebird Group, 2023). Now Bluebird Group services not only can be enjoyed in Jakarta but also in other cities in Indonesia, such as Surabaya, Bandung, Bali, Lombok, Semarang, Medan, Pekanbaru, Palembang, Bangka Belitung, Batam, Banten, Manado, Makassar, Yogyakarta, as well as business and tourism centers throughout Indonesia (Puspa, 2021).

Serving millions of passengers every month, Bluebird Group has expanded its services from regular taxis (Bluebird & Pusaka) to executive taxis (Silver Bird), limousines and car rentals (Golden Bird), bus rentals (Big Bird), logistics (Iron Bird). Logistics), industry (Restu Ibu Pusaka - Karoseri and Pusaka Niaga Indonesia), property (Holiday Resort Lombok and Pusaka Bumi Mutiara), IT and support services (Hermis Consulting - IT SAP, Pusaka Integrasi Mandiri - EDC, Pusaka GPS, Pusaka Buana Utama - Gas stations, Pusaka Bersatu - Lubricants, Indonesian spare parts - Spare parts) and heavy equipment (Pusaka Andalan Perkasa and Pusaka Bumi Transportasi). Business details are as follows:

a. Regular Taxi. Bluebird has regular taxi services under the brands "Bluebird" and "Pusaka" in several cities in Indonesia, namely Jakarta, Depok, Tangerang, Bekasi, Bandung, Cilegon, Batam, Semarang, Manado, Medan, Padang, Palembang, Pekanbaru, Surabaya, Makassar, Bangka Belitung, and Yogyakarta.
b. *Bluebird Kirim*. Bluebird has the Bluebird Send service as a logistics delivery service with Bluebird fleets in 16 regions. Consumers can take advantage of the Delivery service and use the fixed price feature to find-out delivery costs on the MyBluebird application.
c. Executive Taxi. Bluebird has executive taxis under the "Silverbird" brand in Jakarta. Consumers can take advantage of luxury vehicles with comfortable and spacious interiors.
d. Limousine and Car Rental. As a subsidiary company, PT Pusaka Prima Transport provides various vehicle rental services, namely short-term rental (hourly, daily, delivery, and pick-up) and long-term rental contracts, across 20 locations in Indonesia. The company also has long-term contract vehicle rental services for corporate companies.
e. Company Bus Rental. PT Big Bird Pusaka has bus rental services spread across 7 locations in Indonesia, namely Jakarta, Surabaya, Bandung, Bali, Medan, Palembang, and Yogyakarta. The lease is intended for individual and corporate consumers, both domestic and international corporations.
f. Shuttle Service. PT Trans Antar Nusabird, as a subsidiary company, offers land transportation services for inter-city passengers under the brand "Cititrans."

This research explores the application of integrity branding at Bluebird Taxi Company. Based on the explanation above, the author formulates the following research questions.
a. What are the best practices and strategies that can be identified for implementing integrity branding at Bluebird Taxi Company?
b. How is the implementation of the integrity branding at Bluebird Taxi Company evaluated?

2. Literature Review
2.1 Branding
Branding is a strategy to provide strength and added value to a brand while at the same time having unique value (Keller, 2013). Branding aims to make a brand perceived by the target market by what is communicated by the company. Branding gives the company a good reputation among its stakeholders. Companies not only carry out branding through various marketing communication mix tools but the essential elements accompanying it must also be carried out. This includes:
1. **The role of the leader**. The head of the company is someone who initiates the company's strategy. In this case, the leader will arrange the company's direction to become a reference in managing the company's business. This idea is then well communicated to all stakeholders. This branding also represents leaders who have concerns about improving company performance.
2. **Corporate values and culture**. Branding is also strengthened through corporate values and culture. This becomes a reference for internal employees to carry out as a reference in work.
3. **Working climate**. Work climate is external support so that the organization provides a comfortable working atmosphere for employees to work. This includes rewards and punishments applied in the organization. Company branding also needs to be strengthened through the company's work climate.

4. **Internalization of values to employees**. Branding is not only to be communicated to external parties of the company but also to be communicated to employees. This is important if the company is engaged in services. The interaction between employees and consumers in service companies will look stronger. Good service will further strengthen consumer confidence in the company.

5. **Company products**. Consumers have a preference for making choices at companies that provide good service. Branding on the company's products is essential if the company is in a highly competitive industry.

6. **Support services**. Support services are the company's efforts to provide the best to consumers. These support services can strengthen consumer branding perceptions that companies pay better attention to consumers.

2.2 Integrity

Integrity is an individual or collective ability to strengthen moral awareness, moral deliberation, character, and moral conduct, which are part of determining a decision (Petrick & Quinn, 2000). Individuals and groups who uphold high integrity will try to find solutions to support a good system. Petrick and Quinn (2000) argue that integrity includes four dimensions of integrity capacity, namely:

1. *Moral awareness*. This concept shows sensitivity in making decisions that impact the surrounding environment—individuals and organizations; in making decisions pay attention to the feelings of other people and wider stakeholders. The existence of a robust system builds individual abilities to have moral awareness, including moral sensitivity towards humans and the surrounding environment.

2. *Moral deliberation*. This is related to deciding by considering all the risks that might occur. In addition, decision considerations also pay attention to the long term.

3. *Moral character*. This moral character of integrity is expected to show that a person can have the ability to be trusted by others and show empathy, concern, compassion, and fairness to others. This character is expected to be a consideration in making decisions. Sometimes, the sensitivity of conscience needs to be sharpened to make good decisions for the wider community.

4. *Moral conduct*. This moral behavior shows that a person can be a role model or reference for others. A person with integrity will be able to show that he can be an example for those around him. Leaders also need to show this to become role models for employees in the company.

Strengthening integrity within the organization aims to support business activities so they can run well. Integrity supports the organization's ability to provide services to all stakeholders who have given it trust. This is, of course, for example, for investors, who will continue to be willing to invest.

2.3 Integrity Branding

Branding refers to the corporate perspective and has a strategic benefit. Branding is an organizational value aligned with brand values (Schroeder, 2017), including product value. Branding at the corporate level has a brand culture that reflects organizational values. Branding at the corporate level can contribute to the strength of product brands, especially intangible attributes. Corporate brands will support product performance. In technical terms, this corporate brand will become marketing activities and supporting company programs (Burghause and Balmer, 2015).

Branding is also essential for gaining a competitive advantage nationally and internationally (Sujchaphong, 2017). Companies with specific branding need to strengthen the organization's brand into the organization consistently and strengthen organizational values in all elements of the organization, including internal employees. This is part of internal branding so employees can be committed to supporting corporate values (Punjaisri & Wilson, 2011). Employees who understand corporate values will carry out these values and fulfill consumer demands according to what the organization promises to consumers (Sujchaphong et al., 2020).

Strengthening branding at the organizational level requires leadership support (Sujchaphong et al., 2020). The leader's role is to demonstrate commitment to carrying out corporate values. The expected leadership character is a leader who supports business change transformation. They are considered individuals who can make changes in the organization to achieve better performance. Organizational programs also support this strengthening through training and implementing better and consistently applied work standards. This includes procedures that must be established for external consumers to ensure consistency in what is conveyed to internal employees and external consumers. Companies that act as market leaders in an industry certainly want to maintain their position. This is supported by the company's ability to provide products and services to the target market and by the value of integrity. This value strengthens the perceptions of stakeholders on the company and the product or service brands offered. This aspect of integrity is maintained not only by products or services but also related to supporting services. This strategy is expected to create stakeholder confidence that the company will provide benefits following what has been paid by consumers or partners in other stakeholders.

Integrity is vital because it can strengthen the company's reputation in the long term. The company will enhance the application of norms that seek to maintain the trust of its stakeholders. In providing services to external consumers, excellent service is provided. To employees, as internal consumers, the company strives to fulfill the rights employees possess properly. To the company's suppliers or partners, the company will also satisfy the company's obligations properly. To investors, the company will undoubtedly have transparency regarding organizational performance so that investors will obtain results following their rights.

Company leaders or company owners who determine the company's vision and mission for the future by strengthening aspects of integrity. This means that the company is fully committed to providing services to all stakeholders following what has been promised. This can be realized in the vision, mission, corporate values, slogans, rules, and norms, which are communicated continuously and consistently to all elements within the company. The company also has strict rewards and punishments so that this can be applied to all employees. This integrity branding cannot be built in the short term, but the company needs time in the long term.

Integrity branding has the potential to differentiate a taxi company from its competitors, as well as build trust and credibility with consumers. This study explores the impact of implementing integrity branding for taxi companies through a case study approach to the Bluebird Taxi Company. By identifying the main ethical and moral principles important to consumers in the taxi industry and developing an integrity branding strategy aligned with consumer values, this research will provide a practical guide for taxi companies wishing to differentiate themselves through ethical business practices and sustainability.

3. Methods

This research uses a qualitative case study approach, focusing on Bluebird Taxi Company. Data will be collected through in-depth interviews with representatives of the Bluebird Taxi Company. The data collected from the interview process will be analyzed to inventory the impact of implementing integrity branding so that it can be developed to become a development model for other taxi companies.

4. Results

Bluebird's performance shows improving indicators. During the pandemic, Bluebird experienced a decline in performance of IDR 66 billion from January 2021 to September 2021. This pandemic factor is indeed the primary determinant of Bluebird's performance. This is due to reduced consumer demand for transportation. They carry out activities at home by implementing a Work from Home policy. This policy directly impacted Bluebird's performance. Namely, the need for taxis experienced a sharp decline. But in the fourth quarter of the same year, 2021, Bluebird's performance slowly improved. Bluebird gets an increase in profit, although small.

Bluebird's persistence in running a business has been initiated by the founder of Bluebird—Mrs—Mutiara Siti Fatimah Djokosoetono, or Mrs. Joko, who founded Bluebird in 1972. The initial initiation of the business was not due to Mrs. Joko's position as a businessperson but because she was only a housewife. Bluebird was established more driven by economic pressure after the death of Bu Joko's husband. The business started with selling eggs, then continued the sale of batik. In the end, Mrs. Joko used the two cars inherited from her husband to earn extra income to support a family of three children. The two taxis are used as a mode of transportation for taxis. PT Bluebird Tbk (Bluebird) was legally established on March 29, 2001, based on the Deed of Notary Dian Pertiwi, SH No. 11, approved by the Minister of Justice and Human Rights of the Republic of Indonesia following Decree No. C-00325HT.01.01.TH.2001 dated 26 April 2001.

The name Bluebird was inspired by the European country's "Bird of Happiness" fairy tale. This has the meaning that birds can bring happiness. The purpose of establishing Bluebird is to create and share joy in developing the country. In addition, Bluebird seeks to create a consumer mobility experience, such as transportation through the Bluebird fleet. This consumer mobility experience strived to be positive and make consumers happy.

Besides creating happiness, Bluebird also aims to contribute to supporting the development process in Indonesia. The transportation sector operates very vitally to support human mobility in their respective performance. This transportation sector also helps the convenience of consumers to meet their needs. In essence, Bluebird plays a vital role in moving the wheels of the economy in Indonesia. Indonesia has geographical conditions in the form of islands that create separate and broad locations. Therefore, Bluebird is expanding the market by opening companies in several cities in Indonesia, namely Surabaya, Bandung, Bali, Lombok, Semarang, Medan, Pekanbaru, Palembang, Bangka Belitung, Batam, Banten, Manado, Makassar, Yogyakarta, and other cities that are the heart of the business and tourist destinations across the country. In line with the expansion of the company's operating area, Bluebird also has a broader business portfolio.

Bluebird Group develops business in passenger transportation and land transportation services, including bus rental, vehicle rental, and taxi service provision (regular and executive). In 2012, Bluebird incorporated a strategy of restructuring share ownership in several land transportation service providers. This restructuring of share ownership allows Bluebird to manage 15 subsidiary companies expected to support Bluebird's performance in the transportation industry. The existence of these subsidiaries can support Bluebird's business activities in workshops and assembling.

To survive in the long term, the company has core values that must always be upheld. There are fundamental values that determine Bluebird's long-term success. Bluebird was able to survive and thrive because Bu Djoko created noble values. This value has been passed down from generation to generation by the vigorous efforts of the company owner. The heritage values are caring, integrity, excellent service, and a growth mindset. First, the value of caring means that as part of Bluebird, the company wholeheartedly takes care of service, namely family, having empathy, looking after one another, and especially protecting the environment. Second, the value of integrity means that the company always values honesty. Honesty is the key to success. In addition, this honesty is also reflected in how Bluebird works, relying on transparency, discipline, hard work, and accountability. Third, the company targets driver expertise for passenger experience and satisfaction. Bluebird is committed to providing excellent service by focusing on high-quality work, a reliable workforce, and operational excellence while respecting the needs of passengers by listening, serving, accompanying, and innovating wholeheartedly. Fourth, Bluebird is determined to provide and deliver the best from all parties in the company by working in agile, precise, creative, and innovative ways. The company draws on experience to navigate and overcome challenges and face an uncertain future together.

Professionalism is also the focus of the company's value, in which all elements of the organization provide excellent and extra customer service. Professionalism is believed to support the long-term sustainability of the company. Credibility is the future of Bluebird. Professionalism is not only in the form of words but manifested in the actual actions of employees towards company customers. Bluebird continues to apply Mrs. Joko's iron fist but silk gloves principle.

Bluebird is almost 51 years old, so this shows proof of Bluebird's ability to be able to survive in crisis conditions, digital era competition, and the covid pandemic. This 51-year-old shows that business implementation is trying to be aligned with values based on honesty and transparency that characterize Bluebird's business goals commercially. Bluebird considers the value of integrity to increase competitiveness and also business sustainability. All employees at various levels strive to maintain integrity. Violating the importance of integrity is believed to be able to damage the existing business order to harm business continuity.

Bluebird's position as a go-public company listed on the stock exchange also demands the importance of the value of integrity. Bluebird conducted an initial public offering (IPO) in 2014. The listing and initial public offering were carried out after Bluebird received an effective statement from the Financial Services Authority (OJK) on October 29, 2014. The shares were effectively offered on November 5, 2014. Shares Bluebird provided as many as 376,500,000 shares to the public with a nominal value of IDR 100 per share and an offering price of IDR 6,500 per share. This strategy is expected to support business development plans and strengthen Bluebird's position as a market leader in the transportation industry, including passenger and ground transportation.

This condition of going public requires Bluebird to carry out business activities in transportation by focusing attention on all stakeholders. This starts with the government, internal employees, consumers, communities, and investors. Stakeholder trust is a priority for running a business well. The aspect of trust from stakeholders is the support for providing the best service. Bluebird can develop into a mobility service provider company that provides security, an excellent fleet, excellent service, and a team with integrity. The company strives to remain present and become an icon in this country. This icon aims to create a good perception of all consumers who will use this mode of transportation, including foreign tourists who come to Indonesia. By driving the Bluebird, consumers will be guaranteed safety and comfort.

The value of integrity in Bluebird is strengthened by implementing good corporate governance. This is considered to support business continuity. Bluebird is committed to implementing the principles of good corporate governance (GCG) following the regulations set by the applicable government regarding the rules of the Limited Liability Company Law Number 40 of 2007; OJK Regulation Number 21/POJK.04/2015 concerning the Implementation of Public Company Governance Guidelines, as well as OJK Circular Letter No. 32/SEOJK.04/2015 concerning Guidelines for Public Company Governance. The application of integrity through the application of regulations has positive implications for the sustainability of the organization in the long term. Applying GCG principles can empower Bluebird to conduct business activities by avoiding violations that can harm all company stakeholders.

In addition to the integrity aspect in the Blue Corps Program, which is interesting here, the integrity aspect is applied at all levels of work. This aspect of integrity is associated with the conformity between what was promised and what was stated with the actions taken. This is a moral principle that needs to be colored in every work. The

application of integrity can be found in employees who work in Bluebird workshops. They are parties that do not meet directly with external consumers. However, they follow proper work procedures and ensure all machine devices operate correctly. The running of the machine properly is also part of the service to the end consumer. The car can run well without any obstacles on the road, making it easier for consumers to be transported from one place to another. Likewise with other departments in Bluebird, for example, the marketing communications department. They have job descriptions to communicate information to external consumers. This information must be correct so that external consumers can understand it. Bluebird disseminates information correctly to generate trust in consumers and even other stakeholders.

Internalization of information to the internal side of the organization is also part of strengthening internal branding. This internal branding is a way to promote the organization's image, especially to members of the organization or human resources in it. Bluebird has carried out internal branding to support human resources in understanding and displaying Bluebird's image in guaranteeing quality services according to the promised brand image—the image as a whole to all members of the organization. Through brand internalization, Bluebird can influence the attitudes and behavior of human resources to align with the brand image promised and aspired to by stakeholders.

Bluebird has operations in 18 cities with various unit divisions. Each division has a division head as a leader. Each division plays an active role in ensuring that business activities supporting integrity can be carried out correctly. Continuous socialization from the internal communication team is also carried out with the entire Bluebird extended family. This constant socialization is carried out so that there is a common understanding regarding aspects of integrity. Integrity is also taught to drivers. Bluebird drivers also experience changes from time to time, or there are additional drivers from time to time. Every time there is a new driver, there is a new employee; Bluebird consistently implements a program of values and integrity continuously. Integrity is expected to be applied to all aspects of organizational life.

Bluebird also uses developing communication media channels such as social media. Bluebird tries to keep up with the latest tracks to convey the correct information to the right target market. Channel selection also needs to be considered regarding the audience because the communication channels will differ for company employees and taxi drivers. Employees who have joined Bluebird also need to be continuously communicated with to be aware of the latest conditions and consistently remember Bluebird's values. The journey of employees in learning integrity needs to be understood. When they start to enter, there will be an introduction to employees' values during the onboarding period. Along the way, employees can participate in programs to understand and remember the importance of integrity implemented at Bluebird.

Related to monitoring the implementation of integrity, Bluebird has a system for that. This system functions to carry out supervision carried out by internal audit. The Audit Committee is part of the Board of Commissioners, whose job is to streamline the oversight function carried out by the Board of Commissioners regarding the performance of the Board of Directors in managing Bluebird related to financial reports, the effectiveness of the audit function both internal and external, risk management and compliance with regulations. This audit committee follows the Company's Audit Committee Charter based on Financial Services Authority Regulation No. 55/POJK.04/2015 concerning the Establishment and Guidelines for Implementing Audit Committee Work.

Monitoring results are reported to the principal director or CEO to follow up on the report results. In addition to supervision from audits, Bluebird has also developed a whistleblowing mechanism. This Whistleblowing helps Bluebird to find out if there is a breach of integrity. The application of integrity must be maintained and colored in daily behavior. Bluebird also conducts a consumer satisfaction survey. Consumer satisfaction is evaluated by distributing consumer satisfaction level surveys every year. Bluebird can determine customer satisfaction, which can be monitored through the customer satisfaction index (Customer Satisfaction Index or CSI).

Bluebird also faces challenges in implementing integrity for the entire Bluebird extended family. Bluebird implements a reward and punishment mechanism. Bluebird realizes that to be able to make employees, especially car drivers, Bluebird also provides training so they can provide excellent service to passengers. For drivers, Bluebird also has a code of ethics mechanism to regulate it. For drivers who perform well, there will be appreciation every month through Roadstar. This driver has a good performance in serving consumers, which also shows the integrity of the driver. This driver can offer good attention to consumers so that consumers feel safe and comfortable while driving. Sometimes, drivers also provide services beyond consumers' expectations as Bluebird drivers. Especially some time ago, during the pandemic, drivers carried out their duties to take consumers. They always continue to serve well, despite concerns that consumers will be affected by Covid. There are standards and procedures to help consumers that lead to the creation of happiness, comfort, and safety in driving. These standards start from the consumer ordering a taxi, on the way, and to the destination. Bluebird drivers are taught about this standard to create trust in consumers. This service quality is the key to integrity, meaning that what is communicated to internal consumers is the same as what is shared externally.

Strengthening internal branding related to integrity is believed to be carried out first. This is related to companies engaged in the service sector. Organizational managers must first communicate internally with employees because they will interact directly with consumers, especially motorists. They will now be in daily life together with consumers. The company's goal is because the company has a solid orientation to consumers as a determinant of organizational performance. However, Bluebird also realizes that not all consumers must be the target market. Bluebird needs to focus on consumers who are considered potential for the organization.

Branding Bluebird as a company engaged in the transportation sector is a manifestation of Bluebird's mission, namely achieving customer satisfaction and developing and maintaining itself as a market leader in each category. Bluebird provides reliable and high-quality services with efficient use of every resource in land transportation and is supported by a complete team. The quality is not only in the form of service but also the quality of the car itself because this is essential in driving consumers. Bluebird also strives to provide grades aligned with existing business developments and changes.

5. Discussion

Integrity is one of Bluebird's strengths in maintaining good relations with stakeholders. Branding integrity in Bluebird is a strategy to provide a more significant advantage over Bluebird's competitors. This is Bluebird's positioning in the transportation industry, which has a point of difference. This positioning makes Bluebird perceived as a transportation company with advantages in comfort, safety, and happiness in driving, following the meaning of Bluebird, which Bu Joko created. Bluebird has become a company that has gone public. Thus, Bluebird strives to become a company with a good reputation in the eyes of all stakeholders.

Based on the interviews, Bluebird realizes that to implement good branding integrity, there are some essential elements to consider. First is the role of the leader. The leadership of Bluebird, which Mrs. Joko initiated as the founder of Bluebird, has become a reference for managing the company. It's a good idea to do the transportation business by strengthening the value of happiness, a vital matter to be communicated to all stakeholders. The values spoken to all stakeholders are caring, integrity, excellent service, and a growth mindset. In this case, leaders, including the BOD, carry out Bluebird's directives to manage Bluebird's business. Branding related to strengthening these values is a representation of BOD to have concern for business continuity. Bluebird branding is also good because the work climate supports it. This work climate is external support so that Bluebird can create a comfortable working atmosphere for all Bluebird employees. This working atmosphere is demonstrated by reward and publication mechanisms. This work climate, as a supporter of branding, is internalized to all internal employees first. Branding is not only communicated to Bluebird's external parties, but internal employees must understand because Bluebird is engaged in transportation services. Good service will further strengthen consumer confidence in Bluebird. Bluebird realizes that Bluebird branding is essential because Bluebird faces competitive competition, especially in the application-based transportation industry. Consumers have a preference for choosing a transportation company that provides better service. Bluebird also strengthens its service to consumers by providing support services to strengthen Bluebird's branding perception as a company that pays better attention to consumers.

Bluebird, through the pillars of Blue Corps, strives to strengthen integrity. This integrity is an individual and collective ability that determines decision-making at the personal and corporate levels. In line with Petrick and Quinn (2000), Bluebird values integrity related to moral awareness. Bluebird's worth of integrity is caring. This shows that all Bluebird employees, in making decisions, must pay attention to other people and wider stakeholders. Bluebird has an extensive system for building individual abilities to have moral awareness, including sensitivity through training and dissemination of Bluebird values. Related to moral character, Bluebird also values empathy and compassion. This integrity character is expected to create the trust of others. There is a sensitivity of conscience to make decisions that can benefit the general public. Bluebird believes that this dimension of integrity can properly support Bluebird's business activities. This integrity supports Bluebird's ability to provide services to all stakeholders who have placed their trust in Bluebird. Especially investors will be willing to invest in Bluebird.

Branding, according to Bluebird, is a strategic thinking orientation. This is trying to be aligned with the Bluebird brand as a product. Schroeder (2017) believes that branding is an organizational value that needs to be adjusted to the product brand value. Branding at the corporate level Bluebird has a brand culture that reflects organizational values, which include caring, integrity, excellent service, and growth thinking. This corporate value will support the performance of the Bluebird brand as a service in its daily technical activities. This value is Bluebird's competitive advantage. This branding is also consistently strengthened within the organization and reinforced internally. This process is internal branding so that Bluebird employees show commitment to supporting Bluebird's values. Employees understand these values and apply them in their daily operations.

The leader in Bluebird also strengthened the integrity of branding. This is in line with the opinion of Sujchaphong et al. (2020), who said that maintaining branding at the organizational level requires leadership support.

The leader, in this case, the Bluebird family, and all existing corporate leaders, have shown a commitment to implementing Bluebird values. Leader supports the transformation of business change, especially in this case; Bluebird has carried out many business digitization programs. Leaders support training programs and implementation of work standards and monitoring through consistent internal audits, which are reported in the Annual Financial Report.

Bluebird realizes its role as a market leader; of course, it will maintain its position as a market leader in the long term. The value of integrity is essential because it will create trust among stakeholders. Services, including support services, also strengthen this aspect of integrity. This strategy is expected to develop long-term customer and partner satisfaction and loyalty. In addition, this integrity can maintain Bluebird's reputation in the long term. Bluebird seeks to strengthen government norms and rules. In providing services, Bluebird strives to provide excellent service. Bluebird also aims to fulfill the rights of internal employees, including supply partners. Building integrity branding, Bluebird takes a long time. Bluebird leaders determine the company's vision and mission to strengthen integrity. Bluebird is committed to optimizing services for all stakeholders, as promised.

6. Conclusion

It cannot be denied that in recent years, Bluebird Taxi Company has faced tough challenges. Transportation can run its operations much more efficiently. This is marked by the emergence of new players in the field of transport, which offer convenience in transactions because they are based on technology, coupled with the support of relatively large initial capital, as well as by carrying out a new management pattern in the form of partnerships with the drivers, creating startup companies in the transportation sector. The turbulence experienced by Bluebird Taxi Company was exacerbated by the sluggish global business conditions due to the Covid-19 Pandemic, all of which impacted the decline in the company's overall performance from January 2021 to September 2021.

However, since the beginning of the fourth quarter of the same year (2021), the Bluebird Taxi Company has slowly managed to turn things around. "The process never betrays the results" is an apt saying which describes the current condition of the Bluebird Taxi business. It was noted that Bluebird Taxi recorded quite astonishing profits until the end of 2021 and continued throughout 2022. The phenomenal achievement of the Bluebird Taxi Company is, of course, a collective effort from all stakeholders. The implementation of integrity branding, which is supported by hard work, consistency, and strong commitment, to continuously improve and strengthen the "positioning" of Bluebird Taxi in the eyes of consumers, is the principal capital that keeps Bluebird Taxi relevant amid changes that are happening so fast, like right now. Integrity branding is a joint effort of all elements of the organization, which emphasizes the importance of ethical and moral values in building reputation and consumer loyalty through implementing the right strategy to face increasingly fierce competition.

Consistency in implementing integrity branding is a differentiator that has succeeded in increasing the performance of the Bluebird Taxi company so far. Continuous dissemination and communication to all elements of the organization is an essential key to successfully implementing integrity branding, which has become the main focus of management. There is no tolerance for its application. Everyone gets their fair share, according to their contribution to the organization.

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Organizational Learning Perspective Analysis in Accelerating Environmental, Social & Governance (ESG) Orientation: Studies in the Banking Industry

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Abstract

Through several regulations issued by OJK, the Government of Indonesia formulates Sustainable Business Activities (KUB) as projects/activities/products/services that meet the principles of sustainable finance and are included in the criteria for sustainable projects/activities/products/services. The regulation relates to implementing Environment, Social, and Government (ESG). This study analyzes organizational learning by adopting the perspective of organizational learning from Chen (2015), which focuses on problem analysis, outputs, outcomes, mechanisms, contextual variables or supporting variables, and implementation strategies. This perspective is intended to analyze the things that help and hinder the application of ESG orientation in banking companies. This research method was conducted through interviews with three vice presidents of banking companies. This research resulted in several findings. First, banking organizations need to strengthen from an organizational learning perspective because organizations still need to prepare to implement-based policies fully. Second, the application of ESG has yet to become a company priority and has to be set to be part of a performance measure. Applying an ESG orientation has yet to be carried out holistically to support organizational performance in the long term. It only complies with regulations. Third, ESG orientation is solely based on the demand side, in this case, the client. Banking companies only limit the application of ESG by prioritizing companies in 12 KKUB categories by adding one type, namely MSMEs, as part of the inclusive principle. Fourth, the ESG orientation has yet to reach internal employees. It still needs socialization regarding ESG orientation and tools to measure ESG implementation and monitoring from the internal side.

Keywords
Environment, Social, Government, The Learning organization

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1. Introduction
Through Law No. 16 of 2016 concerning the Ratification of the Paris Agreement, Indonesia has attempted to adopt several policies to support climate change, including supporting the National Determined Contribution (NDC) to reduce emissions by 2030 by 41% with international support or 29% with the Government of Indonesia Alone.

All industries, including the banking industry as an industry that supports business activities, are expected to be able to support government policies, one of which is by implementing sustainable business. The Financial Services Authority (OJK) has issued a roadmap for sustainable finance in Indonesia through two phases: Phase 1-2015-2019 and Phase II-2021-2025. Phase I regarding the roadmap, explains sustainable finance principles, the introduction of sustainable business categories (KKUB), incentive development, and capacity-building programs. In 2017, there was a mandate from the Financial Services Authority Regulation (POJK) No. 51 of 2017, which formulates a Sustainable Finance Action Plan (RAKB), preparation of a Sustainability Report, and allocation of Social and Environmental Responsibility (TJSL) funds to support sustainable financial activities. Then, OJK also issued POJK No. 60 of 2017 related to Environmentally Friendly Business Activities (KUBL) as business activities and other activities aimed at protecting, repairing, and increasing the quality or function of the environment. Phase II, OJK has issued a policy to discuss development from the supply and demand side. Regarding supply, the government focuses on providing incentive schemes, product innovation, technology and information, and human resource capacity development. On the other hand, related to the demand, government policy focuses on national campaigns, real program support,

development of supporting industries and issuing green certification or Indonesian Green Taxonomy (THI). Based on initial interviews with five informants from 3 state-owned banking companies (HIMBARA), for the success of implementation in phase II of the period set by the OJK, particularly from the company side, it is necessary to strengthen and prepare the organization to learn to adopt an orientation towards sustainable finance (Rokhim et al., 2022). The essence of the initial interviews shows that, first, for stage I, the company needs to be prepared organizationally to orient towards sustainable finance. Organizations need to strengthen the learning aspects on the organizational side and understand the supporting elements so that companies are not only oriented towards sustainable finance on the demand side. Giving to corporate clients is considered easier than strengthening internalization within the organization. Applying an environmental, social, and governance (ESG) orientation maintained by government regulations through the OJK is pursued holistically to support organizational performance in the long term. It avoids exposure of only complying with government regulations in a short time. Corporate performance, especially banking, is strived to achieve both financially and non-financially in the long term (Rokhim et al., 2022).

The importance of implementing sustainable finance principles is a representation of the ESG implementation. Yun and Lee's research (2022) explains that ESG performance is a reference in companies that focus more on performance not only on a financial basis but have a social and environmental orientation. Boffo and Patalano (2020) also explain the objectives of implementing ESG, namely increasing and improving long-term performance, creating an excellent corporate image and reputation, reducing investment risk, complying with regulations, paying attention to stakeholder interests, attracting new talent, strengthening altruistic value, meeting investor demands and encouraging company's ability to diversify its business.

ESG-based management prioritizes aspects of environmental protection by creating a pro-environmental ecosystem, making global social contributions, and building a healthy corporate culture. Roger and Casey (2020) analyze bank policies related to ESG considerations. Companies that implement ESG will support organizational development in the future (Ge et al., 2020). This also affects the ability of the company's stock performance (La Torre et al., 2020). Zabawa and Kozyra (2020) show banking readiness in implementing the ESG program.

This study has conducted previous interviews, which resulted in several findings. First, banking organizations need to strengthen from an organizational learning perspective because organizations still need to prepare to implement ESG-based policies fully. Second, implementing ESG has yet to become a priority for the company. The company still applies an orientation to financial performance based on the short term. Thus, the company does not make ESG part of each unit's performance measurement or critical performance index. Applying an environmental, social, and governance (ESG) orientation strengthened by government regulations through the OJK has yet to be carried out holistically to support organizational performance in the long term. Companies still have a direction towards only complying with government regulations quickly. Third, ESG orientation is solely based on the demand side, in this case, the client. Banking companies only limit the application of ESG, especially to clients or customers, by giving priority to companies that are included in 12 KKUB categories according to article 4 POJK No.60/POJK.04/2017, by adding one type, namely MSMEs as part of the inclusive principle and 11 other categories, namely renewable energy, energy efficiency, pollution prevention, and control, management of living natural resources and sustainable land use, conservation of terrestrial and aquatic biodiversity, environmentally friendly transportation, sustainable water and wastewater management, climate change adaptation, eco-efficient based products, environmentally sound buildings, other environmentally sound activities. With the addition of this classification also results in organizations needing to add business management to the MSME category. This is also a challenge for companies in providing business credit.

Fourth, the ESG orientation has yet to reach internal employees. The organization still needs to carry out socialization regarding ESG orientation. Thus, readiness from the internal side could be more optimal. The consequence is that organizations still need to get the tools to measure ESG implementation and monitoring from the internal side.

Based on the explanation above, the authors submit research questions
How does organizational learning apply to adopting Environmental, Social, and Governance (ESG)?

2. Literature Review

Business continuity shows the company's efforts to focus on profitability and manage economic, social, and environmental aspects that will impact the environment and target markets (Svensson et al., 2016). Improving the impact of company performance on all stakeholders, including investors, requires companies to show financial and non-financial performance in transparent, accurate, convincing information that can be displayed, and there is a sustainability report. Maniora (2017) emphasized that integrated reports from a financial and non-financial perspective

will provide a number of information that can make it easier for companies to make decisions. This can be linked to a report made to the Security and Exchange Organization. This strategy can also show the company's ability to have a long-term commitment. In addition, the non-financial framework also strengthens companies to have an orientation towards the triple bottom line (Laurell et al., 2019).

Simatele and Dlamini (2020) also emphasized that the sustainability of organizations, including microfinance, also considers performance on a financial basis and a social mission. This is important to make microfinance companies also have concern for their consumers. Salehi and Arianpoor's research (2021) shows that business continuity performance indicators have a mutual relationship with other business sustainability components. For example, a relationship exists between social and financial sustainability performance and ethical and financial sustainability performance.

The impact of social-based business and the tools used by various actors, including government, public institutions, companies, and NGOs) have been analyzed by several researchers (Alomoto et al., 2021; Kah & Akenroye, 2020). In addition, the involvement of all actors in stakeholders is also a business decision that can have social impacts (Hiruy et al., 2020). Orientation to ESG is also an overlapping aspect of achieving the 2030 SDG agenda related to achieving the 17 SDGs. Achieving these goals requires strengthening the governance approach of public, private, and non-profit institutions and other institutions collaborating to achieve these goals. Cross-sector partnerships and multi-stakeholder engagement are supported to achieve these goals and an institution's sustainability (William & Blasberg, 2022; Nonet et al., 2022). The company also considers two aspects to support the company's sustainability. First, adaptation to the institutional environment includes financial leverage and organizational slack. Second, resources and capabilities. This has marketing, innovation, manufacturing, and human capital capabilities. Both are optimized to achieve the company's sustainability (Yi et al., 2021). Arianpoor and Salehi (2021) developed a framework for measuring business performance with an emphasis on sustainability consisting of economic/financial, social, and ethical standards. Research by Abreu et al. (2021) shows that an industry can achieve sustainability if it strengthens aspects of a sustainable product-service system supported by traceability, collaboration, transparency, information disclosure, accountability, business responsibility, and credibility.

Reboredo and Sowaity (2022) also explain the dimensions of ESG, namely in Table 1.

Table 1: ESG Dimensions
Source: Reboredo dan Sowaity (2022)

No	Dimensions	Explanation
1	Environmental performance	Activities that maintain the ecosystem and reflect the ecological literacy of the company: refer to the impact of business environmental activities, including policies to describe CO_2 emissions, energy consumption, waste, energy efficiency, emission reduction, number of environmental accidents, and total investment aimed at environmental protection.
2	Social performance disclosure	This refers to organizational policies, including the number of employees, total employee turnover, percentage of working women, percentage of disabled, annual health checks, humanitarian donations and sponsorship, employee engagement, and employee rights.
3	Governance performance disclosure	This includes organizational characteristics involving ownership structure, board size, audit meetings, gender diversity, and governance.

This study analyzes organizational learning to support sustainable performance using a system thinking framework from Chen (2015). This framework has never been found before in previous research to explore organizational learning as a carrying capacity for implementing ESG. Li et al. (2021) explained that there would be future research related to ESG based on bibliometric-based research. Future research could be followed up by strengthening the content of ESG research, promoting improvements in ESG evaluation systems, and strengthening ESG practices in various organizations and industries.

Elements in organizational learning to implement ESG in companies are as follows.

2.1 Problem analysis

This problem analysis is an initial identification related to the desire to improve, update, and innovate in an established organization (Nielsen et al., 2018). Problems arise because there are considerations that the current conditions cannot support better performance. At the same time, changes are occurring outside the organization that the organization must adopt.

2.2 Output
This result results from a well-planned process as part of the performance indicators in a particular unit. This output can be in the form of new knowledge (Nielsen et al., 2018), changes in behavior and attitudes (Brix, 2020), and other performance improvements.

2.3 Outcome
This outcome is a follow-up to the impact of the output. This aspect is related to increasing efficiency and effectiveness, covering processes and effects on all stakeholders.

2.4 Mechanism
Dynamic capabilities include sensing opportunities, seizing opportunities, and managing threats and transformation (Teece, 2007). This uses a resources-based strategy that optimizes internal resources and external competencies. This capability focuses on management strategies for adapting, integrating, and reconfiguring organizational skills externally and internally, as well as functional competencies that measure changes in the business environment.
a. Sensing opportunities include analyzing the internal and external environment, working with partners to complement innovation, developing technology, and identifying market segments.
b. b. Seizing opportunities includes improving organizational skills and assets, including business structures, procedures, projects, and incentives.
c. Manage threats and transformation related to the ability to identify technology and market opportunities and select resources that offer new business and profitability.

3. Methods
This study uses a qualitative approach through interviews with one person as an ESG manager in the company. The consideration for choosing one person is because they are considered to have mastered implementing ESG and learning programs in the organization. Data analysis uses thematic analysis using the concept of Hooi (2022).

4. Result and Discussion
Hooi (2022) examined the impact of organizational learning on sustained performance. The corporate version analyzed includes organizational commitment, systems perspective, openness and experimentation, and knowledge transfer (Migdadi, 2021).
Organizational learning applied to companies in this study is supported by several aspects.
a. Managerial commitment.
The Bank has a high level of commitment and concern as manifested by the "Bank" Vision and Mission, which includes environmental and corporate governance aspects as follows:
-   The bank has prepared a roadmap towards a sustainable bank that is in line with the roadmap for sustainable finance from OJK.
-   The Bank has developed a Sustainability Pillar for the Global Reporting Initiative (GRI) G4, ISO 26000, and the United Nations Global Compact (UNGC).
-   The Bank has collaborated with national and multinational institutions and received several awards related to environmental management.
-   The Bank continues to encourage the creation of a green operation or attitude
-   The Bank continues strengthening the implementation of Good Corporate Governance (GCG).
b. System perspective.
The Bank has created a system to create sustainable performance in its business by doing the following:
-   Partnership, by channeling financing to the partnership program
-   Community Development, disbursement through the environmental development program (SCR) in almost all banks through their regional offices and branches.
-   Financial inclusion, through increasing the role of clever behavior agents in financial transactions to remote areas (branchless banking)
-   KUR portfolio, distribution of financing to the ultra-micro, micro, and small segments.

- Green Financing, financing for corporations with an emphasis on environmentally friendly funding, such as renewable energy and organic farming, and in line with the principles of sustainability in the form of 3P (Profit-People-Planet) and Sustainable Finance.
- Good Corporate Governance, with "Bank CGPI score continuously increasing (Most Trusted)

c. Openness and experimentation.

The Bank always acts adaptively according to existing conditions. This aims to protect people's lives, including customers and employees. During the Covid 19 pandemic, the bank made several adjustments to bank operations. The adjustments that have been made and are still ongoing are:

1. Operational services based on the Covid 19 Protocol with operational service arrangements at outlets.
2. Services for customers in banking halls include implementing physical distancing, cleaning work areas, and providing cleaning facilities.
3. Employee health and employee safety
4. Percepatan shifting to digital berupa:
   - Encouraging the use of digital channels/digital transactions
   - Digital-based employee capability development (digital learning)
   - Encouraging digital activities in employee management and work patterns (digital coordination & communication)

d. Risk Management.

"Bank" has created four pillars in risk management:

1. Active supervision from the board of commissioners and directors
2. Adequacy of policies, procedures, and limits
3. Adequacy of risk identification, measurement, monitoring, and control processes and risk management information systems.
4. Internal control system

The implementation of these pillars has been carried out with examples in the industrial sector (manufacturing), plantations, and construction as follows:

1. EIA Permit (Environmental Impact Analysis)
2. Requirements for obtaining performance in the Corporate Performance Rating Assessment Program (PROPER)
3. Waste transport vehicles must have
   - Permit to operate B3 waste processing equipment
   - B3 waste utilization permit
   - Environmental audit of the activities of transporting, collecting, temporary storage, utilization, and processing of B3 waste
4. Furniture industry debtors with an export scale must have ecolabelling and a Timber Legality Assurance System.
5. The debtor for the bottled water industry (AMDK) must have a SIPA (Groundwater Extraction Permit).
6. Palm oil debtors have Roundtable on Sustainable Palm Oil (RSPO) or Indonesian Sustainable Palm Oil (ISPO) certification

e. Interaction with the external environment.

Regarding preparing existing resources, especially human resources, the "Bank" has prepared employee training. As a follow-up to the implementation of shiting to digital, "Bank" has made learning online/digital learning through a learning website that is managed internally by "Bank" and can be accessed by employees via the internet network, incredibly accessible by employees outside the office (during work hours), from Home.

The introduction of ESG to employees has been started since the beginning when new employees started working at the "Bank." ESG material has been taught as one of the materials besides banking material in general. This is intended so that an understanding of ESG can be understood from the start, especially for new employees who will later be placed in the financing and credit risk department.

f. Knowledge transfer.

The "Bank" has established policies related to the ESG portfolio to form an organization that can support the creation of sustainable finance as follows:

1. Sustainable finance portfolio products and services
   - Development of financing portfolios, investments/placements in financial instruments or projects that are in line with sustainable finance
   - Gradual increase in the ESG portfolio
   Examples of green portfolio criteria:

- No exploitation of child labor
- Wages according to the provisions
- Security, worker safety, health & working hours of workers
- Contribution to the surrounding community
2. Internal capacity building
   - Capability improvement
   - Training/workshop/comparative study
   - Sustainable agency portfolio expertise according to sector
   Examples of green portfolio criteria:
   - Economic environment
   - Have an impact on growing the surrounding economic ecosystem
   - Economic activities that the government does not prohibit
3. Organizational adjustments
   - Organizational adjustment, risk management, and ESG-based governance
   - ESG-minded standard operating procedures
   Examples of green portfolio criteria:
   - Concept is ecological value
   - Using renewable energy
   - Reduction of waste generation
   - Reduction of waste manufacture and rendering waste products less toxic before disposing of them safely and legally.
   - Licensing by applicable regulations according to the industrial sector

Implementation strategy
The ESG implementation strategy will be adapted to company conditions by considering each company's climate, culture, and work practices. Each company has an aspect of local wisdom that can support the ease of implementation and achievement of ESG. Local wisdom and local activity are different organizational strategies (Kringelum & Brix, 2021).

Table 2 Five Pillars of Sustainability Business

Pillars	Programs
"Bank" FOR INDONESIA Environmental preservation, improvement of social welfare, and community economic empowerment	• Financing activities that positively affect economic and social aspects and environmental conservation. The most significant share was for Micro, Small, and Medium Enterprises (MSMEs), followed by financing for the management of living natural resources and sustainable land • Promoting inclusive and sustainable funding products through the "Let's Save with Waste" program.
"Bank" FOR CUSTOMERS Establishing partnerships with customers while paying attention to ESG	• Providing products and services on a digital platform basis • Developing agent banking • Handling of customer complaints, customer data confidentiality
"Bank" FOR THE ENVIRONMENT Reduce environmental impact and embrace green business opportunities	• Adopted eco-friendly building management. • Financial support for several renewable energy sectors (solar and hydro) and sustainable palm oil • Solar Panel Installation in the "Bank" Building • Green campaign program ("Bank" Go, Green)
"Bank" FOR THE COMMUNITY Community Empowerment	• Technical Assistance to Increase the capacity and capability of SME • Fostering the application of digital technologies in Agriculture (Smart Farming) • Channeling subsidized loans to improve the welfare of communities around degraded and deforested land • Development of public and religious facilities/infrastructures on an in-kind or pro-bono basis

"Bank" FOR EMPLOYEES Providing the best conditions for employees as a place of pride for work and accomplishment.	• Provides fair and equal employment opportunities • Allocates a decent budget for learning and development • Decent and safe working environment with covid-19 protocol • Employee Health Services amidst Covid-19 Pandemic

5. Conclusion

Based on the description above, it can be concluded that organizational learning applied to the "Bank" can support sustainable performance:

a. Managerial Commitment. The Management Commitment that has been made by the "Bank" shows the desire of the "Bank" to start learning and adopting new things and has been socialized to all employees. Commitment is also represented in the vision and mission of the "Bank," which includes environmental and corporate governance aspects. The "Bank" has compiled a Road Map towards a Sustainable Bank that complies with the provisions set by the banking authorities in Indonesia.

b. System perspective. I explained the existence of a view focusing on input, process, and output aspects. This system describes all the elements supporting business activities, starting from information, process, and output. These systems will be supported by supporting structural elements, policies, and procedures.

c. Openness and experimentation. "Bank" has an adaptive attitude towards changes in applying work orientation to achieving new targets that have been set. The existing conditions much support this change, in this case, the covid 19 pandemic, which forces "Banks" to adjust operations and accelerate the financial digitalization process.

d. Risk-taking. Risk-taking is a condition for tolerance to ambiguity and uncertainty (Camps, 2011). The "Bank" already has pillars in risk management that continue to provide opportunities for changes that may arise in the future.

e. Interaction with the external environment. "Banks" cannot escape from interactions with the external environment, which is an attempt to understand the ever-changing environment. Understanding the external environment influences the "Bank" to prepare resources that are more adaptive to these changes.

f. Knowledge transfer. Sharing knowledge is an attempt to make information acceptable to others in the organization. To create effective knowledge sharing, "Bank" has built a learning system that employees can carry out independently through learning websites (online learning). Introduction to ESG started when the employee started working at the "Bank," so an understanding of ESG and sustainable finance has been understood.

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The Implementation of Internal Branding: A Case Study of Corruption Eradication Commission in Indonesia

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Abstract

The Corruption Eradication Commission (CEC) has the tagline Dare to be Honest and Great. CEC and Indonesia Corruption Watch introduced this tagline, UNODC (United Nations Office on Drugs and Crime), and Transparency International Indonesia (TII) in 2012. Dare to be Honest and Great is used to educate the public not to commit corruption because it harms many parties. The tagline is the branding that gives strength to CEC. The slogan must be socialized to all CEC internal employees. This study aims to analyze the factors that influence the implementation of internal branding at CEC and the strategy for implementing internal branding at CEC. Interviews were conducted with three key informants from CEC employees and one additional employee employed at CEC who came from police agencies. This study shows that the factors that influence internal branding affect the implementation of internal branding at CEC, and internal branding strategies at CEC. Implementing internal branding is due to changes in vision, mission, and focus on goals. Cultural and policy transformations also accompanied this. The Basic Values and Code of Conduct guide CEC personnel to consistently implement them at work because the behavior and actions of CEC personnel outside of work will also reflect the CEC brand. Employees are always equipped with formal and non-formal knowledge through educational scholarships (domestic and foreign) and various pieces of training in their fields, which have become CEC targets annually by each employee.

Keywords
Internal branding, corruption.

1. Introduction
CEC was formed to enforce the eradication of corruption, has a vision and mission of the institution to eradicate bribery, and has fundamental values to increase integrity and commitment so that CEC, according to Jerry McLaughlin, who is the co-founder and CEO of Branders.com, is a brand that matches public perception (Ramadayanti, 2019) in eradicating corruption in Indonesia. This is proven by data taken from the CEC's 2019 annual report. In mid-2012, the community tried to collect coins to construct the new CEC building, which is currently located on Jalan Kuningan Persada. The collected coins amounted to Rp403,604,196, which the Ministry of Finance handed over to the state. This shows that the public has confidence in the CEC to finish the corruption in Indonesia to become a country that is clean of corruption.

CEC has a strong brand, as evidenced by a survey conducted by the Indonesian Survey Institute in 2010 (LSI, 2010). The survey proved that the CEC has such a strong brand that the public entrusts the CEC as an independent institution that can eradicate corruption in Indonesia. According to the public, only the CEC is considered reasonable compared to other law enforcement agencies. Of the four institutions, namely the police, the prosecutor's office, the courts, and the CEC, only the CEC is considered to have integrity. In contrast, the others are believed to have poor integrity because these institutions cannot prevent their officers from acts of corruption, bribery, and pressure from other interests with the public, politicians, business people, and political parties.

Berani Jujur Hebat is used to educate the public not to commit corruption because it harms many parties. To strengthen its brand, CEC also has the tagline Dare, to be honest, to be Great. This tagline was introduced by CEC together with ICW (Indonesia Corruption Watch), UNODC (United Nations Office on Drugs and Crime), Transparency International Indonesia (TII), and others in 2012 during the World Anti-Corruption Day campaign tour (Herdiana, 2011). The tagline has become a branding that gives the CEC power (Keller, 2015).

CEC's performance in eradicating corruption provides a deterrent effect through prosecution and is accompanied by prevention to remind and increase awareness of the Indonesian people of the dangers of corruption. Of course, this is partly because the CEC has a work culture and resources that are committed and understand the

work culture at the CEC, so a role model is needed to socialize and implement any changes to the CEC. Changes to an organization's policies are a challenge to deal with dynamics, so there needs to be support from the community who contribute through CEC human resources who implement CEC's cultural transformation that will lead CEC towards changes by the Law and vision by the Basic Values of CEC Employees and the CEC Code of Ethics.

In 2019, Law Number 19 of 2019 concerning the second amendment to Law Number 30 of 2002 concerning the Corruption Eradication Commission, was issued. The CEC was formed to eradicate corruption. With the revision of the Law, Article 1 number 6, Article 24 paragraph 2, Article 69B paragraph 1, and Article 69C require the status of CEC employees to switch to the State Civil Apparatus (ASN). Thus, previously, CEC employees were independent direct employees of the CEC. Still, the change in the law to become ASN employees and in the executive family has raised public concerns about the independence of CEC employees with whom other agencies can intervene (News, 2020).

In carrying out its duties, the CEC needs the support and trust of all parties in the CEC, so it is necessary to implement internal branding in this case through the quality and integrity of human resources that do not fade or are the same as before the Law was revised. Building trust in the community is essential, but making it from employee activities (internal branding) first is better. If employees believe in the current CEC, then employees will automatically communicate to the public (Simbolon, Freddy, 2018). In the interview with one of the CEC employees, they said that employees would also find clarification through the media if there is an issue. Thus, the institution focuses on appeasing external parties, not building trust in its employees (Irawati, 2023). CEC, in building internal branding, must build more open communication between institutions/leaders and their employees because, with more open communication, trust will be formed between institutions/leaders and their employees (internal branding). Internal branding that needs to be maintained at the CEC also includes training, orientation, direction, coaching, and others that can improve the results and performance of the CEC.

Based on the explanation above, the author formulates the following research questions.
a.   What influences the implementation of internal branding in CEC?
b.   How does CEC implement an internal branding strategy?

2. Literature Review
2.1. Internal Branding Theory
Internal branding combines marketing, communications, and HR functions within an organization. According to Dechawatanapaisal (2018), internal branding focuses on giving direction to the organization and creating engagement, pride, and bonding for employees to strengthen the organization's reputation in society. Employees must understand how the organization can add value, to whom this value is added, and how employees can play a role (Gehrels, 2019). So if the internal organization can do internal branding well, it will be straightforward to build a solid value to deliver to the community as expected.

Branding the organization's strategy through brand promotion with employee support is very important and will be successful for the organization. Internal branding, according to Pujaisri et al. (2009) in research (Oliveira, Moro, & Torres, 2019) according to Pujaisri et al. (2009), the brand rises when it routinely gets to know human resources in the organization as they perform their duties. The function of internal branding as a link between the corporate brand and the cultural values of the organization, which is linked to these cultural values to help employees to achieve individual and organizational goals (Ahmad et al., 2014) which will be seen in the culture of vision, commitment, the same values and rooted in the soul of individual employees who will be conveyed through the brand message to external parties (Noviaristanti, 2015).

According to Foster et al. (2010), the organization can enhance or support internal branding, so the success of an institution/corporate branding depends on how the institution implements it. Thus, internal branding can ensure that employees understand the meaning and value of the institution's brand to the public. Results summarized in research (Utami, 2015): Seven internal factors influence the implementation of internal branding: company, information, management, communication, strategy, employees, and education.

2.2. Stages in Internal Branding Implementation
According to David and David (2015) (in Fadhli's research, 2020), three primary stages are systematic and comprehensive in the strategic management process for internal branding: strategy, implementation, and evaluation.
a.   Strategy Stage. The strategy stage includes developing a vision, mission, and values; identifying organizational opportunities and threats through internal branding programs so that branding is by organizational goals; analyzing organizational opportunities and weaknesses so that it runs well and is accepted by employees; and formulating short-term and long-term plans from the implementation of internal branding programs,

organizations also measure the success rate of internal branding programs so that corrections and evaluations can be made.

b. Implementation Stage. The implementation stage requires the organization to set goals, make policies and motivate employees so that all employees are actively involved in socialization and training about the brand and fundamental values of the organization. Employees and leaders also become role models in applying the organization's fundamental values by implementing them in daily life at work and organization so that the execution of internal branding implementation through communication strategies both directly and through the media can run smoothly.

c. Evaluation Stage. At the evaluation stage, the activities reviewed the external and internal factors that have been carried out in implementing internal branding. In reviewing, the organization needs a measurement that can be measured quantitatively, such as the satisfaction of organizational services to the community and organizational performance, so that improvements can be made. In addition, there needs to be feedback from the application of internal branding, either through news from the media or survey institutions, so that the organization can make changes if there is still something that needs to be added to its internal branding.

The purpose of internal branding is to ensure that employees can understand company values consistently and carry brand messages believed to fulfill the brand promise that is proof to the public and other stakeholders (Purnomo, 2019). Internal Branding is essential for building morale and creating a workplace where employees are engaged with their work (Argenti, 2007).

2.3. Internal Branding Process

In Punjaisri & Wilson's (2011) research, the study's proposed framework on the internal branding process resulted in emphasizing the importance of coordinating internal communication with ongoing training programs. Internal communication is critical to brand ideation, while training can train and educate how to enact the espoused brand values proposed by the brand promise.

The study's interview results of internal branding attitudes were brand commitment and loyalty; they felt they owned the brand and considered themselves a brand. In addition, few show their pride in the brand (for example, proud to tell anyone that they work at the brand) so that there is an emotional attachment to the brand (like working at the brand's place). This is because internal branding continues to reinforce values about the brand.

In the study, strengthening internal branding can be done by increasing employees' knowledge, skills and abilities so that they will stay in the brand because there is no reason for them to leave the brand that has provided overall knowledge and skills. Thus, the link between brand promise and internal branding practices, training, and internal communication makes employees appreciate the brand and its values. When employees interpret the brand's success as their own, they intend to fulfill the brand promise, which will be continuously reinforced through internal communication and training.

3. Methods

This research is descriptive, which is conducted to describe a phenomenon or characteristic related to the subject. This research aims to obtain information about the existing situation because the study is designed to collect information about ongoing phenomena at the CEC. The study was conducted using primary data, which was obtained directly through in-depth interviews, with researchers asking prepared questions about the application of internal branding at the CEC, which would be answered by sources/informants.

Researchers conducted this research through interviews with key informants, namely internal CEC employees, consisting of the Head of the Public Information and Communication Services Section - Public Relations Bureau of the CEC, and the Coordination and Supervision Specialist. In addition, additional sources were needed to enrich the information, namely the Director of Coordination and Supervision of Region II (a public employee employed at the CEC).

In this resource person profile, the data of the resource person interviewed in the research is informed to know the profile of the resource person, namely the name, status, and position of the resource person. This research's primary sources are the Head of the Public Information and Communication Services Section and the Coordination and Supervision Specialist. The aim is to understand the views of the various backgrounds of the three primary sources selected and one additional source. The following are the profiles of the resource persons selected for interviews during the research.

The research data analysis is an analysis of the data obtained from interviews with three people as the primary source and one as an additional source. Based on the results of interviews with these informants, it can be analyzed about the application of internal branding in the CEC through the following questions.

4. Results and Discussion

This research was conducted to examine the implementation of internal branding at the Corruption Eradication Commission of the Republic of Indonesia by examining the factors that influence the performance of internal branding at the CEC and the implementation of internal branding strategies at the CEC, which adapted the research of Utami (2015) and Punjaisri & Wilson (2011). The study results from the factors that influence the implementation of CEC internal branding in companies or CEC institutions that the CEC has carried out a cultural transformation since 2006 through CEC Regulation Number 05.P.KPK of 2006 concerning the CEC Employee Code of Ethics until it was updated in 2021 by adjusting the ASN code of ethics and code of conduct. With this code of ethics, CEC employees from various backgrounds need corporate values that can be used as the same guidelines to achieve the vision and mission of the CEC.

The results for the information factor, CEC requires an issue management strategy; this is also useful for increasing employee trust in the CEC institution. When employees believe in the institution and vice versa, it will increase the application of internal branding in the CEC because when there are issues that can demonize the image of the CEC, these employees can also help straighten out the information that occurs.

The results on management factors show that there is more intensive supervision to oversee the behavior and performance of CEC leaders and employees with the supervisory board. Besides, direct and tiered superiors supervise all employee behavior and performance. All of this is to achieve the goals of the CEC institution (Wijayanto, 2013). In the results of the communication factor, through the Public Relations Bureau and assisted by the HR Bureau, representing the brave, honest great tagline by always opening a discussion room for CEC employees regarding the transition of CEC employees who switched status to ASN. In addition, by utilizing other media, it is also communicated that changing to ASN will not harm employees or weaken the CEC institution. This is communicated to build employee trust in the institution because communication can build internal branding at the CEC. In line with implementing internal communication, the HR bureau also conducts external communication through campaigns and podcasts to rebuild public trust in the CEC. The tagline dares to be honest and Great is still echoed at every level of society, so people know how important honesty is.

Through strategic factors, CEC has conducted internal branding through a business transformation strategy since its establishment in 2003 (Indonesia Corruption Watch, 2008) through the CEC's strategic plan for 2004-2007 until the current CEC strategic plan period, 2020-2024. From the strategic plan, CEC always publishes the results of its performance achievements through the CEC website and utilizes other social media. The employee factor is an essential factor in carrying out internal branding strategies at the CEC; in this case, employees have animated the vision and mission as well as the goals of the CEC and the guidelines for the code of ethics and code of conduct have been rooted in each CEC employee. When there are organizational changes, employees still carry out their duties as usual with full responsibility and produce an actual performance to convey CEC branding through exemplary performance achievements to the public.

Finally, education can help improve the implementation of internal branding in CEC so that CEC always facilitates the form of training and socialization related to the code of ethics and the code of conduct of CEC employees. This is so that the CEC culture can be rooted in CEC personnel wherever they are. Not to forget, CEC also facilitates the value of religiosity to build CEC personnel's morals.

The results of the research on the implementation of internal branding strategies at the CEC are in line with Punjaisri & Wilson's (2011) research that the CEC with internal communication either through morning roll call every Monday or constantly airing various information on CEC internal television media, email, and other internal communication applications make CEC people participate in providing ideas in advancing the institution. By receiving much knowledge, CEC employees can distinguish things that are CEC's identity and things that are not CEC's identity so that it is ingrained in each CEC person always to appreciate the CEC brand wherever they are. The idea indeed emerged through various pieces of training that CEC requires at least 20 hours of training in a year.

To eradicate corruption, support from external parties is also needed. CEC transmits the spirit of anti-corruption to external parties by always echoing the tagline "dare to be honest and great" and providing anti-corruption competency certification through Anticorruption Counselors. Anticorruption Counselors are agents of change who participate with the CEC to eradicate corruption.

Implementing more open communication and also conducting various pieces of training that can increase knowledge to produce actual CEC performance, can result in the following:

1. Brand identification

The existence of broader duties and functions of the CEC can provide strength by continuing to introduce the public to the CEC's responsibilities. In line with this, it needs to be proven by the achievement of CEC performance from the expanded tasks and the impact on society if the job does not exist and the benefits of the existence of the task that can

directly impact the community. Of course, all of that can be packaged well through communication by utilizing various media.

>   2. Brand Commitment

After the brand identification is carried out through the actual performance of the CEC and the implementation of the CEC cultural values, there will be a commitment from CEC personnel to continue eradicating corruption wherever they are. This is in line with CEC's brand promise.

>   3. Brand Loyalty

CEC personnel in combating corruption know no time and always prioritize their duties over their interests; this can be shown to the public through interesting communication to regain public trust in the CEC.

5. Conclusion

The conclusion of this study shows that:

1. CEC has implemented internal branding since 2003. Implementing internal branding due to changes in the vision and mission, and the focus of the goals to be achieved by the CEC institution was also accompanied by a transformation of culture and policies.
2. The Basic Values and Code of Conduct guide CEC personnel to consistently implement them in their work and daily lives because the behavior and actions of CEC personnel outside of work will also reflect the CEC brand. In addition to CEC personnel who implement the fundamental values of CEC in the implementation of internal branding, there need to be support and role models from the leadership to become motivators for CEC employees.
3. Lack of institutional trust in employees, so that when issues occur, employees cannot help the institution clarify.
4. CEC employees are always equipped with formal and non-formal knowledge through educational scholarships (domestic and foreign) and various pieces of training per their fields that have become KPI targets each year by each employee. Not only that, but CEC employees are also always given spiritual knowledge to build each employee's morals and morals.

Implication

Based on the conclusions that have been stated, several implications are considered relevant to this research. These implications are as follows:

1) CEC's fundamental values that have become CEC's culture (corporate value) can help increase CEC's branding; CEC employees who implement these fundamental values both inside and outside the institution can shape CEC's image.
2) Through education levels, as well as non-formal and spiritual education for employees, helping employees always maintain the CEC's good name and implement the CEC's fundamental values wherever they are (internal branding).
3) Performance achievements are by the vision and mission. They can help increase CEC branding through press conferences of performance achievements presented by CEC leaders to the public so that organizational changes do not affect CEC's performance achievements.
4) By socializing or campaigning the tagline berani jujur hebat to the public, it can also shape the image of the CEC by providing role models for the community.
5) This can be done through well-packaged communication that the public can easily accept through various media.

Advice

Based on the results of this study, and efforts that can be made to improve internal branding at the CEC, the researcher provides the following suggestions.

1) CEC needs to strengthen internal communication so that any information will be directly coordinated and communicated by relevant officials directly so that it can build trust between the institution and its employees.
2) There is a need for role models from CEC leaders in implementing CEC's fundamental values.
3) CEC employees have various backgrounds; CEC must be able to equalize one vision and mission of the CEC institution that must be internalized in each employee so that solidity and internalization of the code of ethics are increasingly united so that CEC can strengthen the implementation of internal branding.

Acknowledgment

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The Motivation of Corruption in Private Sector - Government Relationship

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Abstract

Corruption is a crime against humanity. Corruption has a negative impact on the economy of a country. Unfortunately, there are ton of corruption practices involve government and the private sector. In the perspective of private sector, corruption mean costs that have an impact in reducing company profits. Corruption in the private sector also can affect to sustainability of companies. Even though it had a negative impact, corruption is a common behavior in private sector and government relationship. This study aims to find out the motivation of the private sector in Indonesia in engaging in corruption practices with the government. This research is descriptive qualitative research. Data collection conducted by interviews with company leaders in Indonesia. The results of this study indicate that poor governance causes corruption practices to continue to grow. Unclear permit application processes, bureaucratic processes and limited knowledge about corruption's activity led to corruption practices. Furthermore, the weak law enforcement preserving corruption activity. The results of this study also found that there was political factor behind corruption in the private sector which is to improve relations between the private sector and the government.

Keywords

Corruption, Private Sector, Government, Governance, Bureaucratic.

1. Introduction

Corruption is a crime against humanity. Corruption produces a large impact and affects many people. The impact of corruption can be divided into two, the direct impact and the indirect impact. The direct impact of corruption is state losses. Corruption activities originating from the private sector or sectors will create financial losses to the state in the short and long term. In addition, corruption activities also cause indirect losses. Indirect losses can be in the form of economic impacts, impacts on politics & democracy, impacts on defense & security, impacts on cultural resilience and religiosity, social impacts & community poverty, impacts on government bureaucracy, impact on law enforcement and impact on environmental damage. Corruption has a big impact on the state of the country. According to Gutmann and Lucas (2017) corruption can affect the state of a country's investment, income and economic inequality and decrease the level of trust in the country's political system. Therefore, corruption has a large cost impact on society.

According to the Corruption Perception Index (CPI), an index that measures perceptions of corruption in a country, Indonesia's CPI value has decreased by 4 points from an initial value of 38 to 34 from 2021 to 2022 (Transparency International, 2023) . CPI was issued by Transparency International, a non-governmental organization concerned with eradicating corruption in the world. The 4-point drop is the worst decline in the last two decades. According to Transparency International (2023) corrupt activities in the form of bribes, gratuities, and conflicts of interest between politicians, government officials and the private sector are soaring in Indonesia. Law enforcement is also proven not effective in preventing corrupt practices.

In a business perspective, business activities need to have ethical values. Business ethics contain organizational principles, values and norms that may begin from individual, organization statement, or from legal system that primary guide individual and group behavior in business (Farrell et al, 2022). Ethics in business activities regulates business activities to stay on track. Farrell (2022) argues that business ethics can originate from the norms in society and the legal system in which the business operates. Therefore, it is undeniable fact that corruption is an activity that is against the values of business ethics.

Ethical activities in business can have a positive impact on the organization. According to previous studies, some positive impacts that organization had after implementing good ethics are sustainability of organization (Wijanarko, 2020, Ayu et al, 2022) good collaboration with stakeholders (Nindyati et al, 2018; Mayasari, 2020) and organizational performance (Dwianto et al, 2023; Mayasari et al, 2020). Even though ethics have a good impact on companies, there are plenty corruption activities in Indonesian private sector. According to Indonesian Corruption

Eradication Commission or KPK (Komisi Pemberantasan Korupsi, 2020; Komisi Pemberantasan Korupsi 2021), private sector is the one of biggest contribution corruption cases in Indonesia. Table 1 shows that the private sector is one of the biggest contributors to corruption suspects in Indonesia. It can be concluded that corruption activities in the private sector are still thriving.

Table 1: Number of corruptions suspect by profession.
Source: Komisi Pemberantasan Korupsi Annual Report 2020-2021

Profession	2021	2020
	Number of suspects	Number of suspects
Legislative member	21	30
Governor	-	1
Head of institution / ministry	4	-
Private companies	**31**	**28**
Politician	3	-
State-owned enterprise	12	-
Mayor / Regent and deputy	10	19
Government employee (Echelon I, II, III and IV)	19	16
Police	-	1
Lawyer		30
Others	7	1
Total	**109**	**127**

Data from table 1 lead to further questions. Why are there still so many business actors still committing corruption? Preliminary research is conducted to find out research problems. Preliminary research was conducted by interviews with two managers in Indonesian private sector. The results of the preliminary research show that corrupt behavior is common behavior in private sector and government relationship. Therefore, this research question paper is "What are the motivations of corruption in Indonesian private sector specially with between private sector and the government relationship?".

2. Literature Review
2.1 Corruption
According to Bahoo et al (2019), Corruption is "an illegal activity (bribery, fraud, financial crime, abuse, falsification, favoritism, nepotism, manipulation, etc.) conducted through misuse of authority or power by public (government) or private (firms) holders for private gain and benefit, financially and others.". Corruption's pattern usually initiated by a small group of people who have an impact to society. Unlike other crimes, corruption is synonymous with power. People who tend to have power will abuse the power for personal need. For that reason, the educational background of corruption actor tends come from groups with high educational backgrounds. There are two factors that cause a person to commit corrupt behavior. These factors, according to Komisi Pemberantasan korupsi (2022) are internal factors and external factors. Internal factors basically come from within themselves, while external factors come from outside the person. Internal factors that drive corruption come from self-interest. This form of self-interest will lead to selfishness behavior. This form of egocentrism that embedded in corruption's actors has a significant impact to corruption. Usually, they are very much aware that what they are doing are lawful. However, because of the high level of self-interest, they simply do not care about it. The next factor is external factors. External factors usually come from environment factors, from weak supervision or supervision and weak enforcement which led to corruption behavior.

Corrupt behavior can also occur in the private sector. According to Martini (2014) there are several activities in the private sector which are considered corrupt behavior. These activities are commercial bribary and kickback, exortion and solicitation, gift and hospitality, fees and commissions, collusion, trading information, trading in influence, embezzlement, and lastly is favoritism, nepotism, cronyism, clientelism.

Table 2. Types of corruption in fishing industries
Source: What is up Indonesia, 2023.

Type	Example
Information sharing	Government official leaking the information of spot check inspection.
Logistic network	Drug and human trafficking by fishing vessel.
License payment	Bribing government official to get permit/license.
Market Inspectors	Bribing government official to misreport value or quantity of goods.

Garnering of community favor	Fishing operators fund community project so that the community not reporting illegal activities.
Maintenance of over-investment	Fishing companies invest in processing plants to money laundering so company will get income during low fishing harvest.
Approval of Seafood Certificate	Bribing government official to get certified goods.

According to What is up Indonesia (2023) there are several types of corruption in private sector, especially in the fishing industry. These corruption activities are information sharing, logistics network, license payments, market inspectors, garnering of community favor, maintenance of over-investment and approval of seafood certificates. Table 2 describes examples of corruption in the fishing industries. Most of these corrupt activities are related to relations with government officials. Although the table describes corrupt practices in the fishing industry, it does not rule out the possibility that corrupt practices occur within the scope of private sector relations with the government.

2.2 Private Sector – Government Relationship

Business activity is the growth engine of the country. Government needs private sector to improve people's welfare. On the one hand, the private sector needs the government as an actor that can accelerate business activities. In the stakeholder theory literature, government is an integral part of the organization (Freeman, 1984). Stakeholder theory indicates that business organizations are not only limited on shareholders, but stakeholders like consumers, suppliers, employees, community, and government.

Kurbonov (2016) argues that public and private sector relations support economic growth in a country. A good business environment and a satisfactory public private partnership will encourage business behavior to invest more. This will provide a domino effect in the domestic macro economy by increasing the productivity of companies which will have an impact on increasing profits and increasing employment. Therefore, private sector and government relationship are integral part of macroeconomic instrument of a nation.

The need for a relationship between the private sector and the government was also conveyed by Boone at al. (2021). In the relationship era, which began in the 21st century, business activities need a longer-term approach to maintain their interactions with organizational stakeholders. This is known as sustainability factor. Currently, all stakeholders are interrelated with one another. Therefore, the private sector needs to maintain good relations with all stakeholders, including the government.

Jiuhardi et al (2022) argues that there are at least three government functions in developing the national macro economy. These functions are maintaining and encouraging domestic consumption, increasing business activity, & maintaining economic stability and monetary expansion. Therefore, government will maintain the stability of the national business environment to remain stable and conducive. The stability of the business environment will affect the level of confidence in the economy with high investment and consumption activities. Previous research confirms that there is a good government role in increasing public investment in the long term will increase the country's gross domestic product (Saccone et al, 2022).

However, the government also needs to maintain limited national resources because it is related to the sustainability of these resources. Currently, economic and environmental issues are one of the issues that are getting the spotlight of public debate. When limited resources are used to drive up for economic activities, it will have a negative impact on the environmental and social aspects of a country. One of the international level agreements agreed upon by various countries in the world is the Bali Roadmap. The meeting initiated by the United Nations Climate Change Conference resulted in an agreement regarding reduction of emissions from deforestation in developing countries (Christoff, 2018). Sustainable Development Goals (SDGs) were also adapted by the Indonesian government with the aim of fostering sustainable growth.

In the Indonesian context, the role of government relations with the private sector is related to the values of equal rights, legal certainty, ease of doing business, togetherness, and independence (Government of Indonesia, 2020). The Job Creation Law issued by the Indonesian government regulates the relationship between the government and the private sector. In line with the literature that has been discussed, this law aims to (1) create and increase employment, (2) ensure that every citizen gets a job, (3) adjust various regulatory aspects related to alignment, strengthening and protection for cooperatives and SMEs and national industry and (4) adjustment of various regulatory aspects related to improving the investment ecosystem, facilitating, and accelerating national strategic projects. This regulation regulates the role of the state itself as a regulator to regulate business activities to produce aspects of rights and independence of the state. Therefore, the government's role in the scope of relations with the business sector is very crucial. The government in this case is trying to develop the country's economy and regulates it so that business activities can be enjoyed by all citizens in a sustainable manner.

3. Methods

This research is exploratory study. Exploratory study was chosen because this research aims to seek a deeper understanding of the motivations for committing corruption. Saunders et al (2012) stated that exploratory research can be chosen if the researcher wants to offer a different opinion and is different from the views of previous experts. This research approach uses descriptive qualitative is used to explain the motivation agenda to corrupt in this research. According to Bougie & Sekaran (2020) descriptive study's objective is to collect data and describe the topic interest. By using descriptive qualitative study, this research objective is to explain the motivation that drives corruption activity. Data collected by depth interview with 4 respondents. Interview is a guided and determine discussion between interviewers and one or more interviewees (Bougie & Sekaran, 2020). Respondents was selected by researcher. The criterion for respondent is manager level/equivalent or higher of profit organization that operates in Indonesia. Respondents asked to be anonymous to protect their identity for safety reason. From 4 respondents, 2 respondents are from property / real estate industry and the other 2 respondents from agricultural product-based industry. Those industries selected because it has a close relationship with the government. Besides, Crude oil, one of product in agricultural product-based industry, recently had corruption case that disrupted economic and political instability in Indonesia (Camila et al, 2022). To ensure credibility and reliability of the data, member checking. Member checking used by checking interview's transcripts with members in the same industry for data validation.

4. Results and Discussion

Based on the results of interviews with research respondents from the property / real estate industry and agricultural product-based industry, the relationship between the private sector in the industry and the government is very significant. Table 3 shows the relationship between the price sector and government at each stage in the industry. According to respondents, there are at least three stages of activity in the property/real estate industry. These stages are preparation, construction, and handover. All stages in the industry are with government, as a regulator. At the preparation stage, the company needs to coordinate with several authorities such as Local government, Ministry for Public Works and Human Settlements, Ministry of Agrarian Affairs and Spatial Planning, Ministry of Environment and Forestry, & Police. At construction stage, the company needs to coordinate with other authorities such as the Ministry of Labor & Social Security Administrator for Health. While in the final stage, the handover stage, the company needs to coordinate with the National Land Agency, Ministry of Trade & Tax Authority.

In the agricultural product-based industry, there are five stages of activity namely preparation, plantation, process, transport, and retail. At the preparation stage, companies need to coordinate with several authorities such as Local government, Ministry of Agriculture, Ministry of Trade, Ministry of Environment and Forestry, Ministry of Villages, Development of Disadvantaged Regions, and Transmigration, Ministry of Agrarian Affairs and Spatial Planning & Police. At the plantation stage, the company needs to coordinate with the authorities of the Ministry of Labor, Social Security Administrator for Health & Ministry of Agriculture. Ministry of Labor & Ministry of Industry at the process stage. Ministry of Transportation, Custom authority & Police at the transportation stage. Finally, the Ministry of Trade, Ministry of Health, Food safety inspectorate & Tax Authority at the retail stage.

Table 3. Private sector and government relations in the property industry and agricultural product-based industry.

Industry	Stage	Action	Authorities
Property / real estate	Preparation	Purchasing land and registering business activity	Local government, Ministry for Public Works and Human Settlements, Ministry of Agrarian Affairs and Spatial Planning, Ministry of Environment and Forestry & Police
	Construction	Constructing the property	Ministry of Labor & Social Security Administrator for Health
	Handover	Handover the property to consumer	National Land Agency, Ministry of Trade & Tax Authority
Agricultural product based	Preparation	Purchasing land and registering business activity	Local government, Ministry of Agriculture, Ministry of Trade, Ministry of Environment and Forestry, Ministry of Villages, Development of Disadvantaged Regions, and Transmigration,

			Ministry of Agrarian Affairs and Spatial Planning & Police
	Plantation	Planting and harvesting of raw agricultural product	Ministry of Labor, Social Security Administrator for Health & Ministry of Agriculture
	Process	Processing of raw product into finished product	Ministry of Labor, Ministry of Industry
	Transport	Transportation of agricultural product by air, land, and sea	Ministry of Transportation, Custom authority & Police
	Retail	Distribution of agricultural product to costumer	Ministry of Trade, Ministry of Health, Food safety inspectorate & Tax Authority

In accordance with the foundation of the constitution of the Republic of Indonesia, the role of government relations with the private sector is related to the values of equal rights, legal certainty, ease of doing business, togetherness, and independence. The relationship made to the private sector in both the property/real estate industry and the agricultural product-based industry is to maintain and encourage domestic consumption, increase business activity, & maintain economic stability and monetary expansion. Therefore, the role of government in regulating business activities is very important. However, all stages passed are considered prone to corruption. The government, which originally had a role to maintain stability and create a good business climate, felt that not function properly. According to respondents who are in the private sector, corruption activities cannot be separated from the two actors who do not practice ethical practices.

Table 4. Form of corruption in private sector and government relationship

Factors	Sub-Factors	Description
Poor governance	Unclear permit application process	Different procedures implemented by government cause confusion to private sector.
	Bureaucratic process	Poor implementation of single window policy cause long bureaucratic process.
	Low awareness about corruption practices	Lack of company training and communication related to anti-corruption activities
Weak law enforcement	Weak law enforcement against corruption	Channel for reporting corruption activities rarely used, no guarantee of protection for reporters and no clear action on the report submitted
Political factors	Improve relations	Personal relation between private sector and the government will will 'assist' business activities

All respondents stated that corruption activities that occurred with the government were caused by poor organizational governance. Every government organization, both national and local levels, has different procedures for submitting permits. The dissimilarity of the permit process resulted in no standard process that had to be submitted by the private sector. The long bureaucratic process also adds to the problem. Even though several ministry organizations have claimed to have implemented a single window policy in the permit application process, in practice this practice is weak in implementation. Application for permits, admitted by respondents, requires a long bureaucratic process. The private sector admits that sometimes when applying for a permit, it requires a personal relationship to speed up the application process. As a result, the private sector admits having difficulties and confusion in applying for permits.

While the private sector needs to follow a planned timeline, new costs will arise because of being late from the set timeline target. This situation will encourage corruption activities by the private sector. low literacy related to corruption also affects the relationship between the private sector and the government. Respondents from the private sector acknowledged that training regarding anti-corruption activities barely implemented. Issues related to business ethics are often communicated by companies. However, according to respondents, the business ethics communicated by the company are only limited to the company's consumers. In the end, respondents acknowledged that when there were external factors that supported the organization to commit corruption, employees had no other options and

solutions to the situation. Weak governance of government organizations encourages the private sector to engage in corrupt activities.

The lack of implementation of the law worsens the situation of corruption between the private sector and the government. Even though all forms of corruption are a form of violation of the law, according to respondents, the form of law enforcement is still weak. The absence of a channel for reporting makes respondents feel confused to report forms of corruption. In addition, respondents felt that there was no guarantee of protection for reporters. Even if a report is submitted, the respondent feels that there has been no significant change. Therefore, the implementation needs to be improved. Both the private sector and the government need to implement a form of punishment for corrupt behavior

Political factors become one of the motivational factors in corruption activities between private sector-government. The dependence between the private sector and the government makes this factor arise. According to one respondent, the personal closeness of the private sector with the government will 'assist' business activities. Political factor for will help business activities in several activities such as permits, reporting, leaking of information and others. According to all respondents, political factors are normal in private sector-government relations. However, this is a form of corruption that can damage the business environment. The government should be the party that regulates the private sector with equal values so that economic activities can be enjoyed by all party.

5. Conclusion

Corruption activities usually happen when good governance is implemented poorly. A system without checks and balances lead to power controlled by group of people. Therefore, it is very important for an organization to implement good governance. There are five principles of good governance. These principles are transparency, accountability, independence, responsibility, and fairness.

This research produces findings related to the motivation of corruption that occurs in the private sector and government. Poor implementation of governance results in unclear processes, long bureaucratic processes, and weak knowledge regarding forms of corruption. Poor implementation of good governance also results in low law enforcement. This study also found that poor implementation of good governance resulted in high political factors between the private sector and the government. Costs arising from the high process of good governance have resulted in the private sector having to have a political factor with the government to maintain the smooth running of business activities.

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A Review of Earnings Management Techniques from an Ethical Perspective

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Abstract

The strategy that a firm uses to manipulate results in order to accomplish its goals is known as earnings management. In order to satisfy shareholder expectations, their own interests, and the flexibility of accounting standards, management is driven to employ earnings management. A few large corporations, like Enron, WorldCom, and Satyam, embraced aggressive earnings management practices that went awry and led to bankruptcy. The widespread usage of earnings management has raised concerns regarding the ethical utilization of earnings management. There is various technique of performing earnings management, however in this research only four will be stated which is big bath, cookie jar reserves, underestimating expenses and premature revenue recognition. Management tend to find loophole in the accounting standards and use these advantages to interpret the standards according to their own perspective. The flexibility of manipulating the standards to smooth earnings created fuss over the ethical concern if performing such technique which may cause user of the financial statement to gain inaccurate information regarding company's performance. Data were collected through questionnaire and SPSS was used as the analyzing tool in order to evaluate and analyze the data. The findings of this study indicated a positive relationship between ethics and big bath, underestimating expenses, premature revenue recognition techniques. However, the research found a weak positive relationship between ethics and cookie jar reserves technique. Therefore, it is essential that public and shareholders are aware of the types of techniques used in manipulating earnings. Enforcing strong ethical culture are equally important within the company.

Keywords
Earnings Management, Ethics, Big Bath, Cookie Jar, Revenue Recognition.

1. Introduction
One of the most challenging, contentious, and debatable issues in accounting and financial management is earnings management. Organizational, statutory, and social norms addressing the ethics of earnings management may differ greatly, with top management perspectives and the economic situation as a whole having a big impact on how these norms are shaped (Kliestik, et.al, 2021). Earnings management is known as creative accounting; it is where companies deliberately manipulate their revenues and/or expenses in order to inflate or deflate figures relating to profits and earnings per share. It is important to distinguish this type of transaction from fraud since management can perform it by utilizing the flexibility of the accounting standard or by identifying a loophole in it. Cases of huge and successful organization had plunged and collapsed in a jiff, with its causes unknown until earnings management issue is brought up. Earnings management can be defined as strategy that company adopt in order to manipulate earnings so that targets are met. When shareholders or investors place high expectations on management to deliver, management is motivated to use earnings management to meet those expectations. When management is unable to meet expectations, they will alter earnings to appease shareholders and maintain their position. In addition, another motive for managing earnings is self-interest; top management will work to inflate earnings so they can be compensated for their "good" performance. Apart from that, the flexibility of Generally Accepted Accounting Principles (GAAP) where due to the fact that GAAP allows certain transaction, management will tend to think that managing earnings within GAAP is acceptable. Ethical issue concern on the practice of earnings management in companies have been analyzed, taking into consideration of perception from internal and external user in ethics of engaging in earnings management.

One of the most significant ethical problems affecting the accuracy of financial information is concerning the subject of earnings management, a practice that has spread throughout the world. Opportunistic accounting, when managers take advantage of opportunities to advance their careers and earnings reports that may not accurately reflect

the company's true financial performance is made possible by the ambiguities in accounting standards and the substantial amount of subjective judgement (Belgasem and Hussaien, 2020). Sudden collapse of big companies due to accounting fraud has drawn attention into earnings management practice which has been aggressively practiced by various companies throughout the world. A few giant companies adopted aggressive earnings management practice which went off track and resulted in bankruptcy such as Enron, WorldCom and Satyam; just to name a few. According to the Securities Commission Malaysia, 14 out of 17 publicly traded companies (PLCs), or 82% of them, had been accused of falsifying financial reports through the use of improper earnings management techniques (Kamal et al., 2016). According to the ACFE (2020), Malaysia is one of the top five countries with a total of 19 fraud incidents and a median loss of USD $195,000. Fraud incidence in Malaysia has remained high since PricewaterhouseCoopers' last study in 2018 according to their report on the Global Economic Crime and Fraud study (PwC, 2020). The wide practice of earnings management has drawn concern of ethical issues, especially in the practice and technique used in managing earnings. It is undeniable that earnings management are widely practiced, some party may argue it is utterly unethical and wrong to practice earnings management.

There are various ways to perform earnings management, although with the many rules and standard being implied but it does not stop managers from finding loopholes in the standards set to carry out manipulating earnings. According to prior research, managerial behaviors are unethical if they are done to secure their compensation, status, or employment by using their discretion (McManus, 2016). According to Hasnan, Hussain & Ali, 2022, the occurrence of aggressive earnings management should be avoided and minimized since it produces false financial statements and has detrimental effects on many stakeholders, particularly investors and creditors. The prevalence of fake financial statements has increased the risk to the public's confidence in the capital markets as well as the authenticity of company financial statements. Additionally, new research suggests a link between personality characteristics and unethical behavior (Van Scotter and Roglio, 2018). There is limited research done to address the issue on the ethical concern of earnings management practice and Malaysian opinion on the ethical of earnings management technique being adopted. This creates a need to evaluate the relation between ethical issue and earning management techniques present or most commonly used. Therefore, this research aims to address and evaluate ethical concern of techniques with the help of previous research done by others with the objectives of identifying the types of earnings management techniques, the public awareness towards earnings management practice and the ethical perception towards earnings management.

2. Literature Review

According to Kliestik, Belas, Valaskova, Nica and Durana (2021), earnings management often known as earnings manipulation, is the practice of using accounting methods to put together financial statements that overstate a company's business performance and financial position. Earnings management has raised question of managers' action in terms of ethics and also the truthfulness of information provided by an organization. It describes a method where managers modify earnings to deceive some stakeholders about the firm's true economic performance or to fulfil their contractual commitments that are based on reported earnings (Bansal & Choudhary, 2021). When evaluating the effectiveness of a company's management, profit is the factor that garners the greatest attention (Arniati et al., 2019; Siddique et al., 2020). Profit is frequently regarded as a measure of management success; therefore managers may have a strong incentive to act in ways that would have a good impact on reported earnings. One potential means of influencing profit is through earnings management (Savitri et al, 2020). This states earnings management are being done by manipulating within a legal framework to suit manager's objectives or to achieve a benchmark set by boards of directors. The recent financial crisis has added more pressure on the senior management to achieve a certain level of profits. In Malaysia earnings management and lack of understanding of it has resulted in different perception between users and auditors. The likelihood of actual earnings management being discovered by auditors or regulators is relatively low because businesses using it typically do not have to reveal pertinent information about the operations they carry out. Contrarily, accrual earnings management entails adjusting the accounting figures, which must be stated in the financial report; as a result, it is comparatively more likely to be discovered by auditors or regulators. In order to increase the reported earnings in the financial statements, several techniques or actions are used (El Diri, 2017). Therefore, highlighting the earnings management strategies is crucial in order to fully comprehend these phenomena. This section will briefly describe the four techniques used to manage earnings based on the literature.

The big bath technique was described as the attempt to boost reported earnings in subsequent periods by charging items that might have an unfavorable future impact to expenses in the current period, further deteriorating current period business results in a financial period in which results are undesirable (Tokuga & Yamashita ,2011). The big bath strategy can assist in gathering subsequent years' expenses and causing subsequent years' reported earnings to be bigger and more stable. Mulford and Comiskey (2005) define the big bath approach as a comprehensive write down of assets and accrual of liabilities in an attempt to make the financial position conservative so that there will be

less expenses to act as a drag on future earnings. However, International Financial Reporting Standards (IFRS) seeks to deliver financial statements that contain clear, pertinent, comparable, and accurate information without a conservative bias (Hellman, 2008). According to Kent, Monem and Cuffe (2008), big bath is one of the earnings management tricks that makes the business earnings for the present period appear worse and cleans up the financial position statement in order to demonstrate better results in the future. Furthermore, the big bath plan is a proactive move to increase future profitability by eliminating unproductive initiatives or redundant assets, not a sign of corporate failure. The degree of "conservatism" is the yardstick for judging whether this technique is one of the earnings management practices or not; this technique cannot be considered fraud, however, unless the management aimed to eliminate the negative net present value or inefficient assets without overstatement that may lead to provide unreliable financial statements (Toumeh & Yahya, 2019). Several published research have proven that managers manage their earnings by undertaking big bath (see Jordan & Clark, 2004; Lee, 2007; Nieken & Sliwka, 2015; Omar et al., 2014).

This cookie jar reserves technique of managing earnings is made possible by the accounting framework's adaptability. The "storage" of varied amounts until it is time to increase or decrease the earnings by them in accordance with the situation and necessity is the fundamental component of this strategy. Even if they are due in the future, using international standards or national laws as managers yields an estimate and record of the expenses incurred from the events of the current year (Strakova, 2021). The opposite of erroneous revenue recognition is what is known as the cookie jar reserves strategy. This technique of income smoothing is based on predictions of future events and is comparable to big bath. By aggressively accruing expenses, managers of this organization manipulate earnings so that the company has strong results in the current year but the outcomes for the future year are questionable. By reversing portions of expenses, managers can boost earnings in the following year at the expense of the present one (Chhabra, 2016). Cookie jar simply means when a company are making high earnings in one year they will tend to inflate high expenses into the account in order to bring the profit on par with market value on the other hand, the earnings will be stored for future period in case of there is need to reverse the over-accrued liabilities in order to bring the earnings on par with market expectation (Ortega & Grant 2003). This is done by increasing the amount of expenses stated in income statement than the real amount in one accounting year, on the following year, when payment are made to pay of the expenses there is excess of figure from the overstating of expenses on the previous year, this excess amount is known as reserve in which it will used to cover up following year debts. This form of reserve is just a figure, and it is not physically present. Therefore, the term cookie-jar where excess earnings is the "cookie" being held up and put into a "cookie jar" being a reserve account in order for the earnings from good year to be utilized on bad year.

Another typical strategy in earning management is the underestimating expenses technique. It is accomplished by reducing the expense associated with bad loans, which will increase the profit figure and cause higher expenses. When earnings are significantly below the desired level, such strategy is taken up by the management to boost up to the desired level. The corporation will create fictitious ledger entries to conceal the manipulation of results since expenses are being shifted to other assets in order to portray a greater asset value. Ramalinga Raju, the founder and chairman of Satyam, admitted in his letter that the company's balance sheet as of September 30, 2008, included cash and a false bank balance. Since Satyam Company is regarded as the pride of India, many people look up to it as the most promising company to work for, and it was also given the "Golden Peacock Award" by the UK World based Corporate Governance 4 months prior to the scandal breakthrough, where Satyam Company manipulated earnings onto its accounts, leading to fraud that put the entire Indian nation in a state of shock. The company had been underestimating expenses or liabilities of Rs. 1230 crore, which only came to light when Mr. Raju, the founder and chairman of Satyam, eventually admitted it (Agarwal, 2019). All the while, its attractive financial statement, which presents favorable figures, has misled investors and the general public. Underestimating expenses has a direct impact on a company's income statement, as a decrease in expenses will result in an increase in net profit, which will subsequently be credited to the company's shareholder funds which will then boost the financial position value overall.

Another technique routinely used to distort results is premature recognition of revenue. Companies try to boost earnings by manipulating the recognition of revenue. This occurs when businesses declare income for sales that have not yet been approved by the client, i.e., when the client has the option to cancel, discontinue, or otherwise invalidate the transaction. Although this action would result in an increase in the company's reported earnings, since the company has no influence over those earnings, they should not be reported. Premature recognition of revenues will have an impact on the income statement's figures because an increase in sales will result in larger profits, which will also have an impact on the balance sheet. As a result, it can provide investors with inaccurate information about the company's financial situation. Revenue should be recognized when the firm fulfils a performance obligation in accordance with the IFRS 15 Revenues from Contracts with Customers. The guideline specifically stated that the key to recognizing income is the transfer of control. When the power to govern how the asset is used and to reap nearly all of its remaining benefits has been transferred, control of the asset has occurred. According to Schilit (2010), some businesses record future sales on the final day of the current period in order to raise their earnings. This is done in

order to recognize revenue early and before fulfilling any contractual performance obligations. Regulatory organizations in developed countries and several experts have determined that reporting entities most frequently choose the strategy of overstating income (Miletic & Radic, 2022). For instance, Dechow and Schrand (2004) found that dominant (in more than two thirds of companies) exploited overestimation of income in a sample of just under three hundred cases of manipulative financial reporting disclosed by the Securities and Exchange Commission (SEC) and released public statements. Wasiuzzaman, Sahafzadeh and Rezaie (2015) addressed the issue that this technique of earnings management lowers the standard of financial reporting and misleads investors about the profitability of the company. The judgement should be based on IFRS 15 in order to distinguish between earnings management and fraud under this technique, therefore if the management deviates from the recognition standards established by IFRS 15 with the intention to manipulate the financial statements, then their practices should likely be considered fraudulent accounting rather than earnings management.

With reference to the literature, 4 hypotheses were developed for this research:

H1: Earnings management technique of big bath is perceived to be ethical.
H2: Earnings management technique of cookie jar reserves is perceived to be ethical.
H3: Earnings management technique of underestimating expenses is perceived to be ethical.
H4: Earnings management technique of premature revenue recognition is perceived to be ethical.

3. Methods

Quantitative method is chosen for this research as the research method. The strength of this method is that, it offered more accurate and reliable information. Williams (2011) stated that "Quantitative research involves the data collection so that information can be measured and exposed to statistical treatment so as to support or refute alternative information claims". Purpose of this research is to evaluating earnings management practice in Malaysia and the objective was to find out the ethical perception of earnings management specifically Klang Valley. Therefore, the target group was any working person which has the knowledge of earnings management. A sample size of 160 was selected. Snowballing method of distributing the questionnaire is selected because of the difficulty in locating the exact sample population in this research and it is the most cost saving method to reach out to rare population. Apart from that, this method works where it depended on referral of initial respondent which led to another respondent. Snowballing method of distributing questionnaires can help minimize the external validity threats as respondent have knowledge on the research topic. In this research, information was gathered through primary and secondary data. Questionnaire is used as this research primary data where secondary data are those research and information readily available in the public which is used as a supporting material to support this research. This questionnaire was distributed to those who have knowledge on earnings management, this is important as it influenced the accuracy and reliability of the data gather. Statistic package of Social Science (SPSS) was adopted in this research as the analyzing tool in order to evaluate and analyze data gathered and convert it into meaningful information is which conclusion was made and compared to the objectives of this research. Reliability test was carried out in this research to test or measure reliability of the variables in the questionnaire provided. Cronbach's alpha is the most common typeof test to measure the reliability of variables. A pilot test was conducted to gain opinion and comment from respondent regarding the questions and also answer scale being used in order to help respondent to understand the question better and also to improve the quality of questionnaires that was distributed, and pilot testing also minimize error on internal validity threat. Relevancy of data gathered, and pilot test was performed before the questionnaires were distributed to target sample. In line with the research objectives, data collected from respondent who knows about this topic ensures the validity of data collected whereas respondent that do not know about this topic will be excluded. It is to test on the normality of data being collected. Frequency analysis was carried out due to; normality of data is different according to frequency of data being collected.

4. Results and Discussion

Frequency analysis was adopted in this research to determine the normality of data collected. Item that was tested using this test were gender and education level. The percentage of both the gender male and female represented as 51.6% and 48.4% respectively. Distribution of both the gender is approximately 50% therefore it can be concluded that respondent participated in this research is normally distributed. The education level has been categorized into undergraduate, post graduate and professional certificate by which 35.5% consist of respondent from undergraduate, 32.3% from postgraduate and 32.3% from professional certificate. From the T test analysis, it was concluded that there is no difference between genders in ethical perception on earnings management.

Table 1: Correlations of Earning Management Techniques towards Ethical Perception.

	Big Bath	Cookie Jar Reserves	Underestimating Expenses	Premature Revenue Recognition
Pearson correlation	.345**	.177	.424**	.470**
Sig. (2-tailed)	.006	.169	.001	.000

**Correlation is significant at the 0.01 level (2-tailed)

Table 1 shows the effects and relationship of the four earnings management techniques towards ethical perception. Pearson correlation shows the score of 0.345 which indicate that there is positive relationship between ethics and big bath technique. However, the score of 0.117 indicates that there is weak positive relationship between ethics and cookie jar reserves technique. There is positive relationship between ethics and underestimating expenses technique with the score of 0.424. In addition, the score of 0.470 also indicates that there is positive relationship between ethics and premature revenue recognition technique.

5. Conclusion

Earnings management has stake as one of the problems commonly occurred which led to fraudulent activity. Interpreting accounting standards according to their own opinion has given freedom to management to manipulate company's earnings. The issue of manipulation of company's earnings are getting serious over the years. It is essential that public and shareholders are aware of the types of technique used in manipulating earnings. The fact is that earnings management does not give accurate financial information to stakeholder which can lead to loss of money being invested. Earnings management has caused many companies such as Worldcom to collapse overnight and made employees and various investors to lost huge amount of money.

In order to minimize the risk of earnings management from getting serious, it is recommended for company to enforce ethical behavior within the company's premises. Enforcing strong ethical culture which involved the entire company's structure personnel can create an environment free from any unethical behavior. Employees should constantly be reminded of the ethical practice as they performed their task. This ethical conduct should be made available throughout the entire company where it will be easily adapted by everyone. Apart from that, it should be included and inform during employee induction program. Through this way, employees are educated of the importance of maintaining ethical value from the start of employment. It is fairly important for company to implement this as it can help minimize any unethical practice from occurring within the company by not allowing any chances of unethical behavior from happening which then creates an ethical environment. Besides, it is also recommended that accounting standard bodies should also revise and improve present accounting standards in order to be more specific of rules and limitation in performing certain accounting transaction. (Limit on the subjective judgement therefore limiting creative accounting). This does not only help to curb any manipulation of earnings but also in order to be more precise in each transaction which gives clear guidelines to accountants in order not to have own interpretation of the accounting standards. Drawing clear lines on certain issue can help dissolve any doubts while handling accounting transaction. This can restrain any unintentional means of performing earnings management which is commonly used as an excuse by management to get away from responsibility. Lastly, it is advisable for higher education organization to include in the syllabus and also giving adequate emphasis on ethics and awareness on all ethics related issues that is alarming. Educating students on the impact and consequence of being unethical in handling accounting transaction besides emphasizing on the accounting standards sets and show example of technique which violates accounting standards and ethics of an accountant. Educating students at the early stages of their degree life can help foster a better understanding of the ethical behavior before they step into the commercial world as employee or employer.

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ChatGPT in Education: A Bibliometric Analysis Using R

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Abstract

The development of breaking artificial technologies such as the recent launching of the generative Artificial Learning (AL) tool – ChatGPT in November 2022 holds much potential for revolutionary in the current educational landscape. In other words, learning is evolving as a result of chatbots' individualized support, group conversations and collaborations, feedback on student work, support for self-directed learning, and increased motivation and involvement of students. However, there has been pressing ethical and privacy issue related to the use of ChatGPT. Hence, there are new studies that draw attention to the ethical and appropriate use of ChatGPT in educational contexts as a complex, multifaceted topic that necessitates a nuanced, interdisciplinary approach. More research must be conducted not only to examine the potential benefits offered by ChatGPT in promoting teaching and learning but also to highlight some of the inherent limitations and possible drawbacks resulting from the use of this ground-breaking innovation. The present study would contribute by providing a bibliometric analysis of the existing studies (studies found during the period of this study) that essentially focused on the adoption of ChatGPT in the learning environment. The critical information from this analysis would shed light on the pressing issues concerning the use of ChatGPT in the education field and advance knowledge within the context of ChatGPT use in education.

Keywords
Education Technology, ChatGPT, Artificial Learning, Bibliometric, Innovation

1. Introduction
According to Cooper (2023), the advent of generative artificial intelligence (AI) offers transformative potential in the field of education. This is especially true when ChatGPT was released to the public in November 2022, the abilities of ChatGPT in performing complex tasks have been remarkable. Without a doubt, students and educators have found this tool to be extremely useful in supporting learning activities. With that being said, however, the use of the tool is not without controversy and concern. One of the main concerns that emerged with the use of the ChatGPT in the education field was the associated key ethical issue. The key ethical issues highlighted included the potential environmental impact, copyright infringement issue, and content moderation aspects. In addition, there has been critical issue of academic dishonesty stemming from the use of ChatGPT. Literature also shed light on the concern of potential bias and discrimination due to the reliance on natural language processing, privacy concerns such as the data on search and query data, a hindrance to creativity and critical thinking with too much dependency put on the tool, information inaccuracies (Atlas, 2023; D'Amico et al. 2022; Mhlanga, 2023 and Van Dis et al. 2023). While scholars have generally supported the development of new learning design that is technology-enhanced which are pedagogically inclusive, the challenges involving the use of educational technology did not go unnoticed. This has been reflected by Gazulla et al. (2022) who pointed out the challenges faced in the collaborative design of ChatGPT as a learning technology.

The advancement of ChatGPT as a potential pioneer in the education revolution with extensive benefits offered but not without issues and concerns has sparked the interest of many scholars to analyze the use of this tool within the education field. The knowledge from these researches will no doubt provide insight and advance knowledge in understanding better the potential benefits of the ChatGPT, as well as the concerns surrounding it. Such knowledge will be useful for educators to develop a set of strategies and techniques that can utilize fully ChatGPT as a teaching and learning supporting tool while ensuring a more responsible and ethical use of ChatGPT. The main aim of this paper, therefore, is to provide a bibliometric review of the research that has been done within this context to this date. The information from this review will explore further the current state and trend of publications that have emerged concerning this topic of interest. Besides that, this paper will provide a comprehensive review of the most influential

contributors and articles/sources focused on this topic. Such a review will be timely as this topic has become a highly contentious topic among educators. While some educators perceived ChatGPT as the future of education and research, others remained skeptical and viewed it as a threat to most education activities, rendering teachers and students to be lethargic with no or little analytical skills (Baidoo-Anu and Ansah, 2023). And so, this led to heated arguments about whether or not ChatGPT or any of the related generative AI will become a new future for education or a threat itself to the education field. The review of this paper will contribute by filling the literature gap in unfolding the past literature that has been done within this very context. Given the increasing significant importance of this topic, the purpose of this paper aims at compiling database of published articles based on the inclusion and exclusion criteria. The data retrieved from the bibliometric literature review attempt to address scientific questions pertaining to the topic of interest and to provide insight on the current publications significance. The valuable and informative bibliometric review will further provide future research recommendation.

The rest of the paper is structured as follows. The paper will begin with the introduction by providing an overview of the existing knowledge on this topic of interest, followed by the development of the research questions for the bibliometric review. Next, the paper will explain the methodology employed from the searching strategy to the extraction, and analysis process. In the following section, the paper will also delve into reporting the review findings. A discussion would be provided in the next section to describe the key findings in depth. The last section will conclude the paper by shedding light on the findings' implications and recommendations for possible future studies' direction.

1.1 Research Questions

Using bibliometric, text-mining, and visualization technologies, the following research questions (RQ) are used to illustrate the review process and activities.

Table 1: Research Questions

No.	Research Questions	Analysis Protocol
1	What is the current state and trend of publication on the topic of ChatGPT in Education?	• Document Type • Discipline Area • Total number of publications • Number of publications by year • Annual growth rate.
2	What are the most influential article and sources on the topic of ChatGPT in Education?	• Most locally cited documents • Most globally cited documents • Sources' local impact • Citation metrics
3	How has the theme of the publication evolved on the topic of ChatGPT in Education?	• Word Cloud • Treemap • Thematic evolution • Trend Topic

This article begins with a brief overview of the background information on ChatGPT before moving on to a more in-depth discussion and analysis. The methodology portion of the study includes a description of the procedures utilized in this investigation, including the data searching procedure, data collecting, extraction, and analysis. The research findings were described in the section that followed. The study's results are highlighted in the discussion and conclusions portion of this publication, which also discusses the study's shortcomings and suggested future research directions.

2. Methodology

In this review, the search strategy of PRISMA (Preferred Reporting Items for Systematic Reviews) and bibliometric analyses were employed. The use of PRISMA will extensively scan all literature published on the subject to find answers to the clearly defined research question, and to that end use various inclusion and exclusion criteria to identify the reports to be included in the review, and then synthesize the findings (Yun, 2023). Besides that, PRISMA can provide precise reporting with a well-structured report that will be adequate in answering the given research questions. The well-developed search strategy will be employed on the Scopus database in recognition of the credibility of Elsevier Scopus as one of the largest academic literature databases with close to 50 million records of around 5,000 publishers (Grimaldi et al., 2017). Essentially, the methodology will involve a systematic approach consisting of a search strategy with inclusion and exclusion criteria opted, followed by the extraction techniques and finally the

synthesis approaches (analysis) being carried out. The search strategy begins by filtering and refining the literature by a combination of keywords. The preliminary search using the keywords of "ChatGPT" retrieved about 184 publications. By further refining the search with additional keywords of "ChatGPT" AND "Education" OR "Artificial Learning" OR "Education Technology", the search retrieved about 59 publications. By restricting the article to English language publications only, 58 articles were obtained. Table 2 illustrated the search inclusion and exclusion criteria used in refining the search for relevant publications. Figure 1 showed the PRISMA strategy employed in searching, screening, and refining articles for the bibliometric review.

Bibliometric review is a rigorous method for exploring large volumes of scientific data and quantitative analysis of publications. The bibliometric analysis will assist in identifying and forecasting future research topics (Martinez et al., 2014). Besides that, the findings from such a review will provide insight into the new research trends and competing groups as well as possibilities for cooperation. Bibliometric analysis has gained immense popularity following the advancement of bibliometric software such as R Studio, VOSviewer software, and scientific databases such as Scopus. The data that dominates bibliometric analysis tends to be massive (i.e., hundreds or thousands) and objective in nature (i.e., frequency of keywords and topics), though its interpretations frequently rely on both objective (i.e., performance analysis) and subjective (i.e., thematic analysis) evaluations established through well-informed techniques and procedures (Donthu et al., 2021). In other words, by rigorously making sense of massive amounts of unstructured data, bibliometric analysis is valuable for decoding and charting the cumulative scientific knowledge and evolutionary nuances of established areas. Therefore, properly conducted bibliometric studies can lay strong foundations for advancing a field in new and significant ways. The contributions from a bibliometric analysis are manifold. First, it enables the gaining of a comprehensive overview. Secondly, it aids in identifying knowledge gaps. Thirdly, it generates ideas for research. Lastly, it positions the researchers' intended contributions to the field. In addition, a series of graphs has been drawn to determine the trend changes, theme of research, and indicators were used to identify the most influential papers, impacts from research on the topic of ChatGPT throughout time. Besides that, the sample database viewed via the R studio has allowed the creation of thematic maps that illustrated the structure of the article linkages.

Table 2. Search Criteria

Scopus Category	Searching Criteria.	No of Article
Keywords 1	"ChatGPT"	184
Keywords 2	"ChatGPT" AND "Education" OR "Artificial Learning" OR "Education Technology"	59
Document Type	All types of publication	59
Author name	All	59
Language	English	58
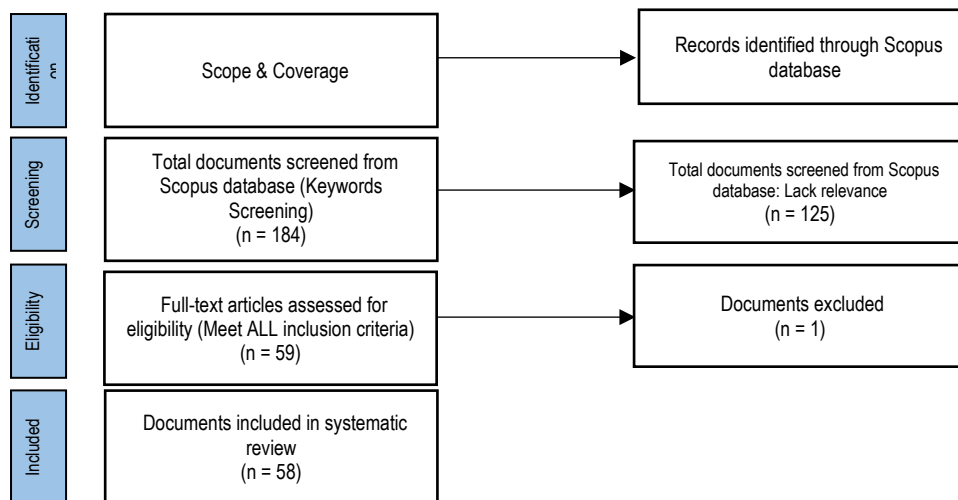
Figure 1. The PRISMA diagram used to find, screen, and select articles

3. Results

A total of 58 journal articles were extracted from the Scopus database and were downloaded in the form of CSV file format. This downloaded database was then thoroughly analyzed and examined with the help of the R studio application. At the early stage of this study, a descriptive analysis was provided to examine the details of the work that has been published in this area. Besides that, the descriptive analysis was performed to answer the research question 'What is the current state and trend of publication in this topic of interest'? The data from this preliminary analysis will provide a comprehensive overview of the existing studies which will be useful for scholars to derive ideas for potential future studies. Table 3 showed the document profiles. The descriptive analysis indicated the 58 articles found spanned between the years 2022 to 2023.

Table 3. Document Profiles

Description	Results
Main Information About Data	
Timespan	**2022:2023**
Sources (Journals, Books, etc)	44
Documents	**58**
Annual Growth Rate %	**5600**
Document Average Age	0.0172
Average citations per doc	2.483
References	**2240**
Document Contents	
Keywords Plus (ID)	202
Author's Keywords (DE)	169
Authors	
Authors	245
Authors of single-authored docs	25
Authors Collaboration	
Single-authored docs	25
Co-Authors per Doc	4.28
International co-authorships %	24.14
Documents Types	
Article	30 (51.72%)
Editorial	6 (10.34%)
Erratum	1 (1.72%)
Letter	4 (6.90%)
Note	10 (17.24%)
Review	6 (10.34%)
Short Survey	1 (1.72%)

3.1 Research Question 1: What is the current state and trend of publication on the topic of ChatGPT in Education?

As shown in Figure 2, the number of publications related to the topics of ChatGPT in Education has been increasing consistently. Based on the observed linear increasing trend of the annual scientific production in Figure 2, it is clear that there has been increasing interest in this area ever since the launch of ChatGPT on November 30, 2022. The popular use of ChatGPT as an advanced technology with its sophisticated capability has garnered many discussions of mixed reactions. Table 3 indicated the number of publications by year. Given the novelty of this topic, it is very likely that there will be more future research possible as many scholars are interested to explore the use of ChatGPT. Meanwhile, Figure 3 showed the publications by their type. From Figure 3, the majority of the publications (51.7%) are journal articles. This is followed by 17.2% notes, 10.3% editorial, and another 10.3% review papers. The rest of the publications consist of letter (6.9%), erratum (1.7%), and short survey (1.7%). Next, Figure 4 showed the classification of the publications by their subject areas. It was noticeable that most of the publications on this topic were from the social science discipline with 34% of publications reported. This is followed by 12% of the publications from the medicine discipline, 14% of publications from other disciplines, and 10% from the computer science field. The rest of the publications fall under the multidisciplinary field (7%), nursing (6%), business and management (4%), chemistry (4%), health professional (4%), and biochemistry (3%). Overall, the reported review highlighted that this

topic has been actively discussed and extensively explored by scholars of different disciplines as indicated by the bibliometric results. The result reported clearly showed that the number of publications related to the topic of ChatGPT has increased significantly in the year of 2023. Substantial attention of the topic has been well-received from the social science field with 34% publications, followed by others (14%) and medicine (12%).
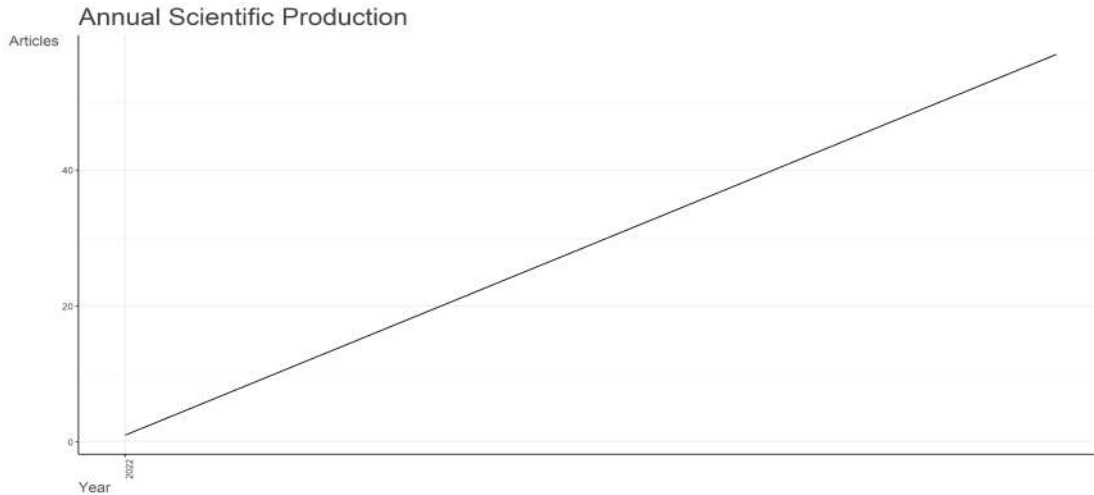
Figure 2. Annual Scientific Production (Total Publications from 2022 – 2023)

Table 4. Publications by Year

YEAR	DOCUMENTS
2023	57
2022	1
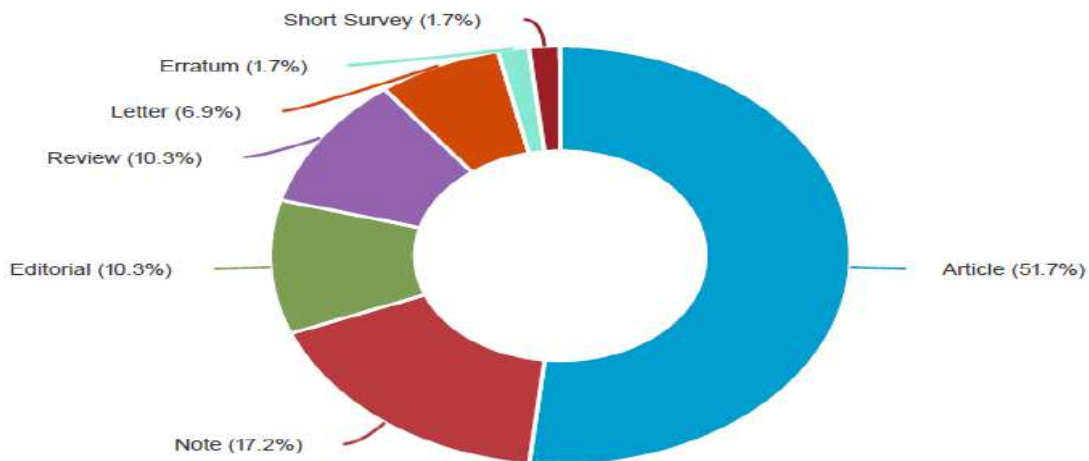
Figure 3. Publications by Types (Publications from 2022 – 2023)
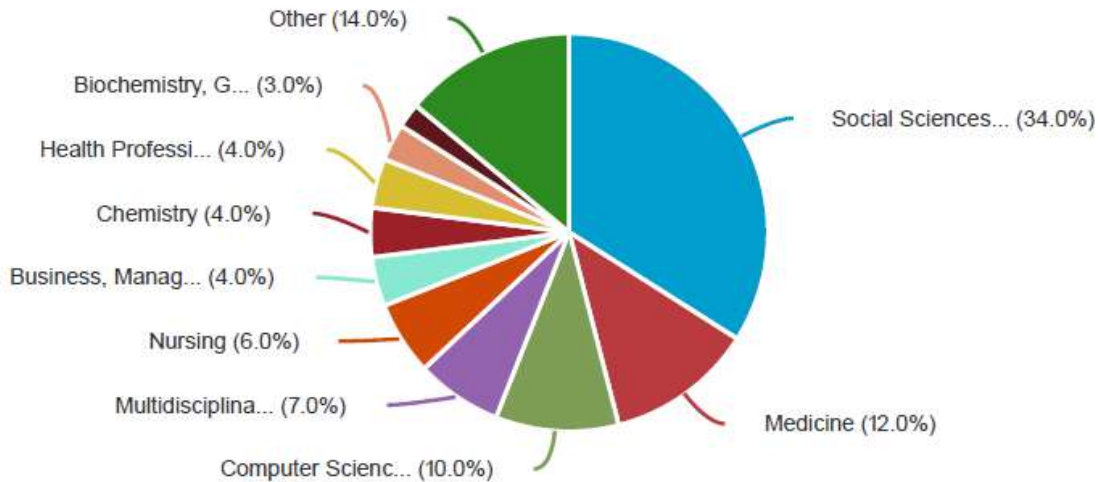
Figure 4. Publications by Subject Area (Publications from 2022 – 2023)

3.2   Research Question 2: What are the most influential article and sources on the topic of ChatGPT in Education?

In analyzing the most influential articles and sources on the topic of interest, we will examine the average citations, sources' local impact, most globally cited documents, and most locally cited documents. Table 5 showed the average citations per year. 7 mean total citations per year were found in the year 2022 and 2.28 mean total citations per year were reported in the following years. With respect to the total citations per article, 14 mean citations per article were found in 2022, and 2.28 mean citations per article for the year 2023. Table 6 displayed the sources' local impacts, Table 7 revealed the most globally cited documents and Table 8 indicated the most locally cited documents. The journal NATURE has the highest H-index of 4 with 68 total citations received, and 6 total publications reported. This is followed by SCIENCE with 1 H-index and 34 total citations received. Meanwhile, JMIR MEDICAL EDUCATION received 8 citations in total, 1 H-index, and 3 publications produced. The article by Thorp Hh (2023) was reported with the highest global citations and local citations. In the article published by Thorp Hh (2023), he revealed that ChatGPT may have well provided factual answers but scholarly writing may still have a long way to go. The implications of ChatGPT have pushed academics to reconsider their courses in an innovative manner that is not easily solved by generative artificial intelligence. Besides that, it has been reported concern with issues of manipulation involving scientific papers being written using ChatGPT. The publications by Van Dis (2023) were reported with the second-highest global and local citations. The editorial publication under Van Dis (2023) also explained the capability of ChatGPT in producing student essays, summarizing research papers, and generating helpful answers for students in exams. On a similar note, Van Dis (2023) also pointed out the worrying concern of ChatGPT use with reports of deceit in exams and malicious outputs being produced instead. Hence, some ground rules have been laid out by Van Dis (2023) to support the use of ChatGPT ethically.

Table 5. Annual Total Citations Per Year

YEAR	MEAN TC PER ART	N	MEAN TC PER YEAR	CITABLE YEARS
2022	14	1.00	7.00	2
2023	2.28	57.00	2.28	1

Table 6. Sources' Local Impact

ELEMENT	H_INDEX	TC	NP	PY_START
NATURE	4	68	6	2022
SCIENCE	1	34	1	2023
JMIR MEDICAL EDUCATION	1	8	3	2023
JOURNAL OF UNIVERSITY TEACHING AND LEARNING PRACTICE	1	1	3	2023
NURSE EDUCATION IN PRACTICE	1	4	2	2023
RESUSCITATION	1	2	2	2023
SCIENCE	1	34	1	2023
JOURNALISM AND MASS COMMUNICATION EDUCATOR	1	8	1	2023

Table 7. Most Global Cited Documents

DOCUMENT	DOI	TOTAL CITATIONS	TC PER YEAR	NORMALIZED TC
Thorp Hh, 2023, Sci	10.1126/science.adg7879	34	34.00	14.91
[No Author Name Available], 2023, Nature	10.1038/d41586-023-00191-1	26	26.00	11.40
Van Dis Eam, 2023, Nature	10.1038/d41586-023-00288-7	20	20.00	8.77
Stokel-Walker C, 2022, Nature	10.1038/d41586-022-04397-7	14	7.00	1.00
Pavlik Jv, 2023, Journal Mass Commun Educ	10.1177/10776958221149577	8	8.00	3.51
Stokel-Walker C, 2023, Nature	10.1038/d41586-023-00340-6	8	8.00	3.51
Gilson A, 2023, Jmir Med Educ	10.2196/45312	8	8.00	3.51

3.3 Research Question 3: How has the theme of the publication evolved on the topic of ChatGPT in Education?

To gain insight into the evolution of the publication theme, the analysis will be performed on the word cloud, treemap, trend topics, and thematic map. Figure 6 depicted the evolution of keywords over time. Based on Figure 5, the statistics revealed the keyword "artificial intelligence" as the most frequent keyword being used. This is followed by the frequent use of terminology such as "human", "language", "humans", "article" and "machine learning". Similarly, Figure 6 showed the frequency and percentage usage of the terminologies in detail. From Figure 6, we can deduce that the term "artificial intelligence" was recorded with the highest usage (frequency 26 and 14%), followed by the keyword "human" (frequency 16 and 9%), and "language" (frequency 9 and 5%). Meanwhile, Figure 7 illustrated the trend topics. The trend topics will provide an overview of the evolution of the terms over time. Based on the graphic displayed, the term "artificial intelligence" has been used the most frequently, followed by the term "human" and "language". This indicated that the theme of the publication has been trending focusing on these three terms.

Table 8. Most Local Cited Documents

DOCUMENT	DOI	YEAR	LOCAL CITATIONS	GLOBAL CITATIONS	LC/GC RATIO (%)	NORMALIZED LOCAL CITATIONS	NORMALIZED GLOBAL CITATIONS
Thorp Hh, 2023, Sci	10.1126/science.adg7879	2023	10	34	29.41	12.67	14.91
Van Dis Eam, 2023, Nature	10.1038/d41586-023-00288-7	2023	7	20	35.00	8.87	8.77
Pavlik Jv, 2023, Journal Mass Commun Educ	10.1177/10776958221149577	2023	6	8	75.00	7.60	3.51
[No Author Name Available], 2023, Nature	10.1038/d41586-023-00191-1	2023	4	26	15.38	5.07	11.40
Gilson A, 2023, Jmir Med Educ	10.2196/45312	2023	4	8	50.00	5.07	3.51

Meanwhile, Figure 8 visualized the thematic map which depicted the structure of the analysis's strategic diagram. According to Peláez-Repiso et al. (2021), the density is displayed on the x-axis and represents the ratio of relationships that are present to the total number of possible relationships. Each group's network density ranges from 0 to 1, where a value of 0 indicates that there are no relationships between group members while a value of 1 indicates that all members of the group are related to one another, which is the strongest possible relationship that can exist between group members. The strategic diagram was distinguished into four (4) quadrants, namely, Motor Themes, Peripheral and Marginal Themes, Emerging or Disappearing Themes, Generic, and Transversal Themes. The Motor theme (Driving theme) are referring to the themes that are represented in the upper right quadrant. These themes have high density, and strong centrality, and are considered as important well-developed themes. Cluster "machine learning, natural language processing, data mining" and cluster "artificial intelligence, human, humans" were identified under this theme. The upper left quadrant represented the Peripheral and Marginal themes (Niche themes) with high density but low centrality. The cluster found to fall under this quadrant consists of cluster "chatbot, conversation agents, ethical technology". These topics are considered to be well-developed internally but isolated from the rest of the topics, having marginal importance within the scientific field (Peláez-Repiso et al., 2021). Represented at the bottom left quadrant of the strategic diagram is the Emerging or Disappearing themes (Declining themes). This theme is considered an underdeveloped theme with low density and weak centrality. Under this theme, we find 2 clusters consisting of cluster "basic life support, educational measurement, letter" and cluster "note, scientific literature, editorial". Lastly, the lower right quadrant represented the Generic and Transversal themes (Basic themes). These themes are generally less well-developed with strong centrality, but low density. It should be noted, however, that these topics remained important for the scientific field. The cluster "publishing chatbots" was found under this basic theme.

Figure 5. WordCloud

Figure 6. Tree Map
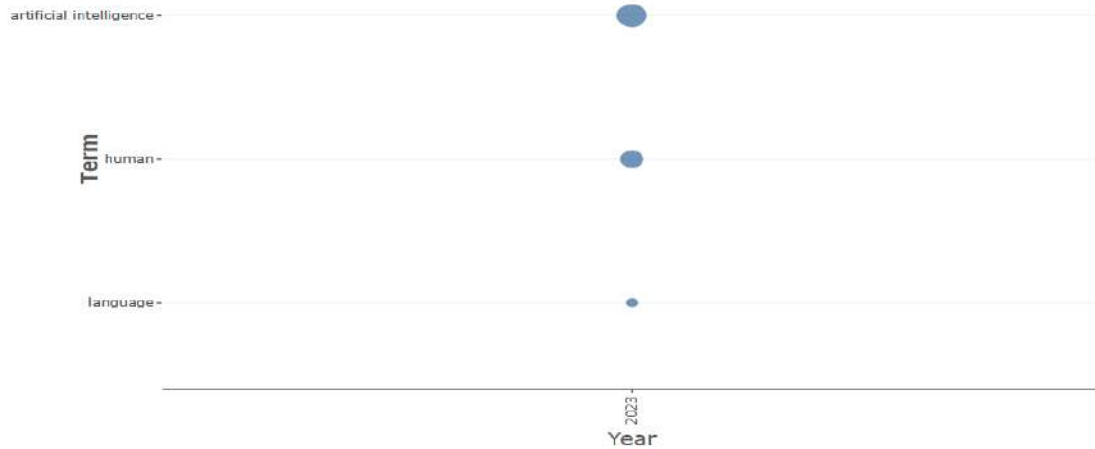
Figure 7. Trend Topics
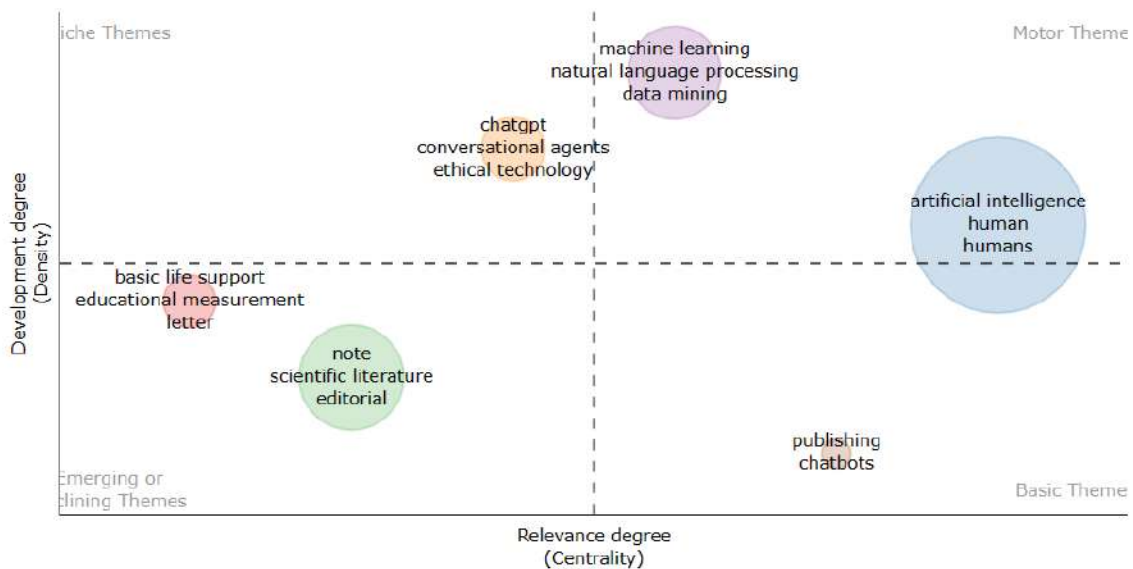
Figure 8. Thematic Map

4. Discussion

The use of bibliometric analysis is helpful for emerging new topics of study in pursuit of a retrospective broad and rich area in research. The findings from the bibliometric review will uncover the emerging trends related to the topic of interest, explore the collaboration pattern, and examine the sources' and authors' impacts. According to Donthu et al. (2021), bibliometric analysis is useful for deciphering and mapping the cumulative scientific knowledge and evolutionary nuances of well-established fields by making sense of large volumes of unstructured data in rigorous ways. The present bibliometric analysis in this paper highlighted the following findings in answering the four (4) research questions:

Research Question 1 (What is the current state and trend of publication on the topic of ChatGPT in Education?):
The finding showed that there has been massive growing interest in this topic within these two years alone, with an extraordinary growth of 5600%. The launching of the new ChatGPT has garnered a huge increase in research within this field of knowledge. Positive linear growth of scientific publications on this topic has been found between the year

2022 and this date. By discipline, we find that the growing interest in this topic mostly came from the social science field.

Research Question 2 (What are the most influential articles and sources on the topic of ChatGPT in Education?):

In our attempt to review the most influential article and sources on this topic, we analyze the most global and locally cited documents published. In the data reviewed, it was revealed that the article Thorp Hh (2023) has the highest citation received both locally and globally. His article entitled "ChatGPT is fun, but not an author" presented an interesting argument on the remarkable function of ChatGPT yet susceptible to scientific misconduct. By sources, we can deduce that the source of NATURE has the highest impact (4 H-Index papers and 68 total citations)

Research Question 3 (How has the theme of the publication evolved on the topic of ChatGPT in Education?):

According to the science mapping analysis from this review, the word dynamic revealed the frequent use of keywords such as "artificial intelligence", "human" and "language". In addition, the thematic map has demonstrated the driving themes consisting of the clusters "machine learning, natural language processing, data mining" and "artificial intelligence, human, humans" which possess both high density and strong centrality. More future scientific research and publication could be of great interest to be undertaken under the identified potential themes.

However, limitations of this study lies at the utilization of PRISMA technique and compilation of publications from the SCOPUS database only. Hence, the research gaps was identified in the relatively scarce literature review paper focused on the topic of interest despite the increase of publications found. As indicated in the type of publication analyzed, only 10.3% publications were review paper. Besides that, most of the prior studies were primarily focused on artificial intelligence interaction with human and not much studies has emphasize on the education aspect. Future studies should increase the database resources in the review. In addition, a country-specific review should be conducted so that it can provide insight on the trend of the researches by countries. Next, a cross-country reviews comparison can be performed to gain better understanding of difference in the scope and trend of the researches done by countries. Lastly, the quality of the literature review should be enhanced by broadening the research scope through an in-depth methodological approach.

5. Conclusion

In conclusion, this paper presented a comprehensive bibliometric analysis that applies quantitative tools to the data gathered from Scopus one of the primary scientific databases with a massive volume of bibliometric data. Next, the use of the bibliometric software of R studio that provides scientific mapping and bibliometric analysis allowed extensive exploration to be done on the intellectual sources and their structure in the selected research field. From the bibliometric analysis performed, it can be concluded that there has been an upward trend of research conducted on the topic of ChatGPT in Education. The recent launch of the ChatGPT which has been substantially followed by a large number increase of publications on it highlighted the significance of this topic to be further explored. Substantial evidence from this review has proven that this topic continues to gain global attention with research and publications on the rise. The finding from this review further offered opportunities for us to identify the possible future research areas that can be considered. For example, the use of a thematic map in highlighting the cluster of research that can be recommended as future study directions.

Acknowledgment

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Analysis of Social Commerce Construct TikTok Against Consumer Trust and Purchase Intention (Case Study on TikTok Users in Jakarta)

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Abstract

This research was conducted to determine the influence of the social commerce construct on consumer trust and purchase intentions among TikTok application users in Jakarta. The purpose of this research is to find out and analyses the influence of the social commerce construct on consumer trust, the influence of the social commerce construct on purchase intentions, the influence of purchase intentions on consumer trust in TikTok users in Jakarta. The research method used in this research is descriptive qualitative with a literature approach and a survey using questionnaires for 60 respondents. The research results show that the social commerce construct variable on consumer trust is in the good category with a percentage of 56.7%, which means that TikTok can provide attractive content displays and provide complete product offering information to consumers. Meanwhile, the variable consumer trust in purchasing intentions is in the good category with a percentage of respondents of 68.3%, this shows that users trust data security to make purchase transactions on this application. Apart from that, the social commerce construct variable on purchase intentions with a percentage of 46.7% of respondents stated that TikTok makes it easy to carry out transactions. The results of the analysis show that the social commerce construct has a positive effect on consumer trust, the social commerce construct has a positive effect on purchase intention, and consumer trust has a significant positive effect on purchase intention.

Keywords
social commerce construct, consumer behavior, consumer trust, purchase intention

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1. Introduction
Social media in the current era is an inseparable part of almost everyone's daily life activities. Social media has become a space where a person forms and builds relationships, expresses himself, and is also used as a space for media promotion for today's business people. One of the social media that is becoming a trend right now is TikTok. This application can present interesting and easy-to-use special effects, so that everyone can create videos that are interesting and easy to use. Based on data obtained from the Play Store, TikTok is the number three most popular application in Indonesia. We Are Social data, TikTok users in the world are estimated to reach 1.05 billion in January 2023. This number has increased by 18.8% compared to the previous year. Indonesia was recorded as the country with the second largest TikTok users in the world in January 2023 with 109.90 million users recorded.

The growth of TikTok users is influenced by the uniqueness of the content they have. This application is a pioneer that combines music, information, and short videos with various forms of interesting content. This is what makes TikTok successful in capturing market share in the social media world, which moves dynamically all the time. Social media-based applications are currently the most widely used source of information among millennials in Indonesia. TikTok is more liked by the public because it is a video-sharing-based social media whose publication results can be shared, liked, and commented on by other users. The results of this publication can also be shared on other social media such as Facebook, Twitter and Instagram. TikTok allows someone to become a content creator and encourages users to share creative expressions through videos that are 15-60 seconds long. The thing that makes the TikTok application stand out among other competitors is that it allows someone to become a creator because of the simple way to create content and relatively easy access. The increase in TikTok's revenue has been accompanied by feature innovations that have been issued, one of which is a new feature in the application, namely the TikTok Shop. This feature is liked by many TikTok users because it makes the buying and selling process easier. The existence of this feature allows users to shop for the products they want. When a user wants to make a purchase at the TikTok Shop, they will be faced with two ways, namely shopping via product uploads or via live streaming. The shopping benefits

that are obtained from the TikTok Shop feature for consumers apart from the convenience provided there are also attractive promos offered and make shopping more economical. In addition, get the highest quality products because users can see product reviews directly and get a variety of products.

These features can play an important role in consumer decision making. The following are several factors that influence consumer purchasing decisions through social media: 1) Reviews from influencers, Social influencers refer to individuals with a significant number of followers on social media. Influencer marketing is widely used and seen, especially on social media platforms like TikTok; 2) social media connection, creating a unique brand through advertising. Social influencers advertise products under certain brands, and in this way, they share their opinions with their followers. A brand has to be prominent, recognizable, and its information has to be available to all users. By paying attention to active social media behavior and generating high-value content for followers, i.e. consumers, brands can enhance their image and credibility and gain new followers in the process. As social media continues to reach a wider audience, its ads allow highly focused retargeting. This allows brands to make more strategic moves that help achieve their marketing goals while maximizing resources (Siregar et al., 2021; Wursan et al., 2021). In addition, these features also create a new culture called Cross- channel shopping. The behavior of consumers who seek information, compare prices and competitors online before making a purchase decision. The benefit of cross-channel shopping for businesses is to offer all the information consumers need and gain their loyalty to the brand that has been built (Dewa & Safitri, 2021). Cross-channel shopping is a good way to add value to the consumer's shopping experience. These examples are a great way to build engagement with potential customers, and offering different payment or return options makes the consumer decision easier. Therefore, it is important to do research on the effectiveness of using social media TikTok as a promotional medium.

1.1 The Effectiveness of Using TikTok as a Marketing Media

From a market perspective, this app focuses on short videos that attract more user attention because they don't spend much time watching them. Users can immediately identify the selected content and switch to another video if they are not interested in viewing it. In doing advertising, companies are also required to choose the right and effective advertising media. This is very useful because not all media are suitable for advertising a product. Promotion is an important activity, which plays an active role in introducing, informing, and reminding the benefits of a product and service to encourage consumers to buy the development and use the services being promoted. In procuring promotions, each company must strictly determine which promotional tools can be used to achieve success in sales. In addition, TikTok is a portal that has the potential to be used by young people to promote their products. With more than 1 billion users, this application is a trend center that can load various kinds of promotional content without spending a lot of money for it. In fact, now that TikTok presents a special space for business, TikTok for Business has various tools to increase engagement with users of this platform to develop their brand, because brands are very important for creating trends, service initiatives, and connecting communities. Among these features is the AR Branded Effect, also known as Brand Scan, which can be used to develop creativity, display sound and movement, have a participatory and inclusive community, shape a trend or culture, and meet market needs simply.

2. Literature Review
2.1 Marketing Communication Mix

Kotler and Keller (2009: 512) put forward a theory regarding marketing communication mix in which the promotion method in this study is contained in one of the models including: (1) Advertising (advertising). Advertising in this case is expressed as a process of conveying messages from a brand or non-personal promotion in the form of ideas, goods and services paid for by known parties; (2) Sales Promotions. In this case it is interpreted as a form of short-term incentive to encourage the purchase or sale of a product or service. Incentives as one of the things in promotion in this case are effective for encouraging short-term customer purchases and for increasing long-term customer relationships; (3) Events and Experiences. This can be a liaison between the brand and its potential customers in order to form a connection which aims of course so that audiences can have more knowledge about the product and connect personally. Brands should adapt events to the character of their target audience; (4) Public Relations and Publicity, is an effort made by the brand to build and maintain good relations with the public; (5) Direct Marketing, is a marketing activity carried out by using letters, telephones, and other non-personal communication tools to convey one-way sales messages to potential customers. (6) Words of Mouth Marketing. This can be an effective method for the reputation of a brand. The use of social media is carried out with the aim of getting positive Words of Mouth. Utilization of social media such as Tik Tok has proven to be an effective promotional medium in increasing product sales volume. (7) Personal Selling. Is product communication that is carried out directly in the form of interaction between the seller and his potential customers; (8) Interactive Marketing. Is a promotion and sales process where this process can occur

through the use of new media such as social media. This interactive communication that exists between sellers and prospective buyers occurs in real time through internet-based media where the sales process can occur more efficiently because it does not recognize distance and time barriers so that the sales process can occur more quickly and effectively.

2.2 Social Commerce Construct

According to (Hajli, 2015) suggests that social commerce construct is a social platform that emerges through web 2.0 development that empowers consumers to produce content and share experiences. Social Commerce is an internet-based commercial application that supports social interaction and user content through social media to convince individuals in their purchasing decisions Huang and Benyoucef in Hajli and Sims (2015).

2.3 Consumer Trust

Consumer trust is formed from various parties who do not know each other well in transaction activities. Consumer trust is defined as the willingness of one party to accept the risk of another party's actions in the hope that the other party will take action that is important to the party that trusts it, regardless of its ability to monitor the actions of other parties and control the actions of the trusted party (Priansa, 2017).

2.4 Purchase Intention

Purchase intention is focusing attention on something accompanied by feelings of pleasure towards the item, then the individual's preference creates a desire that creates an attractive feeling that the item has excess money (Kurniani & Priansa, 2016.).

2.4 Consumer Behavior

To understand consumer buying behavior, it is necessary to know what are the factors that influence it. There are three factors that can influence consumer buying behavior, namely: 1) personal, 2) psychological, and 3) social. According to other researchers, apart from these three factors, there is also a fourth factor that influences consumer buying behavior, namely cultural factors. Cultural factors have a strong influence on consumer buying behavior. Every country has its own culture, and its impact on consumer buying decisions can vary from country to country. It consists of all the values, needs, behaviors, preferences, and desires to be learned from family members and the environment. Humans are social creatures, and people who are close to each other can influence a person's behavior naturally. Also, humans subconsciously want to be accepted in society. Social factors consist of social networks and groups, roles and status. (Haralayya, 2021; Sharma & Lal, 2020).

These factors have a major influence on buying behavior. Personal factors relate to individual interests and opinions. They differ from person to person because each person is unique and results in different consumer perceptions and behavior. Personal characteristics such as the consumer's age, income, occupation, personality, and lifestyle influence buying behavior. Human psychology is a significant determinant of consumer behavior. Psychological factors can be challenging to measure, but are a very powerful influence on purchasing decisions. Psychological factors are based on consumers' perceptions, beliefs, motivations and attitudes, including their ability to understand information and how they see their needs. However, in this era of disruption, the culture of a country tends to shift and occur everywhere.

3. Research Framework

The three variables in this study are described in the framework of thought, as follows;
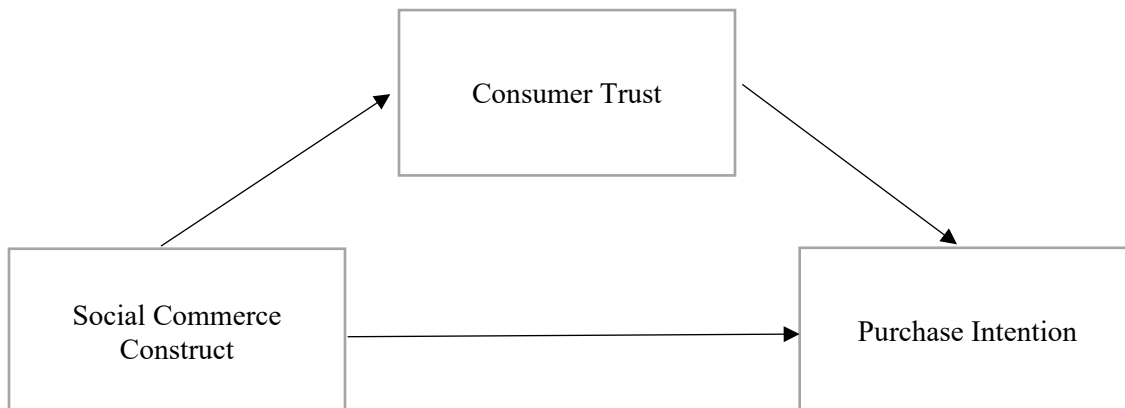
Figure 1: Research Model
Source: Data processed by Researchers (2023)

3.1 Research Methods
This study uses a descriptive qualitative method. The data used in this research are primary data and secondary data. Primary data were obtained from 60 research respondents who were collected using purposive sampling method. The selection of informants using purposive sampling is a technique in which the researcher determines the number of informants to be taken because of certain consideration criteria. Retrieval of data using questionnaires distributed to respondents. The analytical method in this research uses qualitative methods, the data obtained is then processed and analyzed through the perspective of buying behaviors, to then obtain relevant conclusions (Dangi et al., 2020).

4. Results and Discussion
4.1 Criteria for Research Respondents
The following is the result of data processing in the form of the characteristics of the respondents who were distributed to 60 respondents as users of the social media Tiktok.

Table 1: Characteristics of Respondents
Source: Research processed data (2023)

Variable	Category	Frequency	Precentage
Gender	Female	25	41.7%
	Male	35	58.3%
Age	18 - 22 years	3	5%
	22 – 26 years	15	25%
	26 – 30 years	8	13.3%
	30 – 34 years	13	21.7%
	>34 years	21	35%
Work	Student	13	21.7%
	Employee	38	63.3%
	Self-employed	9	15%
Monthly Income	1.000.000 – 3.000.000	5	8.3%
	3.000.000 – 5.000.000	10	16.7%
	5.000.000 – 8.000.000	12	20%
	>8.000.000	33	55%
Monthly Expenses	1.000.000 – 3.000.000	11	18.3%
	3.000.000 – 5.000.000	17	28.3%
	5.000.000 – 8.000.000	12	20%
	>8.000.000	20	33.3%
	Amount	60 person	100%

The characteristics of the respondents in this study were divided into five, namely based on gender, age, occupation, monthly income, and routine expenses. In this study, male respondents were more dominant, namely 35 respondents or 58.3%, while female respondents were 41.7% or 25 people. This shows that more men use the TikTok application as a product search information medium compared to women. In addition, the table above shows that respondents aged over 34 years dominate TikTok users, namely 35%, followed by 22-26 years of age 25%, 30-34 years of 21.7%, and 26-30 years of 13.3% and 18- 22 years of 5%. Based on age data with an age range above 34 years, at that age most of them already have income and are working. So that they have a high interest in buying products and can use applications selectively. In addition, the average income of respondents found that monthly income above IDR 8,000,000 dominated, namely 55%. Followed by monthly income of Rp. 5,000,000-8,000,000 by 20%, monthly income of Rp. 3,000,000-5,000,000 by 16.7%, and respondents' income between the range of Rp. 1,000,000-3,000,000 by 8.3%. This is in line with the dominance of respondents who work as employees or employees who generate monthly income independently with a percentage of 63.3%.

4.2 The Effectiveness of Using TikTok as a Marketing Media
From a market perspective, this app focuses on short videos that attract more user attention because they don't spend a lot of time watching them. Users can immediately identify the selected content and can switch to another video if the user is not interested in viewing it. In conducting advertising, companies and business actors are required to choose

appropriate and effective advertising media. Promotion is an important activity that plays an active role in introducing, informing, and providing the benefits of a product or service to encourage consumers to make purchases.

Social media TikTok is an application that has the potential to be utilized by business people to promote their products. Even today, TikTok presents a dedicated space for business. Tiktok for business has a variety of tools that can increase engagement with users of this platform in developing its brand, for brands to create trends, service initiatives, and connect communities.

Table 2: Research Respondents Questionnaire Results
Source: Data Processed by Researchers (2023)

Statement	Respondents Assessment					
	Low		Middle		High	
	N	%	N	%	N	%
Tiktok can convey information properly and completely	16	26.7%	10	16.7%	34	56.7%
Promotional content on Tiktok is easy to understand and understand	19	31.7%	30	50%	21	18.3%
Product promotion through Tiktok can influence purchase intention	2	3.3%	34	56.7%	26	40%
Tiktok makes communication with sellers easier	25	41.7%	10	16.7%	25	41.7%
Tiktok provides convenience and a sense of security in transactions	9	15%	10	16.7%	41	68.3%
Tiktok promotions are more attractive compared to other social media such as Instagram and Facebook	17	28.3%	20	33.3%	23	38.8%
The ease of payment and the information provided makes me interested in shopping	10	16.7%	28	46.7%	22	36.7%
The products offered are more varied, and offer lower prices	22	36.7%	10	16.7%	28	46.7%

The research results found that social media TikTok has a very high level of interest from users. In general, the level of consumer satisfaction in using TikTok social media as much as 56.6% of respondents stated that TikTok social media can convey product information properly and complete with the concept of short video sharing which is made to carry out promotions and attract consumer interest by combining elements of entertainment and interesting information and packaged within the effective time duration. This is evidenced by 46.7% of respondents stating that the information provided in the promotional content provided can attract consumers' buying interest to shop. The results of this study are in line with research conducted by Oktania & Indrawati (2022), that Perceived ease to use has a significant and positive effect on intention to use the TikTok Shop feature, meaning that the ease of learning and using the TikTok Shop feature has succeeded in influencing the intention to use the TikTok Shop feature.

Furthermore, 50% of respondents stated that promotional content on social media TikTok was easy to understand and understand, so that the information provided was in accordance with the wishes of the application users. This result is in line with research conducted by Martini & Dewi (2021) which states that the promotion method on TikTok is a way of conveying information accurately and easily so that the choice to shop on TikTok is the right decision.

In addition, 56.7% of respondents stated that TikTok social media can provide convenience and a sense of security in transactions. So that this can increase consumer confidence in carrying out a transaction and consumer data privacy can also be maintained properly. These results are in line with research conducted by Kristiani & Putri (2022) that the TikTok application has benefits that are felt by its users and has also been proven to be able to provide a feeling of pleasure for its users.

Consumer perceptions regarding this social media application can be said that TikTok is a business information system because of the level of sales made by electronic media which can provide varied product information, display creative and interesting video content and be easily understood by users. Of course, this can be used as an opportunity for business people or content creators to be able to display product information offered to users or consumers to increase purchase interest. In addition, supported by the number of users who have trusted in security and convenience in transactions which are considered to be an opportunity for business people that TikTok can be used as a forum for conducting online transactions.

5. Conclusion

Based on the results of research conducted on "Analysis of Social Commerce Construct Tiktok Against Consumer Trust and Purchase Intention (Case Study on TikTok Users in Jakarta)", it can be concluded that it is expected to answer the problems formulated in this study, including the following;

1. The results of questionnaire responses regarding the Social Commerce Construct variable on Consumer Trust have a positive effect with a percentage of 56.7%, which means that Tiktok can provide attractive content displays and can provide complete and attractive product offering information to consumers before making a purchase. TikTok social media makes it easy for users to increase engagement through the video comment feature. So that interaction with users will be maintained well. Apart from that, to measure the level of interest in the videos that have been created, you can use the real time performance tracking feature which can help users see the performance of each uploaded content in real time.

2. There is a significant positive influence of the Consumer Trust variable on Purchase Intention which is shown by the percentage of respondents of 68.3%, this shows that users trust data security to make purchase transactions on this application. Consumer trust is formed by the communication generated between users through the comment feature. Therefore, to minimize the existence of fake accounts, users will first look for information about the products offered before carrying out a transaction through the features displayed in the video.

3. Meanwhile, the Social Commerce Construct variable on Purchase Intention has a positive effect with a percentage of 46.7% of respondents stating that TikTok makes it easier to make payments and the products offered are more varied and provide cheap prices to consumers. This means that when making a purchase, users will examine a product in more detail and compare it with other similar products.

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Moving to Asia. Driving the Motor Industry towards Cost Improvements and Sustainability

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Abstract

Companies ultimately would like to see their operations have cost improvements that would benefit the manufacturing process. Through the testing times of the Covid 19 that happened in 2020 and is still lingering on, global recession also has set in. It is expected that the global growth will reduce from 3.4% in 2022 to 3.1% in 2024. This research is to discuss the shifting of the car manufacturers which are predominantly in Europe, taking into account their decisions to move the manufacturing plants to Asia. The paper also touches on the reasons they move to Asia while reducing their cost in the long term at the same time. The companies shift also improves their sustainability goals. The conclusions of this paper will also highlight that the companies will benefit from this move eventhough the capital expenditure is high. The global slowdown has made these car manufacturers move quickly to take advantage of the lower exchange rate at the same time move their strategies towards profitability and sustainability.

Keywords
Global growth, Sustainability, Car manufacturer's, Cost Improvement.

1. Introduction
The research goal is to clarify the function of management accounting in planning and decision-making in the setting of an even bigger company at a time when the expected economic growth for 2022 is 8.8%, with a decline to 6.8%, which is still regarded high (World Economic Outlook Report, 2022).

One of the numerous reasons why corporations think to Asia as their next international expansion opportunity is the region's fast exchange rates and sustainability. Asia has seen phenomenal economic expansion over the period of sixty years. It is a German international company with its headquarters in Munich, Bavaria, which produces high-end automobiles and motorbikes (World Economic Outlook Report, 2022).

The BMW Group is the top premium vehicle and motorbike manufacturing company worldwide and also offers top-notch financial and mobility services through its multiple brands, BMW, MINI, Rolls-Royce, and BMW Motorrad. The BMW Group seems to have a sales growth network that spans more than 140 countries, and its administration framework consists of 31 production and assembly facilities in 15 countries. The BMW3
Company sells well over 169,000 motorcycles and over 2.3 million passenger cars in 2020. The profit before tax for the 2019 fiscal year was €7.118 billion on €104.210 billion of sales, as disclosed on the BMW Official Website. The BMW Group employed 126,016 people as of December 31, 2019. (Bmwgroup,2021)

The analysis also seeks to clarify how BMW might benefit from the current circumstances in regard to income and performance. The explanation of the Sustainable Development Goal (SDG) that the organizations will support is also included in the assignment. SDGs, according to the UN Department of Economic and Social Affairs, are an immediate request for action for all emerging nations participating in a sustainable world. They understand that combating wealth inequality and other forms of deprivation requires policies that enhance educational and medical services, lessen inequality, encourage growth in the economy, combat climate change, and fight to protect our oceans and landscapes.

Tesla Inc. is an American automotive and energy company; the most famous product being introduced by the company is their electric vehicles. In beginning of Tesla, it bein33g named as Tesla Motors, and it has been changed their company name as Tesla Inc since 2017 until now (O'Kane, 2017). The aim for Tesla is to introduce the electric vehicles is to accelerate the world's transition to sustainable energy (Tesla). The products that being produced by the company is to replace the polluters to prevent the pollution become more and more severe in the future. Besides,

Tesla had minimized the negative environment impact by reducing the wastage of water resources and energy consumption (Tesla.com).

2. Literature Review

The hyperinflation in 2022 has to link with COVID-19's worldwide supply chains and recent Russia's invasion of Ukraine in February 2022. The most fundamental change is Europe's shift away from the reliance on Russian gas as part of sanctions and action against Russia. Russia is the major supplier of both energy, accounting for 10% of the global supply, whereas Ukraine holds 20% of world resources titanium, and 40% of Europe's gas comes from Russia (Wilson Center, 2022). The key importance element of neon gas and palladium are used to produce semiconductor chips and has always been supplied from Russia and Ukraine. A shortage of semiconductor chips that have already caused manufacturing difficulties for automaker industries – Volkswagen Group (VW) for more than a year could be made worse by Russia's invasion of Ukraine. Past history showed that when Russia invaded Crimeria in 2014, the price of neon shot up at least 600%, and the gas used in semiconductor production rose from $1.73 to $8.64/liter, causing global scarcity and price hikes (Financial Times, 2022).

VW and other global automaker companies that depend on chips have already seen production delays as a result of component shortages, delayed delivery, and rising material costs that have forced them to turn down orders from new customers. Currently, VW has a 16% market share in China and plans to double up the market share by investing in battery-electric car (EV) sales in 2022 onwards (Automotive News Europe, 2022). Part of the reason is also to be independent of Russian gases and become much more agile. The CEO of VW also mentioned that increasing sales in China would be prioritized in view of Europe's current instability. However, it also comes with great challenges and risks for German giants like VW to transition to EVs, which previously dominated the combustion engine era. Competing in China also means VW has to overhaul its product range and manufacturing system at the same time as VW previously not participated heavily in the EV market as much as China does, including Tesla Inc, BYD Co., and NIO Inc. The assumption of Germany dominating Asian car and machinery markets for years isn't longer holds, as the 2 tables have turned and the trade deficit is growing, which is stated in Figure 1.1. Volkswagen's success relies significantly on electric vehicles in China, which account for almost 40% of its overall sales, and will have larger ramifications for its future. As competition heats up, it will be interesting to see if Volkswagen can be as successful with electrics as it has been with traditional gasoline vehicles, when it controlled a roughly 20% market share in China (FUKAO, 2022). Hence, in this report, a deep analysis will be carried out throughout to assess the chosen company – VW Group will be shifting its European production out to China Asian country. Besides, a few significant Sustainable Development Goals initiatives will also be covered in this report as VW has contributed to China's social and environmental well-being.(Volkswagen)
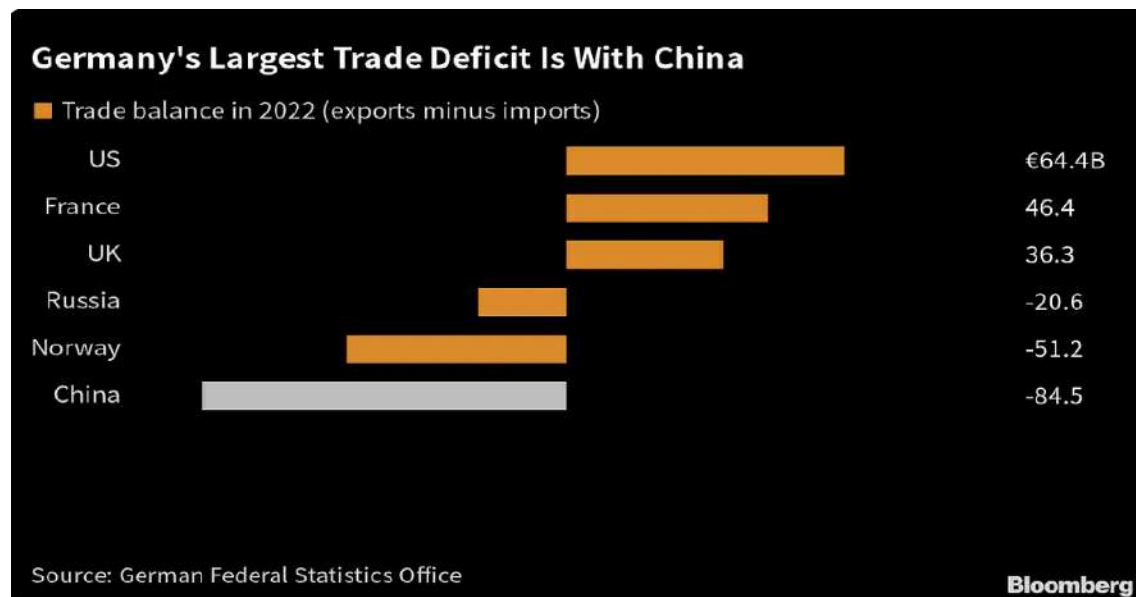
Figure 1 Germany's Automotive Largest Trade Deficit is with China

China wishes to improve their current technology, and they found that Tesla Inc. could help them to improve in leading in the new and advance technology for them to manufacture new-energy cars. China saw the opportunity from Tesla Inc, which could reset their automotive industry and brought in advanced technology to pull their current technology out from the bottleneck situation.

The aim of Tesla Inc. is to accelerate the world's transition, which to improve the current technology and bring the global to the new level of the technologies. China feels disappointed with their current automotive technology, and they found there are opportunities being seen from Tesla, and they wish to corporate with Tesla in order to help their technology to grow more mature.

To attract Tesla Inc. to choose China to build their manufacture factory. The leaders of China had offered the company by launching out cheaper land, lower interest loans, and tax incentives to Tesla. As a manufacturer, they may want to minimize their cost in order to maximize their profits. While China hopes that Tesla could train their local suppliers and boost up their country's automotive industry as a return to China (Evannex, 2022). China hopes that their technologies could be in the forehead of the world, by welcoming Tesla to invest to China, this could be benefited to the country (Boyden).

Why Tesla choose China to be their manufacturer/ place to manufacture their product? Tesla Inc. choose to have their own manufacture factory in China is because China had offered the company with lower shipping costs. As Tesla Inc. would be more rely on the shipping their vehicles to the world. They may need to have a lower shipping fee to reduce their expenses in shipping. Besides, China have waived the import duties to U.S. made vehicles (Boyden). By setting up a manufacturing factory in China would help Tesla Inc. to reduce their cost in shipping and the import duties to the cars could be waived by China.

2.1 Profitability

Profitability A component integral to the production of automobiles is a battery, the types of said item differing greatly depending on if the vehicle in question is gasoline-powered or an electric vehicle. With Volkswagen marketing electric vehicles in their showrooms alongside the old gasoline contraptions, production of lithium-ion batteries has become crucial to the process, as conventional automobile batteries for gasoline-powered vehicles are just not viable for usage (Ramos, 2022). The battery uses materials like nickel, cobalt, and lithium, which are materials not found in batteries traditional vehicles that are gasoline powered (Enuh, 2022). The news of VW forming joint ventures with Huayou Cobalt and Tsingshan Group to secure nickel and cobalt supplies can be easily inferred as a method of increasing profitability by cutting costs. They aim to do so by building a network of battery cell factories and securing more direct access to vital raw materials needed to supply the factories. China is, as of 2023, among the top 10 countries of both nickel and cobalt production (Pistilli, 2023,Kelly, 2023). That does not account for the fact that China companies own and control a whopping 44% of global mine supply, which also accounts for 78% of refined cobalt production (Burton & Kavanagh, 2023). The companies signed a memorandum of understanding for a joint venture in Indonesia, where more than 10% of the world's laterite nickel ore reserves are located. This allows them to focus on nickel and cobalt raw material production. This move is merely the initial stage of the venture: by the final expansion stage, VW China Group expects to be able to supply raw materials for 160 gigawatt hours' worth of electric vehicle batteries. This venture provides for the advantage of cheaper raw materials and the processing thereof; the surge of global nickel prices due to the Ukraine crisis has made the material cost of lithium-ion EV batteries rise along with it. Rivals of VW like Tesla and Ford have had to adapt to the situation:

Tesla are raising prices for electric vehicles to meet the costs, whereas Ford had plans for a nickel cell joint venture in Turkey. Profitability depends both on the amount of sales a company is able to make in a year, and the costs that result from obtaining the materials and components needed among other factors. Tesla's course of action to raise the prices of the EVs they are selling will reflect on their sales as the law of demand (that one download) states that for nearly all products, demand is lower the higher the price goes. Their sales have a real possibility of falling due to them putting up their prices. Their revenue figure may not see any decrease, but if it cannot keep up with the costs incurred for goods sold, their profit will most definitely see a drop. Speaking of the cost in materials, by signing onto a joint venture with Huayou Cobalt and Tsingshan Group, VW will not have to face the brunt of expected costs without necessarily having to tolerate any decrease in quality of their products. The partnerships of VW with the two companies aim to contribute to the long-term target of a 30%-50% cost reduction on each battery, which is crucial to keeping costs low. This matter is further highlighted by global nickel prices surging almost 400% in 2022: Russia was a major supplier of nickel, and its invasion of Ukraine and subsequent sanctions imposed on Moscow by the West has caused that occurrence. A non-rise in costs, let alone a reduction in costs, can help maintain or even improve VW's productivity.

Since inflation is affecting the **profitability** of our chosen company, BMW decided to shift its production line of the electric Miniseries from the United Kingdom (UK) to China and Indonesia. It benefits BMW to consider moving the production line to China because China has had tremendous economic expansion that has endured over time, elevating its appeal. Compared to operating factories in the UK, China has attracted both international investors and foreign companies for manufacturing operations to economize on labour and production costs. The enterprises have undoubtedly benefited from the liberation of capital and goods, particularly when matched with better transportation and communications technologies. (UKEssays., 2018).

Besides, the worldwide chip supply issue will continue to limit sales for many manufacturers resulting in a low supply for the UK auto industry. GlobalData predicts that the UK auto market will see 1.9 million sales in the year 2022, with a recovery to the pre-pandemic "norm" of over 2 million annual sales not anticipated until the year 2023, when 2.2 million car sales are predicted. Furthermore, improvement in the market also presumes current supply-side difficulties are largely overcome, against a backdrop of comparatively stable and long-term economic growth for the UK and the rest of the world (GlobalData UK Ltd., 2022). As a result, the condition of consumers will worsen and affect their behaviour during the coming few months. Besides, production process risks could lead to unplanned production stops or additional costs from vehicle recalls. If these risks materialise, they may have a major impact on BMW's overall profitability over the two-year assessment period (Dobrin, 2021).

Moreover, another issue for BMW shifting is to **save its cost**. According to Arabiya News, The Times stated that BMW AG would stop producing its electric Minis in the UK and relocate manufacture to factories in China, inflicting yet another setback to Britain's hopes for battery-powered vehicles. Stefanie Wurst, Mini's new CEO, stated that the Oxford facility was inefficient since it had to make both electric and fuel vehicles on the same line. She claimed that the firm needed "renovation and investment, with the existing assembly lines pulled down," she indicated to the Times (Bloomberg, 2022). The global semiconductor chip shortage and the insufficiency of its own manufacturing affect Mini production to "temporarily suspended" in February, after repeated shutdowns due to the same problem in 2021. In contrast, BMW is facing some problems with its electric vehicles (EV) line in China accounting for 53% of all electric vehicle sales globally in 2021, since it currently holds a dominant position in the global EV market. As these products are still in high demand, China's EV industry has produced and sold 4.71 million and 4.56 million units throughout the last three quarters of 2022, respectively, breaking the total-year marks set in 2021. The Chinese market appears to be the key to Mini's global strategy, and this momentum is linked with the government's commitment to being carbon neutral, which benefits the EV industry. BMW has made major investments in China's automotive sector, the company expects to increase funding for its sole foreign battery R&D and production facility there. Due to its specialised market strategies, the BMW has an advantage over China's Original Equipment Manufacturers (OEMs) in terms of competition. Hence, BMW absolutely stands a chance in the very competitive Chinese EV market and BMW carefully considered the relocation of Mini because cost effectiveness is crucial for the brand. Consequently, BMW moved Mini's manufacturing to China and took advantage of the country's established EV supply chain (Qing, 2022).

The German company, which has invested more than 210 billion rupiah ($15.5 million) in Indonesia over the previous five years, has recently started producing the 7 series locally. Some component import tariffs might be decreased if foreign automakers developed local assembly plants. Moreover, Indonesia's tax amnesty programme, which began in July, may help to increase luxury car sales because people who previously avoided such purchases out of fear of being pursued by the tax office may now be less hesitant to do so (Danubrata & Silviana, 2016).

According to Daxueconsulting (2022), China is a significant market for the automobile industry due to its enormous consumer market demand for electric vehicles; China is the second largest market to sell electric vehicles. Shifting the manufacturing factory to Shanghai, China, allows Tesla to reduce its manufacturing cost as well as eliminate the impact of unfavorable tariffs so that Tesla could increase its affordability for its customers (Tesla Annual Report,2021).

As China has a mature industrial production chain, they have the capability to manufacture good-quality lithium-ion batteries. (Daxueconsulting,2022). The most expensive part of electric vehicles was the lithium-ion batteries, which made up an estimation of 30% of the total cost. Instead of importing those materials from the US, Tesla cooperated with the largest battery supplier in China, Contemporary Amperex Technology for the production of batteries as well as Zhejiang Sanhua Intelligent Controls, for the production of heat-control parts.

Lowering the production cost for Model 3 Sedans and Model Y Crossovers owing to the fact that the Yuan (RMB) is cheaper than the US Dollar and the major component of the electric vehicles was supplied by the local manufacturer (Reuters, 2022). This action can effectively cut the purchase cost by minimizing the foreign exchange loss and the shipping cost of the raw materials from the US. As such, the cost of purchasing raw materials would be reduced and this eventually caused the exports of Tesla products from China to the US indeed to be cost-competitive.

Other than that, starting in August 2019, the Ministry of Industry and Information Technology of China announced that they will reinstate the auto tariffs that have been suspended in April, and they will add 25% tariffs on automobiles from the US and 5% on duties on automobile parts and accessories starting from December 2019. However, the Ministry of Industry and Information Technology demonstrated that they will exempt a few Tesla electric vehicles from those imposed taxes to reduce the burden of Tesla in the trade war. The electric vehicle models that are included in the exempted list include Model 3, Model X, and Model S (Sheetz, 2019). As such, this will help Tesla to reduce their production cost.

Tesla indicated that the Gigafactory in China is 65% cheaper to build than its Model 3 production system in the US. These circumstances contribute to the increase of Tesla's production rate from 50% to 70% in 2019 as the saved cost from previous production can be used to produce more products to achieve a higher level of productivity. Thus, the pricing set between Tesla cars sold in China was 49,344, and in the US was $65,990 and had been escalating (Tesla Rides High on Cost Savings from China's Gigafactory, n.d.). In other words, Tesla would be able to export and sell the vehicles produced from China at a reasonable price in Europe, Australia, and Southeast Asia.

Furthermore, Tesla Incorporated was able to hit its new net profit record. There is an increase of 37% in its revenue compared to the previous year (2022) while the net profit had risen 59% on a year-to-year basis (Times, n.d.).

2.2 Competitiveness

Currently, the group comprises 16 local representative businesses that work with clients and industry to distribute parts and provide services in addition to manufacturing and importing vehicles. One of the VW Group's key markets is the Chinese market. Volkswagen's activities in China include the manufacturing, marketing, and servicing of complete vehicles, as well as engines, transmissions, and parts and accessories. More VW are delivered to China than any other nation (Daxueconsulting, 2020). As a result, the China market also aids VW in lowering production costs. China gains a competitive edge through utilising price and enormous economies of scale. Volkswagen's capacity to place big orders accounts for its reduced price (Daxueconsulting, 2020). In a challenging global economy, VW Group produced strong financial results in the third quarter. The total number of vehicles delivered to clients increased in Q3, and the overall operational result increased from EUR 2.6 billion in Q3 2021 due to supply constraints to EUR [4.3 billion.

The Group's financial results for the third quarter show how steps to enhance supply chains have effectively helped to mitigate a difficult global environment. With a 26% increase in deliveries in Q3 and a 33% increase in deliveries in September, the Group's recovery in China is accelerating. In 2022, the Volkswagen Group will have made substantial strides towards becoming an electric company. In particular, the region's demand for BEVs is still rising, and deliveries have more than doubled this year so far to 112,700 units (Q1-Q3 2021: 47,100). So, even when compared to the entire prior year, the Group is well on its way to tripling deliveries of all-electric vehicles in China, its largest market. Volkswagen's software division Cariad has forged a new alliance with Horizon Robotics, one of China's top suppliers of computing solutions for smart cars, in order to quicken the pace of innovation and increase its customer focus in this significant industry. The joint venture is anticipated to hasten the regional development of autonomous driving (AD) and advanced driver assistance (ADAS) systems for the Chinese market. VW Group tops the automotive industry in terms of revenue, according to the 2022 Fortune Global 500 ranking, and ranks eighth overall in the "Fortune" Global 500, surpassing Toyota Motor (13th) and reclaiming the title of "the world's largest automobile manufacturer"(Wolfsburg, 2022).

Although VW for exceeds many companies in the world rankings, VW still is competing with Tesla in the electric car market. In 2021, Tesla will be the world's bestselling new energy car company for four consecutive years with sales of 936000 vehicles, followed by Volkswagen with sales of 758000 vehicles. However, in aspect of production capacity, labour efficiency and costs, the gap between both of them cannot be ignored. Tesla has captured more than 20% of the global electric car market. UBS global auto analyst Patrick Hummel (Patrick Hummel) said: "It is wishful thinking to close the gap with Tesla as soon as possible." He believes that Volkswagen is a supertanker and it is difficult to complete the task quickly. In contrast, Tesla is a more flexible organization.

2.3 Sustainable Development Goals (SDG)

Sustainable Development Goals (SDG) is the 75th anniversary of the United Nations (SUSTAINABLE DEVELOPMENT GOALS, n.d.). A better and more sustainable future blueprint can be achieved by SDG. World leaders accept 17 types of SDGs to solve challenges such as poverty, climate change, environmental degradation, inequality, peace, and justice. There are 17 goals which are no poverty, zero hungry, good health and well-being,

quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace, justice and strong institutions, and partnerships for the goals (SUSTAINABLE DEVELOPMENT GOALS, n.d.). SDG can improve all people's quality of lifestyle in the environment, economy, and society (enel x, n.d.). In the end, it can create a healthy, productive, and safe environment.

Figure 2: Measuring progress towards the Sustainable Development Goals. (SDG Tracker, n.d.).

According to VW AG, while not specifically reporting on the Sustainable Development Goals target framework, they do relate the pertinent SDGs to each emphasis area in the sustainability reports. such as SDG 3: Good health and well-being, SDG 5: Gender equality, SDG 7: Affordable and clean energy, SDG 8: Decent work and economic growth, SDG 9: Industry, innovation and infrastructure, SDG 11: Sustainable cities and communities, SDG 12: Responsible consumption and production, and SDG 13: Climate action. For SDG 3 7 such as 29% of employees working in factories are ISO 45001 certified, by 2021 the Accident Frequency Index shows that the number of accidents at work as a percentage of all hours worked is 6.8, the Accident Severity Index for Volkswagen AG in 2021 expresses the severity of reported accidents by showing the total number of lost workdays due to reported accidents as a percentage of total hours worked in the fiscal year was 9.1, and the Volkswagen Group and Volkswagen AG recorded one fatal accident involving own employees in 2021. SDG 5, accounting for 16.3% in 2021, an increase of 1.2 percentage points from the previous year. For example, Volkswagen runs the wide-ranging Kompass 2.0 program for women, which provides guidance and decision-making assistance for starting a management or leadership career, with 162 employees currently involved in the current 2021/2022 round of the program.

In addition, Volkswagen AG's goal is to achieve carbon neutrality by 2050 to avoid or reduce CO2 emissions. According to SDG 7, all suppliers will be required to use certified renewable electricity in their production processes, the Volkswagen Group will invest 52 million euros in electric vehicles by 2026 to increase electric vehicle share in core EU, US, and Chinese markets to over 50% by 2030, and increase sales of Volkswagen passenger cars in the EU to 70% by 2030. And in SDG 9, addresses CO2 issue in supply chains such as steel manufactures to accelerate the shift to carbon-neutral products. For example, the VW's goal of charging vehicles with 100% renewable energy. The Volkswagen Group supports the construction of a solar power plant with an annual output of 170 million kilowatts according to SDG VW is currently working on converting its electricity 8 generation into advancing energy efficiency projects at its 120 production facilities and has implemented 1,544 energy-saving measures in 2021 and became the first facility for recycling high-voltage vehicle batteries but initially designed to recycle up to 3,600 battery systems per year and conduct pilot operations. Based on SDG 13, using green electricity on electrified railway lines in Germany, moving goods from road to rail, and avoiding CO2 emissions entirely, in cooperation with Deutsche Bahn AG. Additionally, to achieve the target of offset projects, the VW Group selects climate protection projects with high certification criteria, such as the Verified Carbon Standard (VCS) combined with the Climate Community and Biodiversity Standards (CCB) or the Gold Standard, to offset unavoidable emissions and production, and innovative

"Climate Engineering" focuses on activities assessing direct air capture technologies and their industrialization to establish widespread affordable negative emissions for industry and society in the short to medium term (Impakter Index, 2022).

Apart from that, BMW has achieved responsible consumption and production. It ensures the continuous spending and production method and as the key to maintaining and sustaining the livelihoods of present and future generations (SUSTAINABLE DEVELOPMENT GOALS, n.d.) as in Figure 3 and 4. However, climate change, pollution, and biodiversity loss causes the discontinuous spending and production methods (SUSTAINABLE DEVELOPMENT GOALS, n.d.). It will bring harm to human well-being and the accomplishment of SDG is threatened by environmental degradation. Thus, people should improve resource efficiency to shape a new circular economy, and reduce waste and pollution.
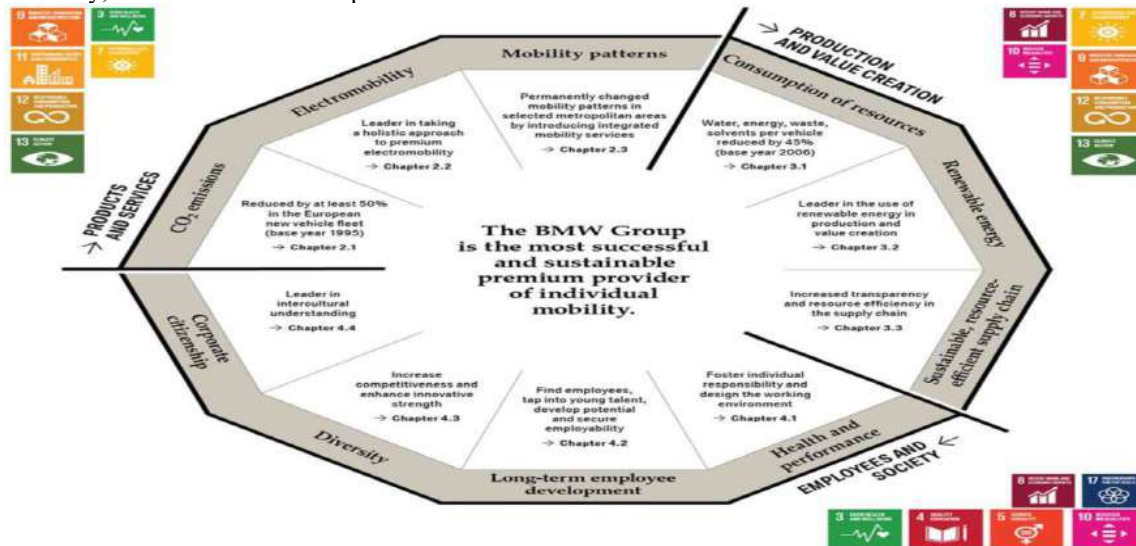
Figure 3: BMW Continues To Meet Sustainability Goals. (BMW MOVEMENT, 24 April 2019).

Figure 4: Responsible Consumption and Production. (SUSTAINABLE DEVELOPMENT GOALS, n.d.).

4.1 Risks

Besides that, the supportive government policies are also a reason Tesla wants to go through the market of China. Despite trade tensions between China and the US in 2019, China still exempts Tesla electric vehicles from a 10% purchases tax. Therefore, customers can reduce the cost of buying up to 99,000 yuan ($13,957.82), Tesla can also increase their sales because of this China government subsidies. (Staff, 2019)

According to the latest official date in 2021, Tesla also get a subsidy of CNY2.1 billion (USD 325 million) in Chinese government subsidies for new energy vehicles in 2020. It was the highest amount given subsidy ever given to an automaker in China. There were more than 100,000 Tesla vehicles granted subsidies in 2020, it was accounting for sixty-eight percent of its China sales. It was higher by six percent than its Chinese competitor, BYD in the same year (Shicong, 2021)

Furthermore, Tesla faced a lot of competitors in China from the mix of both foreign and Chinese automakers because they are already manufacturing and selling electric vehicles in China for many years. However, China government gives a most important key advantage to Tesla. The Chinese government allowed Tesla to become an independent foreign automaker without a local partner. It means that Tesla doesn't have to share the profit with the local partner so that Tesla can earn more money. Therefore, Tesla became the first foreign automaker to be allowed to operate fully independently while still retaining 100% ownership in China. Based on China's amended foreign investment law in 2020, Tesla does not need to face concerns about the "forced technology (IP) transfer" of its patents. This arrangement is what other international automakers like Toyota, Mercedes-Benz, Ford, and others have been demanding for years. It can be said that China very takes care of Tesla so that Tesla can compete with other big automakers. (Daxueconsulting, 2022).

5. Conclusion

On the whole, the inflation rate all around the world had been increasing significantly and affected the economy of most of the country. Various sectors had been affected including the manufacturing industry which plays a vital role in the global economy, such as BMW contributing significantly to its growth. Recent news reports suggest that BMW is experiencing challenges due to rising inflation, which has affected its manufacturing and production processes. Action taken by BMW in overcoming the challenge of inflation will be analyzed.

BMW has faced several issues that have affected its profitability. One of these issues is inflation, which makes a company's decision-making foggy. As a result, BMW shifted its production line of electric Mini-series from the UK to China and Indonesia to save costs. The company's decision to move its production line to China was advantageous because of China's tremendous economic expansion. Another challenge facing BMW is the global semiconductor chip shortage. Consequently, BMW had to temporarily suspend Mini production, and this situation has resulted in unanticipated production halts and extra expenses from vehicle recalls.

Additionally, shifting production lines to Indonesia could attract investment and create jobs for the country, as the Indonesian government is providing incentives for foreign businesses to produce vehicles domestically. However, concerns have been expressed regarding the "unprecedented" embargo on chips exported to China. The US chip embargo has only exacerbated the situation, leading to production slowdowns and price increases for EVs in China. As a result, the Chinese government has been investing heavily in domestic chip production to reduce reliance on imports and increase self-sufficiency in the EV supply chain.

BMW will face various risks if they refuse to shift their production line from the UK, such as financial risk and production risk. Both risks are crucial in Mini's production. Simultaneously, BMW has implemented sustainable development goals (SDGs) in its business, particularly in achieving SDG 12, responsible consumption and production by introducing environmentally friendly vehicles and fuels which use renewable electricity from batteries. BMW combines luxury and innovation in production by using recycled materials in the production of their vehicles. BMW continues to develop materials to meet environmentally friendly goals and has shown outstanding achievements in advanced vehicle electrification and sustainable development.

In the nutshell, VW had the intention to move its manufacturing company from Europeon to China for the several reason such as the impact of semiconductor and EV supply shortage, hyperinflation on raw materials price, supply chain constraint, and the fast-moving and intense competition in China's EV market.

VW found that, China had controlled the 44% of global mine supply, with a 78% of refined cobalt production. In 2023, China also defined as the top 10 countries for both nickel and cobalt production. As nickel and cobalt were part of the necessary material for VW for its battery production, after shifting its manufacturing factory into China, VW can purchase the material with a lower price; therefore, minimise the production cost and increase the profitability. As the increase in the price will reduce the demand, VW aimed to maintain its selling price while minimise its production cost.

VW believe that China is the essential development engine for the world economy. China had controlled a huge number of raw material supply in the global supply chain, and therefore, other countries can buy those raw material with a lower price. Without China, other countries have no choice but to increase their production cost and led to an increase in selling prices. When the price goes up, inflation rate increase. VW's CEO stated that, without China, the inflation rate will increase not only a little but further. As a result, China market can aid VW to minimise its production cost and gain a competitive edge by main its selling price and enormous economies of scale.

Furthermore, it also helps VW to achieve its SDG goals such as such as SDG 3: Good health and well-being, SDG 5: Gender equality, SDG 7: Affordable and clean energy, SDG 8: Decent work and economic growth, SDG 9: Industry, innovation and infrastructure, SDG 11: Sustainable cities and communities, SDG 12: Responsible consumption and production, and SDG 13: Climate action. In conclusion, VW will gain a lot of benefit while shifting its manufacturing factory into China such as reduce the production cost, expand the target market and also aids the company for its SDG goals. In our opinion, the advantage of shifting its business into China will always outweigh the disadvantages.

Tesla Inc. is an automotive company, and it had been setting up a factory in China. There are some of the factors that would be consider by Tesla in order to set up a factory in China. China believes that the entering of Tesla could help in improving their automotive technology and improving their competitive advantages in automotive industry. The reason that Tesla choose to have a manufacturing factory in China is because the demand of electrical vehicles in China is huge, and the country is the second largest country that selling automotive products. This could help in enlarging the target customer range. Besides, there are some of the advantages for Tesla to having a manufacturing factory in China. The first advantage to Tesla is it could produce cheaper their products with lower costs. This is due to the company produce their products by having the local material supplies.

Having local supplies could reduce the transportation cost and currency cost, which if Tesla use the raw materials from US, this may drive up the costs, which the currency of US dollar is higher than Yuan. Moreover, Tesla also being supported by China's government policies, which Tesla could enjoy the 10% of purchases tax being exempted.

The entering of Tesla had been helped China to improve their manufacturing operation and also helps their manufacturers to manufacture products cost effectively. Moreover, it also being brought in job opp333ortunities for China, this is because the wages rate in California is higher than China. Thus, by having the local employees would help them in minimizing the wages expenses. By having more job opportunities, this had helped to promote sustainable economic growth and full employment. There is a growing problem of cost if the supply chain does not move closer to the factory and when the local presence of suppliers are sourced.

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The Influence of Profitability, Stock Price, And Investment Decisions on Company Value

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Abstract

This study aims to analyze the influence of profitability, stock prices, and investment decisions on firm value. This study uses a quantitative research method with secondary data taken from the 2017 – 2021 financial reports of food and beverage companies listed on the Indonesia Stock Exchange. The research sample selection technique used in this study was purposive sampling technique so that 26 companies were selected as samples of this study. This study uses the Eviews 12 test tool. The results show that simultaneously profitability, stock prices, and investment decisions affect firm value, partially profitability influences firm value, stock prices affect firm value, and investment decisions affect firm value.

Keywords

Profitability, Stock Price, Investment Decisions, and Firm Value

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1. Introduction

Currently, business is one of the things that is considered important because it can help the growth of the world economy. Life certainly looks increasingly advanced and modern, as now there are lots of enterprises and businesses rampant in every corner of the city. It cannot be denied that enterprises and businesses are one of the mainthings for people to be able to generate income for their daily lives. day. Likewise for company owners, they are all competing to expand their businesses in order to generate maximum profits from all operational activities carried outby the company.

A company has a goal for the sustainability of its business, namely short and long term goals. Short-term goals will help the company achieve its long-term goals. By achieving short-term goals, companies will be able to increase their company value, either through sales or through increasing cash flow. According to (Hamidah & Umdiana, 2017), company value is a picture of whether the company is in a good condition or not. Trusted companyvalue can not only describe the company's performance in the current period, but is also used to describe the company's job prospects that may occur in the future. In short, company value is a result obtained by the company through company performance in the current period.

The first factor, company value can be influenced by profitability. Profitability is an effort carried out by a company to be able to create profits originating from sales activities and also investment from shareholders. Company profits that continue to increase can indicate that the company is developing better and will also have an impact on the company's value.

Based on research from (Ramdhonah et al., 2019), profitability can have a good influence on company value because high company value means the company is able to manage the capital it has so that the profits created can be large. Meanwhile, research from (Sulistiorini & Lestari, 2022) states that profitability which is proxied through the net profit margin ratio has no influence on company value because shareholders do not respond to profitability and think that this proxy can only describe the company's profitability in the short term so it has no effect on company value.

The second factor, company value can be influenced by share prices. The share price is the price set by investment players in the capital market at a certain time. The high or low price of a company's shares can be influencedby the level of demand and supply price of shares circulating in the capital market (Fauzan, 2019). Based on researchfrom (Nu'man, 2021), share prices have an influence on company value because high share prices can create prosperityfor investors, which will also influence company value to the maximum (Kurnia, 2019).

Meanwhile, research from (Hamidah & Umdiana, 2017) states that share prices have no effect on company value, this is in line with (Novita et al., 2022) because share prices are always unstable so investors or potential

investors must consider and assess financial reports. the company and also increase profitability because this can affect the company's share price and can later contribute to increasing the company's value.

The third factor, company value can be affected by investment decisions. An investment decision is a capital investment decision made by shareholders for a long period of time with the hope of getting profits generated by the company in the future (Piristina & Khairunnisa, 2019). Based on research from (Anggita et al., 2021) which states that investment decisions influence company value because a large number of investment activities can send good signals regarding the company's business development, where later share prices can be used as an indicator to increase company value. Meanwhile research from (Piristina & Khairunnisa, 2019) states that investment decisions have no effect on company value because for companies this investment decision requires the company to have large capital to create new product innovations, expand and increase sales and update technology so that investment has less influence on the value of the company.

Based on the phenomena explained above as well as different results related to previous research, finally this research will re-develop the variables of profitability, share prices and investment decisions on company value in food& beverage companies listed on the IDX in 2017 - 2021 as research objects .

From the background that has been explained, it can be concluded that the problem formulation in the research will then find a solution, namely:
a. Does profitability have an influence on company value?
b. Does share price have an influence on company value?
c. Do investment decisions have an influence on company value?
d. Do profitability, stock prices, and investment decisions have a simultaneous influence on company value?

2. Literature Review

2.1 Signaling theory

Signaling theory is a theory put forward by Spence for the first time in 1973, this theory explains that the party who owns the information or can also be called the sending party will give a signal or signal to the signal recipient, namely the investor, in the form of a note or picture that describes the condition of a company. Companies can convey information using their company's annual financial reports published through the IDX, these financial reports can show the company's entire performance during the current period (Prasasta, 2016).

Information is a very important factor for everyone, including business people and investors, because having information will make business easier for both parties. Information that is complete, related, certain and also timely is useful for shareholders as an analytical tool used to make investment decisions when wanting to invest in a company.

2.2 Profitability

Profitability is an important factor in the growth of a company. Everyone who runs a business of course expects high profits, because the ability to generate profits is also important in increasing the value of the company. If the profits achieved by a company are large and continue to increase over time, this will also have an impact on the value of the company because it will increase. increases and also increases the level of investor confidence in the value of the company.

According to (Kurnia, 2019), profitability is an achievement obtained by a company through activities in managing funds obtained from investors' investments. The company's profitability and performance are good, so this means that it can be an indication that in the future the company's prospects will also increase, this means that investors can see that the company's value is good.

In the research conducted, ROE or return on equity was used to proxy for profitability by calculating net profit after tax divided by the total amount of equity. (Mahayari et al., 2021) states that ROE is a financial ratio that can be used by a company to calculate its ability to gain profits from share capital held by investors.

2.3 Shares

Shares   are included in a form of company capital obtained from shareholders who invest capital in the form of securities or proof of ownership of capital in a share ownership in the company (Octavina & Komalasari, 2017). The share price can also be said to be a price that is formed from an agreement between the buyer and the shares which is supported by the desire of both parties to obtain their respective profits.

Basically shares are a form of equity participation in a business, this participation is calculated as a percentage of the shares owned by the company which are usually owned by several investors, high or low share prices are influenced by the level of supply and demand for shares in the capital market (Hamidah & Umdiana , 2017). Share prices always increase according to the condition of the company at that time, making more and more people interested in investing their capital in a company, which will also have an impact on increasing share prices.

2.4 Investment
Investment is an activity that is commonly carried out in the business world, through investment activities both the investor and the company can benefit from each other. Companies can get capital assistance from shareholders who invest capital in the company, while investors can benefit from dividend distribution when the company makesa profit from its operational activities.

According to (Piristina & Khairunnisa, 2019) states that an investment decision is a decision or policy carried out by a person (investor) when they want to invest their capital in one or more company assets with the desire to generate a profit in the future. This agrees with (Ayem & Nugroho, 2016) who said that an investment decision is a decision made by investors in the form of capital investment over a long period of time which is expected to generate profits for the company in the future.

Every company or business entity has company values. Company value is generally related to the level of ownership of company assets and the company's potential to attract shareholders to invest their capital. Good company value is a hope of all companies because the higher the company value, the greater the desire for investors to invest in the company (Martha et al., 2018). This can also be important for the company because it can be believed that The value owned will be able to determine the direction and strength of capital so that the company's operational activities can run better in the future.

Company value for the company itself is said to be very important because it can be a benchmark for successin running the company, this is in line with (Ramdhonah et al., 2019) who stated that company value is a level of success measurement of company performance which is created from the level of demand and supply of shares in thecapital market which influences the price of shares owned.

Company value can be explained as a condition that reflects the company achieving a projection of the trustor confidence of the public who act as consumers or customers towards the company's performance and also the products and services provided by the company throughout the company's operations. Apart from that, company valueis also a company's selling point which is seen based on the level of success of its management operations and lookingat the company's liquidity. So in short, company value can be understood as a situation where the company and the performance provided by the company can be received positively by the surrounding community (general), maximizing the wealth of investors is also one of the goals that the company cannot ignore (Ramdhonah et al. , 2019).

2.5 The Influence of Profitability on Company Value
Research from (Saputri & Giovanni, 2021) states that profitability is included in an indicator of company management performance which is reflected through the profits generated while managing the assets owned by the company. Company profitability can also be measured using several methods to see whether the profits from the company's assets and capital are compared with each other. The profits achieved by the company come from investment activities, where when a company attracts investor interest, the company management will increase the company's profitability and this will increase the company's value (Novita et al., 2022).

The better the growth rate of profitability, the company's performance will be considered good, which means that the company's future expectations will be better and this also means that the company's value will look better in the eyes of shareholders (Kurnia, 2019). So, this means that profitability can influence the value of the company because the company can rotate its capital well and then make a profit based on the level of assets, level of sales and capital it has.
H1: Profitability influences company value.

2.6 The Effect of Share Prices on Company Value
(Fauzan, 2019) stated that the share price is a price set by investment players in the capital market at a certaintime. The high or low price of a company's shares can be influenced by the level of supply and demand for share pricescirculating in the capital market (Hamidah & Umdiana, 2017). If a company experiences excessive demand for shares,the share price will tend to rise. However, on the contrary, if there is excessive supply, the share price will tend to fall.

This opinion is in line with (Kurnia, 2019) which proves that share prices influence company value, because share prices can also influence the welfare of investors.

Shares are a form of equity participation in a business, this participation is calculated as a percentage of the shares owned by the company which are usually owned by several investors, high or low share prices are influenced by the level of demand and supply of shares in the capital market (Hamidah & Umdiana , 2017). Share prices always increase according to the condition of the company at that time, the more people or investors who are interested in investing in the company, the more it will have an impact on the increase in share prices.

So when share prices are rising, this means the company is in good condition and can influence the value of the company, then it can be a consideration for shareholders when making investment decisions which can also influence the value of the company.

H2: Share prices influence company value.

2.7 The Influence of Investment Decisions on Company Value

Research conducted by (Rinnaya et al., 2016) states that the influence of investment decisions on company value will reflect that the company is able to maximize its investment in an effort to generate company profits according to the amount of related funds. In research from (Ayem & Nugroho, 2016) it is said that if an investment decision is an investment decision made by investors over a long period of time which is expected to obtain profits that will be generated by the company in the future, this also proves that investment decisions also have a positive influence on value. company.

Investment is one of the important things in the financial planning section for many companies. Investors have the main goal when making capital investments, namely to expect a high rate of return or large profits in the future (Anggita et al., 2021), if the company can create profits high, the level of return that can be obtained by shareholders also tends to be high. So that the high level of investment decisions that come from high share prices is a consideration in making investment decisions for investors, where if they make investment decisions at the right time, namely when the company's share price is high, the hope of getting big profits will also be higher.

H3: Investment decisions influence company value.

2.8 The Influence of Profitability, Share Prices, and Investment Decisions on Company Value

Profitability, share prices and investment decisions are related to each other for company value. Profitability is the ability to create profits which can later attract investors because this will reflect how much share dividend the company gives to investors (Kurnia, 2019). Good profitability can illustrate that the company's price can increase, later this can also have a good effect on the value of the company, by continuing to increase the price of shares ownedthis also means maximizing the welfare of investors. If more shareholders invest their capital, the company's share price will increase (Natanael, 2021).

Share prices can also be related to investment decisions, because if the company's share price is good and tends to be stable and can be predicted to generate large profits in the future, this will attract many shareholders or prospective shareholders to invest their funds in the company. Investment decisions from potential investors are alsoused as the main aspect of the company's financial management policies because investment funds that enter the company must be able to produce or realize benefits in order to achieve profits in the future (Piristina & Khairunnisa, 2019).

H4: Profitability, share price and investment decisions influence company value simultaneously.

3. Methods

3.1 Samples

In this research, a technique was used to determine the research sample, namely through a purposive sampling technique, a technique for determining a sample that uses several specific criteria to determine which companies canbe studied that are in accordance with the consideration of the criteria needed for the data produced to be valid. To produce a suitable sample for this research, several necessary criteria were created, including:

1. Food & beverage companies that have been listed on the IDX in 2017 – 2021.
2. The company has published its complete financial reports for the 2017 – 2021 period.
3. The company publishes the closing share price for the fourth quarter of 2017 – 2021.

3.2 Operational Variable

Variable	Definition	Indicator	Scale
Profitability	Profitability is the company's ability to create profits through its capital, assets and sales. (Ramdhonah et al., 2019).	ROE: Earning After Tax/ Equity	Ratio
Share Price	The share price is the price created by the company for outside parties who wish to have shareownership rights (Octavina & Komalasari, 2017).	Closing price of shares listed on the IDX at the end of the year concerned.	Nominal
Investation decision	An investment decision is a determination of capital investment for a long period of time and is expected to obtain profits generated by the company in the future (Piristina & Khairunnisa, 2019).	PER : Share Price / Earning Per Share	Ratio
Firm Value	Company value is a level of success of company performance which describes share prices from demand and supply in the capital market (Piristina & Khairunnisa, 2019).	PBV: Share Price / Share Book Value	Ratio

3.3 Data analysis method

Based on the explanation outlined in chapters one and two, namely the problem formulation and research hypothesis, overall this research can have a tiered relationship involving independent variables, namely profitability, share prices, and investment decisions which can have an impact or influence on the dependent variable. namely the value of the company. This research will use the Eviews v.12 application to analyze the data it has to find out the results of this research.

3.4 Panel Data Regression

There are 3 approaches that can be taken when you want to perform panel data regression, including the Common Effect Model, Fixed Effect Model, and Random Effect Model (Santi, 2017).

1.   Common Effects Model

The Common Effect Model (CEM) can be said to be a very easy approach, this approach does not focus on aspects of time or individuals by assuming behavior among company data in various periods of the same time. This model estimates the model using the OLS method with combined data from cross-sections and time series data.

2.   Fixed Effect Model

Fixed Effect Model (FEM) is said to be if there are differences in effects between individuals where these differences can be facilitated by differences in intercepts. To find out differences and be able to estimate differences in intercepts between individuals, dummy variable techniques will be used in this research.

3.   Random Effect Model

The Random Effect Model (REM) assumes that there are differences in time and also individuals which are describedby intercepts, where existing differences can be facilitated through error by estimating that error has a correlation with the cross-section and time series.

4.   Results and Discussion

4.1 The Effect of Profitability on Company Value

From the hypothesis test carried out previously, Profitability has a good effect on Company Value, this is shown by the probability, namely $0.0011 < 0.05$, meaning that H1 is accepted because the level of profitability that acompany can produce can influence company value, a high level of profitability will also increase company value. increase. The results of this research are in line with research (Ramdhonah et al., 2019) which shows that profitability can have a positive impact on company value because high company value means that the company can manage the capital it has so that the profits created can be large.

The research results which show the influence of profitability on company value support the signaling theory used, where this theory focuses on the company (as the owner of the information) in conveying signals to recipients of information (investors or users of financial reports) through conveying the level of profit generated by the company recorded in the company's annual financial report. So that profits recorded in a company's annual financial report can be used by recipients of the information as an indicator of company value.

4.2 The Effect of Share Prices on Company Value

From the hypothesis test carried out previously, the share price variable has a good effect on company value, this is shown by the probability, namely $0.0000 < 0.05$, meaning that H2 is accepted because the company's share price is stable or tends to increase, which can indicate that the company is able to provide good results. for investors where this will also affect the value of the company. The results of this research are in line with research by (Nu'man,2021) and (Kurnia, 2019) which states that share prices have a good effect on company value because high share prices can create prosperity for investors, which will also affect company value significantly. maximum.

The research results which show that there is an influence between share prices on company value support the signaling theory used, where this theory focuses on conveying information in the form of share prices recorded in the company's annual financial report or published on the IDX every day, where these share prices can be a determinant of whether it is worth buying by investors or not, if the share price owned by the company is high or tends to be stable,this can be a hope for investors or potential investors to get a high rate of return in the future.

4.3 The Effect of Investment Decisions on Company Value The Effect of Investment Decisions onCompany Value

From the hypothesis test carried out previously, the Investment Decision variable has a good effect on Company Value, this is shown by the probability, namely $0.0041 < 0.05$, meaning that H3 is accepted because a highlevel of investment decisions can be an indicator that the company value is in good condition, which is increasing. Investors who invest in a company will have an influence on the capital owned by the company and if the company can manage capital well this will also benefit investors. The results of this research are in line with (Anggita et al., 2021) who say that investment decisions have a good effect on company value because many investment activities can provide good signals for business development, where later share prices can also be used as an indicator to increase company value.

The research results which show the influence of investment decisions on company value support the signaling theory used, which focuses on the level of investment decisions seen in the company's annual financial reportwhich reflects how many shares investors buy, the more shares there are. purchased by investors, the expected level of return is also high, so that a high level of investment decisions based on the number of shares the company sells toinvestors can affect the value of the company.

4.4 The Influence of Profitability, Share Prices, and Investment Decisions on Company Value

From previous tests, it shows that Profitability, Share Prices and Investment Decisions have a good effect onCompany Value simultaneously. The results of the F Test hypothesis test obtained a Prob(F-statistic) value of $0.000000 < 0.05$ and an F-statistic of $33.51430 > 2.68$, so it can be concluded that Profitability, Share Prices and Investment Decisions influence both Company Value simultaneously and H4 is accepted .

Then, based on the results of the R2 test, we obtained a value of R-square of 0.443814 or (44.3%), which means that the independent variables Profitability (X1), Share Price (X2), and Investment Decisions (X3) can influence or explain the dependent variable Company Value. Meanwhile, the remaining 55.7% was influenced or explained through other variables that were not in this study.

Profitability is the company's ability to create profits which will attract investors because this will reflect how much share dividend the company can distribute to investors. Good profitability can illustrate that the company's share price can increase, later this can also have a good effect on the value of the company, by continuing to increase the price of shares owned this also means maximizing the welfare of shareholders. The more shareholders who invest, thehigher the share price in the company can be (Natanael, 2021). Investment decisions from potential investors are also used as the main aspect of the company's financial management policy because investment funds entering the company must be able to produce or realize benefits in order to achieve profits in the future (Piristina & Khairunnisa, 2019).

5. Conclusion

The aim of this research is to find out whether company value can be affected by profitability, share prices and investment decisions with food & beverage companies listed on the IDX with a research period of 5 years from 2017 - 2021 as the object, the research sample is 26 companies, total data 130 data observations were determined in accordance with the sample selection criteria that had been carried out. Based on the results of the data that has been tested, the following conclusions can be made:

1. The Profitability Variable (X1) influences the Company Value (Y) of food & beverage companies listed on the IDX in 2017 – 2021.
2. The share price variable (X2) influences the company value (Y) of food & beverage companies listed on the IDX in 2017 – 2021.
3. The Investment Decision Variable (X3) influences the Company Value (Y) of food & beverage companies listed on the IDX in 2017 – 2021.
4. The variables Profitability (X1), Share Price (X2), Investment Decisions (X3) have an influence on Company Value (Y) simultaneously in food & beverage companies listed on the IDX in 2017 – 2021.

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Does the Leadership Style for Managing a Virtual Team Different Compared to Conventional Team?

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Abstract

Technological evolution and developments, added with the presence of COVID-19, have pushed most companies to work with remote work designs. Working virtually can result in less effectiveness of some team activities such as negotiation, communication, brainstorming, making decisions, and giving sensitive feedback. Therefore, the role of team leader became more critical than ever to maintain the effectiveness of their team performance. The exchange of work and information through the internet makes the virtual teams perform different kinds of behavior from usual conventional teams, consequently it results in a new leadership style called E-Leadership. The purpose of this study is to find empirical support for the effects of E-Leadership on virtual team members performance and the role of digital communication as a moderating variable to increase the positive impacts of E-Leadership in virtual team setting. The sample of this study are employees who currently work or have worked with related virtual design teams during the COVID-19 pandemic collected by distributing online questionnaire. The total respondents were 97. The results show that E-Leadership significantly affects the virtual team member's performance. And digital communication is a moderating variable between E-Leadership and virtual team member's performance. For team leaders, they need to understand and acquire first the skill of using digital communication technology, then make sure that the team members also understand about it.

Keywords
E-Leadership, Virtual Team, Performance, Digital Communication

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1. Introduction
Developing a system work design that is flexible and adaptive is a must for the company nowadays. Since the 1970s, flexible work design such as telework, telecommuting, and flexi work have been known to help reduce traffic congestion from the effects of daily work to home commuting (Mungkasa, 2020) [2]. The presence of COVID-19, however, has forced companies to adopt remote work designs in immediate effect as a response to a global health urgency. Jobs that require high-intensity physical contact are threatened and must quickly adapt to emergency situations where a reduction in physical contact in daily activities is needed. The healthcare industry, with a score of 87, is one of the highest areas with daily physical contact activities while office company working with computers got a score of 68 (Lund, et al., 2021). Each score means that both industries got significant impact from the effects of COVID-19.

Fortunately, switching from conventional to virtual working is quite easy for companies with the help of technological developments. However, employees might have difficulties adapting because of the difference in procedures or even behavior to carry out their work. Especially for teams, working virtually could risk an erosion over trust, cohesion, and shared culture thus making teams performance less effective (Alexander et al., 2020). The challenge of maintaining effective team performance becomes the focus for team leaders and their subordinates. Virtual team refers to work groups who work remotely and are geographically dispersed through internet-based information technology as a way of communication (Chae, 2016). The exchange of work and information through the internet makes virtual teams create different behaviors from conventional team, consequently resulting in a new leadership type called E-Leadership. Effective E-Leadership requires leaders to be competent in a virtual environment, knowing the tools and how to use ICT (Information and Communications Technology) (Wart et al., 2017), also integrating traditional media (direct communication) with ICT (email and video conferences) (Torre & Sarti, 2020). However, how did E-Leaders help their team to maintain the effectiveness of virtual team member's performance? What is the role of digital communication between E-Leadership and the performance of virtual team members?

Recent studies showed that communication is one of the key points for E-Leadership to have such as communicating related to the task, giving constant feedback, and minimizing miscommunication (Victor et al., 2021), (Maduka et al., 2018), (Sari & Hendriani, 2019). The effectiveness of communication, with digital communication as a media, therefore, helps E-Leadership to maintain the virtual team member's performance effective (Bhat et al., 2016). The objective of this study is to find the effects of E-Leadership on the effectiveness of virtual team member's performance and to find the moderating role of digital communication to increase the positive impacts of E-Leadership in virtual team settings.
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2. Literature Review

2.1 E-Leadership

Leadership style, according to (Yukl & Gardner, 2019), can be differentiated based on the behavior of the leader into 6 parts such as task-oriented, relations-oriented, change-oriented behavior, transformational leadership, empowering leadership, external behavior, and proactive influence tactics. For E-leadership, in this case, exhibit change-oriented behavior leader because they will give attention to and push towards change. The changes themselves functioned as a response to new working environment where human interaction is mediated by information and communication technology (Kohntopp & McCann).

The definitions of E-Leadership known to be the most taken from (Avolio et al., 2015), where they propose that E-Leadership is a social influence process both in proximal and distal mediated by AIT (Applied Information Technology) that could generate changes in behavior, sense, thought, attitude, and performance. Stressed that the technology, in this case, operates at two different levels, that is proximal (refers to the context closest to leaders and their subordinates), and distal (relates to the entire organization culture environment) (Avolio et al.,2015). Gladys (2014) collected characteristics and elements of successful virtual organization leadership from various studies that have been carried out for the last years. Leaders with virtual work environment need to have characteristics such as concerns for the human element, inspiration and motivation, trust, clear and frequent communication, and career-enhancing training (Gladys, 2014). The need to develop and manage communication skill both in listening and speaking, the relationship with technology, level of confidence, and the ability to finalize the content of the message through the tools used became an important implication for E-Leadership (Torre & Sarti, 2020).

2.2 Effectiveness of Virtual Team Member's Performance

Team performance consists of four elements, namely: effectiveness, efficiency, learning and development, and team member's satisfaction (MacBryde & Mendibil, 2013). According to Steers, cited by (Harry, 2020), effectiveness comes from the word effective, which means that a job could be said as effective when it can be produced and completed on time and in accordance with the plan. Employee performance, however, refers to how employees behave in the workplace and how well they perform their job duties (West, 2012). Organizations can measure their employee's performance based on their work effectiveness and this applies to teams as well. When employees work in a team, we measure their work according to the member's input to the team.

(West, 2012) defined team effectiveness through 5 components, such as task effectiveness which is how far the team can achieve the assigned task successfully, team members well-being which is related to the factors with member well-being like their mental health, development, and growth, team continuity which is the possibility that the team will continue work together and function effectively, team innovation which is how far team can develop and implement new process, products, and procedures that is more advanced, and how well they can cooperate with another team in the organization. This means that employees need to perform these components in order to make their team work effectively.

2.3 Digital Communications

Development and innovations to digital era is used mainly to drive working process and communication systems (Bowen & Pennaforte, 2017). Communicating using any electronic transmission of information encoded digitally and transmitted via digital media is called digital communications (Grewal et al., 2021). Digital communication allows networking where at the same time connects more than one user, which then allows the user to initiate connections with multiple or specific users (Barry et al., 2012). The digitalization of communication in addition, can be understood as a process of technology where media can be easily break up, handled, linked, and distributed widely which allows people to network, collaborate, and communicate interactively (Scolari, 2019).

Digital communication technology plays a major role and offer great benefits supporting both working and leisure aspects (Deursen & Dijk, 2019). In the end, digital communications are one of the most frequently used modes of communication nowadays where people generally rely communication through digital media for their daily life and most importantly, business communications (Na-Nan et al., 2019).

2.4 Hypothesis Development
2.4.1 E-Leadership and The Effectiveness of Virtual Team's Member Performance
The effectiveness of employee performance in virtual team setting can be an indication of how well employees can do their job, whether they both achieve or go beyond the target, and their satisfaction as the team's member. Because virtual teams take place in a new environment and different locations, E-Leadership plays a more important role in ensuring their team members performance effectivity. A recent study conducted by (Wolor et al., 2020) said that E-Leadership have a positive impact on employee's performance as long as companies pay attention to the factors influencing E-Leadership.

The contingency theory of leadership (Dessler, 2017) explained that a leader needs to fit their leading style according to the current situation in order to be effective. This theory is applicable to E-Leadership because employees, or team members tend to have confusion and struggle in understanding how to do their work virtually. In this case, E-Leadership can take roles in relationship focusing on task when assisting their subordinates facing the challenges of doing their work with different locations (virtually) (Brown et al., 2021). Therefore, we assume that E-Leadership itself have a positive impact in team member's performance effectiveness.
H1: E-Leadership have a positive significant effect on virtual team's member's performance effectiveness.

2.4.2 E-Leadership, Digital Communications, and The Effectiveness of Virtual Team's Member Performance
Digital communication technology allows our society to interact almost effectively and in real time, helping to increase our productivity. In this case, the interaction between E-Leadership and their team members depends on digital communications. Both the skill and technology of digital communication technology help enable E-Leaders to send their message and hopefully understood by its recipients. (Roman, et al., 2018) argues that E-Leadership don't need to be excellence in all 6 dimensions they develop, but actively failure in each dimension can affect their effectiveness, which is where one of the dimensions is E-Communication or digital communication. This means digital communication impacts how e-leadership to be effective, in turn making the team members also perform effectively.

Digital communication therefore plays a role in increasing or decreasing the effects of E-Leadership on virtual team's members' performance effectiveness. Hence, we develop our second hypothesis with the assumption that digital communication could work as a moderating variable in this relationship as stated below.
H2: Digital communication plays as a moderator in the effect of E-Leadership on virtual team's members performance effectiveness.

3. Methods
The sample for this study is collected through distributing online questionnaire to workers who have worked or ever worked with teams in virtual setting especially during or after the pandemic of COVID-19, and whether there is addition to the team in the span of 1-3 months back. The total of respondents collected were 97, with 46 males and 51 of them are females. A total of 67 respondents had previously worked in virtual teams, while 30 other respondents started working in virtual teams during the COVID-19 pandemic. The respondents came from different educational backgrounds from high school to Doctorate Degree and worked in various industry from private to government's company. In this study, the relationship and effects between E-Leadership, digital communication, and virtual team's member's performance effectiveness are estimated using Linear Regression with the help of SPSS Software.

4. Results and Discussion
4.1 Numerical Results
The result of this study can be seen in Table 1, representing results of E-Leadership and virtual team member's performance effectiveness regression analysis.

Table 1
E-Leadership and Virtual Team Member's Performance Effectiveness

Independent Variable	Dependent Variabel	Coefficient	Significant	Result
E-Leadership	Virtual Team Member's Performance Effectiveness	0,484	0,000	H1 Supported

E-Leadership is positive (p=0,484) and has a significant result of 0,000 (p<0,05) indicating that E-Leadership significantly affects the virtual team member's performance. It can be said that E-Leadership has a direct and positive

effects on virtual team member's performance. Whilst Table 2 shows the results of E-Leadership and virtual team member's performance effectiveness with digital communication as a moderating variable.

Table 2
Digital Communications as Moderating Variable

Variable	Coefficients	Significant	Result
E-Leadership & Digital Communications on Virtual Team Member's Performance	-0,173	0,458	Not Supported
Digital Communication as Moderation	0,732	0,02	H2 Supported

When Digital Communications plays a role as independent with E-Leadership, the coefficients change from positive to negative (p=-0,173) with significant of (0,458) making E-Leadership and Digital Communication has a negative insignificant effect on virtual team member's performance. On the other hand, Digital Communication as a moderating variable is positive (p=0,732) with significant of (0,02). Thus, this result supported the hypothesis with digital communication as moderating variables. Which means digital communication is a moderating variable between E-Leadership and virtual team member's performance.

4.2 Discussion

E-Leadership, in previous studies, has been found to have a mixed result of having negative and positive impact on employee. In this case, the research is set for team members who have worked and led by a leader in virtual setting. This study contributes to leadership literature in emergence of new frequently used leadership style called E-Leadership. The terms of E-Leadership are increasingly being used since the development of information technology added with COVID-19, which then increased the remote working system. Research in this field became more important because we need to understand about the best practice on implementing this new type of leadership both from the skills needed and factors affecting it to become the rightful E-Leader.

Communication is one of the main differentiation between E-Leadership and conventional leader where E-Leadership mainly uses digital communication technology to communicate in virtual settings. Indicating that E-Leadership needs digital communication as a support to maintain their team member's performance effectiveness. This in turn, is in line with the research hypothesis supported with results obtained.

This study finds that E-Leadership has a positive significant effect on virtual team member's performance effectiveness. Meaning that E-Leadership alone could make the performance of its team become effective. But with the support of digital communications as a moderating variable, it increases the positive effects E-Leadership has on virtual team member's performance.

5. Conclusion

Research results showed that E-Leadership has a positive significant effect on virtual team member's performance effectiveness. Digital communication is positive and significant as a moderating variable. Hence, this study concluded that in order to be more effective, digital communication is required on the relationship between E-Leadership and team member's performance. From our research, the implication for organizations is that they need to provide the right digital communication technology for their teams. Knowing exactly what technology is needed and the ability of the team are very much important. For team leaders, they need to understand and acquire first the skill of using digital communication technology, then making sure that the team members also understand about it. After giving clear explanations and making sure everyone understands, leaders need to know all the features the technology provided to utilize it into its full potential and help members to achieve their goals.

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The Influence of Professional Ethics, Emotional Intelligence, and Gender on Decision-Making for External Auditor (Empiral Case Study at Public Accountant Office in DKI Jakarta)

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Abstract

Public accountants have a responsibility in making the accurate and right decisions when auditing a company's financial statements, in hope that the final audited financial statements are made without any external or internal influences and can be trusted and used by publics to make an economic decisions that will not harm one particular party. The purpose of this study is to determine whether professional ethics, emotional intelligence, and gender have an effect on external auditor decision-making. The data collection methods used in this research is quantitative methods using Google form media to collect questionnaires with a likert scale to determine the likely of actions of auditors, meanwhile the analysis technique of the existing data in this study was carried out using Partial Least Square (PLS) methods. The total sample in this study included 109 respondents consisting of internship, junior auditors, senior auditors, assistant managers, and also managers at multiples Public Accountants Office (KAP). Based on the results of data, professional ethics have a positive and significant influence, meanwhile emotional intelligence and gender has a negative or no effect on external auditor decision-making.

Keywords

Decisions Making, Emotional Intelligence, External Auditor, Gender, Professional Ethics

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1. Introduction

The rapid globalization of this era has made competition in the business world a fierce one. Business operators continue to compete, trying to increase the company's credibility to build trust with consumers or service users in order to stay in the tight competition. It is not uncommon for businesses to cheat by doing 'window dressing' where the company tries to beautify their financial statements by increasing profits and reducing losses. The prettiest financial statements will be used by companies to attract new investors.

As already stated in the Financial Accounting Standards Statement (PSAK 1) Number 1, financial statements are used to provide information on the financial position, performance, and cash flow of companies that can be used by the community to make economic decisions, and show management accountability for the use of resources entrusted to the company.

To ensure that the financial statements published by the company are in accordance with the facts in the field, an audit of the financial statements conducted by external auditors working at the Public Accountants Office (KAP) is required. Unfortunately, there are still many cases where auditors do not perform their duties properly. Evidently from the case that occurred back in the 2019, KAP Tanubrata, Sutanto, Fahmi, Bambang, and Partners with AP Kasner Sirumapea. There was an error in the 2018 Financial Statements where Garuda Indonesia had recorded revenue from PT Mahata Aero Teknologi amounting to US 239.94 million, which in fact, PT Mahata had not made payment until the end of 2018. Because of the misrecorded issue, the Ministry of Finance through the Financial Profession Development Center conducted an examination of the CAP and AP that audited the Financial Statements. (Released from pppk.kemenkeu.go.id).

As for the case that recently also happened to one of the KAPs in DKI Jakarta, namely KAP Crowe Indonesia, it was mentioned that there were allegations of embezzlement of Rp 17 trillion in funds, the failure of AP

to identify this could cause users of financial statements to be harmed, Therefore, the KAP and AP were sanctioned by the OJK because they participated in the role and took full responsibility for the audit of the financial statements he conducted. (Released from finansial.bisnis.com)

With descriptions of cases occurring, some negligence was made by the KAP and AP when auditing a financial statement from a particular company so that a well-formed reputation could be threatened by a case like this. According to Kusuma (2011), there are 4 things that must be owned and implemented by an auditor to maintain the professionalism and credibility of the CAP, namely professional ethics, accounting standards and expertise, auditing standards, and understanding of the state of the business environment to be audited.

The code of ethics aims to regulate the behavior of professional members and protect the community of audit service users (Adiningsih, 2019). Abdul Mughni (2020) also explained that professional ethics are organizational actors that will affect auditor performance. Auditors are required to have high intellectuals in order to provide the maximum benefit in the performance of their duties as stated in article 2 paragraph 2 of the Indonesian Code of Ethics (IAI) 1998 on professional competence.

The ethical codes that have been drafted by the Indonesian Accountants Association at the VIII congress in 1998 and must be followed by the auditors are as follows, 1) Integrity; 2) Objectivity; 3) Professional Competency and Discipliness; 4) Confidentiality; 5) Professional Conduct. This principle requires a commitment to behave honorably, even at the expense of personal gain.

In improving the quality of audit reports, not only understanding and performing professional ethical behavior, an auditor should also have competent intelligence, because intelligence determines the poor performance of a person. The four types of intelligence, namely mental, emotional, somatic, and intuitive intelligence. Meanwhile, Goleman (2015) said that emotional intelligence accounts for 80% of the success factor, while the other 20% is determined by intellectual intelligence.

Another factor affecting auditor decision-making is gender. According to Sugihastuti (2007), gender is the difference in behavior (behavioral differences) between men and women created by humans through long social and cultural processes. Over time, a concept of gender was formed, in which women were seen as weak, beautiful, emotional, and motherly by society, and men were seen as strong, male, rational, and mighty (Fakih, 2006).

Meanwhile, according to Larimbi (2012), the characteristics brought by women and men to work are very different, where men are selective information processors that only obtain information and tend to miss small signs, while women are fully involved in analyzing each part of the available information.

The main research question of this study is, what is the relationship between professional ethics, emotional intelligence, gender, and decisions making for external auditors? Sub research questions are as follows;
1. What is the relationship between professional ethics and decisions making for external auditors?
2. What is the relationship between emotional intelligence and decisions making for external auditors?
3. What is the relationship between gender and decisions making for external auditors?

Based on the identified research questions, the main research objective in this study is to identify the relationship between professional ethics, emotional intelligence, gender, and the decisions making by external auditor.

In this research, the sample used is the Public Accountant Office located in DKI Jakarta province. The reason for the use of the sample is because over the past few years, there have been more than 7 Public Accountants and Public Accountants Offices centered in DKI Jakarta province that received sanctions from the Financial Services Authority (OJK) where permission to audit financial statements in Indonesia was temporarily revoked or frozen.

This study will help in increasing the role and image of external auditor in Public Accountant Office in DKI Jakarta. This study will help the management predict employees will act in the future and how important the external audit function will be. It will also help prevent fraud and improve the company's performance. It will also help them find ways to take advantage of opportimotoes amd redice the chances of high-risk areas in the company. By following the suggestions, management will be able to improve the performance of their employees. Scholars will be able to understand about external audit and learn more about it, which will help them follow the professional ethics, and how to stabilize their emotion at all time. Researchers can use this research to do more studies in the same area or one that is related to it. It can be used as a theoretical basis for the new research.

2. Literature Review
2.1 Theoretical background
The theory of attribution was first developed in 1958 by Fritz Heider, who explained that a person's behavior would be determined by internal factors that could be traits, character, attitudes, and so on, and also external that could be situations or circumstances in which there is an influence on an individual's behavior.

Attribution theory describes the reasons for an individual's reaction to a situation, so that an individual's attitude or characteristics are continuous with the behavior that an individual has when an individual faces a certain condition that requires them to act. This theory explains the surrounding situations that cause a person's behavior in social perception called dispositional attributions and situational attribution. Dispositional attributes are internal causes that refer to aspects of individual behavior, such as personality, self-perception, ability, and motivation. Situational attributes are external causes that refer to the surrounding environment that can affect behavior, such as the condition of social values and the view of society.

Fritz Heider (1958) also explained that internal forces such as ability, effort, and fatigue as well as internal forces such as the environment and weather can affect human behavior. He emphasized that indirectly, the things that happen around an individual, are one of the things that most affect human behavior. Harold Kelley (1973), a well-known psychologist, states that every individual has a rational thought, and that rational thought is encouraged to understand the causal structure of their environment. If this is fulfilled, there will be external attribution, but if not, it will be expressed as a result of self-state or internal attribution.

According to Robbins and Judge (2008), the determination of whether behavior is caused internally or externally is influenced by three factors:

a. Specificity, in which one would perceive the behavior of another individual differently in contrasting situations. If a person's behavior is considered normal, it will be considered an internal attribute. On the contrary, if the behavior of an individual is considered extraordinary, then another individual acting as an observer will give an external attribution.

b. Consensus means that everyone has similar views in responding to one's behavior in the same situation. If consensus is high, then it includes internal attribution, otherwise if consensus is low, it includes external attribution.

c. Consistency is when one assesses another's behavior with the same response over time. The more consistent that behavior is, people will relate it to internal attribution, and vice versa.

If this is fulfilled, there will be external attribution, but if not, it will be expressed as a result of self-state or internal attribution. The relationship between attribution theory and this study is relevant because there is an explanation for the factors that can affect Public Accountants in decision making when conducting audit procedures. It is explained that the assessment taken by a person is influenced by the surrounding conditions, both internal and external. With this grand theory, it can be reflected in a person's condition when making large and precise decisions.

2.1 Professional Ethics
Ethics is derived from the Ancient Greek "*ethikhos*", which means habit or attitude due to certain routines. Where from that sense it can be inferred that ethics is the science of the attitude and nature of an individual who grows up in a particular environment and has principles related to conduct that are considered to be right in that environment. It does not mean that every act that is done routinely can be interpreted as ethics, ethics require a critical, methodical, and systematic attitude in reflection. Hence, ethics can be referred to as science whose object is human conduct. Unlike other sciences that examine human nature, ethics sees the good and bad of human actions or normative perspectives.

Every profession that provides service to the community must have a code of ethics, which is a set of moral principles governing professional behavior (Agoes, 2018). Professional ethics is the characteristic of a profession that distinguishes a profession from another and serves to regulate the conduct of members of the organization. The Indonesian Institute of Public Accountants Section 100.1 (2020) stated that one of the things that distinguishes the profession of public accountants from other professions is the responsibility of the profession of public accountants in protecting the public interest. So that every practitioner must adhere to the entire basic principles of the code of ethics when acting in the public interest. Without professional ethics, accountants will not be able to function properly in performing their duties, namely to provide information that users can use for business decision-making.

The Indonesian Accountants Association (IAI) at the VIII congress in 1998 decided on the principles of Professional Ethics of the Indonesian Accountants Association which were then outlined in the Ethics Rules of the IAI Public Accountants Department. This principle is according to the commitment to behave honorably, even at the expense of personal gain. This principle is then divided into five principles, namely; 1) Integrity, 2) Objectivity, 3) Professional Competency and Care, 4) Confidentiality, and 5) Professional Conduct.

As explained by Agoes (2014), here are some benefits of the professional code of ethics:

a. Provide motivation through the use of peer pressure by maintaining a generally recognized set of behavioral expectations that must be considered in the decision process.
b. Provide more stable guidelines on right or wrong than relying on human personality.
c. Making demands in the face of a gray situation.
d. Leads the behavior of employees and also oversees the authorization power of superiors.

In a study conducted by Nurhafika and Tiara (2022), it was mentioned that professional ethics had a positive effect on external auditor decision-making. In his research, Nurhafika and Tiara explained that professional ethics are useful in increasing responsibility, emphasizing the principles of professionalism, resulting in discipline, avoiding interference, and more.

In line with the research conducted by Istianingsih and Robertus (2021), it was concluded that the implementation of professional ethics had a significant positive influence on external auditor decision-making. It is said that when auditors have good professional ethics and firmly hold the established code of ethics, they will be better at considering the materiality of financial statements. Therefore, hypothesize that:

H1: Professional ethics are positively related to decisions making by external auditor

2.2 Emotional Intelligence

Emotional intelligence refers to the ability to recognize others' feelings and feelings, the ability to motivate themselves and the ability to manage emotions well in themselves and in relationships with others. Furthermore, Goleman (2015) divided emotional intelligence into five main components:

a. Self-awareness is the ability of an individual to know what he or she feels at certain times and will later be used to guide self-decision, have a realistic measure of self-confidence and strong self-confidence.
b. Self-regulation is the ability of an individual to control and handle his or her own emotions in such a way that it positively impacts the performance of tasks, has sensitivity to the word of the heart, and is able to delay pleasure before reaching a target and recover from emotional distress.
c. Self-motivation is the deepest desire to move and lead oneself to a target, help to take initiative and act effectively, and be able to survive and rise from failure and frustration.
d. Empathy is the ability to feel what others feel, be able to understand other people's perspectives, and foster relationships of mutual trust, and be able to align themselves with sharing types of relationships.
e. Social skills include mastering well when connecting with others and carefully reading situations and social networks, interacting smoothly, using these skills to influence and lead, discussing, and resolving disputes. According to the above concept, emotional intelligence is essentially a control of emotional use in oneself. How one can manage one's emotions to be more beneficial so that what one does will remain in control.

According to Istianingsih and Robertus (2021), emotions in a person can affect one's performance, one can have difficulty concentrating on doing something when one's emotional level is unstable. An individual's emotions can be affected by the environment because of the demands that must be met. emotional intelligence has a positive and significant influence on external auditor decision-making. The higher an individual has emotional intelligence, the higher the decision making for an auditor.

This study is in line with the research conducted by Putri, Yancik, and Cheryya (2022) under the title "The Influence of Professional Ethics and Emotional Intelligence on Auditors' Opinion. It is said that emotional intelligence has no effect on the auditor's opinion because even though the auditor is not good at managing his emotions, the auditor must still be professional in doing his job to get the best results without harming any of the parties. Therefore, hypothesize that:

H2: Emotional intelligence are positively related to decisions making by external auditor

2.3 Gender

In an organization, all members must have made a decision on a matter. Gender is one of the most important factors in decision-making. Gender in this study is not only the gender of the auditor, but also the attitude and traits of a man

or woman that can change over time and work environment (Harmon, 2017). Gender is a trait that is already flesh-blooded with a person. Because of the concept of gender, women are generally seen as weak, beautiful, emotional, and motherly, while men are better known as strong, male, rational, and mighty (Harmon, 2017).

According to Sugihastuti (2007), gender is the difference in behavior (behavioral differences) between socially applied men and women (socialization approach) and structural (structural approach), or differences created by humans through long social and cultural processes. The approach socially states that gender changes over time and from place to place. This approach of socialization brings different traits in the work world, usually men will compete for success and be more likely to break the rules because they view achievement as a competition. Meanwhile, women are more concerned with the performance of their duties well and harmonious working relationships. Women are therefore more adherent to the rules and less tolerant of individuals who break the rules.

While the structural approach states that the differences between men and women are due to early socialization of employment and other role-playing needs. Early socialization was influenced by rewards and costs related to roles in the form of work. Because the nature and work being undertaken shapes behavior through reward structures, men and women will respond equally to ethical issues in the same work environment. Thus, the structural approach predicts that men and women in existing jobs or in training for specialized jobs will show the same ethical priorities.

Thus, it can be concluded that gender is a male-female comparison that can be defined as personality, conduct, role, function, position, responsibility, even habit in the face of situations formed, created, and socialized by norms, customs, and practices. and community trust in the social environment. In a study conducted by Riki and Rina (2018), it was explained that gender had no effect on materiality level considerations. This can be explained by the equity model theory which states that men and women as professionals are identical, so it takes the same way to manage individuals (Palmer, 1997).

In line with the research conducted by Itsna and Susanti (2022), gender has no effect on determining materiality levels on financial statements, which, regardless of the gender of each auditor, includes attitudes, personality, characteristics, how to receive and process information, All fixed auditors must produce accurate audits as a consequence of the profession of public auditors. Therefore, hypothesize that:

H3: Genders are not related to decisions making by external auditor

3. Methods

This section describes the approach taken to conduct this study. Based on the passage above, it is possible to draw a research framework for the influence of Professional Ethics, Emotional Intelligence, and Gender on decision-making for external auditors as shown in the following figure:
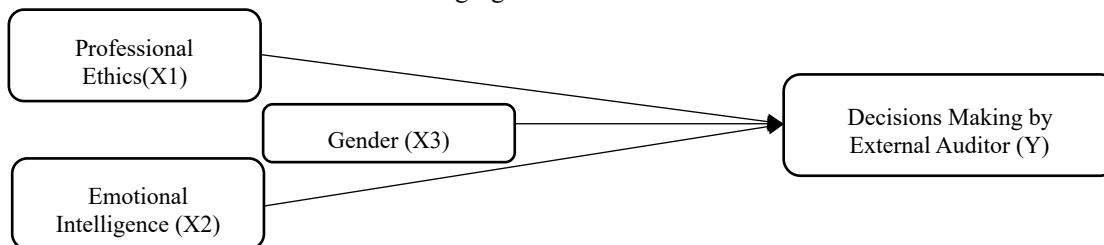
Researchers conducted research by distributing questionnaires to several KAPs found in DKI Jakarta. The distribution of questionnaires was carried out using the method of sending Google Form links through a few social media applications to external auditors who had and/or were still working at the Public Accountants Office (KAP) in the DKI Jakarta area. As a result, the study's populations was 109 external auditors as of 20 June 2023.

A self-administered likert scale questionnaire was circulated to thesamples who were chosen for this investigation. The questionnaire was the primary source of data collection that was considered in the process of fulfilling the goals of this study.

The following steps were included in the process of formulating the question: It was crucial that the study's goals be accomplished in light of the fact that a comprehensive review of the circumstances surrounding the research was carried out. The preceding work on the literature review provided an efficient foundation from which to build the questionnaire.

After the questionnaire survey was finished, the results were entered into a data entry application that had been created with this precise purpose in mind. The data processing was carried out using SmartPLS software, version 4. In order to gauge the development of features and conceptions, the researcher used quantitative content analysis on the responses to the open-ended questions. To gain a general understanding of the sample of professional bankers working in practice, descriptive statistics pertaining to the variables will initially be presented as part of the analytical approaches.

4. Results and Discussion

 4.1 Numerical Results

The data used in this study were primary data, where data were obtained by distributing questionnaires to respondents, namely auditors working at the Public Accountants Office (KAP) in the DKI Jakarta area through Google Form link. The distribution process to data collection took place for approximately 3 weeks, from April 27 to May 20, 2023. There are 3 characteristics of respondents included in this study, namely gender, age, KAP area, and position in CAP. The characteristics of these respondents will be further described in the table of respondents' data as follows:

Table 1: Genders of Respondent
Source: processed primary data (2023*)*

No.	Gender	Total	Percentage
1.	Men	55	50.5%
2.	Women	53	48.6%
3.	Chose not to answer	1	0.9%
	Total	**109**	**100%**

Based on table 4.1.1 above shows that out of a total of 109 respondents, 55 respondents with a percentage of 50.5% were male and 53 respondents with a percentage of 48.6%, then 0.9% or 1 of the remaining respondents chose not to disclose their gender.

Table 2: Territory of KAP

No.	Wilayah	Total	Percentage
1	North Jakarta	3	2.8%
2	EastTimur	3	2.8%
3	South Jakarta	42	38.5%
4	Central Jakarta	50	45.9%
5	West Jakarta	11	10.1%
	Total	109	100%

Source: processed primary data (2023)

The results of the data processing for respondents' education levels can be seen in table 4.1.2 where the table shows that 50 of 109 respondents work in the central KAP area with a percentage of 45.9%, followed by South Jakarta with 42 (forty-two) respondents with a percentage of 38.5%. The third most respondents came from West Jakarta with 11 (eleven) respondents with a percentage of 10.01%. There were 3 respondents with a percentage of 2.8% in each area of East Jakarta and North Jakarta.

Table 3: Positions in KAP
Source: processed primary data (2023)

No.	Positions	Total	Percentage
1	Internship	29	26.6%
2	Junior Auditor	47	43.1%
3	Senior Auditor	22	20.2%

4	Asisten Manager	7	6.4%
5	Manager	4	3.7%
6	Partner	0	0%
	Total	**109**	**100%**

From table 4.1.3, there is information about the positions of respondents at the Public Accountant Office (KAP). Of the 109 respondents, 47 were junior auditors with a percentage of 43.1%. Then 29 of them are still undergoing practical or internship work with a percentage of 26.6%. It was followed by a senior auditor of 22 respondents with a percentage of 20.2%. Then 7 respondents with a percentage of 3.7% were assistant managers, with the remaining 4 being managers with a percentage of 3.7%.

4.2 Graphical Results

After distributing questionnaires to auditors working at the Public Accountant Office (KAP) in the DKI Jakarta area, researchers conducted a validity test on the results obtained. Data validity tests are conducted in relation to measurement processes that tend to be incorrect.

According to Noor (2015), variables are either relatable or valid when variables meet the following criteria:
1. If r-alpha is positive and greater than r-table then the statement is relatable
2. If r-alpha is negative and smaller than r-table then the statement is not reliable
   a. If Cronbach's alpha value is 0 0.7 then it is relatable
   b. If Cronbach's alpha value is 0 0.7 then it is not reliable

Table 4: Construct Reliability Test Result
Source: Output Data Program SmartPLS Ver 4.0

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
X1	0.908	0.914	0.922	0.498
X2	0.867	0.874	0.891	0.409
X3	0.818	0.830	0.860	0.410
Y	0.801	0.817	0.846	0.358

According to table 4.2.1 above, there is information that cronbach's alpha and compsite reliability values from Professional Ethics, Emotional Intelligence, Gender are above 0.7 so it can be said that all constructions are either reliable or valid.

Hypothesis Analysis

In assessment of the significance of the influence between variables, a Bootstrapping procedure is required. The bootstrap procedure uses all the original samples for resampling. According to Noor (2015), the test was performed by looking at the path coefficient (path coefficient) and looking at the test value, if the p-value is 00.05 it can be said that the construct is strong or significant.

Tabel 5: Path Coefficient Test Result
Source: Output Data Program SmartPLS Ver 4.0

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
X1 -> Y	0.580	0.575	0.120	4.831	0.000
X2 -> Y	-0.087	-0.086	0.123	0.706	0.480
X3 -> Y	0.214	0.219	0.117	1.837	0.066

Based on the test of the coefficient path above, it can be concluded that:

1. Professional Ethics P-values are 0.000 which is lower than the significance of 0.05 which means that Professional Ethics has a positive influence. An Original Sample value of 0.580 indicates that the direction of the relationship is positive. Based on the results of the test, the conclusion was that Professional Ethics had a positive and significant effect on the Auditors' decision-making dependent variables. So that the proposed hypothesis is accepted.
2. Emotional Intelligence's P-values are 0.480 which is higher than the significance of 0.05 which means Emotional Intelligence has a negative influence. An Original Sample value of -0.087 indicates that the direction of the relationship is negative. Based on the results of the test, the conclusion was that Emotional Intelligence had a negative and insignificant effect on the Auditors' decision-making dependent variables. So the proposed hypothesis was rejected.
3. Gender P-values are 0.066 higher than the significance of 0.05 which means that Gender has a negative influence. An Original Sample value of 0.214 indicates that the direction of the relationship is positive. Based on the results of the tests, the conclusion was that Gender had a negative and significant effect on the Auditors' decision-making dependent variables. So that the proposed hypothesis is accepted.

R-Square Test

A coefficient of determination (R-square) is a measure of the magnitude of the influence of free variables on bound variables. Supardi (2017) stated that the coefficient of determination is the level of the X variable against the Y variable expressed in percentage (%). The percentage obtained by first square the correlation coefficient multiplied by 100%. A small value of R-Square means that the ability of independent variables to explain the variation of dependent variables is very limited.

When the R-square values reach 0.067, 0.033, and 0.019 it can be concluded that the model is strong, medium, and weak (Chin, 1998). The following are test results from R-Square:

Table 6: R-Square Test Result
Source: Output Data Program SmartPLS Ver 4.0

	R-Square	R-Square adjusted
Decisions Making of External Auditor	0.413	0.396

Based on table 4.2.3, information is given that the R-Square magnitude is 0.413 or 4.13%. This means auditor's decision-making variables that can be explained by Professional Ethics, Emotional Intelligence, and Gender Thus, it can be said that the variable has an effect on Auditor Decision Making.

5. Conclusion

The Effect of Professional Ethics on External Auditor Decision Making on Public Accountants Office in DKI Jakarta

Based on table 4.2.2 which is the result of the coefficient path test, it can be seen that the original sample value of the Professional Ethics against Decision Making of External Auditors at the Public Accountant Office in DKI Jakarta is 0.580 or 5.80% and the p-value is smaller than 0.05. This proves that the Professional Ethics on External Auditor Decision Making at the Public Accountant Office in DKI Jakarta had a positive and significant effect of 5.80%. In a study conducted by Nurhafika and Tiara (2022), it was mentioned that professional ethics had a positive effect on external auditor decision-making. In his research, Nurhafika and Tiara explained that professional ethics are useful in increasing responsibility, emphasizing the principles of professionalism, resulting in discipline, avoiding interference, and more.

In line with the research conducted by Istianingsih and Robertus (2021), it was concluded that the implementation of professional ethics had a significant positive influence on external auditor decisionmaking. It is said that when the auditor has good professional ethics and firmly holds the established code of ethics, it will be better in considering the materiality level of financial statements.

The research conducted by Abdul Mughni, Dr. Hendro Sasongko, and Lia Dahlia Iryai in 2020 under the Influence of the Implementation of Professional Ethics and Emotional Intelligence on Decision Making for Auditors stated that professional ethics had a positive and significant effect on auditor decision making. It was stated that

ideally an auditor has integrity that upholds moral and ethical values so that the decisions he makes not only refer to his own interests but also to the interests of others including his environment.

The Effect of Emotional Intelligence on External Auditor Decision-Making on Public Accountants' Office in DKI Jakarta

Based on table 4.2.2 which is the result of the coefficient path test, it can be seen that the original sample value of Emotional Intelligence against External Auditor Decision Making at the Public Accountant Office in DKI Jakarta is -0.087 or -0.87% and the p-value is greater than 0.05. This proves that the Emotional Intelligence of External Auditors' Decision Making at the Public Accountants Office in DKI Jakarta has a negative and insignificant effect of -0.87%

This study is in line with research conducted by Putri, Yancik, and Cheryya under the title "The Influence of Professional Ethics and Emotional Intelligence on Auditors' Opinion. It is said that emotional intelligence has no effect on the auditor's opinion because even though the auditor is not good at managing his emotions, the auditor must still be professional in doing his job to get the best results without harming any of the parties.

Gender Influence on External Auditor Decision-Making in Public Accountants Office in DKI Jakarta

Based on table 4.2.2 which is the result of the coefficient path test, it can be seen that the original sample value of the Gender Against Decision-Making External Auditors at the Public Accountant Office in DKI Jakarta is 0.214 or 2.14% and the p-value is greater than 0.05. This proved that the Professional Ethics on External Auditor Decision Making at the Public Accountants Office in DKI Jakarta had a negative and significant effect of 2.14%.

This study is in line with the research conducted by Riki Prasetyo and Rina Trisnawati in 2018 under the title of Influence of Professionalism, Professional Ethics, and Gender on Materiality Level Retrieval. It is stated that Gender does not affect materiality considerations because whatever gender an auditor, male and female should be a professional (Palmer, 1997). Riki and Rina (2018) concluded that gender was not influential due to the gender equality they gained in their profession as auditors.

In line with the research conducted by Itsna Arief Ardhiansyah and Susanti in 2022 under the title Professional Ethics, Professionalism, Gender, and Knowledge of Materiality Level Retrieval. It is stated that Gender has no effect on materiality level considerations because regardless of the gender of each auditor, including attitude, personality, characteristics, and how to receive and process information, auditors should still be required to produce accurate audits as a consequence of the public auditor's profession.

Acknowledgement

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The Effect Of Growth Opportunity, Leverage, And Managerial Ownership On Accounting Conservatism In Manufacturing Companies Listed On The Indonesia Stock Exchange For The Period Of 2019-2021

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ABSTRACT

The objective of this study is designed to test and conduct the research correlation between factors influencing accounting conservatism in Indonesia. This study aims to prove the effects of Growth Opportunity, Leverage, and Managerial Ownership towards Accounting Conservatism in manufacturing companies listed on the Indonesia Stock Exchange (IDX). This research is taking the samples of manufacturing companies that are listed on IDX for the period 2019-2021. The Independent variables used in this study are Growth Opportunity, Leverage, and Managerial Ownership and the dependent variable is Accounting Conservatism. This research adopted the quantitative method using secondary data from financial reports from companies listed on the Indonesian Stock Exchange. The sample in this study is focused on processing the data taken from the sector of 37 manufacturing companies. The data collection method used is the purposive sampling method. The data analysis method uses multiple linear regression models. The results showed that the three variables studied had no effect on accounting conservatism in manufaturing.

Keywords
Growth Opportunity, Leverage, Managerial Ownership, Accounting Conservatism

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1. INTRODUCTION

The company is a business entity and is involved in transactions with many parties, which certainly has high risks. These unavoidable business risks can be associated with future growth opportunities, such as when the company needs funds for company growth that can be obtained either from internal company funding (retained earnings), or from loans to external parties which of course must be accounted for by submitting information in the form of financial statements about company performance. Financial statements as a source of information on company performance must be milked according to applicable accounting principles where one of the principles that become a reference in preparing financial statements is the principle of conservatism (Daryatno & Santioso, 2020).

In the presentation of financial statements, companies are given the freedom to choose accounting methods that are in accordance with the circumstances and conditions of the company based on the requirements of Financial Accounting Standards (SAK). Management freedom in choosing accounting methods can be used to produce financial statements. But in practice, policies in freedom in choosing accounting methods used are often misused by managers in preparing and presenting financial statements, such as manipulation of numbers on financial statements so that the financial statements do not reflect the actual financial situation and condition of a company. The choice of accounting method will affect the figures presented in the financial statements. Therefore, it can be said that indirectly the concept of accounting conservatism will affect financial statements (Tazkiya & Sulastiningsih, 2020).

The first factor that influences accounting conservatism is growth opportunities, which are opportunities for companies to invest in activities that generate profits. Companies with high growth opportunities require large amounts of funds to finance future growth (Putri et al., 2021). The second factor that affects accounting conservatism is leverage, which is a ratio that shows how much debt or capital finances a company's assets. The higher the level of leverage, the greater the likelihood that the company will violate the credit agreement, so the company will try to report higher current profits which can be done by reducing existing costs (Ramadhani & Sulistyowati, 2019).

The third factor that influences accounting conservatism is managerial ownership, the percentage of managerial ownership is considered to influence decisions in the application of conservative accounting methods.Putra et al (2019), In research on the relationship of managerial ownership to accounting conservatism, it is stated that managerial ownership has an effect on accounting conservatism. Managerial shareholding serves as a monitoring tool for financial reporting. This influence indicates that an increase or decrease in the percentage of managerial share ownership is directly proportional to the application of corporate equity conservatism (Ajie Mubarok & Prawira, 2023). The purpose of this study is to prove the effects of Growth Opportunity, Leverage, and Managerial Ownership towards Accounting Conservatism in manufacturing companies listed on the Indonesia Stock Exchange (IDX).

2. LITERATURE STUDY

Positive accounting theory is one of the theories that underlies accounting conservatism. Positive accounting theory conveys the perspective of companies that organize operational activities effectively to meet the survival prospects of their companies. Positive accounting theory predicts that managers tend to mask poor performance by increasing company profits. There are four contracting problems: information asymmetry, limited tenure of managers, limited manager responsibility, and payment asymmetry that encourage managers to increase profits. Saha holders and creditors seek to prevent overpayments to managers with conservative accounting obligations (Ursula & Adhivinna, 2018). Watts and Zimmerman (1986) argue that there are three hypotheses in positive accounting theory that can motivate managers to do profit management. These hypotheses are the "bonus plan hypothesis, debt covenant hypothesis, and political cost hypothesis." The hypotheses in positive accounting theory that can be used for the selection of management decisions to use the principle of accounting conservatism. These hypotheses have their respective proxies used as factors influencing the selection of accounting conservatism as well as being independent variables in this study (Sulastri & Anna, 2018). Jensen dan Meckling (1976) Agency theory defines as a contract between one or more persons (Principal) involving another person (agent) to perform some service on their behalf that involves delegation of some decision-making authority to the agent. The relationship between agency theory and accounting conservatism lies in agency theory forcing companies to explain all costs and revenues within the company. Managers in achieving good relationships between companies and investors will apply the concept of conservatism. The manager must disclose all costs truthfully so that investors will believe what the company reveals. Thus there are no more misunderstandings between managers and companies as well as between managers and investors. This is due to the attitude of managers who make value in these financial statement items attractive to investors investing in the company (Sinambela & Almilia, 2018).

Accounting Conservatism

Accounting Conservatism according to the Financial Accounting Standard Board (FASB) in the Statement of Financial Accounting Concept (SFAC No.2) Conservatism is a precautionary reaction in dealing with uncertainty in trying to ensure that uncertainty and risk in a business have been considered (Gustina, 2018). Conservatism is an accounting principle that causes debate, there are several views of the pros and cons of applying conservatism to the design of financial statements. The application of conservatism is considered useful and useful when used to calculate uncertainty that has not happened to the company in the future, but in a different view the application of conservatism is said not to describe the proper financial situation that can cause the weight of financial statements to be affected. The application of accounting conservatism aims to minimize the consequences that will occur from the application of the beliefs of managers or managers and owners of companies in recording profits that exceed the limit (Fitriani & Ruchjana, 2020).

The principle of conservatism when applied will result in low profits and assets and debt and costs. This is because conservatism adheres to the principle of slowing revenue recognition and accelerating cost recognition so that reported profits tend to be understatement. While assets are valued at the lowest value and debt is valued at the highest value (Tazkiya & Sulastiningsih, 2020).

2.1 Hyphothesis development

Research conducted by (Akhsani, 2018) states that Growth Opportunity has no effect on accounting conservatism. This is because not all managers apply the principle of conservatism by minimizing profits to meet the needs of investment funds needed by the company in its growth. The company's growth opportunity requires funds that mostly come from external sources, so the company does not minimize profits by implementing accounting conservatism. Referring to the above idea, the author devised the following hypothesis:

H1: Growth Opportunity has no effect on accounting conservatism

Research conducted by (Yunita & Salim, 2022) states that Leverage negatively affects accounting conservatism. This is because the company is in a bad condition due to the high debt ratio of the company. The higher

the level of leverage means that creditors will better supervise financial reporting from management, so management is more required to implement accounting conservatism. Referring to the above idea, the author devised the following hypothesis:

H2: Leverage negatively affects accounting conservatism

Research conducted by (Yunita & Salim, 2022) states that managerial ownership has no effect on accounting conservatism. This is because the ownership of shares by management in manufacturing companies has a low amount so that the sense of ownership owned by management does not have a high sense of ownership. Therefore, management becomes more enterprising and eyeing bonuses rather than the interests of the company. Referring to the above idea, the author devised the following hypothesis:

H3: Managerial ownership has no effect on accounting conservatism

3.METHODS

This study uses Quantitative research by testing hypotheses in testing the two variables used in this study. (Sugiyono, 2019) argues that quantitative methods can be interpreted as research methods based on the philosophy of positivism, used to examine certain populations or samples, data collection using research instruments, quantitative / statistical data analysis, with the aim of describing and testing hypotheses that have been set. The data used in this study is secondary data obtained from the annual report of manufacturing sector companies listed on the IDX in 2019-2021. The number of manufacturing company sectors amounted to 191 companies, after being selected in accordance with the criteria that have been applied, there are 39 companies to be studied. This study was conducted for three years, so the amount of data used amounted to 117 data.

2.2 Independent Variables
3.1.1. *Growth Opportunity*

Growth opportunity is the company's ability to increase the value and scale of its investment. Growth opportunity is measured using stock price, the ratio of market value to book value of capital (Tazkiya & Sulastiningsih, 2020). Market to book value of equity can represent the potential value of a company in the future. The formula from market to book value of equity is:

$$Growth\ Opportunity = \frac{Jumlah\ Saham\ beredar\ x\ Harga\ Penutupan\ Saham}{Total\ Ekuitas}$$

3.1.2. *Leverage*

The leverage ratio is a ratio that shows the comparison of debt owned by a company with its assets or capital. This study uses the total debt to equity ratio (DER) as an indicator that can measure the leverage ratio.

$$DER = \frac{Total\ Hutang}{Total\ Ekuitas}$$

3.1.3. Kepemilikan Manajerial

Managerial ownership is a condition where the manager owns shares in the company or the manager is also a shareholder in the company. Ownership in the study is calculated by indicators:

$$Kepemilikan\ Manajerial = \frac{Jumlah\ Saham\ Manajerial}{Jumlah\ Saham\ Yang\ Beredar}$$

2.3 Dependent Variables

The dependent variable in this study is accounting conservatism. Accounting conservatism is a precautionary principle that better recognizes burdens and liabilities. Accounting conservatism is measured using models from Givoly and Hayn (2000) in Savitri (2016: 46). This model focuses on the impact of conservatism on the income statement over several years. Accounting conservatism is measured by total accruals minus cash flows of operating activities. As for the formula, it is:

$$CONACC = \frac{(NIO + DEP - CFO)\ x\ (-1)}{TA}$$

Information:

CONACC : level of corporate conservatism
NIO   : Net profit of the company
DEP   : Depreciation of the company
CFO   : Cash flow from the company's operating activities
TA   : Total assets

2.4 Data Analysis method
Descriptive Statistical Analysis
Descriptive statistics are statistics used to analyze data by describing or describing the data that has been collected as it is without intending to make conclusions that apply to the general or generalization (Sugiyono, 2019).

Test Model
The most suitable effect to be used, then the model test is carried out. There are three models tested to determine the method, which are as follows (Agus Widarjono, 2018):
Chow Test
The Chow test is a test applied to choose between a common effect model and a fixed effect model. The basis for decision making in the chow test uses probability cross-section F with the following criteria. If the probability value ≥ 0.05 then the approach model taken is the common effect model. If the probability value ≤ 0.05, then the approach model taken is a fixed effect model.
1. Hausman Test
   The Hausman test is a test applied to choose between a fixed effect model and a random effect model. In decision making on the Hausman test using probability cross-section random with the following criteria. If the probability value ≥ 0.05 then the approach model taken is a random effect model If the probability value ≤ 0.05, then the approach model taken is a fixed effect model.
2. Lagrange MultiplierTest
   The Lagrange Multiplier test is a test used to choose between a random effect model and a common effect model. In decision making on the Lagrange Multiplier test using the Breusch-pagan probability cross section with the following criteria. If the Probability value ≥ 0.05 then the approach model taken is the common effect model. If the Probability value ≤ 0.05 then the approach model taken is a random effect model.

4. RESULTS AND DISCUSSION
4.1 Descriptive Analysis
This study used two variables, namely the dependent variable and the independent variable. The dependent variable in this study is the company's financial performance, while the independent variables in this study include Growth Opportunity ratio, Leverage ratio, Managerial Ownership Ratio. The data source used comes from the annual report of manufacturing sector companies listed on the Indonesia Stock Exchange (IDX) in the 2019-2021 period. Based on the descriptive analysis that has been carried out, the following results are obtained:

Table 4. 1 Descriptive Test Results
Source: Processing Data Using eViews 12

	CONACC	GO	LEV	KM
Mean	-0.223411	1.970862	0.788621	0.144741
Median	-0.194782	1.252670	0.703550	0.057587
Maximum	0.094843	8.534523	3.343348	0.923698
Minimum	-0.765248	0.241027	0.088486	0.000157
Std. Dev.	0.156540	1.834095	0.571147	0.216135
Skewness	-1.134119	1.541823	1.763193	2.127490
Kurtosis	4.976002	4.865880	7.641804	7.263235
Jarque-Bera	44.11623	63.32809	165.6610	176.8651
Probability	0.000000	0.000000	0.000000	0.000000
Sum	-26.13907	230.5909	92.26869	16.93464

Sum Sq. Dev.	2.842547	390.2131	37.84025	5.418857
Observations	117	117	117	117

Based on table 4.1, it can be seen that accounting conservatism using the CONACC indicator has a minimum value of -0.765248 and a maximum value of 0.094843, the results show that the magnitude of CONACC in manufacturing companies sampled in this study ranges from -0.765248 to 0.094843 with an average value of -0.223411 at a standard deviation of 0.156540.

Based on table 4.1, it can be seen that GO has a minimum value of 0.241027 and a maximum value of 8.534523. The results show that the amount of GO in manufacturing companies sampled in this study ranges from 0.241027 to 8.534523 with an average value of 1.970862 at a standard deviation of 1.834095.

Based on table 4.1, it can be seen that the LEV has a minimum value of 0.088486 and a maximum value of 3.343348. The results show that the magnitude of the LEV ranges from 0.088486 to 3.343348 with an average value of 0.788621 at a standard deviation of 0.571147

Based on Table 4.1, it can be seen that KM has a minimum value of 0.000157 and a maximum value of 0.923698. The results show that the magnitude of KM in manufacturing companies sampled in this study ranges from 0.000157 to 0.923698 with an average value of 0.144741 at a standard deviation of 0.216135.

4.2 Chow Test

Table 4. 2 Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	16.463012	(38,75)	0.0000
Cross-section Chi-square	261.429604	38	0.0000

Based on table 4.2, it is known that the statistical value of cross-section chi-square is 261.429604 with a Probability value of 0.0000. This means that the value obtained is less than 0.05, so statistically H1 is accepted and H0 is rejected. So it can be concluded that in this Chow test, the selected model is Fixed Effect Model (FEM).

4.3 Hausman Test

Table 4. 3 Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.678697	3	0.0829

Based on table 4.3, the value of the statistical distribution of Chi Square is 6.678697 with a probability value of 0.0829. It concludes that more than 5%, then statistically H1 is accepted and H0 is rejected. So in this Hausman test, the selected model is the Random Effect Model (REM).

4.4 Lagrange Multiplier Test

Table 4. 4 Lagrange Multipler Test Results

| | Test Hypothesis | | |
	Cross-section	Time	Both
Breusch-Pagan	77.56353 (0.0000)	0.151089 (0.6975)	77.71462 (0.0000)
Honda	8.807016 (0.0000)	-0.388702 (0.6513)	5.952647 (0.0000)
King-Wu	8.807016 (0.0000)	-0.388702 (0.6513)	1.590449 (0.0559)
Standardized Honda	9.279448 (0.0000)	-0.004620 (0.5018)	2.027398 (0.0213)
Standardized King-Wu	9.279448 (0.0000)	-0.004620 (0.5018)	-0.450630 (0.6739)
Gourieroux, et al.	--	--	77.56353 (0.0000)

Based on table 4.4 the value of the Breusch-Pagan Cross section distribution is 77.56353 with a probability value of 0.0000. It concluded that less than 5%. So in this Lagrange Multiplier test, the selected model is the Randomn Effect Model (REM).

4.5 Normality Test
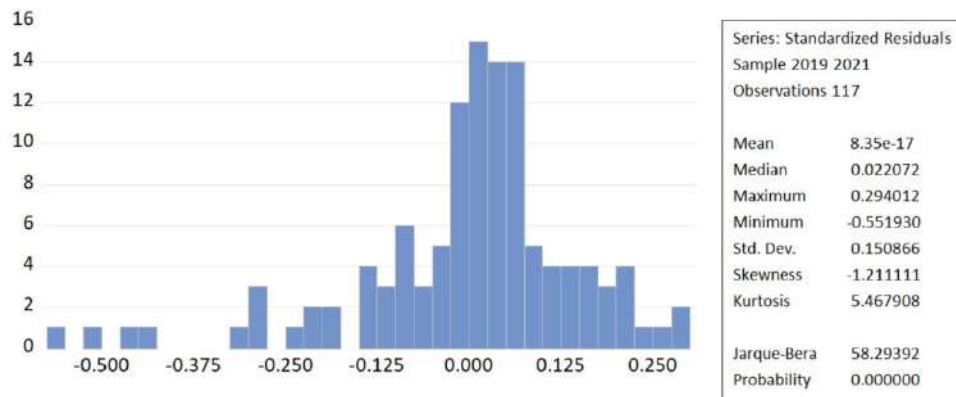
Figure 4.1 Normality Test

Based on the results of the study in figure 4.1, it can be seen that the probablitiy value is 0.000000 or less than the significant value of 0.05, so it can be concluded that the data is not distributed normally. (2011) The normality test is only applied if the number of samples is less than 30, but if the number of samples exceeds 30 then the normality test can be ignored. This hail is in line with what was stated by (Basuki &; Prawoto, 2015) that the normality test is not a condition for the Best Linear Unbias Estimator and according to some opinions the normality test is not a condition that must be met.

4.6 Multicollinearity Test

Table 4. 5 Multicollinearity Test Results

	GO	LEV	KM
GO	1.000000	-0.157150	-0.086588
LEV	-0.157150	1.000000	-0.265601
KM	-0.086588	-0.265601	1.000000

Based on table 4.5, it can be seen that the correlation value between GO and LEV is -0.157150. The correlation value of GO with KM is -0.086588. The correlation value of LEV with KM is -0.265601. It is known that all data is less than 0.80 (<0.80), so it can be concluded that there is no multicollinearity problem.

4.7 Heteroscedasticity Test

Table 4. 6 Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.084792	0.031067	2.729362	0.0074
GO	-0.010845	0.005873	-1.846424	0.0674
LEV	0.043925	0.023840	1.842471	0.0680
KM	0.050566	0.074276	0.680780	0.4974

Based on table 4.6 heteroscedasticity test results using the Glejser test, it can be concluded that there is no heteroscedasticity problem. This is because the probability value of each independent variable is greater than 5%, then H0 is accepted and H1 is rejected.

4.8 Random Effect Model (REM)

Based on the Chow test, Hausman test, and Lagrange Multiplier test, the selected model is the Random Effect Model (REM).

Table 4. 7 Regression Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.170779	0.041002	-4.165188	0.0001
GO	-0.004093	0.007180	-0.570099	0.5697
LEV	-0.035745	0.030978	-1.153873	0.2510
KM	-0.113133	0.105237	-1.075034	0.2846

Effects Specification			S.D.	Rho
Cross-section random			0.139570	0.8463
Idiosyncratic random			0.059484	0.1537

Weighted Statistics				
Root MSE	0.059402	R-squared		0.020702
Mean dependent var	-0.053381	Adjusted R-squared		-0.005297
S.D. dependent var	0.060285	S.E. of regression		0.060445
Sum squared resid	0.412852	F-statistic		0.796264
Durbin-Watson stat	1.703792	Prob(F-statistic)		0.498437

Unweighted Statistics				
R-squared	0.071174	Mean dependent var		-0.223411
Sum squared resid	2.640231	Durbin-Watson stat		0.266421

From the table can be compiled panel data regression equation as follows:

> Konservatisme Akuntansi = -0.170779 – 0.004093GO – 0.035745LEV –
> 0.113133KM

Based on this equation, it can be described as follows:

a. The value of the negative constant is -0.170779, indicating that the variables GO, LEV, KM are not constant.
b. he regression coefficient of the GO variable is negative, which is -0.004093. This shows that if GO increases, it will decrease the application of accounting conservatism by 0.004093 assuming that other variables are constant.
c. The regression coefficient of the negative LEV variable is -0.035745. This shows that if the LEV increases, it will decrease the exposure of accounting conservatism. of 0.035745 assuming the other variable is constant.
d. The regression coefficient of the KM variable is negative, which is -0.113133. This shows that if KM increases, it will decrease the application of accounting conservatism by 0.113133 assuming that other variables are constant.

4.9 Hypothesis testing results
4.9.1 Simultaneous Significance Test (F Test)
Based on the test results in table 4.7, it is known that the value of Prob F-Statistic is 0.498437. This shows that the value is greater than the level of significance. So that GO, LEV, and KM do not simultaneously affect the conservatism of corporate accounting in the manufacturing sector.

4.9.2   Partial Statistical Test (T Test)
The t-table value of 1.98099 is obtained from k = 3 (Number of variables), n = 117 (Number of samples), then df = 114. When viewed from the percentage point of the t-distribution with a significance level of 5%, the t-table value is 1.98099. The following is a partial test of each independent variable against the dependent variable:

a. Based on the output in table 4.7, it is known that the t-count value in the GO variable is -0.570099 which means smaller than the t-table value with a probability value of 0.5697 which means greater than the significance level. Then it can be concluded that the GO variable does not have a negative and insignificant effect on the accounting conservatism of manufacturing companies. Meanwhile, the regression coefficient value of GO is -0.004093, meaning that if the GO level increases by 1%, it will reduce financial performance by 0.004093 assuming other variables are considered constant.

b. Based on the output in table 4.7, it is known that the t-count value in the LEV variable is -1.153873 which means smaller than the t-table value with a probability value of 0.2510 which means greater than the significance level. Thus, it can be concluded that the LEV variable does not have a negative and insignificant effect on the accounting conservatism of manufacturing companies. Meanwhile, the regression coefficient value of the LEV is -0.035745, meaning that if the LEV level increases by 1%, it will decrease financial performance by 0.035745 assuming other variables are considered constant.

c. Based on the output in table 4.7, it is known that the t-count value in the KM variable is -1.075034 which means it is smaller than the t-table value with a probability value of 0.2846 which means greater than the level of significance, it can be concluded that the KM variable does not have a negative and insignificant effect on manufacturing companies. Meanwhile, the regression coefficient value of KM is -0.113133 meaning that if the value of KM increases by 1%, financial performance will decrease by 0.113133 assuming other variables are constant.

4.9.3 Coefficient of Determination Test

Based on table 4.7, it can be seen that the Adjusted R-Squared value of -0.005297 can be interpreted that the independent variables, namely GO, LEV, and KM variables are -0.05% while the remaining 99.95% is influenced by other factors that are not contained in the model. That is, the variables GO, LEV, KM cannot predict accounting conservatism.

4.10 Research Discussion

Based on table 4.7, it can be seen that the independent variable Growth opportunity has a coefficient of -0.004093 with a probability value of 0.5697. value at probability greater than 0.05. thus, the independent variable Growth opportunity has no negative and insignificant effect on accounting conservatism. The results of this study are in line with research conducted by Akhsani (2018) stating that Growth Opportunity has no effect on accounting conservatism. This is because not all managers apply the principle of conservatism by minimizing profits to meet the needs of investment funds needed by the company in its growth. The company's growth opportunity requires funds that mostly come from external sources, so the company does not minimize profits by implementing accounting conservatism. Agency theory states that the application of accounting conservatism is inseparable from the interests of management maximizing its interests at the expense of the welfare of its shareholders, and based on the results of this study, growth opportunity does not influence a manager in determining the application of accounting conservatism in his company.

Based on table 4.7, it can be seen that the independent variable Leverage has a coefficient value of -0.035745 with a probability value of 0.2510. value at probability greater than 0.05. thus, the independent variable Leverage has no negative and insignificant effect on accounting conservatism. The results of this study are not in line with research conducted by Yunita & Salim (2022) stating that leverage has a positive effect on Accounting conservatism. However, in line with research conducted by (Haryadi et al., 2020) and (Youlanda et al., 2021) stated that leverage has no effect on Accounting conservatism. It is explained that high leverage has no effect on conservatism, because the higher the leverage the less conservative a company is, if the company applies accounting conservatism, the company will form a lot of reserve funds so that the profits shown in the company's statements tend to be low. To be able to make creditor confidence increase in providing loans, the company will show higher profits.

Based on table 4.7, it can be seen that the independent variable Managerial Ownership has a coefficient value of -1.075034 with a probability value of 0.2846. The probability value is greater than 0.05. thus, the independent variable Managerial Ownership has no negative and insignificant effect on accounting conservatism. The results of this study are in line with research conducted by Yunita & Salim (2022) stating that Managerial Ownership has no effect on Accounting conservatism. This is because the ownership of shares by management in manufacturing companies has a low amount so that the sense of ownership owned by management does not have a high sense of ownership. Therefore, management becomes more enterprising and eyeing bonuses rather than the interests of the company.

5. CONCLUSION

Based on the results of data analysis and discussions that have been carried out in the previous chapter, it can be concluded that:

1. The results of the growth opportunity variable test in this study do not have a negative and insignificant effect on accounting conservatism in manufacturing companies listed on the Indonesia Stock Exchange for the 2019-2021 period.

2. The test results of variable leverage in this study do not have a negative and insignificant effect on accounting conservatism in manufacturing companies listed on the Indonesia Stock Exchange for the 2019-2021 period.

3. Test results The managerial ownership variables in this study do not have a negative and insignificant effect on accounting conservatism in manufacturing companies listed on the Indonesia Stock Exchange for the 2019-2021 period.

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Comparative analysis of the influence of liquidity ratios, activity, leverage, and operating profit margins on rights issues before and after the occurrence on the Indonesian stock exchange for the 2017-2019 period

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Abstract

This research aims to determine the differences in the company's financial performance after rights issue by doing a comparison of 1 year before and after, 2 years before and after, and 3 years before and after. This research used companies that conducted rights issues for the period 2016-2019, thus obtaining 19 samples of manufacturing companies listed on the Indonesia Stock Exchange. This study uses purposive sampling and 4 ratios to represent financial performance, including; Current Ratio, Total Asset Turnover, Leverage Ratio, and Operating Profit Margin. The results of this study indicate that there was no significant change between before and after the rights issue, or it can be concluded that the company has not been able to improve its financial performance after rights issue.

Keywords

1. Introduction

In this globalization era, the capital market has a very important role in economic life. The capital market is used as a forum for investment and to bring investors together with companies to allocate capital between them. Companies wishing to increase capital can take advantage of the existence of the capital market to sell shares and inject capital into the company for a long period. Conducting a rights issue is one of the company's alternatives to obtain additional funds (PT Bank CIMB Niaga Tbk, 2020).

The right issue is also known as Pre-emptive Rights or Preemptive Rights. The right issue is a limited public offering of shares. Right issues are conducted by companies to support certain corporate action plans or to increase working capital (MNC Sekuritas). The right issue is a public offering which means the company makes an offer to the public to buy shares, while the meaning of limited is that the public offering is addressed to shareholders first. The activity carried out by a company, first of all, is to issue the right to own shares. Each receipt of shares received from a shareholder gives the right to buy a new share at a certain agreed price and is generally worth the same or more than the nominal value of the shares (Sunariyah, 2000: 135). In a rights issue, old shareholders have the right to buy shares in advance to maintain their portion of ownership shares in the company.

The financial performance of a company is an achievement that has been achieved over a certain period and this reflects the health of the company. The company's financial performance is one aspect of the basic assessment of the company's financial condition that can be made based on the company's financial matrix analysis. One way to find out whether a company's performance is good or not is to do a financial ratio analysis. Financial ratio analysis serves as a determinant of company performance used by company management. Meanwhile, financial ratio analysis for investors serves to determine the place of investment based on the financial condition of the company that will be used as a place of investment.

Reporting to idxchannel.com (2021) Right Issues are Valued as a New Source of Growth amid a Pandemic because by conducting a rights issue the company will get large amounts of fresh funds from investors which can be used to develop businesses, pay debts, and many others. Quoted from detikFinance (2021) on September 8 2021 Bank BRI conducted the largest Right Issue in history, the fresh funds obtained from the right issue will later be used by the company to form an Ultra Micro BUMN Holding with 2 other BUMNs, namely Pegadaian and PNM (Permodalan Nasional Madani). The rest, the funds in cash will be used as the company's working capital in the context of developing ultra-micro ecosystems, as well as micro and small businesses.

Reporting from liputan6.com (2023) Bank BTN received Rp. 4.13 trillion in funds from a rights issue and used it to support the expansion of new financing. Thanks to the funds from the Right Issue, Bank BTN has stronger fundamentals and is more resilient at times. Bank Indonesia recently raised its benchmark interest rate to 5.75 percent from 5.50 percent previously. After the reference rate rises, banks face the cost of funds challenge

because depositors are more inclined to look for banks that dare to offer higher deposit rates, so banks that have sufficient liquidity and an abundant portion of CASA will avoid this situation. From this explanation, the management of Bank BTN explained that the proceeds from the Right Issue would be used to increase Bank BTN's financing capacity, especially for the low-income community (MBR) segment.

From the background above, the problems in this study will be formulated as follows:
1. Does the Liquidity Ratio affect before and after the issuance of the Right Issue?
2. Does the Activity Ratio affect before and after the issuance of the Right Issue?
3. Does the Leverage Ratio affect before and after the issuance of the Right Issue?
4. Does the Operating Profit Margin Ratio affect before and after the issuance of the Right Issue?

Based on the background and theory above, the purpose of this research is as follows:
1. To analyze changes in the Liquidity Ratio to Right Issue.
2. To analyze changes in the Activity Ratio to Right Issue.
3. To analyze changes in Leverage Ratio to the Right issue.
4. To analyze changes in the ratio of the Operating Profit Margin to the Right Issue.

2. Literature Review

Issuance of Preemptive Rights is a limited general expansion to old shareholders to issue priority. The right issue or proof of right is an equity derivative. What is meant by right is a right that gives priority to old shareholders to buy newly issued shares to allow old shareholders to maintain their percentage of ownership in the company. Companies that have conducted an initial public offering (IPO) or commonly known as an initial public offering will certainly have many shareholders (investors) from organizations and individuals. After the IPO process, the company can issue new shares to raise new funds. Investors who are members of the company will have priority to buy new shares before offering them to new investors. The rights granted to the old investors are known as rights issues. Then, if this right is not used by old investors, it can be exercised by new investors or commonly called reserve buyers. Exact numbers are usually given based on proportions. For example, if the ratio given is 1:2, then each shareholder will have two rights to buy the newly issued shares. The price of the new shares issued in the process of issuing the rights is called the price of the rights. The right price may be lower, equal to, or higher than the current market price of the stock. However, if the company wants to provide additional profits to existing investors, most of the rights prices are below the market price. Therefore, old investors who want to increase the number of shares purchased in the company will have the opportunity to get a cheaper share price than the price of shares purchased on the Indonesia Stock Exchange. (Bareksa, 2015)

The terminology regarding Preemptive Rights is a translation of the legal provisions governing the existence of preemptive rights that exist for each old shareholder in a limited liability company, in which every shareholder registered in the register of shareholders is entitled to obtain the right to purchase new or issued shares in a limited liability company. company portfolio. This right is the mechanism regulated in the offer regarding rights issue, so that technically a company listed on the stock exchange, can issue new shares where later there will be the right to buy at a certain price and nominal that has been determined.

The right issue is a limited public offering, where a public offering means new shares are offered publicly and a limited meaning means offering new shares to old shareholders first, therefore the conditions and steps specified in Bapepam rules regarding public offerings regarding subscription rights are not much different. in general public offering conditions. However, in a public offering, we recognize that there are parties who become partners in the sale of shares, for example, a securities company that becomes the principal or underwriter in a limited public offering. There are no underwriters because those who have to take new shares as a result of a capital increase are the shareholders who have the rights, there are also parties who become replacement buyers if it turns out that some or all of the shares are not used by the company's old shareholders.

The liquidity ratio proxied by the Current Ratio indicates the company's ability to meet obligations that must be fulfilled immediately. The current ratio is often used by creditors to indicate the level of security a company has in fulfilling its obligations when making loans. If current liabilities increase faster than current assets, the current ratio will decrease rapidly. This shows that there is a slow change in current assets into cash. Conversely, if current assets increase faster than current liabilities, this is also not good. This shows that the company is not profitable because current assets are not utilized properly. Companies that are good in their current ratios must be analyzed by taking into account several factors such as the average industry ratio, the frequency of making loans, the timeliness of repayments, and so on. The relationship between the rights issue and the current ratio should have differences and influences both before and after the rights issue. Research conducted by (Ibella, 2017) explains that CR has a positive and significant effect on Right Issues. Candraningrat (2017) also explains that CR has an effect but is not significant on the Right Issue. This proves that there is a difference between before

and after doing a Right Issue. There is a difference in CR after the company conducts the right issue because the company uses the money obtained from the right issue to add funds that will be used to fulfill its obligations.

The activity ratio is represented by Total Assets Turnover which shows how far assets have been used and the efficiency level of using the company's total assets or total assets in generating sales volume and shows how many times assets are rotated in a certain period. If analyzing this ratio over several periods shows a trend that tends to increase, it gives an illustration that the more efficient use of assets increases so that business results will increase. This ratio is a comparison between sales and total assets (Sihaloho & Handayani, 2018). Research conducted by Sihaloho & Handayani (2018) explains that a higher Total Asset Turnover (TATO) ratio means the more efficient use of all assets in generating sales. The faster and more efficient the turnover of assets, the profit earned will increase. This happens because the company has been able to utilize its assets to increase sales. The higher the level of sales will cause the profit earned by the company also increases. That way, it automatically shows that the company's performance is good. This also supports research (Sihaloho & Handayani, 2018) which states that there are differences in TATO before and after a company carries out a Right Issue. The research conducted by Candraningrat (2017) explained that TATO supports the second alternative hypothesis which shows that there is a significant difference in the two-year period before and two years after the Right Issue. The difference that occurs in TATO can be caused by the company using the funds obtained from the right issue as well as possible, such as the company increasing existing assets in order to increase efficiency in asset turnover so that the company can increase sales so that the company gets bigger profits.

The Leverage Ratio is proxied by the Leverage Ratio which is used to measure a company's ability to fulfill its obligations or repay its debts, both short and long-term. In other words, the leverage ratio is a representation of the level of debt a company or business has issued. The research conducted by Kurniawan and Yasha (2017) explained that if the Leverage Ratio represented by DER shows an average decrease, then this shows that the proportion of company debt has decreased. This supports the research conducted by Kurniawan and Yasha (2017) that there is a significant change in the leverage ratio. LR can have a difference after the right issue because the company uses the funds obtained from the right issue to pay its debts which are near maturity and are used to add capital to finance the company's operational costs.

The Profitability Ratio proxied by the Operating Profit Margin is used to measure a company's ability to generate net profits and net sales over a certain period. In the research conducted (Candraningrat, 2017) it was explained that OPM supported the second alternative hypothesis, namely two years before and after the Right Issue, this was due to a significant increase in OPM. The difference in OPM can be caused by the company using the funds obtained from the rights issue to increase sales as much as possible so that the company gets a large net profit for the next several periods.

From the literature review above, the following hypothesis:
H1: There is a significant difference in CR before and after the right issue.
H1: There is a significant difference in TATO before and after the right issue.
H1: There is a significant difference in LR before and after the right issue.
H1: There is no significant difference in OPM before and after the right issue.

3. Method

The analytical method used in this study is a quantitative method because the data used is secondary data, namely financial reports issued by manufacturing companies listed on the Indonesia Stock Exchange. The secondary data was obtained from the Indonesian Stock Exchange's website and from related company websites. Data analysis using the help of the eViews application 12. The data used in this study came from companies that conducted rights issues during the period from 2016 to 2019. During this period, 26 companies conducted rights issues, but after making selections under the provisions of this study, 19 companies would be researched. If the results of the normality test showed that the data are normally distributed, then the f-test or t-test will be used for hypothesis testing, and if the results from the normality test showed that the data are not normally distributed, then the Wilcoxon paired samples test which will be used.

4. Result and Discussion
4.1 Numerical Result
4.1.1 Description of Research Variables

In this study, the authors used 2 variables, namely the dependent variable and the independent variable. The dependent variable used in this study is Right Issue, while the independent variables used are Current Ratio (CR), Total Assets Turnover (TATO), Leverage Ratio (LR), and Operating Profit Margin (OPM). The source of data in this study was obtained from the financial reports of each company listed on the IDX for the 2016-2019 period.

This research was conducted with one test, namely one year before and one year after the Right Issue. This study uses the company's annual data to see the effect of the right issue in the long term.

The results of the descriptive analysis of the data are shown in the following tables:

Table 4. 1Description of Research Variables result 1 year before and after right issue

	CR -1	CR +1	TATO -1	TATO+1	LR -1	LR+1	OPM -1	OPM +1
Mean	1.465353	1.642165	0.803522	0.681743	38.71229	0.651281	-0.756647	0.041216
Median	1.185208	1.287608	0.694818	0.572991	0.554586	0.549675	0.082736	0.084371
Maximum	4.027645	4.277903	2.863919	1991953	725.3739	3.679494	0.435619	0.398882
Minimum	0.061251	0.003571	0.026816	0.035218	0.033530	0.067161	-8.249856	-0.970060
Std. Dev	1.003377	1.041195	0.788251	0.596380	166.2828	0.766348	2.598468	0.271510
Skewness	0.981670	0.961016	1.630893	0.860959	4.006927	3.445034	-2.560495	-2.755044
Kurtosis	3.397920	3.427845	4.831299	2.585096	17.05550	14.34845	7.588402	11.51676
Jarque-Bera	3.176993	3.069496	11.07771	2.483576	207.2416	139/5394	37.42840	81.45949
Probability	0.204232	0.215510	0.003931	0.288867	0.000000	0.000000	0.000000	0.000000
Sum	27.84171	31.20113	15.26692	12.95312	735.5334	12.37434	-14.37630	0.783106
Sum Sq. Dev	18.12177	19.51357	11.18412	6.402054	497699.7	10.57119	121.5366	1.326914
Observations	19	19	19	19	19	19	19	19

Based on Table 4.1 it can be seen that the number of samples is 19, the number is obtained from 1 year of 19 companies listed on the IDX. Based on Table 4.1, it can be seen that one year before the rights issue the smallest Current Ratio (CR) is 0.061251 and the largest is 4.027645 with an average value of 1.465353 and a standard deviation of 1.003377, while for one year after the rights issue, the smallest Current Ratio (CR) is 0.003571 and the largest is 4.277903. the average value is 1.642165 and the standard deviation is 1.041195, before the rights issue the smallest CR occurred at the company Krakatau Steel Tbk in 2015 and the largest CR occurred at the company Lippo Karawaci Tbk in 2018, while when the rights issue was carried out the largest CR occurred in PT Nippon Indosari Corpindo Tbk in 2018 and the largest CR occurred at PT Visi Telekomunikasi Infrastruktur Tbk in 2020.

It can be seen from the table above that one year before the rights issue, the smallest Total Asset Turnover (TATO) was 0.026816 and the largest was 2.863919. the average value of these data is 0.803522 with a standard deviation of 0.788251. whereas in one year after the right issue, the smallest TATO is 0.035218 and the largest is 1.991953 The average value is 0.681743 with a standard deviation of 0.596380. before conducting a right issue the smallest TATO occurred at PT Jasa Marga Tbk in 2015 and the largest occurred at PT Kirana Megatara Tbk in 2018, while after conducting a right issue the smallest TATO occurred at Krakatau Steel Tbk in 2017 and the largest occurred at Millennium Pharmacon International Tbk in 2018.

As seen from Table 4.1 above, it can be seen that the smallest Leverage Ratio (LR) is 0.033530 and the largest is 725.3739. With an average value of 38.71229 and a standard deviation of 166.2828 before the rights issue, while after the rights issue, the smallest LR is 0.067161 and the largest is 3.679494 with an average value of 0.651281 and a standard deviation of 0.766348. before carrying out a rights issue the smallest LR occurred at the company Ristia Bintang Mahkotasejati Tbk in 2016 and the largest occurred at the company Berlina Tbk in 2014, while after carrying out a rights issue the smallest LR occurred at the Hotel Mandarine Regency Tbk company in 2020 and the largest occurred at the company Tempo Inti Media Tbk in 2019.

It can be seen from Table 4.1 above that one year before the rights issue, the smallest Operating Profit Margin (OPM) was -8.249856 and the largest was 0.435619 with an average value of -0.756647 and a standard deviation of 2.598468. while one year after the right issue the smallest OPM was -0.970060 and the largest was 0.398882 with an average value of 0.041216 and a standard deviation of 0.271510. before the right issue, the smallest OPM occurred at the company Berlina Tbk in 2014 and the largest occurred at the company Nusantara Infrastructure Tbk in 2017 while after the right issue, the smallest OPM occurred at the Hotel Mandarine Regency Tbk company in 2020 and the largest occurred at the company PT Visi Telecommunications Infrastructure Tbk in 2020.

Table 4. 2 Description of Research Variables result 2 year before and after right issue

	CR -2	CR +2	TATO -2	TATO+2	LR -2	LR+2	OPM -2	OPM +2
Mean	2.062403	2.265212	0.835593	0.810721	33.96382	0.579824	-236311.4	0.043447
Median	1.382544	1.453864	0.710419	0.531042	0.561292	0.547580	0.089996	0.086143
Maximum	10.06451	24.80363	3.403966	4.486132	725.3739	3.679494	1.520127	0.919337
Minimum	0.061251	0.003571	0.026816	0.033291	0.033530	0.067161	-8979821.	-1.404158
Std. Dev	2.018110	3.874167	0.816943	0.876037	145.1649	0.558993	1456719.	0.351481
Skewness	2.349791	5.372570	1.732415	2.216851	4.144495	4.582575	-5.918364	-2.074363

Kurtosis	8.707379	31.80937	5.422323	9.261489	18.56086	26.32023	26.02703	11.07034
Jarque-Bera	86.54538	1496.943	28.29844	93.20127	492.1755	994.0693	1948.913	130.3754
Probability	0.000000	0.000000	0.000001	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	78.37132	86.07807	31.75252	30.80740	1290.625	22.03331	-8979832.	1,650969
Sum Sq. Dev	150.6924	555.3392	24.69367	28.39531	779695.7	11.56153	7.85E+13	4.570945
Observations	38	38	38	38	38	38	38	38

As seen from Table 4.2 above, it can be seen that there are 38 samples for each variable obtained from two years in 19 manufacturing companies listed on the IDX. Based on Table 4.2 above, it can be seen that two years before the rights issue the smallest CR was 0.061251 and the largest was 10.06451 with an average value of 2.062403 and a standard deviation of 2.018110, while two years after the rights issue the smallest CR was 0.003571 and the largest was 24.80363 with the mean value is 2.265212 and the standard deviation is 3.874167. before the right issue, the smallest CR occurred in the company Krakatau Steel Tbk in 2015 while the largest CR occurred in the company Ristia Bintang Mahkotasejati Tbk in 2016, after the right issue the smallest CR occurred in the company PT Nippon Indosari Corpindo Tbk in 2018 and the largest occurred in company PT Kirana Megatara Tbk in 2021.

Based on Table 4.2, it can be seen that two years before the right issue the smallest TATO was 0.026816 and the largest was 3.403966 with an average value of 0.835593 and a standard deviation of 0.816943, while two years after the right issue the smallest TATO was 0.033291 and the largest was 4.486132 with an average value - average 0.810721 and standard deviation 0.876037. before the right issue, the smallest TATO occurred in the company PT Jasa Marga Tbk in 2015 and the largest occurred in the company PT Kirana Megatara Tbk in 2017. Meanwhile, after the rights issue, the smallest TATO occurred in the company Ristia Bintang Mahkhotasejati Tbk in 2020 and the largest in the company PT Jasa Marga Tbk in 2018.

Based on Table 4.2, it can be seen that two years before the rights issue the smallest LR was 0.033530 and the largest was 725.3739 with an average value of 33.96382 and a standard deviation of 145.1649, while two years after the rights issue the smallest LR was 0.067161 and the largest was 3.679494 with a value the average is 0.579824 and the standard deviation is 0.558993. before the rights issue, the smallest LR occurred at the company Ristia Bintang Mahkotasejati Tbk in 2016 and the largest occurred at the company Berlina Tbk in 2014, while after the rights issue, the smallest LR occurred at the Hotel Mandarine Regency Tbk company in 2020 and the largest occurred at the company Tempo Inti Media Tbk in 2019.

Based on Table 4.2 it can be seen that two years before the right issue the smallest OPM was -8979821. And the largest is 1.520127 with an average value of -236311.4 and a standard deviation of 1456719. Meanwhile, two years after the rights issue the smallest OPM is -1.404158 and the largest is 0.919337 with an average value of 0.043447 and a standard deviation of 0.351481. before the right issue, the smallest OPM occurred at the company Bentoel International Investama Tbk in 2015 and the largest occurred at the company PT Nippon Indosari Corpindo Tbk in 2016, while after the rights issue, the smallest OPM occurred at the company Ristia Bintang Mahkotasejati Tbk in 2020 and the largest happened to the Berlina Tbk company in 2018.

Table 4. 3 Description of Research Variables result 3year before and after right issue

	CR -3	CR +3	TATO -3	TATO+3	LR -3	LR+3	OPM -3	OPM +3
Mean	2.197139	2.244754	0.806916	0.776065	22.83027	0.612676	-157540.9	0.063189
Median	1.364785	1.462891	0.728617	0.524589	0.561754	0.568249	0.090014	0.084371
Maximum	14.41194	24.80363	3.403966	4.486132	725.3739	3.679494	1.520127	0.919337
Minimum	0.061251	0.003571	0.026816	0.033291	0.033530	0.067161	-8979821.	-1.404158
Std. Dev	2.477962	3.370977	0.731120	0.812230	119.0609	0.553909	1189406.	0.301443
Skewness	2.957364	5.566767	1.715713	2.082951	5.217321	3.978176	-7.349684	-2.323580
Kurtosis	13.17631	36.91928	6.027844	8.934936	28.77637	21.17416	55.01786	14.11202
Jarque-Bera	329.0361	3026.874	49.73849	124.8733	1836.595	934.8083	6939.581	344.5486
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	125.2369	127.9510	45.99419	44.23572	1301.326	34.92250	-8979830	3.601758
Sum Sq. Dev	343.8565	636.3553	29.93404	36.94419	793827.4	17.18163	7.92E+13	5.088588
Observations	57	57	57	57	57	57	57	57

Based on Table 4.3, it can be seen that there were 57 samples, the number was obtained from 3 years in each of the 19 companies listed on the IDX in 2016-2019.

Based on table 4.3, it can be seen that 3 years before the right issue the smallest CR is 0.061251 and the largest is 14.41194 with an average value of 2.197139 and a standard deviation of 2.477962, while 3 years after the right issue the smallest CR is 0.003571 and the largest is 24.80363 with an average value -average 2.244754 and standard deviation 3.370977. at the time before the right issue, the smallest CR occurred in the company Krakatau Steel Tbk and the largest occurred in the company PT Kirana Megatara Tbk in 2016, while after the right issue, the smallest CR occurred in the company PT Nippon Indosari Corpindo Tbk in 2018 and the largest occurred in the company PT Kirana Megatara Tbk in 2021.

Based on Table 4.3, it can be seen that three years before the right issue the smallest TATO was 0.026816 and the largest was 3.403966 with an average value of 0.806916 and a standard deviation of 0.731120, while three years after the right issue the smallest TATO was 0.033291 and the largest was 4.486132 with a value the average is 0.776065 and the standard deviation is 0.812230. before the right issue, the smallest TATO occurred in the company PT Jasa Marga Tbk in 2015 and the largest occurred in the company PT Kirana Megatara Tbk in 2017. Meanwhile, after the rights issue, the smallest TATO occurred in the company Ristia Bintang Mahkhotasejati Tbk in 2020 and the largest in the company PT Jasa Marga Tbk in 2018.

Based on Table 4.3, it can be seen that three years before the rights issue the smallest LR was 0.033530 and the largest was 725.3739 with an average value of 22.83027 and a standard deviation of 119.0609, while three years after the rights issue the smallest LR was 0.067161 and the largest was 3.679494 with a value the average is 0.612676 and the standard deviation is 0.553909. before the rights issue, the smallest LR occurred at the company Ristia Bintang Mahkotasejati Tbk in 2016 and the largest occurred at the company Berlina Tbk in 2014, while after the rights issue, the smallest LR occurred at the Hotel Mandarine Regency Tbk company in 2020 and the largest occurred at the company Tempo Inti Media Tbk in 2019.

Based on Table 4.3 it can be seen that three years before the rights issue the smallest OPM was -8979821. And the largest is 1.520127 with an average value of -157540.9 and a standard deviation of 1189406. Meanwhile, three years after the OPM rights issue the smallest is -1.404158 and the largest is 0.919337 with an average value of 0.063189 and a standard deviation of 0.301443. before the right issue, the smallest OPM occurred at the company Bentoel International Investama Tbk in 2015 and the largest occurred at the company PT Nippon Indosari Corpindo Tbk in 2016, while after the rights issue, the smallest OPM occurred at the company Ristia Bintang Mahkotasejati Tbk in 2020 and the largest happened to the Berlina Tbk company in 2018.

4.1.2 Panel data Regression
4.1.2.1 Common Effect Model (CEM)

Table 4.4 CEM Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CR	0.086148	0.019323	4.458271	0.0000
TATO	0.497339	0.065419	7.602312	0.0000
LR	0.000782	0.000720	1.086431	0.2797
OPM	-1.66E-08	7.28E-08	-0.227963	0.8201

Root MSE	0.638077	Mean dependent var	1.000000
S.D. dependent var	0.000000	S.E. of regression	0.649575
Akaike info criterion	2.009461	Sum squared resid	46.41427
Schwarz criterion	2.105468	Log likelihood	-110.5393
Hannan-Quinn criter.	2.048425	F-statistic	-36.66667
Durbin-Watson stat	0.601049	Prob(F-statistic)	1.000000

4.1.2.2 Fixed Effect Model (FEM)

Table 4.5 FEM Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CR	0.097354	0.016489	5.904026	0.0000
TATO	0.766675	0.056525	13.56336	0.0000
LR	0.000170	0.000573	0.296431	0.7676
OPM	-1.11E-08	5.19E-08	-0.214524	0.8306

Effects Specification			
Cross-section fixed (dummy variables)			

Root MSE	0.382405	Mean dependent var	1.000000
S.D. dependent var	0.000000	S.E. of regression	0.425678
Akaike info criterion	1.301290	Sum squared resid	16.67060
Schwarz criterion	1.829328	Log likelihood	-52.17353
Hannan-Quinn criter.	1.515591	F-statistic	-4.380952
Durbin-Watson stat	3.114110	Prob(F-statistic)	1.000000

4.1.2.3 Random Effect Model (REM)

Tabel 4.6 REM Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CR	0.028712	0.017593	1.632035	0.1055
TATO	0.216804	0.077403	2.800960	0.0060
LR	7.75E-05	0.000563	0.137705	0.8907
OPM	-3.37E-09	5.16E-08	-0.065274	0.9481

Effects Specification			
		S.D.	Rho
Cross-section random		0.595998	0.6622
Idiosyncratic random		0.425678	0.3378

Weighted Statistics			
Root MSE	0.244760	Mean dependent var	0.279925
S.D. dependent var	0.000000	S.E. of regression	0.249171
Sum squared resid	6.829467	F-statistic	-36.66667
Durbin-Watson stat	0.624010	Prob(F-statistic)	1.000000

Unweighted Statistics			
Mean dependent var	1.000000	Sum squared resid	71.06116
Durbin-Watson stat	0.059972		

Source: eViews 12 processed data

4.1.3 Estimation of Model Selection
4.1.3.1 Chow Test

The Chow test is a test that has the objective of determining which model is the best between the Common Effect Model and the Fixed Effect Model in estimating panel data. The following are the results of the Chow test that has been carried out:

Table 4.7 Chow Test Result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	9.119242	(18,92)	0.0000

Cross-section Chi-square	116.731489	18	0.0000

Based on Table 4.7 above, it can be seen that the Cross-Section Chi-square value is 116.731489 with a probability value of 0.0000. this it can be concluded that the value obtained is less than 0.05, so H1 is accepted and H0 is rejected. The best model based on the results of the Chow test is the Fixed Effect Model.

4.1.3.2 Hausman test

The Hausman test is a test that has the objective of determining the best model between the Fixed Effect Model and the Random Effect Model in estimating panel data. The following are the results of the Hausman Test that has been carried out:

Tabel 4.8 Hasil Uji *Hausman*

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.125144	3	0.7710

Based on Table 4.8 above, it can be seen that the Chi-Square Statistics value is 1.125144 with a Probability value of 0.7710. this shows that the probability value is greater than 0.05, so it can be concluded that H1 is accepted and H0 is rejected. Based on the results of the Hausman Test that has been carried out, the selected model is the Random Effect Model.

4.1.3.3 Lagrange Multiplier Test

The Lagrange Multiplier test is a model that has the objective of determining the best model between the Common Effect Model and the Random Effect Model. The null hypothesis of this test states that there is no relationship between composite errors or that the Common Effect Model is better than the Random Effect Model. The following are the results of the Lagrange Multiplier Test that has been carried out:

Tabel 4.9 Lagrange Multiplier test Result

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	166.5128 (0.0000)	89.25097 (0.0000)	255.7637 (0.0000)
Honda	12.90398 (0.0000)	9.447273 (0.0000)	15.80472 (0.0000)
King-Wu	12.90398 (0.0000)	9.447273 (0.0000)	15.00907 (0.0000)
Standardized Honda	13.66657 (0.0000)	10.19227 (0.0000)	13.06199 (0.0000)
Standardized King-Wu	13.66657 (0.0000)	10.19227 (0.0000)	12.46454 (0.0000)
Gourieroux, et al.	--	--	255.7637 (0.0000)

Based on Table 4.9 above, it can be seen that the value of the Breusch-Pagan cross-section is 166.5128 with a probability value of 0.0000. from these results, it can be concluded that the probability value of the Breusch-Pagan Cross-section is less than 0.05. the selected model is the Random Effect Model (REM) based on the results of the Lagrange Multiplier Test above.

4.1.4.1 Multicollinearity Test
According to (Utomo, 2020), multicollinearity is a condition where there is a strong correlation between the independent variables (X) included in the formation of a linear regression model. Following are the results of the Multicollinearity Test that has been carried out:

Table 4.10 Multicollinearity test result

	CR	TATO	LR	OPM
CR	1.000000	0.150116	-0.051063	0.000375
TATO	0.150116	1.000000	0.009553	-0.065805
LR	-0.051063	0.00955	1.000000	0.011702
OPM	0.000375	-0.065805	0.011702	1.000000

Based on Table 4.10 above, it can be seen that the correlation value between CR and TATO is 0.150116. CR correlation value with LR is -0.051063. CR correlation value with OPM is 0.000375. The TATO correlation value with LR is 0.009553. TATO correlation value with OPM is -0.065805. The correlation value between LR and OPM is 0.011702. It is known that all data is less than the value of 0.80 (<0.80), so it can be concluded that there is no multicollinearity problem.

4.1.4.2 Heteroskedasticity Test
According to Hidayat (2013), Heteroscedasticity is the opposite of homoscedasticity, namely a situation where there is an inequality of variance from the error for all observations of each independent variable in the regression model. Following are the results of the Heteroscedasticity Test that has been carried out:

Tabel 4.11 Heteroskedasticity test result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.508789	0.037672	13.50562	0.0000
CR	0.048043	0.008284	5.799771	0.0000
TATO	-0.050489	0.031773	-1.589062	0.1149
LR	-0.000607	0.000286	-2.123994	0.0359
OPM	6.09E-08	2.87E-08	2.119196	0.0363

From Table 4.11 above it can be seen the results of the Heteroscedasticity Test using the Glacier test, can be seen that the probability value of CR is 0.0000, the probability value of TATO is 0.1149, the probability value of LR

is 0.0359, the probability value of OPM is 0.0363. so it can be concluded that the probability value of each variable is less than 0.05, so H0 is rejected and H1 is accepted.

4.1.4.3 Correlation Test

According to Ghozali (2016), the autocorrelation test arises because there are observations that are sequential over time and are interrelated with each other. This study used 19 companies for six years so the number of data studied became 114 samples.

100	1.6540	1.6944	1.6337	1.7152	1.6131	1.7364	1.5922	1.7582	1.5710	1.7804
101	1.6558	1.6958	1.6357	1.7163	1.6153	1.7374	1.5946	1.7589	1.5736	1.7809
102	1.6576	1.6971	1.6376	1.7175	1.6174	1.7383	1.5969	1.7596	1.5762	1.7813
103	1.6593	1.6985	1.6396	1.7186	1.6196	1.7392	1.5993	1.7603	1.5788	1.7818
104	1.6610	1.6998	1.6415	1.7198	1.6217	1.7402	1.6016	1.7610	1.5813	1.7823
105	1.6627	1.7011	1.6433	1.7209	1.6237	1.7411	1.6038	1.7617	1.5837	1.7827
106	1.6644	1.7024	1.6452	1.7220	1.6258	1.7420	1.6061	1.7624	1.5861	1.7832
107	1.6660	1.7037	1.6470	1.7231	1.6277	1.7428	1.6083	1.7631	1.5885	1.7837
108	1.6676	1.7050	1.6488	1.7241	1.6297	1.7437	1.6104	1.7637	1.5909	1.7841
109	1.6692	1.7062	1.6505	1.7252	1.6317	1.7446	1.6125	1.7644	1.5932	1.7846
110	1.6708	1.7074	1.6523	1.7262	1.6336	1.7455	1.6146	1.7651	1.5955	1.7851
111	1.6723	1.7086	1.6540	1.7273	1.6355	1.7463	1.6167	1.7657	1.5977	1.7855
112	1.6738	1.7098	1.6557	1.7283	1.6373	1.7472	1.6187	1.7664	1.5999	1.7860
113	1.6753	1.7110	1.6574	1.7293	1.6391	1.7480	1.6207	1.7670	1.6021	1.7864
114	1.6768	1.7122	1.6590	1.7303	1.6410	1.7488	1.6227	1.7677	1.6042	1.7869
115	1.6783	1.7133	1.6606	1.7313	1.6427	1.7496	1.6246	1.7683	1.6063	1.7874

Figure 4.1 Table Durbin-Watson
Source: Table Durbin-Watson Sig. 5%, k = 4, n = 114

Table 4.12 Autocorrelation test result

Mean dependent var	1.000000	S.D. dependent var	0.00000 0
S.E. of regression	0.648750	Akaike info criterion	2.00691 9
Sum squared resid	46.29645	Schwarz criterion	2.10292 6
Log likelihood	110.3944	Hannan-Quinn criter.	- 2.04588 3
Durbin-Watson stat	0.602468		

In Table 4.12 above the results of the autocorrelation test, the Durbin-Watson value shows a value of 0.602468, and Figure 4.2 above shows a Durbin-Lower (dL) value of 1.6227 and a Durbin-Upper (dU) of 1.7677. Based on these results, the value of the Durbin-Watson test results is below the dL value, namely 0 < 0.602468(DW) < 1.6227(dL) so the data in this study indicate a positive autocorrelation. However, according to Basuki & Prawoto (2016), the autocorrelation test can be ignored in the panel data regression model with the OLS approach because the data tends to be cross-sectional compared to time series.

4.1.5 Hypotesis Test Result
4.1.5.1 F Test

The F test is a test used to find out whether there is a simultaneous effect on the independent variable on the dependent variable (Elkan, 2022).

Table 4.13 nilai Uji F

F-statistic	-36.66667
Prob(F-statistic)	1.000000

Based on table 4.13 above, the probability value of F is 1.000000. It can be concluded that the value is greater than 0.05. So that CR, TATO, LR, and OPM have no simultaneous effect on the company's financial performance.

4.1.5.2 T Test
The T-test is a test used to determine whether there is a partial effect of the independent variable on the dependent variable (Elkan, 2022).

Tabel 4.14 Tabel Hasil Uji T

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CR	0.028712	0.017593	1.632035	0.1055
TATO	0.216804	0.077403	2.800960	0.0060
LR	7.75E-05	0.000563	0.137705	0.8907
OPM	-3.37E-09	5.16E-08	-0.065274	0.9481

Based on Table 4.14 above using the Random Effect Model, the results of the T-test are obtained as follows:
a.   Current ratio variable (CR)
Based on Table 4.14 it is known that the probability of CR is 0.1055 or higher than 0.05. based on these results it can be concluded that CR has a positive and not significant effect on the financial performance of manufacturing companies. So that the proposed hypothesis is rejected.
b.   Variable Total Assets Turnover (TATO)
Based on Table 4.14 it is known that the probability value of TATO is 0.0060 or less than 0.05. based on these results it can be concluded that TATO has a positive and significant effect on the financial performance of manufacturing companies. So that the proposed hypothesis is accepted.
c.   Variable Leverage Ratio (LR)
Based on Table 4.14 above, it is known that the probability value of LR is 0.8907 or greater than 0.05. it can be concluded that LR has a positive and insignificant effect on the financial performance of manufacturing companies. So that the proposed hypothesis is rejected.
d.   Variable Operating Profit Margin (OPM)
As seen from Table 4.14 above, it is known that the probability value of OPM is 0.9481 or greater than 0.05. it can be concluded that OPM has a negative and insignificant effect on the financial performance of manufacturing companies. So that the proposed hypothesis is rejected.

4.1.5.3 Wilcoxon Test
The Wilcoxon test is a test that is used to test the differences in two samples that are correlated but do not meet the assumptions of normality (konsultanstatistik, 2021). The following are the results of the Wilcoxon test that has been carried out:

Table 4.15 Wilcoxon CR 1 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		1.722490	0.0850
Wilcoxon/Mann-Whitney (tie-adj.)		1.722490	0.0850
Med. Chi-square	1	2.631579	0.1048
Adj. Med. Chi-square	1	1.684211	0.1944
Kruskal-Wallis	1	3.017473	0.0824
Kruskal-Wallis (tie-adj.)	1	3.017473	0.0824
van der Waerden	1	3.646467	0.0562

based on Table 4.15 above it can be seen that the probability value on the Wilcoxon test at CR 1 year before and after is 0.0850. It can be concluded that there is no difference in the liquidity ratio proxied by the Current Ratio 1 year before and after the Righ issue.

Table 4. 16 Wilcoxon TATO 1 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.525505	0.5992
Wilcoxon/Mann-Whitney (tie-adj.)		0.525505	0.5992
Med. Chi-square	1	0.105263	0.7456

Method	df	Value	Probability
Adj. Med. Chi-square	1	0.000000	1.0000
Kruskal-Wallis	1	0.291711	0.5891
Kruskal-Wallis (tie-adj.)	1	0.291711	0.5891
van der Waerden	1	0.319662	0.5718

Based on Table 4.16 above, it can be seen that the probability value on the Wilcoxon test on TATO is 0.5992. so it can be concluded that there is no difference in the activity ratio proxied by Total Asset Turnover 1 year before and after the Right Issue.

Table 4. 17 Wilcoxon LR 1 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.437921	0.6614
Wilcoxon/Mann-Whitney (tie-adj.)		0.437921	0.6614
Med. Chi-square	1	0.105263	0.7456
Adj. Med. Chi-square	1	0.000000	1.0000
Kruskal-Wallis	1	0.204773	0.6509
Kruskal-Wallis (tie-adj.)	1	0.204773	0.6509
van der Waerden	1	0.168151	0.6818

Based on Table 4.17 above, it can be seen that the probability value on the Wilcoxon test at LR is 0.6614. so it can be concluded that there is no difference in the Leverage ratio proxied by the Leverage Ratio 1 year before and after the Right Issue.

Table 1. 18 Wilcoxon OPM 1 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.846648	0.3972
Wilcoxon/Mann-Whitney (tie-adj.)		0.846648	0.3972
Med. Chi-square	1	0.105263	0.7456
Adj. Med. Chi-square	1	0.000000	1.0000
Kruskal-Wallis	1	0.741743	0.3891
Kruskal-Wallis (tie-adj.)	1	0.741743	0.3891
van der Waerden	1	0.828787	0.3626

Based on Table 4.18 above, it can be seen that the probability value on the Wilcoxon test on OPM is 0.3972. so it can be concluded that there is no difference in the Profitability ratio proxied by the Operating Profit Margin 1 year before and after the Right Issue.

Table 4. 19 Wilcoxon CR 2 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.586962	0.5572
Wilcoxon/Mann-Whitney (tie-adj.)		0.587042	0.5572
Med. Chi-square	1	0.842105	0.3588
Adj. Med. Chi-square	1	0.473684	0.4913
Kruskal-Wallis	1	0.350649	0.5537
Kruskal-Wallis (tie-adj.)	1	0.350745	0.5537
van der Waerden	1	0.162429	0.6869

Based on Table 4.19 above, it can be seen that the probability value in the Wilcoxon test at CR 1 year before and after is 0.5572. It can be concluded that there is no difference in the liquidity ratio proxied by the Current Ratio 2 years before and after the Right Issue.

Table 4. 20 Wilcoxon TATO 2 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.638906	0.5229
Wilcoxon/Mann-Whitney (tie-adj.)		0.638906	0.5229
Med. Chi-square	1	1.894737	0.1687
Adj. Med. Chi-square	1	1.315789	0.2513
Kruskal-Wallis	1	0.414865	0.5195
Kruskal-Wallis (tie-adj.)	1	0.414865	0.5195
van der Waerden	1	0.371414	0.5422

Based on Table 4.20 above, it can be seen that the probability value on the Wilcoxon test on TATO is 0.5229. so it can be concluded that there is no difference in the activity ratio proxied by Total Asset Turnover 2 years before and after the Right Issue.

Table 4. 21 Wilcoxon LR 2 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.888235	0.3744
Wilcoxon/Mann-Whitney (tie-adj.)		0.888235	0.3744
Med. Chi-square	1	0.210526	0.6464
Adj. Med. Chi-square	1	0.052632	0.8185
Kruskal-Wallis	1	0.798216	0.3716
Kruskal-Wallis (tie-adj.)	1	0.798216	0.3716
van der Waerden	1	0.828884	0.3626

Based on Table 4.21 above, it can be seen that the probability value on the Wilcoxon test at LR is 0.3744. so it can be concluded that there is no difference in the Leverage ratio proxied by the Leverage Ratio 2 years before and after the Right Issue.

Tabel 4. 22 Wilcoxon OPM 2 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.399965	0.6892
Wilcoxon/Mann-Whitney (tie-adj.)		0.399965	0.6892
Med. Chi-square	1	0.210526	0.6464
Adj. Med. Chi-square	1	0.052632	0.8185
Kruskal-Wallis	1	0.164154	0.6854
Kruskal-Wallis (tie-adj.)	1	0.164154	0.6854
van der Waerden	1	0.094339	0.7587

Based on Table 4.22 above, it can be seen that the probability value on the Wilcoxon test on OPM is 0.6892. so it can be concluded that there is no difference in the Profitability ratio proxied by the Operating Profit Margin 2 years before and after the Right Issue.

Table 4.23 Wilcoxon CR 3 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.459041	0.6462
Wilcoxon/Mann-Whitney (tie-adj.)		0.459041	0.6462
Med. Chi-square	1	1.719298	0.1898
Adj. Med. Chi-square	1	1.263158	0.2611
Kruskal-Wallis	1	0.213329	0.6442
Kruskal-Wallis (tie-adj.)	1	0.213329	0.6442
van der Waerden	1	0.040730	0.8401

Based on Table 4.23 above, it can be seen that the probability value in the Wilcoxon test at CR 1 year before and after is 0.6462. It can be concluded that there is no difference in the liquidity ratio proxied by the Current Ratio 3 years before and after the Right Issue.

Table 4.24 Wilcoxon TATO 3 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.963420	0.3353
Wilcoxon/Mann-Whitney (tie-adj.)		0.963420	0.3353
Med. Chi-square	1	4.245614	0.0394
Adj. Med. Chi-square	1	3.508772	0.0610
Kruskal-Wallis	1	0.933646	0.3339
Kruskal-Wallis (tie-adj.)	1	0.933646	0.3339
van der Waerden	1	0.739699	0.3898

Based on Table 4.24 above, it can be seen that the probability value on the Wilcoxon test on TATO is 0.3353. so it can be concluded that there is no difference in the activity ratio proxied by Total Asset Turnover 3 years before and after the Right Issue.

Table 4.25 Wilcoxon LR 3 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.504379	0.6140
Wilcoxon/Mann-Whitney (tie-adj.)		0.504379	0.6140
Med. Chi-square	1	0.315789	0.5741
Adj. Med. Chi-square	1	0.140351	0.7079
Kruskal-Wallis	1	0.257264	0.6120
Kruskal-Wallis (tie-adj.)	1	0.257264	0.6120
van der Waerden	1	0.312506	0.5761

Based on Table 4.25 above, it can be seen that the probability value on the Wilcoxon test at LR is 0.6140. so it can be concluded that there is no difference in the Leverage ratio proxied by the Leverage Ratio 3 years before and after the Right Issue.

Table 4.26 Wilcoxon OPM 3 year

Method	df	Value	Probability
Wilcoxon/Mann-Whitney		0.391035	0.6958
Wilcoxon/Mann-Whitney (tie-adj.)		0.391035	0.6958
Med. Chi-square	1	0.315789	0.5741
Adj. Med. Chi-square	1	0.140351	0.7079
Kruskal-Wallis	1	0.155133	0.6937
Kruskal-Wallis (tie-adj.)	1	0.155133	0.6937
van der Waerden	1	0.099588	0.7523

Based on Table 4.26 above, it can be seen that the probability value on the Wilcoxon test on OPM is 0.6958. so it can be concluded that there is no difference in the Profitability ratio proxied by the Operating Profit Margin 3 years before and after the Right Issue.

4.2 Graphical Result
4.2.1 Normality Test
According to Hidayat (2014), the Normality Test is a test carried out to assess the distribution of data in a group of data or variables, whether the data distribution is normally distributed or not. The following are the results of the Normality Test:
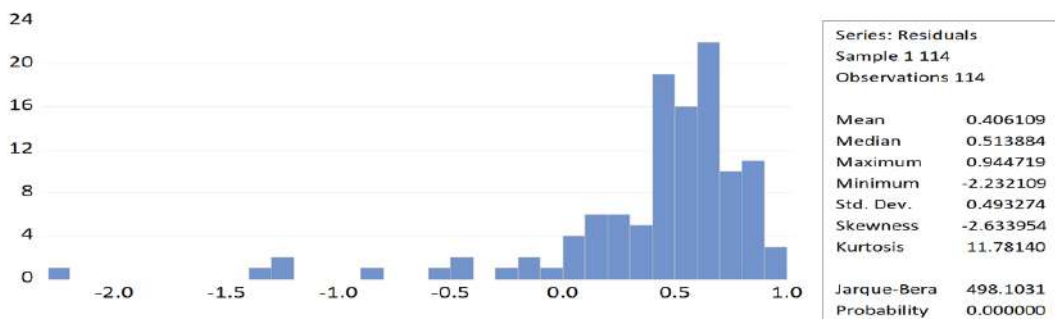
Figure 4.2 Normality Test
Source: eviews 12 processed data

Based on the research results in Figure 4.1 above, it can be seen that the probability value is 0.000000 or less than 0.05, so it can be concluded that the data is not normally distributed. According to (Akhtar, 2019) conducting a Normality Test with samples less than 30 and greater than 150 needs to be watched out for because the results are prone to bias and the results may be invalid, so the normality test is not mandatory to do. Some experts say that the normality test doesn't need to be done.

5. Conclusion
5.1 Research Discussion
5.1.1 Effect of Liquidity Ratio on Company Financial Performance
Based on tables 4.15, 4.19, and 4.23 it can be seen that the Probability values on the Wilcoxon test for the Current Ratio are 0.0850, 0.5572, and 0.6462 respectively. this shows that the liquidity ratio proxied by the Current Ratio has a positive and insignificant effect on the financial performance of manufacturing companies, and there is no significant difference between before and after conducting a Right Issue. So it can be concluded that rights issues do not affect the financial performance of manufacturing companies in terms of liquidity ratios in the long term. This research is also in line with research conducted by Iksanto (2020) that there is no significant difference in CR on the company's financial performance before and after the rights issue. This happened because the company did not use the funds obtained from the rights issue to pay off its short-term debt. This research is also in line with research conducted by (Sihaloho & Handayani, 2018) that there is no significant difference in financial performance at CR before and after the right.

5.1.2 Effect of Activity Ratio on Company Financial Performance
Based on tables 4.16, 4.20, and 4.23 it can be seen that the probability values in the Wilcoxon test for Total Asset Turnover respectively are 0.5992, 0.5229, and 0.3353. This shows that the Activity Ratio proxied by TATO has a positive and insignificant effect on the financial performance of manufacturing companies, and does not provide a significant difference between before and after the rights issue. So it can be concluded that the rights issue has no effect on the financial performance of manufacturing companies in terms of the activity ratio aspect, but the probability of TATO shows that there is a decrease in the probability value which starts to approach 0.05 so that in the long term the rights issue starts to affect TATO. This can happen because the company needs time to process it. This is in line with research conducted by Fallo (2017) that there is no significant difference in TATO on the company's financial performance before and after the rights issue. This happened because the company did not use the funds obtained from the rights issue to increase sales. This research is also in line with research conducted by (Hilmy & Utiyati, 2018) that there is no significant difference in financial performance at TATO before and

after the rights issue because the company uses funds obtained from the rights issue to increase existing assets to get higher profits. large so that to see the results requires a long time and this is following its probability value.

5.1.3 Effect of Leverage Ratio on Company Financial Performance

Based on tables 4.17, 4.21, and 4.25 it can be seen that the probability values on the Wilcoxon test for Leverage Ratio are 0.6614, 0.3744, and 0.6140 respectively. this shows that the leverage ratio proxied by the Leverage Ratio has a positive and insignificant effect on the financial performance of manufacturing companies, and there is no significant difference between before and after doing a Right Issue. So it can be concluded that the rights issue does not affect the financial performance of manufacturing companies in terms of leverage ratios in the long term. This research is also in line with research conducted by Runtung (2018) that there is no significant difference in LR on the company's financial performance before and after the rights issue. This happened because the company did not use the funds obtained from the rights issue to fulfill its obligations, both short-term and long-term. This research is also in line with research conducted by Hilmy & Utiyati (2018) that there is no significant difference in the financial performance of LR before and after the right issue because the company uses the funds obtained from the right issue to increase its business expansion resulting in greater debt again from before.

5.1.4 Effect of Profitability Ratios on Company Financial Performance

Based on tables 4.18, 4.23, and 4.26, it can be seen that the probability values on the Wilcoxon test on Operating Profit Margin are 0.3972, 0.6892, and 0.6958 respectively. this shows that the profitability ratio proxied by Operating Profit Margin has no significant negative effect on the financial performance of manufacturing companies, and does not provide a significant difference between before and after conducting a Right Issue. So it can be concluded that the rights issue does not affect the financial performance of manufacturing companies in terms of profitability ratios in the long term. This research is in line with research conducted by Candraningrat (2017) which states that Operating Profit Margin does not make a significant difference to the financial performance of manufacturing companies, this happens because the funds obtained from rights issues are not used to finance the company operations but to increase assets owned. There is. This research is also in line with research conducted by Kurniawan & Yasha (2016) that there is no difference between before and after the company conducts a rights issue on activity ratios, this occurs because the company is still unable to improve financial performance after the company conducts a rights issue.

Based on the result and discussion above, it can be summarized in the following table:

Tabel 4. 27 Research Summary

no	Research Result	Conclusion
1	There is a significant difference in CR before and after the right issue.	Rejected
2	There is a significant difference in TATO before and after the right issue	Rejected
3	There is a significant difference in LR before and after the right issue	Rejected
4	There is no significant difference in OPM before and after the right issue	Accepted

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The Influence Of Managerial Ownership, Litigation Risk, And Financial Distress On Accounting Conservatism In Manufacturing Companies Listed On The Indonesia Stock Exchange For The 2019-2021 Period

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Abstract

Financial statements are a description of the performance of a company. Management is given flexibility in choosing the accounting method to be used, one of which is by applying accounting conservatism. Accounting conservatism is a precautionary principle in the reporting of financial statements. This principle slows down revenue recognition and accelerates cost recognition, resulting in low returns and assets, and costs and debt tend to be high. The purpose of this study is to determine the influence of managerial ownership, litigation risk, and financial distress on accounting conservatism. Manufacturing Companies listed on the Indonesia Stock Exchange (IDX) became the population in this study with the 2019-2021 research period. The number of samples analyzed was 35 companies. Samples are taken by purposive sampling method. The analysis technique used is a multiple linear regression analysis technique. The results of this study show that managerial ownership has a significant negative effect on accounting conservatism, litigation risk has a positive effect on accounting conservatism, and financial distress has a significant effect on accounting conservatism. And simultaneously, the variables managerial ownership, litigation risk, and financial distress have an effect on accounting conservatism.

Keywords
Managerial Ownership, Litigation Risk, Financial Distress, Accounting Conservatism. _
_____

1. Introduction
Over time business development can grow significantly, this can create competition among business people. Many steps are taken to be able to survive. Financial performance can be described in financial statements. Financial statements are a structured presentation of the financial condition and financial performance of an entity. Financial statements are essentially used as information needed for internal and external parties to determine the company's financial position. The purpose of financial statements is to provide information about an entity's financial position, financial performance, and cash flow that assists users of financial statements in making economic decisions (Yuli & Putri, 2022).

Company management is given convenience in choosing an accounting method that will be used one of the steps using the principle of accounting conservatism. The principle of accounting conservatism is the treatment of management by longer recognizing profits or revenues. Conservatism is applied because accounting uses an accrual basis in forming and presenting a company's financial statements. The application of this principle results in the choice of accounting methods aimed at methods that report lower profits or assets and report higher debt (Antono & Sodikin, 2018)

The application of this principle of conservatism can result in low profit figures and highcost figures. This is because the principle slows down revenue recognition, but costs are recognized faster. As a result, profits in financial statements tend to be understatement or too low in the current period and overstatement to profits in the next period. Many disputes occur regarding the use of the principle of conservatism in the presentation of financial statements. The principle of accounting conservatism attracts attention because of the criticism that arises over the implication of the principle of accounting conservatism. The opposing party argues that this principle is considered an obstacle in affecting the quality of financial statements, namely the non-achievement of the goal of full disclosure of all relevant

information. Opposing researchers consider that the profit generated from this principle is unqualified, irrelevant and useless. For those who are in line with the principle of accounting conservatism in preparing financial statements, it will be useful to avoid the behavior of opportunity managers who want to manipulate profits. Parties who support the use of this principle also want companies not to overreport their business results, so that creditors and investors as external parties who use financial statements are not deceived by asset figures that look high. In addition, so that financial statements do not mislead users in making decisions (Haryadi et al., 2020).

The principle of conservatism is still used because the tendency to overestimate profits in financial reporting can be reduced by pessimism to play an excessive optimism from managers. On the other hand, profits that are presented too high (overstatement) are more risk than the presentation of low profits (understatement) because the risk of lawsuits obtained will be greater if the finances are presented with profits that are much higher than they should be. But in its use, accounting conservatism cannot be used excessively because it will result in errors in its periodic profits or losses that do not reflect the actual conditions in the company which will actually result in doubts in the quality of reporting, so less can support decision making and can mislead users of financial statements.(Antono & Sodikin, 2018)

The phenomenon of using the principle of accounting conservatism in Indonesia is still rarely carried out by companies, especially those engaged in manufacturing. This is because an understanding of the importance of the role of accounting conservatism for the continuity of the company is still lacking. So that many cause various cases. An example of a case of manipulation of financial statements carried out by PT Garuda Indonesia (GIIA) This polemic began with the rejection of two of the company's commissioners, namely Chairal Tanjung and Dony Oskaria against Garuda Indonesia's financial statements in 2018. Both suspect that the transaction contributed greatly to Garuda's financial condition from a big loss to a profit in just 3 months. The company's net profit is considered odd. In 2018 GIAA recorded a net profit of US $ 809.85 thousand or equivalent to Rp 11.33 billion (exchange rate Rp 14,000). The profit was thanks to soaring other operating income which totaled US $ 306.88 million. Because Garuda Indonesia management recognizes revenue from Mahata of US $ 239,940,000, of which US $ 28,000,000 is part of the profit sharing obtained from PT Sriwijaya Air. Even though the money is still in the form of receivables, the company admits that it is included in revenue (cnnindonesia.com)

The object of this research is a manufacturing company listed on the IDX in 2019 – 2021. Researchers are interested in taking manufacturing companies as research objects because manufacturing companies are one of the companies that are the foundation of the economy, especially in Indonesia. Manufacturing companies play an important role because they make a great contribution to Indonesia.   This can be seen from the increase in quality and output produced by local companies so that they can compete in the global market. Therefore, many manufacturing companies are very careful to report their financial condition to the concerned parties and researchers want to know whether the results of this study will be the same as the results in previous studies

2. Literature Review
2.1.   Accounting Conservatism
The principle of conservatism is the concept of recognizing expenses and liabilities as soon as possible despite uncertainty about the outcome, but only recognizing income and assets when it is certain they will be received. Accounting conservatism is useful to avoid opportunistic behavior of managers related to contracts that use financial statements as a contract medium. Consequently, if there are conditions that are likely to cause losses of costs and debts, these losses, costs or debts must be recognized immediately (Wiecandy & Khairunnisa, 2018). The principle of conservatism when applied will result in low profits and assets and debt and costs. This is because conservatism adheres to the principle of slowing revenue recognition and accelerating cost recognition so that reported profits tend to be understated. While assets are valued at the lowest value and debt is valued at the highest value.

2.2. Managerial Ownership
According to (Prisila Damayanty, 2022) managerial ownership is one of the internal factors of the organization that shows the results of an organization. The amount of the offer held by the administration, commissioners and directors in an organization will be separated by the number of outstanding shares. One possible way to balance the interests of investors and executives is to include all administrative parties in a very large offering ownership structure. Thesize of the shareholding structure can influence a company's policy and decision-making. High managerial ownership will affect the manager's work motivation in making decisions and prioritize the interests of the company over their own interests.

Research conducted by (Ursula & Adhivinna, 2018) explains that managerial ownership has no effect on accounting conservatism. Because the managerial ownership of each company tends to be low so that the sense of ownership over the company is not high, management decisions do not necessarily affect the company's decision to

implement accounting conservatism. In addition, the low sense of managerial ownership causes conflicts between owners and management. The existence of low managerial share ownership also makes the company more concerned with the profits that will be obtained and presented in the financial statements. The high desire to increase profits on financial statements, then managers will make profit statements that are over-optimistic and do not apply accounting conservatism.

Research conducted by (Syefa El-Haq et al., 2019) explains that partial managerial ownership does not have a significant effect on accounting conservatism. Due to the influence of the number of shares owned by directors and managers. Companies that have high managerial ownership must be more careful in recognizing profits and expenses because the higher the shares owned by management, the higher the tendency of management in carrying out profit management which will result in low application of accounting conservatism.

Research conducted by ((Rahmi, 2022)) explains that managerial ownership does not have a positive and substantial impact on the application of accounting conservatism. Because shareholders are less involved in business decision making, management is not stimulated to implement corporate accounting conservatism. Research conducted by (Qorynilova, 2023) explains that managerial ownership affects accounting conservatism. Because managers can determine policies and selection of accounting principles, including applying accounting conservatism.(Solikin et al., 2021). Research conducted by (Solikin et al., 2021)explains that managerial ownership has a significant negative influence on accounting conservatism. Because managers with high equity holdings will apply lower accounting conservatism to avoid falling stock prices. Because if you apply accounting conservatism, the company's profit will be low, so the dividends received by investors will be small, resulting in a decrease in interest in buying company shares.

Referring to the explanation above, the author designed the following hypothesis:

H1: Managerial Ownership has a negative and significant influence on accounting conservatism

2.3. Litigation Risk

(Ardi & Indrawati, 2019) explained that litigation risk as an external factor can encourage managers to report company finances more conservatively and the manager's encouragement to implement accounting conservatism will be stronger if the risk of litigation threats to the company is relatively high. Litigation risk is a risk that has the potential to incur a lot of costs because it deals with legal issues. Rationally, managers will avoid losses due to litigation by reporting finances conservatively, because profits that are too high have the potential risk of litigation that is too high.

Litigation risk can arise from creditors and investors. From the creditor side, litigation can arise because the company does not carry out its operations in accordance with the agreed contract. For example, the company's inability to pay debts that have been given by creditors. Litigation risk originating from creditors can be obtained from indicators of the risk of the company's inability to pay short-term and long-term debts. From the investor side, litigation can arise because the company runs operations that will result in losses for investors as reflected in stock price and volume movements. For example, hiding some negative information that should have been reported.

Research conducted (Prisila Damayanty, 2022) explains that litigation risk has a positive influence on accounting conservatism. Since the desire of managers to apply the standards of accounting conservatism will increase, if the risk from the danger of prosecution by the organization will be higher. For this situation, the supervisor of the organization will be urged to do something by applying the rules of conservatism to speed up the recognition of the organization's obligations and the benefits to be provided are not too high, with the aim that the organization can avoid very high risk demands because high benefits will have higher potential.

Research conducted by (Rahmi, 2022) explains that litigation risk has a positive and insubstantial influence on accounting conservatism, because companies will increasingly apply the principle of accounting conservatism in line with the magnitude of litigation risk faced. It can be said that the greater the risk of litigation, the higher the application of accounting conservatism.

Referring to the explanation above, the author designed the following hypothesis:

H2: Litigation Risk has a positive influence on accounting conservatism and is not significant on accounting conservatism

2.4. Financial Distress

Financial distress can be interpreted as the emergence of signals or early symptoms of bankruptcy against the decline in financial conditions experienced by a company or also conditions that occur before bankruptcy or liquidation. The manager regulates the level of accounting conservatism at a time when the company is experiencing conditions of financial difficulty. The bankruptcy can be caused by the company's failure in operational activities to generate a profit and the inability of a company to pay off its debts. Companies can find out the signs of financial distress, one of which

is to look at the state of profits obtained by a company in a certain period. The manager will set the level of accounting conservatism in his company when the company is experiencing financial difficulties (Haryadi et al., 2020).

Research conducted by explains that financial distress does not have a significant influence on accounting conservatism, because if the company experiences financial distress, the company does not apply the principle of accounting conservatism, which may cause pessimistic attitudes of creditors and investors. This can be because the company wants to give confidence to creditors and investors that the company will survive even in conditions of financial difficulties so that the company prefers methods that can increase profits so that creditors will continue to lend to the company so that the company will continue to run.

Research conducted by (Purnama Sari, 2020) explains that financial distress partially has a positive and significant influence on accounting conservatism, because companies that experience financial distress will apply the principle of conservatism. Because high financial difficulties will be a pressure on managers, so managers will apply accounting conservatism in the presentation of financial statements to avoid possible conflicts with creditors and shareholders.

Research conducted by (Susanti et al., 2022)explains that financial distress does not have a significant effect on accounting conservatism, when companies experience financial distress, companies tend not to apply accounting conservatism in preparing financial statements. This goes in accordance with the positive accounting theory which explains that if the company faces high financial difficulties, the company's managers tend to reduce the level of application of the principle of accounting conservatism. If the company experiences financial difficulties and continues to implement the use of accounting conservatism, it will result in the financial statements becoming understatements so that it will give a bad signal to interested parties.

Referring to the explanation above, the author designed the following hypothesis:

H3: Financial distress has a negative and insignificant influence on accounting conservatism.

3. Methods

This section describes the approach taken to conduct this study. Based on the passage above, it is possible to draw a conceptual framework for the influence of managerial ownership, litigation risk, and financial distress on accounting conservatism as shown in the following figure:
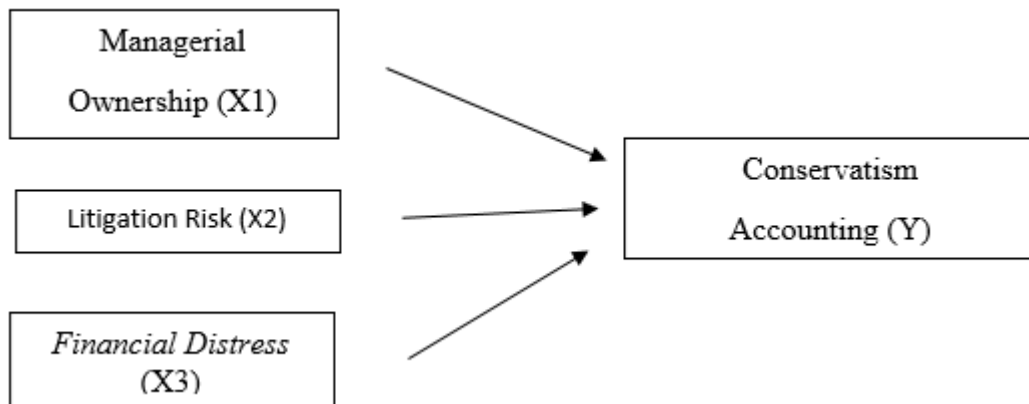
Figure 3. 1 Conceptual Framework

The object of this research is a manufacturing company listed on the Indonesia Stock Exchange (IDX) in 2019 – 2021. Researchers are interested in taking manufacturing companies as research objects because manufacturing companies are one of the companies that are the foundation of the economy, especially in Indonesia. Manufacturing companies play an important role because they make a great contribution to Indonesia.   This can be seen from the increase in quality and output produced by local companies so that they can compete in the global market. Therefore, many manufacturing companies are very careful to report their financial condition to the concerned parties and researchers want to know whether the results of this study will be the same as the results in previous studies.

This research uses secondary data derived from the annual report of manufacturing sector companies listed on the Indonesia Stock Exchange (IDX) in the 2019-2021 period. The number of manufacturing company sectors amounted to 150 companies, after being selected in accordance with the criteria set there were 35 companies to be studied. The study was conducted for three years, then the amount of data used amounted to 105 data.

The method used in this study is quantitative method. This is because the data used is taken from secondary data, namely financial statements published by manufacturing companies on the Indonesia Stock Exchange (IDX). The secondary data is obtained from the website of the Indonesia Stock Exchange as well as from the website of related companies. Data analysis using the help of the e-Views 12 application.

4. Results and Discussion (12 font)
4.1.1. Random Effect Model (REM)

Tabel 4. 1 Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.314858	0.600516	-0.524312	0.6012
KM	0.077835	0.132072	0.589335	0.5570
RL	0.003724	0.019751	0.188541	0.8508
FD	0.008192	0.023874	0.343162	0.7322
Effects Specification				
			S.D.	Rho
Cross-section random			0.210034	0.7095
Idiosyncratic random			0.134402	0.2905
Weighted Statistics				
Root MSE	0.130854	R-squared		0.004166
Mean dependent var	-0.061942	Adjusted R-squared		-0.025414
S.D. dependent var	0.131756	S.E. of regression		0.133420
Sum squared resid	1.797891	F-statistic		0.140830
Durbin-Watson stat	2.341897	Prob(F-statistic)		0.935307
Unweighted Statistics				
R-squared	0.014093	Mean dependent var		-0.178736
Sum squared resid	5.966020	Durbin-Watson stat		0.705743

From the table can be compiled panel data regression equation as follows:
Accounting Conservatism = - 0.314858 + 0.077835 KM + 0.003724 RL + 0.008192 FD
Based on this equation, it can be described as follows:
a) The value of the negative constant is - 0.314858, this indicates that the variables KM, RL and FD are constant do not affect accounting conservatism in the manufacturing sector
b) The regression coefficient of the KM variable is positive which is 0.077835. This shows that if KM increases, it will increase accounting conservatism by 0.077835 assuming that other independent variables are constant.
c) The regression coefficient of the RL variable is positive which is 0.003724. This shows that if RL increases, it will increase accounting conservatism by 0.003724 assuming that other independent variables are constant.
d) The regression coefficient of the FD variable is positive which is 0.008192. This shows that if FD increases, it will increase accounting conservatism by 0.008192 assuming that other independent variables are constant.

4.1.2. F Test
Based on the test results in table 4.1 it is known that Prob F- Statistic is 0.935307, this shows that the value is greater than the level of significance. So that KM, RL, FD do not simultaneously affect accounting conservatism in the manufacturing sector.

4.1.3. T Test
a) Managerial ownership variable (MO) (X1)

Based on the results in table 4.1, it is known that the probability value is 0.5570 which means greater than the level of significance. Soit can be concluded that the variable of managerial ownership has an insignificant and positive effect on accounting conservatism. While the regression coefficient value of MO means 0.77835, if the MO level increases 1%, then the application of accounting conservatism increases by 0.77835.

b)   Litigation Risk Variable (LR) (X2)
Based on the results in table 4.1, it is known that the probability value of $0.8508 > 0.05$, the conclusion is that the risk of litigation has an insignificant and positive effect on accounting conservatism. While the regression coefficient value of LR is 0.003724, meaning that if the LR level increases by 1%, then the application of accounting conservatism decreases by 0.003724.

c)   Variable Financial Distress FD (X3)
Based on the results in table 4.1 known probability values of $0.7322 > 0.05$, the conclusion is that FD has an insignificant and positive effect and on accounting conservatism. While the regression coefficient value of FD is 0.008192, meaning that if FD increases 1% loss, the application of accounting conservatism increases by 0.008192.

4.1.4. Coefficient of Determination Test

Based on table 4.1, it can be seen that the Adjusted R-squared value of -0.025414 can be interpreted that independent variables, namely managerial ownership, litigation risk and financial distress do not affect accounting conservatism.

4.2. Normalitas test

The normality test is a test performed to see if the residual value has been distributed normally. The following are the results of the normality test that has been carried out:

Series: Standardized Residuals	
Sample 2019 2021	
Observations 105	
Mean	1.47e-16
Median	-0.021338
Maximum	0.891550
Minimum	-0.552549
Std. Dev.	0.239511
Skewness	1.218423
Kurtosis	6.841670
Jarque-Bera	90.54785
Probability	0.000000
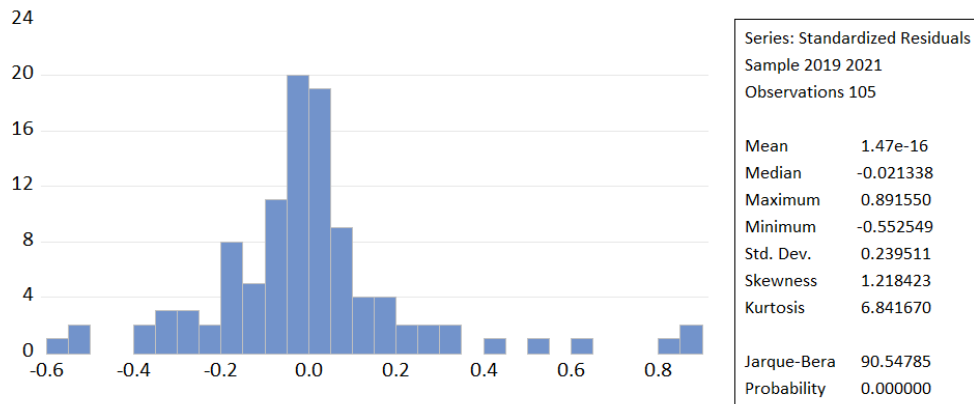
Figure 4. 1 Normalitas Test

Based on the results of the study in figure 4.1, it can be seen that the probability value is 0.000000 or less than the significance value of 0.05, so it can be concluded that the data is not normally distributed. The normality test is only applied if the number of samples is less than 30, but if the number of samples exceeds 30 then the normality test can be ignored

5. Conclusion (12 font)

a.   Test that has been carried out on managerial ownership variables have a positive and insignificant effect on accounting conservatism in manufacturing companies listed on the Indonesia Stock Exchange for the 2019-2021 period.

b.   Test that has been carried out on litigation risk variables have a positive and insignificant effect on accounting conservatism in manufacturing companies listed on the Indonesia Stock Exchange for the 2019-2021 period.

c.   Test that has been carried out on financial distress variables have a positive and insignificant effect on accounting conservatism in manufacturing companies listed on the Indonesia Stock Exchange for the 2019-2021 period.

d. Based on the results of test that has been carried out show that there is no simultaneous influence on the three independent variables and dependent variables. Managerial ownership, litigation risk, and financial distress together or simultaneously cannot affect accounting conservatism.

Acknowledgement

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The Influence of Profitability, Solvability, Operating Costs And Liquidity On Corporate Income Tax Expense In Mining Sector Companies Registered On The Indonesia Stock Exchange For The 2018-2021 Period

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Abstract

In Indonesia, tax is a contribution that is obligatory to be paid to the state for the income generated by the taxpayer. Mining companies are companies that make a large contribution to state tax revenues. The bigger the income, the bigger amount of tax owed. Taxation does not only look at how much income the taxpayer has, but there are things that need to be considered such as the company's operational costs and liabilities which can determine the amount of the income tax. The purpose of this research was to determine if there is an effect of Profitability, Solvency, Operating Costs, and Liquidity on Corporate Income Tax Expenses Payable. This research is a quantitative research. The sample used was selected using a purposive sampling method with 36 mining companies during the period 2018 to 2021 so that the total sample is 144 data from mining sector companies listed in the Indonesia Stock Exchange (IDX). This research indicate that Profitability, Solvability, Operating Costs and Liquidity affect the amount of corporate income tax payable, especially in companies in the mining sector

Keywords
Corporate Income Tax, Profitability, Solvency, Operating Costs, Liquidity

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1. Introduction

The development of a country is very dependent on the income of the country. Indonesia as a developing country has a national development program to create citizens who are independent, advanced, prosperous and prosperous through development in various fields, one of which is the economic sector. To realize this, the Government implements the State Revenue and Expenditure Budget (APBN). APBN is the state revenue target and state budget made by the Government to fund national development programs.

One of the state revenues which is an important instrument for the state budget is taxes. According to the Law of the Republic of Indonesia Number 28 of 2007, Article 1 concerning General Provisions and Procedures for Taxation, "Taxes are mandatory contributions to the state owed by individuals or entities that are coercive based on the law, by not getting compensation directly and used for the needs of the state for the greatest prosperity of the people". Taxes in Indonesia are mandatory and enforceable for every citizen who has met the subjective and objective requirements that have been set to pay taxes. Tax revenue with an average of above 75% of total state revenue. Mining sector companies are a very important sector in the country's development. The mining sector also has a role in the country's economy from natural resources in the form of mining materials produced from its operational activities, both for the country and for import activities abroad.

To measure the success and improvement of a company/profit organization, it can be seen from how much the company generates profit from its business activities, how much profit growth is generated from its business activities. The profit generated by the company from its economic activities is a tax object. The amount of corporate income tax payable is influenced by the ratio of profitability, solvency, operational costs and liquidity. The mining sector as a sector that has made a large contribution to the Indonesian economy, especially during the Covid-19 pandemic where there was an increase in mineral and coal prices throughout the world, the government responded in the form of efforts to carry out downstream so that the mining sector resources produced by Indonesia could increase in value. For this policy, the government provides fiscal incentives in the form of a 0 (zero) percent royalty on coal used as downstream raw material.

The impact of Covid-19 doesn't stop there, it also affects Bank Indonesia's interest rates. For the first time, Bank of Indonesia has cut interest rates to its lowest level, namely 3.5 percent in 2020. This will continue until 2021 where BI will add liquidity or quantitative easing (QE) to reach IDR 750.38 trillion, equivalent to 4.86 percent of GDP in 2020. In the company's financial information report, taxes are stated as a cause of reduction in income received. Because taxation is in accordance with high profits, it automatically has a large tax burden. By using several calculation methods including Profitability Ratios, Liquidity, Solvency, and Operating Costs, each of these methods obtains some effect on the results of the imposition of corporate income tax payable. (Widianto & Pramudianti, 2021).

2. Literature Review
2.1 Corporate Income Tax
Corporate income tax is defined as a mandatory contribution to the state that is coercive in nature against an organization/entity/company that has income from its business activities during a tax period. The amount of Corporate Income Tax can be calculated from the commercial financial statements that have been subject to fiscal correction

2.2 Profitability
Profitability is a ratio that shows the amount of profit generated by a company in managing capital and assets invested in its economic activities. In this study, the proxy taken from the profitability variable is *Return On Assets* (ROA). ROA is used to measure the return generated from investment activities carried out by the company (Vindasari, 2019). The higher the ROA value, it can be interpreted that the company is able to manage assets properly to generate profits.

$$ROA = \frac{Net\ Profit}{Total\ Assets}$$

Previous research conducted by Kalventri dan Mulyani (2022), Juniarti dan Fitriasuri (2022), Juniarti dan Fitriasuri (2022), Puspitasari dan Amah (2019) concluded that profitability has a positive and significant effect on corporate income tax. While research is conducted by Jimmy dan Pratiwi (2019) concluded that profitability has a significant negative effect on corporate income tax

H₁ : Profitability affects the corporate income tax expense payable.

2.3 Solvability
The solvency ratio is the ratio used to estimate a company's ability to pay its long-term obligations. In this study using the Debt to Asset Ratio (DAR) proxy. DAR is the debt ratio used to compare total debt to total assets.

$$DAR = \frac{Total\ Liability}{Total\ Assets}$$

Previous research conducted by Kalventri dan Mulyani (2022), Juniarti dan Fitriasuri (2022), Anam dan Zuardi (2018) concluded that solvability has a positive and significant effect on corporate income tax. Previous research conducted by Widanto dan Pramudianti (2021) concluded that solvabilitas has a significant negative effect on corporate income tax.

H₂ : *Solvabilitas affects the corporate income tax expense payable.*

2.4 Operating Costs
Operational costs are costs that are not directly related to product costs or product cost but are related to the company's daily operating activities (Jubaedah, Syifaudin, & Kholiazmi, 2023). The smaller the value of operational costs means that the company is able to reduce the number of losses that can be incurred from the costs used to operate.

$$Operating\ Costs = Selling\ expense + General\ and\ Administrative\ expense$$

Previous research conducted by Kalventri dan Mulyani (2022), Juniarti dan Fitriasuri (2022), Vindasari (2019), Puspitasari dan Amah (2019) concluded that operating costs has a positive and significant effect on corporate income tax. Previous research conducted by Jimmy and Pratiwi (2019) concluded that operating cost does not affect corporate income tax

H₃ : *Operating Costs affect the corporate income tax payable*

2.5 Liquidity
The liquidity ratio is the ratio used to describe a company's ability to meet its short-term debts/obligations. The proxy of the liquidity variable used is the *current ratio* (CR). CR is a comparison between current assets and current liabilities to determine the ability of a company to pay its short-term debts/liabilities.

$$Current\ Ratio = \frac{Current\ Assets}{Current\ Liability}$$

Previous research conducted by Juniarti dan Fitriasuri (2022), Widanto dan Pramudianti (2021), Sumarta (2020), Puspitasari dan Amah (2019) concluded that liquidity does not affect corporate income tax. Berdasarkan penelitian yang dilakukan oleh Penelitian yang dilakukan oleh Anam dan Zuardi (2018) concluded that liquidity has a positive significant effect on corporate income tax.

H₄   : *Liquidity affect the corporate income tax payable*

3.   Research Methodology

This section describes the approach taken to conduct this study. Based on the passage above, it is possible to draw a conceptual framework for the influence of profitability, solvability, operational cost, and liquidity on corporate income tax as shown in the following figure:
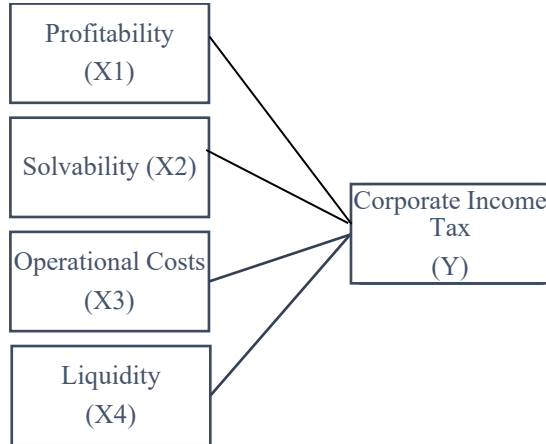
Figure 3.1 Conceptual Framework

Researchers are interested in taking mining sector companies as research objects because mining sector companies make a large contribution to Indonesian state tax revenues compared to other sectors. Coupled with the various challenges faced by mining sector companies during the Covid19 pandemic, the many new regulations made by the government made researchers interested in knowing whether the selected variables affect corporate income tax in mining sector companies.

The type of data used in this research is secondary data. The data processed comes from the annual financial reports of mining sector companies listed on the Indonesia Stock Exchange (IDX) in 2018-2021. The number of registered mining sector companies is 60 companies, after going through a selection process with several criteria that were taken as many as 36 companies for four years. So that the total sample studied was 144 data which were processed using the eViews 12 application.

4. Results and Discussion (12 font)
4.1 Random Effect Model (REM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-344674.6	231636.6	-1.487997	0.1390
ROA	3055153.	597945.7	5.109415	0.0000
DAR	254869.4	362430.1	0.703224	0.4831
OPERATIONAL COST	0.063175	0.009265	6.818411	0.0000
CR	9020.747	4264.585	2.115270	0.0362

Effects Specification		
	S.D.	Rho
Cross-section random	465119.5	0.4098
Idiosyncratic random	558241.4	0.5902

Weighted Statistics			
Root MSE	548470.5	R-squared	0.389183
Mean dependent var	242030.3	Adjusted R-squared	0.371606
S.D. dependent var	704224.5	S.E. of regression	558247.9
Sum squared resid	4.33E+13	F-statistic	22.14106
Durbin-Watson stat	1.908276	Prob(F-statistic)	0.000000

Unweighted Statistics			
R-squared	0.496605	Mean dependent var	470361.6
Sum squared resid	7.10E+13	Durbin-Watson stat	1.164213

4.2 T Test
4.3.1 Return of Assets (ROA)
From the results of the profitability variable test with ROA proxy, it is concluded that profitability has a significant positive influence on corporate income tax expenses. The greater the profitability value (ROA), the higher the corporate income tax burden payable to be paid by the company. This also proves that companies engaged in the mining sector listed on the IDX during 2018-2021 still show that the company is able to earn high profits, especially from the assets it owns or invests.

The results of this research are in line with research conducted by Mariana, Mulyati, Andari, Purnamasari (2022), Kalventri & Mulyani (2022), Widanto & Pramudianti (2021), Vindasari (2020) which shows that profitability variables affect corporate income tax payable.

4.3.2 Debt to Assets Ratio (DAR)
From the results of data processing, it can be concluded that the profitability variable with *the proxy of Debt to Asset Ratio* (DAR) has an insignificant positive effect on the income tax burden of mining sector companies listed on the Indonesia Stock Exchange for the 2018-2021 period. The results of this research are in line with the results of previous research conducted by Anam & Zuardi (2018), Anggraini & Kufusiyah (2020), Hendrik & Rahmawati (2021) which showed that solvency affects corporate income tax. The large ratio of *Debt to Assets Ratio* indicates that the company's assets financed by debt are still in high numbers. The higher the DAR ratio, the greater the loan borrowed for the purchase of assets/investments with the aim of generating profits for the company. This can also mean that mining companies listed on the IDX during the 2018-2021 period are able to generate profits from investment activities to purchase assets financed from debt to generate profits. The greater the profit generated, the greater the corporate income tax owed.

4.3.3 Operational Costs
The results of data processing show that it can be concluded that variable operating costs have a significant positive influence on corporate income tax expenses. Operating costs are costs that are sacrificed by the company to support its operational activities both for activities that are directly related or indirectly. Operating expenses consist of sales and general expenses that are deducted directly from gross income. Based on Law no. 36 of 2008 concerning Income Tax, operating expenses are expenses that can be used as a reduction in gross income charged in a tax year. From the data above, it can be concluded that the increase in operational costs is also triggered by an increase in income generated by a company. The greater the income generated by mining sector companies listed on the IDX during

2018-2021, the greater the operational costs that need to be borne to support these operational activities which will affect the amount of corporate income tax payable in a tax year.

The results of this research are in line with research conducted by Anggraini & Kusufiyah (2020), Nainggolan & Febriansyah (2021), Jubaedah, Syifaudin & Kholiazmi (2023), Kusnanto, Nurhayati & Helliana (2021), Anam & Zuardi (2018) which shows that variable operating costs affect corporate income tax.

4.3.4   Current Ratio (CR)

From the results of data processing, it can be concluded that liquidity has a significant positive influence on corporate income tax expenses. This shows that the cash flow of mining companies listed on the IDX in 2018-2021 is able to meet and pay their short-term obligations in accordance with maturity. The results of this study are in accordance with research conducted by Puspitasari & Amah (2019), Digdowiseiso, Subiyanto & Irnandi (2021) which states that the Liquidity variable affects corporate income tax which states that the company has a good ability to pay off its obligations, this is due to a greater ratio of assets compared to the obligations owned by the company.

4.3.5   Coefficient of Determination Test

The *Adjusted R-squared* value is 0.371606, It means that the ability of the independent variable to explain the dependent variable is 37.1606% while the remaining 62.8394% is influenced by other factors not present in the model. That is, the ROA, DAR, Solvency, and CR variables of 37.1606% can predict corporate income tax expense in mining sector companies, while the remaining 62.8394% is influenced by other factors not included in this study.

5.   Conclusion

a.   Rasio Likuiditas berpengaruh terhadap beban pajak penghasilan badan pada perusahaan sektor pertambangThe Profitability Ratio affects the corporate income tax burden on mining sector companies listed on the Indonesia Stock Exchange in 2018-2021.

b.   The Solvency Ratio affects the corporate income tax burden on mining sector companies listed on the Indonesia Stock Exchange in 2018-2021.

c.   The ratio of operating expenses to corporate income tax expenses for mining sector companies listed on the Indonesia Stock Exchange in 2018-2021.

d.   The Liquidity Ratio affects the corporate income tax burden on mining sector companies listed on the Indonesia Stock Exchange in 2018-2021.

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Identifying Loan-Scam Companies from Forum Discussions Using Text Analysis

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Abstract

Online loan scams have significantly increased since the pandemic. Scam victims have been shown to seek support and advice from other victims in online discussion forums because of the affordance of anonymity. When posting their personal experiences, victims often share the names of the suspected scam companies. Using text analysis in the R programming language, this study analysed posts in an online forum titled "Don't be a Victim of Personal Loan Scam!" The purpose of this study is to identify loan-scam companies from forum posts and the legitimacy of their businesses. The names of companies were extracted using keyword matching. A considerable number of companies were detected and checks against official databases revealed that some were licenced moneylenders. This study is useful for detecting potential scam company names that are otherwise not detected by authorities, because victims choose not to report them.

Keywords

Loan- Scam Companies, Text Analysis, Financial Forum

1. Introduction

Saving levels among Malaysians have dropped due to the financial strain brought about by the pandemic and rising cost of living. The percentage of Malaysians who can save more than RM500 a month has dropped from 48% in 2021 to 30% in 2022, and 85% are not able to survive for more than six months if they lose their jobs (RinggitPlus, 2022). 33% of those dealing with financial shortfalls resorted to borrowing informally (including informal loan providers and other non-regulated and licenced institutions) (OECD, 2020). In another survey, the OECD (2022) reported that 66% of respondents in the country increased digital payments for products or services during the pandemic, owing to being faster and more flexible than traditional methods. The need for money coupled with reliance on digital tools during and after the pandemic has created opportunities for cybercrime (Tharshini et al., 2022). Advancements in technology and the increased use of online applications have also seen more people falling prey to online financial scams, including personal loan scams.

Personal loans in Malaysia are legitimate businesses offered by money lending companies and financial institutions. While other financial activities are governed by the Central Bank of Malaysia (BNM), "money lending business is governed under the Moneylenders Act of 1951 and administered by the Ministry of Urban Wellbeing, Housing and Local Government" (BNM, 2017). The ministry has set up a mobile app called i-KrediKom (launched in April 2019) which allows users to look up a lending company's information, such as validity status, licence number, company's full name, address, and telephone number. Users can conduct a search using a company's name or a lending licence number. The app opens with a warning message that provides tips to avoid becoming victims of loansharks and scammers. These tips include: 1) not signing an agreement outside the lending company's premises, 2) not signing an empty agreement form, and 3) not paying a deposit or advance fee. At the time of writing, the mobile application had more than 50,000 downloads. Despite the existence of this app, many still fall prey to loan scams.

Financial loan scams have increased significantly since the pandemic, owing to the loss of jobs and earnings (Basyir, 2020). From 2019 to March 2022, Malaysia recorded 16,444 cases of online loan scams or fraud, with a total loss of RM170.2 million (Hadzman, 2022). According to Malaysian police, the modus operandi of these non-existent loans advertised through social media, WhatsApp, and so on, remain the same: low interest rates and fast loan approval. Victims lose money through the advanced payments required for bogus fees, such as legal fees, agreement

fees, insurance fees, credit increase fees, credit score fees, income tax fees, and account activation fees, prior to loan disbursement (PDRM, 2022). In the United Kingdom, this loan scam is considered an advance fee scam, where once the fee is paid, the victim is unable to contact the company and does not receive the loan (Action Fraud, 2020). In Singapore, victims are contacted via text messages and phone calls and are asked to pay GST or processing fees (Ministry of Law Singapore, 2023). However, in Singapore, job scams and investment scams are more prevalent in the country, accumulating a loss of $58.5 million and 108.8 million respectively in 2022 (SPF, 2022). Similar to loan scams, both operate similar modus operandi, which require victims to advance their money before performing a job or investing in it.

Unfortunately, many of these scam cases are under reported due to victims feeling embarrassed and ashamed (DeLiema et al., 2018; Grant-smith et al., 2022). As a result, crucial information such as loaning company names is not known to relevant authorities. In Malaysia, 62% use social media and 42% use online blogs/portals to seek information and advice on finance (RinggitPlus, 2020). Hence, it is not surprising that victims of online financial scams resort to online communities, such as forums, to share their grievances and experiences. Forums offer the anonymity which victims need when seeking advice and disclosing sensitive information. Anonymity provides an emotionally safe environment for participants to share and acquire information related to distressed situations (Harkin et al., 2020).

This study aims to identify loan scam companies from a financial forum using keyword matching and text analysis. This study will help supplement the relevant authorities' list of scam companies that they are not aware of due to victims not reporting in official channels. The companies were then checked against the Companies Commission of Malaysia and the credit reporting agency (CTOS) database to determine the legitimacy of their businesses. Law enforcement agencies can then take necessary actions once they identify companies' operating loan scam activities.

2. Literature Review

2.1 Online scam in Malaysia

Regarding love scams in Malaysia, Shaari et al. (2019) analysed the conversations between scammers and victims while Zainal Abidin et al. (2018) and Saad & Sheikh Abdullah (2019) investigated the relationship between certain variables and one's susceptibility to become victims of love scams. It was found that possessing knowledge, that is, computer skills and awareness of cybercrime activities, especially if it had occurred to friends or relatives, reduced the risk of becoming love-scam victims. There has also been research on the topic of scams in general, focusing on university students as respondents. While the majority of students (96 %) were aware of online scams (Wan Jusoh & Shahrul Nizar, 2022), possessing good budgeting skills further prevented them from joining investment scams (Mohd Padil et al., 2022). Mohd Padil et al. (2022) opines that because students have limited funds, they are more careful in spending their money including joining investment schemes. Despite many Malaysians reporting good budgeting habits in 2020 (OECD, 2020), the trend has declined recently due to the erosion of savings and retirement withdrawals, a negative economic effect of the pandemic (BNM, 2022). Dwindling savings, rising costs of living, and poor financial planning have resulted in Malaysians making irrational financial decisions, making them susceptible to financial scams (Mokhtar et al., 2018).

2.2 Forum as a source of support

Victims of online scams have a negative psychological impact (Whitty & Buchanan, 2015) that requires practical and emotional support (Bailey et al., 2021). Bailey et al. (2021) opine there is a stigma attached to being victims of scams which may hinder them from getting support. Furthermore, online scams are often viewed as less severe than violent crimes, rendering them with no support or assistance (Cross, 2018). However, online anonymity eliminates the fear of stigmatisation. Mann & Carter (2021) discovered that users posting under anonymity on Reddit's parenting forum displayed heightened emotional self-disclosure and gained access to supportive responses from other contributors. Online health forums have been widely documented as an online support community in sensitive health topics such as addiction (MacLean et al., 2015), mental health (Malmasi et al., 2016), and breastfeeding (Caes et al., 2021), where anonymity is valued. Interestingly, active online forum participants are at a higher risk of becoming scam victims (Van Wilsem, 2013).

2.3 Analysis of Personal Finance Forums

Forums have been a source of advice and support in seeking financial information. Haynes et al. (2011) reported that online financial forums, in combination with other interventions, increase financial knowledge. Forum participants discuss core personal finance topics and offer social support by providing information, feedback, and emotional

support through the display of empathy and care (Way et al., 2011). Other studies on personal finance forums have focused on identifying themes and topics of discussion. Karpenko et al. (2021) used the R programming language to identify financial topics and subtopics by text-analysing posts on Reddit's Personal Finance channel. Reddit is a popular online forum for discussing various topics including finance. Using Reddit as a dataset, Thukral et al. (2022) conducted topic modelling using Latent Dirichlet Allocation. Similarly, Qiu et al. (2021) used clustering analysis to detect themes of interest on another popular online discussion platform: StackExchange.

Trust, an important element in the selection of online financial information sources (Stanford et al., 2002), is also present in online communities. Naldi (2019) investigated the interactions and sentiments of participants in a personal finance forum, and found that trust was the most prevalent sentiment. The information sources recommended by other participants were rarely challenged in the investment forums that were analysed (O'Connor, 2013), indicating the existence of trust. The affordance of anonymity and trust in online communities encourages people to seek advice and support in online forums.

Prior studies have analysed financial forum posts to identify topics of discussion and interactions among participants. On the other hand, authorities have established the modus operandi of these scams, which are shared with the public on media and social media platforms. No studies have yet used the contents of forums to identify potential loan-scamming companies.

3. Methods

Text analysis was conducted using the dplyr and tidyverse packages in the R programming language. Data preprocessing, such as changing the text from uppercase to lowercase, was performed on the text. In Malaysia, companies are registered using the Sdn Bhd suffix. Sendirian Berhad (Sdn Bhd) means a Private Limited Company (Pte Ltd) as is known in countries such as Singapore. To extract the companies' names, the forum posts were matched to keyword "sdn" using the "tidyr::extract" function in the tidyverse package. The first 3 words prior to "sdn" were selected to ensure the full names of the company were captured. Table 3.1 lists examples of posts translated from Malay to English, and the extracted company names.

The company names were manually checked for words that are not part of the name. For example, the name "ask seaga credit sdn" the word "ask" was removed from the company name. The company names were then checked against the Companies Commission of Malaysia database at https://www.mydata-ssm.com.my to determine their status (i.e. registered or not registered) and the Credit Reporting Agency (CTOS) at https://businessreport.ctoscredit.com.my/oneoffreport/home to identify the nature of the business. Further checks were conducted using the i-KrediKom app to determine whether they were licenced moneylenders.

Table 1: Forum Post and Company Name

Forum Post	Name 1	Name 2	Name 3
I made a 10k loan with syarikat **bernama credit solution** sdn bhd for 5 years. first, he charged me rm400 for the lawyer fee for drafting the agreement which I paid. Only after signing the agreement did I notice that I have to prepare not more than 2k to open the loan account…	bernama	credit	solution
Its the same with **company money loan** sdn bhd. they requested that I pay cancellation fee because my application was rejected due to poor credit score. Then they requested RM1200 for lawyer fees.. and now they're requesting another RM750 for transaction fee... I don't know what these fees are..	company	money	loan
As salam may I **ask, seaga credit** sdn.bhd … any info if it's a scam?	ask	seaga	credit
Boss does the mbs easy loan sdn bhd company exist? Please help me	mbs	easy	loan
rm sidhu capital sdn bhd- regarding this company, I realised I was scammed, I have transferred almost RM8k to them, then they transferred the money without my permission, and they requested for lawyer fees. I realised when they said the lawyer's office is open on Saturday until 7pm because its close to chinese new year.	rm	Sidhu	capital

3.1 Data

The data were retrieved from a Malay-language forum on personal loans. The forum, titled "Jangan Jadi Mangsa Scam Pinjaman Peribadi!" or "Don't be a Victim of Personal Loan Scam!" is hosted on ipinjamanperibadi.com. The forum discussion follows an article with the same title that shares tips on identifying this type of scam. Forum contributors share their personal experiences or post questions about a potential scam, including the name of the money-lending company.

The dataset contained 334 posts from 5/9/2018 to 6/1/2023. A combination of tools was used to scrape the data from the website. The selectorgadget, a chrome web extension, is used to identify the CSS selector or labels of the chosen element on a webpage. The posts are the elements of interest in this study and not other data, such as user, date, etc. Selectorgadget works by highlighting the elements to be extracted, in this case, the posts. It then provides a CSS selector or a label for each element. The CSS selector or label for the posts is ".description p". Figure 1 shows a snapshot of the Selectorgadget, and the CSS selector or label is highlighted in a red box at the bottom right of the page. The Rvest package in the R programming language uses this label to extract posts that are further analysed.

Figure 1: Snapshot of Selectorgadget

4. Results and Discussion

4.1 Results

49 out of 334 forum posts contain "sdn" or a company name. After checking for duplicates, 39 companies were identified. Ten of the 39 companies were not registered in the Companies Commission Malaysia Database. These companies are listed in Table 2. The remaining 29 companies were not listed in this study because they are legally registered companies. Five of the 29 companies' names have a slight variation from the names registered in the database, such as the suffix sdn bhd being replaced with the word "enterprise".

Table 2: List of Non-Existing Companies

No	Company Name
1.	A2Z Finance Capital Sdn Bhd
2.	Bernama Credit Solution Sdn Bhd
3.	Company Money Loan Sdn Bhd
4.	Fast Loan Sdn Bhd
5.	MBS Easy Loan Sdn Bhd
6.	R&B Easy Loan Sdn Bhd
7.	RM Sidhu Capital Sdn Bhd
8.	Seaga Credit Sdn Bhd
9.	Syarikat Valuable Sdn Bhd
10.	Zuwana Emasculated Sdn Bhd

Further checks were conducted on the remaining 24 registered companies. Figure 2 provides a breakdown of companies' status and the nature of the business. Table 3 provides a further breakdown of their licenced money lender status. While half of the companies are stated as money lenders in the CTOS, there are three which are not licenced according to the i-KrediKom app. There are also licenced moneylenders whose nature of business is not specifically stated or stated as something else.
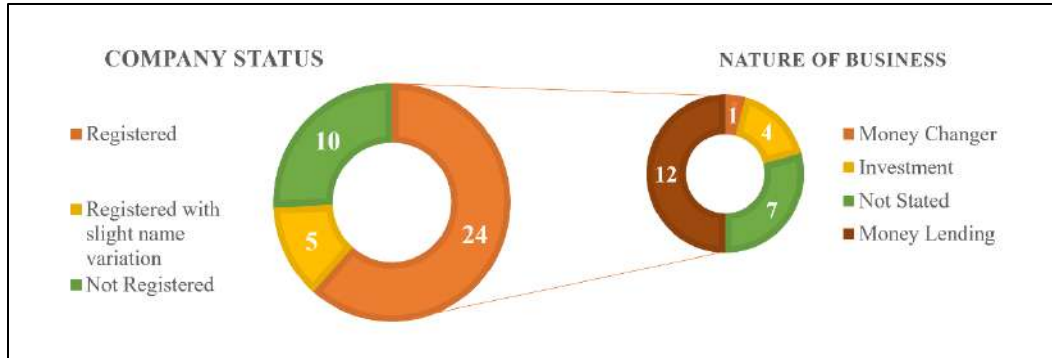
Figure 2: Breakdown of companies' status and nature of business

Table 3: Licensed money lender status

Nature of Business Source: CTOS	Licensed Money Lender? Source: i-KrediKom		Total
	Yes	**No**	
Money Changer	0	1	1
Investment	2	2	4
Not Stated	2	5	7
Money Lending	9	3	12
			24

4.2 Discussion

The findings revealed a considerable number of potential scam companies identified from the forum posts. While 10 of the companies are identified as unregistered and hence non-existent, it is worrying that the remaining 29 companies are registered in the Companies Commission Malaysia database. Twelve companies are registered as licenced moneylenders, seven are not stated, four are involved in investment, and one is a moneychanger. There are two possibilities for the registered companies. First, the scam perpetrator uses the company's name and identity to lure victims; second, these companies operate under the guise of a licenced money lender.

Santoso (2012) suggests that consumer protection should be addressed using both internal and external measures. Internal measures refer to consumer education. The i-KrediKom application has approximately 50,000 downloads. More needs to be done by the Ministry of Urban Well-being, Housing, and Local Government to advertise the existence of the app to consumers. The app may also post a list of scam companies identified in this study, so consumers are aware of them. Relevant authorities may regularly publish company names on social media platforms. Almost 40 percent of Malaysians prefer frequent reminders and alerts over other methods of education on financial fraud or scams (RinggitPlus, 2020).

External measures require the cooperation of several parties, namely, the Ministry of Urban Wellbeing, Housing and Local Government, law enforcement agencies, and the Companies Commission of Malaysia. These agencies may use the data from this study to contact registered companies and enquire about the nature of their businesses. They can then conduct spot checks on licenced moneylenders to ensure that they are legitimate moneylenders. The Ministry can revoke the licence of moneylenders found to conduct suspicious activities and take legal action. For companies that are not licenced but conduct money lending activities, law enforcement can shut down their business operations and premises until their licences are approved. The Companies Commission of Malaysia can

also remove the names of the companies found to conduct scam activities from their database. In cases where the company names are stolen by scammers, loan companies can take necessary actions to disassociate themselves from the perpetrator.

5. Conclusion

This study has demonstrated how to identify potential scam companies from forum discussions in which scam victims share their experiences for support and advice. The companies mentioned in the forum may be undetected by the authorities due to victims choosing not to report their cases because of fear or embarrassment. This will help supplement the law enforcement list of scam companies. This study also contributes to the growing body of knowledge on the text analysis of forum discussions, providing examples of applications for detecting scam companies.

5.1 Future Work

The method proposed may be used to retrieve potential scam companies from forums originating in other countries like Singapore and the United Kingdom where company names are registered with a suffix such as "Pte Ltd" or "Ltd." By extending its use beyond forums, authorities can use the same method to extract company names from police reports lodged by scam victims. Using text analysis, the phone numbers of scammers mentioned in forum posts can also be extracted using R programming. Network providers can label these numbers as potential scammers when users receive calls (Mubarak et al., 2019).

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Family Directors and Independent Directors of Malaysian Public-Listed Family Firms: From the Perspective of Corporate Acquisitions and Its Policy Implications

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Abstract

Corporate governance has been a continuous global concern. It is well perceived that a good corporate governance practice induces good company performance and value. Good corporate governance practices are especially important to protect the interest of minority shareholders from companies with concentrated shareholdings. In Malaysia, major companies that constitute to concentrated shareholdings in public listed companies are family firms. This leads to the motivation of further exploration on the corporate governance role of the board of family firms in firm valuation. This paper aims to shed further light in this area by examining the effect of family directors and independent directors on family firms' value, within the context of corporate acquisitions. Findings recommend that a balanced power between family representatives to independent directors on the board should be encouraged as one of the best practices of corporate governance in Malaysian family firms. Findings documented the positive valuation effect of family directors on board (relative to independent directors) to family firm value. Evidence in this study suggests a benchmark applicable specifically for Malaysian family firms. Based on the results, it is recommended that an approximate of one-to-one ratio of family directors to independent directors on the board should be practiced by the board of Malaysian family firms. This ratio, as suggested by the findings in this study, encourages the optimum functioning of the board of Malaysian family firms and also the optimization of Malaysian family firms' value. The results also reveals that when the concentration of family ownership reach to a certain level, it becomes a value-decreasing factor for family firm value. This further emphasized the importance of corporate governance role in protecting the interests of family firms' stakeholders. The recommendation is derived based on a sample of 267 corporate acquisitions made by public-listed Malaysian family firms over the ten-year period of 2002-2011.

Keywords
Corporate governance, family firm value, family firm directors, independent directors, corporate acquisitions

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1. Introduction
Family firms are ubiquitous worldwide (Poza, 2009). Many have the perception that family firms are small and medium enterprises (SMEs) which are 100% owned and managed by the owners and their related family members. It is also generally perceived that widely-held corporations are a common form of ownership structure. The landmark study of La Port et al. (1999) has fundamentally revised this conventional perception to a new level of knowledge. Publicly listed firms in both developed and developing countries are found to be prominently controlled and owned by families. Studies further demonstrate that the controlling families of these publicly listed family firms constitute a persistent and prevalent class of large, concentrated shareholders (Carney & Child, 2012; Claessens, Djankov, & Lang, 2000; Lins, 2003). This substantial group of family owners and family firms play dominant role in countries around the world, in terms of their significant economic contribution to the countries (Siebels & Dodo, 2012).

More than half of the East Asian publicly listed companies are family-controlled, with controlling families remaining the largest group of dominant owners of Malaysian publicly listed companies (Carney & Child, 2012;

Claessens et al., 2000; World Bank Group,1999).[1] Significant corporate wealth in East Asia[2] has been found to concentrate among only a few families. The contribution of these Asian family businesses to the overall economic growth is predicated on their ability to grow successfully (Tong, 2009). Managers of these closely held firms were also found to be relatives of the controlling shareholders' families (Carney & Child, 2012; Claessens et al., 2000; Lins, 2003; Thillainathan, 1999; World Bank, 2005). Even when family firms are transferred to publicly listed vehicles, the controlling owners and family members remain as the major shareholders of the company while dominating the senior managerial roles in these publicly listed companies. The prevalence of family firms worldwide as the dominant controlling owners in the capital markets around the world, with substantial influence over the economic landscape of most nations is indisputable (Alderson, 2011; Astrachan & Shanker, 2003; Carney & Child, 2012; Poza, 2009).

As such, minority shareholder interests become a crucial concern for family firms with concentrated ownership. Minority shareholder expropriation continues to be one of the corporate governance issues which attract extensive attention in emerging markets (Claessens & Yurtoglu, 2013). The activities of expropriating the minority shareholders can be extensive, especially in emerging countries with low investor protection, weak corporate governance, and owners who have concentrated ownership stake (Dyck & Zingales, 2004; S. Johnson, La Porta, Lopez-de-Silanes, & Shleifer, 2000; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000). It has been a continuous effort from policymakers and regulators worldwide to be concerned with the design of a corporate governance framework that can protect minority investors from the misbehaved and self-interested controlling shareholders and managers of the company (McCahery & Vermeulen, 2013).

Corporate governance literature indicate that the composition and structure of the board is an important element in affecting the strategic direction and performance of the company, which ultimately affect the wealth of the shareholders. The monitoring role of boards has been the focus of extensive corporate governance research (Adams, Hermalin, & Weisbach, 2010; Dalton, Hitt, Certo, & Dalton, 2007; J. L. Johnson, Daily, & Ellstrand, 1996). With fiduciary obligations to the vast shareholders and the essential role to determine the strategic direction of the company and monitoring, the role of board of directors in the governance of the corporation is imperative (Gillan, 2006; Licht, 2013).

The board structure of family firms – one of the important internal corporate governance mechanisms of family firms, has also been studied and discussed (Bammens, Voordeckers, & Van Gils, 2011). Different from non-family firms, existing family firms studies empirically demonstrate that in comparison to the corporate governance function of the board, takeover market, institutional investors and even incentive compensations provide less governance function in family firms (Gomez-Mejia, Larraza-Kintana, & Makri, 2003; Kole, 1997; Shivdasani, 1993). Consequently, this further highlighted the importance of strengthening the corporate governance function of the board in family firms.

Studies have demonstrated that preferences and practices of family firms, in terms of board composition and board structure, are also significantly different from those of non-family firms (García-Ramos & García-Olalla, 2011). Family firms in developed countries have been found to be more likely to deviate from the best standard practices of corporate governance (Aguilera & Crespi-Cladera, 2012; Anderson & Reeb, 2004; Arcot & Bruno, 2012; Schulze, Lubatkin, Dino, & Buchholtz, 2001).

Similar to family firms of other nations, the board structures of Malaysian family firms are also quite different from those of other Malaysian non-family firms, a few of which have been duly documented. Study of Amran and Ahmad (2009) is one of the few which documented the differences between the board structure of publicly listed Malaysian family firms and the board structure of non-family firms. They investigated this governance mechanism of Malaysian publicly listed companies in terms of board independence, leadership structure and board size. Their findings revealed that Malaysian family firms favour the good practise of dual leadership structure, while the board independence of Malaysian family firms is found to be in lower degree. Ibrahim and Samad (2011a) supported the findings of Amran and Ahmad (2009) that independent directors and duality are treated differently by Malaysian family firms. Their findings revealed that Malaysian family firms do not need independent directors to monitor the board in order to reduce agency conflict with shareholders. These findings support findings of Anderson and Reeb (2004) as well as Chen and Nowland (2010) for family firms in US and East Asia respectively; the controlling families often seek to minimise the presence of independent directors and are reluctant in the adoption of monitoring practices.

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[1] The minimum threshold for the percentage of ownership of the controlling owners is at 20%. At the minimum threshold of 10%, the reported statistics for the controlling families become higher.

[2] The examined East Asian countries include Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand. They define concentrate shareholdings based on the shareholdings of the controlling shareholders at the minimum 20% threshold.

In view of the importance corporate governance role of family board over family firms, this brings to the motivation of examining the effect of family board to family firm on firm valuation, particularly on family directors and independent directors of family firms.

2. Literature Review
Family directors and Independent Directors of Family Firms

Ideally, the governance role and functions of the board of a family firm should not differ from those of the others. Grounded in agency theory, the governance role of the board is to deter the manager from engaging in an opportunistic behaviour that serves the manager's personal interests at the expense of the owner(s) of the company S. The boards of family firms can be possible mechanisms to limit expropriation of shareholder wealth by family owners with large shareholdings.

The general consensus from the industry and academics is that an independent board of directors result in more effective corporate governance (Ryan & Wiggins, 2004). Independent directors have been viewed as essential in monitoring the management of the company, in comparison to other directors (Byrd & Hickman, 1992). Independent directors also represent important line of defence for minority shareholders against opportunism of large shareholders (Anderson & Reeb, 2004).

Within the context of family firm studies, family firms yield different interpretation on the relation between board independence and value of family firms. Garcia-Ramos et al. (2011) findings contradict the common belief that more independent boards always lead to better firm value, when considering the effect of family ownership. The correlation between independent directors on board with family firm value becomes negative when the company is run by the descendants (García-Ramos & García-Olalla, 2011).[3] The presence of outside directors on the board do not necessary contribute positive effect to the family firm as a whole (Jonovic, 1989). Classical board may only suit a few family firms. This notion is also supported by Ford (1989). Independent board members are less important than insiders for family firms.

Study of Anderson and Reeb (2004) shed further light which provide further insight of the governance effect of independent directors on the board with the presence of family directors on family board. Their findings demonstrate family firms' attitude toward the appointment of independent directors and the importance of independent directors on performance of S&P family firms in US. On average, independent directors hold 43.9% of seats on boards for family firms, which is lower than their sample of nonfamily firms at 61.2%. Their study showed the poorer performance of US family firms when the number of family representatives exceeded those of the independent directors on the board. Their findings further suggest that the board of family firms functions well in mitigating the conflict of interests amongst shareholders with increased board independence.

It is also observable that one of the specific feature of family firm is the dominance of family directors on the board (García-Ramos & García-Olalla, 2011). Study documented the negative effect of family directors on family firm corporate governance practice and in turn firm value (Anderson & Reeb, 2004; Cheung, Chung, Tan, & Wang, 2013). Study which investigated the influence of family directors on firm valuation, concluded a negative influence for Hong Kong public listed family firms (Cheung et al. 2013). Similar studies remain scant (Cheung et al., 2013; Collin & Ahlberg, 2012).

The dominance of related family members of the controlling family owner on corporate boards of Malaysian family firms are documented, with an average of 40% of the total number of board members (Ameer & Abdul Rahman, 2009). In comparison with those found in US studies, Anderson and Reeb (2004) documented only an average of 20% family directors on board, which is considerably lower than those documented for Malaysian family firms. These studies revealed that the corporate governance practices, in relation to the board structure of family firms, are different from other types of organisations, including Malaysian family firms.

Prior Research on Corporate Acquisitions Wealth Effect

From an agency perspective (Jensen and Meckling 1976), if the board of family firms continues its governance role, the investment decision of family firms would be value-adding to the firms' wealth. One available direct measure for agency theory is corporate acquisitions. Corporate acquisitions provide the advantage as a direct measure for evidence of agency problem (Faccio & Stolin, 2006; Shleifer & Vishny, 1997), by looking at the market performance of family firms when family firms execute corporate acquisitions (Bauguess & Stegemoller, 2008;

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[3] Their sample firms specifically comprise of European family firms from Spanish, Portuguese and Italian publicly traded companies for the period of 2001 to 2007.

Bhaumik & Selarka, 2012; Bouzgarrou & Navatte, 2013; Caprio, Del Giudice, & Croci, 2011; Shim & Okamuro, 2011). These market performances of family firms subsequent to the announcement of corporate acquisition activities are also termed the wealth effect of corporate acquisitions on family firms.

The undertakings of corporate acquisitions are often used by self-interested insiders (manager-owner) to the detriment of outside shareholders (Andrade, Mitchell, & Stafford, 2001; Jensen & Ruback, 1983; Roll, 1986). The self-interested owner-manager expands the firm through corporate acquisitions beyond its scope of activity, which result in higher salary for the owner-manager, higher controlling power (Murphy, 1985), or diversification of human capital risk (Amihud & Lev, 1981). The expropriation behavior of the controlling owners has been shown in Korea (Bae, Kang, & Kim, 2002) and India (Bhaumik & Selarka, 2012). These nations are known for their weak corporate governance system. However, not all controlling owners in other nations with weak corporate governance system are self-interested and behave in such a way that expropriates the wealth of the minority shareholders. Related findings for the case of Belgium (Buysschaert, Deloof, & Jegers, 2004) and Sweden (Holmen & Knopf, 2004) reject this expropriation hypothesis.

Studies of corporate acquisitions wealth effect for family firms reveal a contrastingly different interpretation when compared with past corporate acquisition studies (which do not consider specifically the effect of family owners). Past corporate acquisition literature suggests that acquiring firms (the acquirers) generally experience insignificant or negative wealth effect of corporate acquisition announcements. These studies jointly conclude that corporate acquisition decisions of the acquirers do not result in significant changes to the acquirers' market value. However, this is not the case when family firms are the acquirers. Studies show that acquirers that are family firms experience significant changes in firm market value, either positively or negatively when announcing their corporate acquisition decisions (Bauguess & Stegemoller, 2008; Bhaumik & Selarka, 2012; Bouzgarrou & Navatte, 2013; Caprio et al., 2011; Shim & Okamuro, 2011).

Different from past studies, this study incorporates the corporate governance of board features in examining the wealth effect of corporate acquisitions for family firms in Malaysia, specifically the presence of family directors and independent directors on the board. The findings shall provide further policy implication on the good practices for family firms in emerging market such as Malaysia.

2.1 Hypothesis

The key insight offered by Jensen and Meckling (1976) was to model the relation between the managers and the owners (shareholders) akin to those between principals and agents. The owners appoint the managers to perform the management tasks of a company, giving managers control over company resources. As both parties' main purpose is to maximise their own utility and self-interest, conflict of interest naturally arises between both parties. The contracted managers are conjectured to have the incentive and the ability to consume perquisites at the expense of the company resources in consequence of the control over company resources granted by the owners.

Family-controlled firms in this case offer advantageous family-specific-features that naturally align the interests of principal-agent. Unlike widely-held corporations and non-family firms, family-controlled firms offer a distinctive type of insider ownership that naturally aligns the interests of managers and shareholders. Inherently, the positions of top management of family-controlled firms are often held by the controlling owners themselves or related family members (Claessens et al. 2000; Lins 2003; Carney and Child 2012); these managerial posts can be passed on through generations (Chrisman et al. 2012; Schulze et al. 2003), along with intrinsically high concentration of family ownership (Faccio and Lang 2002; Claessens and Yurtoglu 2013; Claessens and Fan 2002). These traits in family-controlled firms allow strong control by the controlling families, with the intention of retaining ownership and control throughout generations.

From an agency perspective (Jensen and Meckling 1976), if the board of family firms continues its governance role, the investment decision of family-controlled firms would be value-adding to the firms' wealth. This naturally leads to the concern whether the board with family directors continues to act in the interest of all the shareholders. Studies have investigated the influence of family representatives on the board on firm valuation, with a negative influence concluded for Hong Kong publicly listed family firms (Cheung et al. 2013). The studies of Anderson and Reeb (2004) also showed the poorer performance of US family-controlled firms when the number of family representatives exceeded those of the independent directors on the board. Hitherto, no studies have been done to discover if the domination of family members on the board significantly affects these investment decisions of the family-controlled firms, which in turn affect the value of the family-controlled firms. Hence, with reference to the literature and based on existing studies, for the case of Malaysian family-controlled firms, it is hypothesised that: -

Hypothesis

There is a negative relation between family representatives on the board (relative to independent directors on the board) and announcement period stock performance of Malaysian family-controlled acquiring firms.

3. Methods

Sample

This research work defines Malaysian family firms as a company where management as well as the largest equity stake are both held by a controlling family. This is in accordance to the highlights in past family firm studies that one of the identical features associated with a family firm is the double role of the controlling family as the owner(s) and the manager(s) in a company (Carney & Child, 2012; Claessens et al., 2000; Cucculelli & Marchionne, 2012; Lins, 2003; Thillainathan, 1999; World Bank, 2005). Furthermore, in line with Miller et al. (2007) and claims of other previous family firm studies (Bauguess & Stegemoller, 2008; Mehrotra & Morck, 2013; Villalonga & Amit, 2006) true family businesses include more than one family member as major owners or managers. Bursa Malaysia listing requirement also specifically requires the disclosure of any family relationship of the director and chief executive with any director and/or major shareholder of the listed company, pursuant to Main Market *Bursa Listing Requirements – Chapter 9 Continuing Disclosure*, Section 9.19. The definition of the term *family* is also specifically defined by *Bursa Listing Requirements- Chapter 1, Part A Section 1.01*. In short, the term family refers to an individual who is in relation to a person as spouse, parent, child (including adopted child and step-child) and spouse of the child, brother or sister and spouse of the brother or sister.

In this study, all family-related information and financial information are sourced from annual reports. A Malaysian public-listed firm is considered as a Malaysian family firm when meeting the following criteria:-

   i.   At least one of the family members hold shares in the company;
   ii.   At least one of the family members manages the company (as proxied by holding at least one position on the board, which is a publicized information);
   iii.   The family is the heir of previous founder, if any;
   iv.   The family is the largest shareholder of the company[4].
   v.   The Malaysian family firm is a publicly listed company on the *Main Market of Bursa Malaysia* (previously known as *Kuala Lumpur Stock Exchange* before 14 April 2004);
   vi.   The Malaysian family firms cover nonfinancial acquiring firms that are listed on the *Main Board* of *Bursa Stock Exchange* between the year 2001 and 2011 and have been an acquirer of corporate acquisition activities from year 2002 to 2011.
   vii.   Firms with a single dominating owner-manager (who can be a founder or a non-founder) is not considered as a family firm as there is a possibility that the single dominating owner-manager may not transfer their rights and control in the firms to their heirs (Villalonga & Amit, 2006).

All sample corporate acquisition announcements in this study are sourced from the official website of Bursa – the announcement section. The final sample of corporate acquisition announcements, which were publicly announced by Malaysian family firms (the *acquirers*), satisfy the following criteria:

   i.   Corporate acquisition announcements are publicly announced by Malaysian family firms in company press release, at official website of the company or in the *Bursa Malaysia* – Announcement Section on the website for the period of year 2002 to year 2011[5].
   ii.   The release of the corporate acquisition announcement by the acquirer is in pursuant to paragraphs 9.19(23) and 10.07(a) of *Bursa Malaysia Listing Requirements*.
   iii.   The acquirer has annual financial statement information available and stock return data.
   iv.   The acquiring firm acquires at least 50 percent or more of target's equity (Netter, 2011).

Past studies highlighted the difficulty of isolating the valuation effect of the examined event when there are financially relevant events[6] surrounding the day of the examined event (S. J. Brown & Warner, 1985; Jarrell & Poulsen, 1989; Konchitchki & O'Leary, 2011; Lease, Masulis, & Page, 1991; McWilliams & Siegel, 1997). Subsequent false or misleading inferences regarding the significance of the event are then made. This study follows the recommendations from previous studies.

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[4] This is to ensure the absolute control of the dominant family over the family firms, in terms of ownership and management of the business. Family ownership is treated as the total corporate equity ownership held by *all* related family members. Hence the total family ownership is accumulated among those that are held by related family members.

[5] All corporate acquisition announcements of Malaysian firms are retrieved and manually collected from http://www.bursamalaysia.com/market/listed-companies/company-announcements/.

[6] The financially relevant events considered include earning announcement (S. J. Brown & Warner, 1985), stock split announcement (Cannella & Hambrick, 1993), equity offerings announcement (Ronald W Masulis & Korwar, 1986), asset acquisition announcement and corporate acquisition announcement of the company.

Contaminated sample corporate acquisition announcements are not examined in this study. The contaminated corporate acquisition announcements with any occurrences of financially relevant events five days before and after the announcement day (Fuller, Netter, & Stegemoller, 2002) are not examined.

Following Netter et al. (2011) and Vermaelen and Xu (2014), both privately held targets and public targets are examined in this study. This study also does not impose restrictions on the deal value (Netter, Stegemoller, & Wintoki, 2011; Vermaelen & Xu, 2014). Netter et al. (2011) emphasize the misleading inferences made by past corporate acquisition studies based on unrepresentative samples. Past studies restrict sample corporate acquisition announcements with large publicly listed targets and large deal value. Inferences are drawn based on relatively small and unrepresentative samples. Supporting Netter et al. (2011) claims, their findings revealed acquirers experienced significant positive wealth effect of corporate acquisition announcements. This is contradicting to past corporate acquisition findings which overall evidenced that corporate acquisition announcements do not create value to acquirers. The final sample contains 267 corporate acquisition announcements of Malaysian family firms over the period 2002 to 2011.

Variable

The value creation or destruction of corporate acquisitions can be observed via the stock market reaction surrounding the corporate acquisitions announcement day. To examine the stock market responses to corporate acquisition announcements of the acquirers, *event study methodology* is used. Event studies have been proposed to avoid the common latent factor (causal interpretation) that impels a significant relationship between an observed factor and a firm's market value (Morck & Yeung, 2009). In essence, capital market valuation data carry a forward-looking trait.[7] Event study methodology provides a powerful setting for examining the informativeness of an event as assessed by the market participants. The basic aim of the event study methodology is to isolate the effect of certain events on stock returns from other factors influencing the movement of the stock returns (MacKinlay, 1997). This effect is examined via *cumulative abnormal returns (CAR)*.[8] MacKinlay (1997) provide a detailed discussion on the measurement *abnormal return*.

$$CAR_{ij} = \alpha_0 + \beta_1\ Fam\_Ind_i + \beta_2\ X_i + \varepsilon_i \qquad (1.5)$$

Family representatives on the board, *Fam_Ind*, denotes a dummy variable that equals to one when the ratio of total number of family members on board over total numbers of independent directors on board is less than 1, zero otherwise (Anderson & Reeb, 2004). Data of family directors and independent directors on board is retrieved from the *Profile of Directors* in the annual report. X*i* denotes the control variables that have been evidenced in past literature exhibiting correlation with CAR, summarized in Table 1.

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[7] For detail discussion, please see Morck and Yeung (2009).
[8] Please refer to MacKinlay (1997) for detailed discussions.

Table 1: Control Variable definition	
Variables	**Definitions**
Own	The total percentage of shares held by the family
Own^2	Square of Own
%IND	Percentage of independent directors
Fam_Ind	A dummy variable that equals to one when the ratio of total number of family members on board over total numbers of independent directors on board is less than 1, zero otherwise
%Fam/IND	Percentage of family directors over independent directors
$\%Fam/IND^2$	Square of %Fam/IND
DualCEO	A dummy variable that equals to one when chairman and CEO is held by the same individual, zero otherwise
RPT	A dummy variable that equals to one when the acquisition is a related party corporate acquisition, zero otherwise.
Age	Family firm age
Pre_CAR	Acquirer's pre-announcement stock price run-up, which is measured by cumulative abnormal returns over the 200-day window (event day -210 to day -1) and is estimated using market model.
Non Relate	A dummy variable that equals to one when target is not within the same industry as the industry of the acquirer, zero otherwise.
FCF	Free cash flow divided by total assets
Firm size	Log of market value of equity
Deal size	Log of the transaction value
Crossborder	Dummy variable that equals to one if non-domestic target is acquired, zero otherwise
Public	Dummy variable that equals to one if publicly held target is acquired, zero otherwise.
Equity	A dummy variable that equals to one if acquisition is financed by equity payment, zero otherwise.
Yr2008	A dummy variable that equals to one when the event year of the period falls between the years 2008 and 2011 – the period of global financial crisis (Short, Sharma, Lumpkin, & Pearson, 2016)

4. Results and Discussion

4.1 Descriptive

The variable *Own* reveals the high concentration of family ownership in Malaysian family firms. The maximum family ownership can reach as high as more than 80%. The minimum percentage of family ownership examined in this study is 20% with a mean of close to 50%. The nature of highly concentrated family ownership in Malaysian family firms exhibited in the sample is in accordance with past findings (Carney & Child, 2012; Claessens et al., 2000).

The variable *Fam_Ind* denotes a dummy variable that equals to one when the proportion of total family members' representation on the board over total independent directors on the board is less than one. This dummy variable allows examination of the balancing monitoring power from the independent directors in relation to family members on the board. Excessive numbers of family members on the board relative to independent directors increase the likelihood of the family expropriating the company's wealth. Fewer family representatives relative to independent directors may reduce family monitoring and board effectiveness. Table 2 reveals that 70% of the sample acquisition announcements are performed by Malaysian family firms with the proportion of family directors on the board that is less than the proportion of independent directors on the board. The variable *Fam_Ind* support the findings of a previous study that family members participation on the boards are observable in Malaysian family firms (Ameer & Abdul Rahman, 2009).[9]

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[9] Not reported here, the maximum (minimum) percentage of total family directors over total board members are 83% (8.3%), with a mean of 37%. This data reveals that the presence of family directors on the board in Malaysian family firms are observable across all the examined sample family firms.

Table 2: Descriptive Statistics

This table reports descriptive statistics for the variables examined in this study. *N* represents the total number of observations for each variable. *Mean* represents the mean of the variables. *SD* represents the standard deviation, *Median* represents the median, *Max* and *Min* represents the maximum and minimum of the variable. *Skewness* and *Kurtosis* represent the skewness and kurtosis of the variables' distribution.

Variable	N	Mean	SD	Median	Max	Min	Skewness	Kurtosis
Own	267	46.74	13.38	46.62	84.5	20	0.25	2.52
Fam_Ind	267	0.69	0.46	1	1	0	0.86	1.73
%IND	267	41.55	10.57	40	83.33	20	1.03	4.03
DualCEO	267	0.26	0.44	0	1	0	1.10	2.22
RPT	267	0.28	0.45	0	1	0	0.98	1.95
FirmYear	267	25.91	17.90	25	105	3	1.43	6.20
Pre_CAR	267	1.45	15.67	1.97	100.76	-74.38	0.44	11.88
non_related	267	0.12	0.32	0	1	0	2.40	6.74
FCF	267	0.07	0.04	0.06	0.24	0	0.58	3.54
LN_MVE	267	19.88	1.71	19.62	24.52	16.3	0.57	2.82
LN_RM	267	16.45	1.74	16.25	21.54	13.01	0.47	2.86
Crossborder	267	0.31	0.47	0	1	0	0.80	1.64
Public	267	0.02	0.14	0	1	0	7.10	51.42
Equity	267	0.03	0.17	0	1	0	5.51	31.41
Yr08_11	267	0.47	0.50	0	1	0	0.11	1.01

The variable *%IND* is expressed in total percentage of independent directors on the board. Table 2 shows that on average the independent director's ratio on the board of Malaysian family firms (the acquirers) is following the recommendation of the voluntary *Malaysian Code on Corporate Governance*, with an average of more than 1/3 of independent directors on the board (at 41.55% independent directors on board). The minimum measure shows 20% of independent directors on the board. This implies that there are cases of Malaysian family firms not following the recommended good practice of corporate governance by Bursa, in terms of having at least 1/3 of independent directors on the corporate board. Overall, the distribution of independent directors in terms of total percentage on the board for the acquirers does not deviate too far from the mean, with skewness of close to 1. This shows that most of the Malaysian family – the acquirers, are complying with the recommended *Malaysian Code on Corporate Governance*, with an average of more than 40% independent directors on the board (with a median of 40% independent directors on the board as well). The data are also in line with the findings of a previous study (Wan-Hussin, 2009) on Malaysian family firms, which also report an average of close to 40% independent directors on the Malaysian family firms' corporate board.

4.2 Multivariate Results and Robustness Test

Table 4 provides the multivariate regression results of Malaysian family-controlled acquirers' returns. Column (1)-(8) report the results of the regressions that regress the dependent variable CAR on the explanatory variables, across the three-day event window (-1, +1). The dependent variable CAR of Column (1)-(3) is estimated from market model, while the dependent variable CAR of Column (4)-(6) is estimated from market-adjusted model. Day 0 is the day the announcement is released. Using another measure of CAR, results from Column (4)-(6) provide further validation on the sensitivity and robustness of the results as reported in Column (1)-(3).

Results and the relationship for the concerned and known board corporate governance measures are consistently robust across Column (1) – (8). In general, it shows the negative effect of the function of board corporate governance in Malaysia family firms. This is in contrast to the generally perceived beneficial valuation effect of board governance role in other non-family firm studies. First, the variable *%IND* reports significant negative relationship with family

firm market value (CAR) at 1% level. The results suggest that higher level of independent directors are detrimental to family firm. This is consistent with earlier discussions that independent directors are not highly valued by family firms (Jonovic 1989; Garcia-Ramos and Garcia-Olalla 2011; Ford 1989). Family firms may appoint directors who are socially connected to the controlling family owners for the mere purpose of satisfying the regulatory requirement for independent directors (Jameson et al.2014), which results in less effective monitoring (Hwang and Kim 2009). This also reveals that family firms are a unique organization structure that requires corporate governance function that are different from non-family firms to protect the interest of family firm stakeholders.

Second, the variable *DualCEO* report a nonsignificant negative relationship with family firm value consistently across all Column (1) – (8). This result implies that separation of CEO and chairman role should be encouraged in Malaysian family firm. Studies suggest that splitting the titles of CEO and chairman between two people improves firm performance as the board of directors can better monitor the CEO (Brickley, Coles, & Jarrell, 1997; Fama & Jensen, 1983; Finkelstein & D'Aveni, 1994; Harris & Helfat, 1998; Worrell, Nemec, & Davidson Iii, 1997) with reduced agency costs (Boyd, 1995). The expropriation behaviour of Malaysian family firms are exhibited by the variable *RPT*, which reported significant negative effect of related party corporate acquisitions to family firm value if performed.

The variable of *Own* reports an insignificant negative effect on family firm value. This reveals the possible ineffective governance function of a concentrated ownership in family firms, which does not support by the notion of Agency theory. This is in contrast to the findings in Table 3, where Malaysian family firms, on average, do not perform value-decreasing corporate activities. The results in Table 3 support the notion of Agency theory that family ownership reduced principal-agent conflicts and induces beneficial value-enhancing effect on family firms. This leads to further investigation on the possibility of a nonlinear relationship between family ownership and firm value, which may explain the contrasting findings as discussed. Hence, Column (2) rerun the regression again. The model in Column (1) is expanded by including the new variable Own^2 – squared *Own*. This also allows further exploration on the corporate governance mechanism of concentrated family ownership and firm valuation based on prior family firm studies (R. C. Anderson & D. M. Reeb, 2003; Isakov & Weisskopf, 2014).

The results are reported in Column (2) (and remain consistent as reported by Column (6) results, for sensitivity analysis), which indicate that there is a significant nonlinear relation between family ownership and CAR. The inflection point[10] (or maximum family firm value) where the beneficial effect of Malaysian family firms begins to diminish is at 46.23% (45.36%) for the market model CAR (market adjusted model CAR). The overall results indicate Malaysian family firm value increases until the controlling families own close to 50% of the equity shareholdings in family firms. Beyond this point, performance of Malaysian family-controlled firms declines. This finding is consistent with the result reported by Pindado et al. (2013). Study of Pindao et al. (2013) reveals that the optimal level of family ownership which maximises the value of family firms is at 51% in Switzerland. However, the results of the optimal level of family ownership concentration contrast with those documented in the study of Anderson and Reeb (2003a) for US family firms, which reports 30% as the optimal level.

The results overall imply that the controlling family owners of Malaysian family firms require close to half or more than half of the ownership in the company to maximise family firm value. Contrast to other counterparts, US family firms only need to acquire one third of the company to maximise firm value. Similar to family firms in Switzerland (Pindado, Requejo, & de la Torre, 2013), the controlling families in Malaysia need to own larger stakes in the family firms for an effective decision-making process. Such a difference is consistent with the past findings on the concentrated ownership level of Asian families, in comparison with their counterparts from developed countries (Carney & Child, 2012; La Porta, Lopez-de-Silanes, & Shleifer, 1999). Concentrated level of family ownership is especially necessary for Asian family firms. Concentrated family ownership is an internal control mechanism, which serves as a substitute for scarce institutional governance mechanisms (Lins, 2003). Controlling family owners, while filling up these monitoring roles to overcome the lack of investor protection system, also reduce their incentives for expropriations, leading to increase in firm value (Denis & McConnell, 2003; Lins, 2003). Further light is shed on the theoretical predictions of the effect of concentrated family ownership on family firm value.

These overall findings imply that Malaysian family firms are associated with better firm value with the increase of family ownership. This supports the notion of Agency theory. The inherent features of family firms (ownership and managerial role) naturally mitigate the conflict of interests between the principals and the agents, leading to the alignment of interest between both parties (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000; Shleifer & Vishny, 1997). However, results also indicate that when family ownership reaches a certain concentrated

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[10] Inflection point is calculated from the formula (- β_{i1} / β_{i2}x2), where β_{i1} and β_{i2} are the coefficients of the variables Own and Own^2 respectively.

level, the relation between family ownership and family firm value becomes inversely related. In this case, family opportunism increases with the increasing family ownership (Maury, 2006). This finding is also consistent with past findings which showed a nonlinear relation between family ownership and family firm value for family firms from the developed economies or the so-called *principal-principal conflicts* (Ronald C. Anderson & David M. Reeb, 2003; Ben-Amar & André, 2006). The findings further emphasized the importance of corporate governance effect of family board in monitoring and protecting the interests of other non-family stakeholders. This is especially so when family ownership reaches 50% or more, within an emerging economy, such as Malaysia.

Column (1) and (2) also reports significant positive relation between *Fam_Ind* and C$\overline{A}$R at 5% significance level (from the sensitivity analysis, results remain constant as reported in Column (5) and (6)). The variable *Fam_Ind* denotes a dummy which equals to one when the number of family directors on board is less than the number independent directors on board. This new-found evidence suggests the beneficial effect of family directors' involvement on the board in creating family firm value. To the best of our knowledge, this is not yet reported in any family firm or corporate governance literature. As discussed earlier, the presence of family directors on family board is one of the unique features of the board on family firm, which are nonexistence in nonfamily firms. The findings further highlight the importance of exploring new board governance feature, considering the presence of family directors.

The results support the findings of Anderson and Reeb (2004) which documented a significant positive valuation effect of family directors. However, different from our findings, they documented the significant relationship in the case when the proportion of family directors is 0.5/1 to the proportion of independent directors on the board. They support the inferences that showed the poorer performance of family firms when the number of family directors on the board exceeded those of the independent directors on the board. Their findings provide further insight on the importance of the balance of power between family directors and independent directors on the board to allow better decision-making process. To further explore the possibility of the negative valuation effect from family directors if their number exceed those of the independent directors, we regress a new model with the results reported in Column (3) using piecewise linear regressions (Anderson and Reeb 2004) (and Column (7) to report the sensitivity of the results and findings). This new model follows the following equation: -

$$CAR_{ij} = \dot{\alpha}_0 + \text{\ss}_1 \text{ Fam\_Ind} \leq 1_i + \text{\ss}_2 \text{ Fam\_Ind} > 1_i + \text{\ss}_3 X_i + \mathcal{E}_i$$

The two new variables Fam_Ind$\leq 1_i$ and Fam_Ind$> 1_i$ denote:

Fam_Ind≤ 1	= Fam/Ind	if Fam/Ind is ≤ 1; and
	= 1	if Fam/Ind is > 1
Fam_Ind>1	= 0	if Fam/Ind is ≤ 1; and
	= (Fam/Ind – 1)	if Fam/Ind is > 1

, where *Fam/Ind* equals to the ratio of total number of family directors on the board to total number of independent directors on the board. X*i* denotes the control variables that have been evidenced in past literature exhibiting correlation with CAR, as summarized in Table 1.

The results in Column (3) and (7) both support the notion of the significant positive valuation effect of family directors (in proportion to independent directors) on the board at 1% significance when there is family directors on family board. The proportion of family directors should not exceed those of the independent directors for its positive valuation effect on family firm value. The variable *Fam_Ind>1* report negative relationship with family firm value, though not significant. This implies that when the number of family directors on board begin to exceed the number of independent directors on board, there is an implication of the negative valuation effect on family firm. This result support findings of Anderson and Reeb (2004). This also supports notion from previous study on Hong Kong family firms that higher numbers of family directors on the board are detrimental to family firm value (Cheung, Chung, Tan, & Wang, 2013). Findings provide further insight on the importance of the balance of power between family directors and independent directors on the board of family firms to allow better decision-making process, which benefit family firm value. In the case when the balance of power is breached, where the total number of family directors exceed those of the independent directors on the board, value-decreasing decisions or possible expropriation decisions may be made by the family. Such as for the case of corporate acquisitions as documented in this study.

We further explore the approximate point at which the balanced of power between the number of family directors and independent directors on the board are breached, resulting in negative valuation effect on family firms. Models in Column (4) (and Column (8)) are regressed for this purpose. The findings also provide further robustness

test to the nonlinear effect of family directors (relative to independent directors on board) on firm value. Two new variables are employed - %Fam/Ind and %Fam/Ind^2 for the new model, following the equation: -

$$CAR_{ij} = \acute{\alpha}_0 + \beta_1 \ \%Fam/IND_i + \beta_2 \ \%Fam/IND^2_i + \beta_3 \ X_i + \mathcal{E}_i$$

, where %Fam/IND refers to the percentage of total family directors over total independent directors on family board. %Fam/Ind^2 is the square of %Fam/Ind. Xi denotes the control variables that have been evidenced in past literature exhibiting correlation with CAR, as summarized in Table 1.

As reported in Column (4), both variables of concern *%Fam/Ind* and *%Fam/Ind^2* report significant nonlinear relation between family representatives on the board (relative to independent directors on the board) and C$\overline{A}$R across all event windows. The findings are consistent across both models as reported in column (4) and (8). The results indicate that lower number of family representatives on the board relative to the independent directors, positive family firm value can be upheld. However, when the number of family directors increases up to a certain point that is more than the total number of the independent directors on the board, such board structure shows sign of negatively effects on family firm value. To be exact, the inflection point (or maximum family directors to independent directors ratio) reveals where the detrimental effect of family directors begins, which is at 1.46 (1.44) for the market model CAR (market adjusted model CAR). The results support the findings from earlier discussions.

The results also support assertions and findings of Anderson and Reeb (2004) that too much family voice on the board may increase the likelihood of expropriation by the controlling family. Anderson and Reeb (2004) mentioned limited level of family involvement on the board is value-enhancing to family firms. They suggested that a balance between the number of family representatives on the board and independent directors on the board is required in family firms. However, when the power of voice for the family representatives on the board increases (when total number of family members on the board is more than total number of independent directors on the board), costs can be incurred, which hinder increase in value of family firm. The findings encourage a new corporate governance measure specifically for family firms. While considering the influence of independent directors on family board, the equivalent effect of family directors should also be considered, and in this case for Malaysian family firms. Results suggest that both the influence of family directors and independent directors on the board is a significant corporate governance factors which should be considered to protect the interests of shareholders against opportunistic large shareholders.

The findings lead to the formation of the recommendation that an approximate one to one ratio of family directors to independent directors on the board for Malaysian family firms should be encouraged and considered by policy makers. Considering the earlier discussions made on the documented expropriating behaviour from Malaysian family firms, such forms of board governance should be encouraged. As discussed, family directors do bring positive valuation effect of family firms. However, such power should also be balanced by the monitoring power of independent directors on the board.

Further robustness test on the results is again re-examined. The models in Table 4 are re-estimated using robust regressions technique, which is also known as iterative weighted least squares (Blanchard & Leigh, 2013). The robust regression down-weights observations with larger absolute residuals using iterative weighted least squares. In addition, robust regression can help justify the use of ordinary least squares results (Verardi & Croux, 2009). When robust regression results are similar to those for ordinary least squares, there is a reassurance that ordinary least squares are not unduly influenced by the outliers (Naldi, Chirico, Kellermanns, & Campopiano, 2015). The results are reported in Table 5. The directions and significance of the relation remains unchanged.

5. Conclusion

Literature reveals the unique structure of family board in comparison to non-family firm – family directors. Past studies also suggest that family firms often seek to minimize the presence of independent directors, which may inevitably harm firm value as a result of lower monitoring practices. However, empirical results suggest that moderate levels of board monitoring for family firms are sufficient to satisfy the minority shareholders. This naturally leads to the concern whether the board with family directors continues to act in the interest of all the shareholders.

The findings of this study have policy implications for policy makers, practitioners, and investors in the industry. It is recommended that current corporate governance practices should consider restricting the participation of family members on the board of Malaysian family firms. Policy makers need to consider recommending a new ratio of independent directors on the board, specifically for Malaysian family firms. In particular, in the case of Malaysia, there should be a balanced voicing power on the board of Malaysian family firms between family representatives and

the independent directors. With the results of this study as basis, policy makers are advised to incorporate a recommended 1:1 ratio of family directors to independent directors on the board of Malaysian family firms. The reported results in this study suggests that this 1:1 ratio allows Malaysian family firms value maximization. The findings consistently suggest the beneficial valuation effect of family directors on board (relative to independent directors on the board). Once the total number of family directors reach an approximate ratio of 1.1 to total independent directors on the board, the beneficial effect of family directors deteriorates and thereafter show signs of negative impact on family firms' value. Overall, the results suggest the positive valuation effect of family directors to firm value. When the proportion of family directors are less than those of independent directors on the board, Malaysia family firms experience significant positive valuation effect.

Table 4 :Multivariate Regression of Malaysian Family Acquirers Cumulative Abnormal Returns (CAR)

The reported dependent variable CAR is regressed against the independent variables for each model from Column (1)-(6). Columns 1, 2 and 3 report the CAR that is estimated using market model. Columns 4, 5 and 6 report the CAR that is estimated from market adjusted model. The CAR denotes cumulative abnormal returns over an event window for each observation. The reported CAR estimated from both the market model and market adjusted model are cumulated over the three-day event window (-1, +1). Refer to Table 1 for variable definitions.

	Market Model CAR				Market Adjusted Model CAR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Own	-0.0102	0.2127**	0.2010**	0.1956**	-0.0128	0.1996**	0.1909*	0.1842*
	(-0.64)	(2.18)	(2.05)	(1.97)	(-0.79)	(2.02)	(1.93)	(1.84)
Own²		-0.0023**	-0.0022**	-0.0022**		-0.0022**	-0.0022**	-0.0021**
		(-2.32)	(-2.24)	(-2.16)		(-2.18)	(-2.16)	(-2.06)
%IND	-0.0897***	-0.0854***			-0.0834***	-0.0791***		
	(-3.91)	(-3.74)			(-3.58)	(-3.41)		
Fam_Ind	1.1593**	1.2856**			1.1384**	1.2542**		
	(2.22)	(2.47)			(2.15)	(2.37)		
Fam_Ind≤1			2.8521***				2.7833***	
			(3.10)				(3.01)	
Fam_Ind>1			-0.8211				-0.8567	
			(-1.24)				(-1.27)	
%Fam/IND				3.2832**				3.1289*
				(2.02)				(1.90)
%Fam/IND²				-1.1284*				-1.0818
				(-1.70)				(-1.61)
DualCEO	-0.2847	-0.4342	-0.6980	-0.6285	-0.4066	-0.5479	-0.7911	-0.7198
	(-0.55)	(-0.84)	(-1.35)	(-1.20)	(-0.78)	(-1.05)	(-1.51)	(-1.36)
RPT	-0.9508**	-1.0291**	-1.0733**	-1.1670**	-1.1144**	-1.1920**	-1.2164**	-1.3147***
	(-1.98)	(-2.15)	(-2.23)	(-2.42)	(-2.29)	(-2.46)	(-2.50)	(-2.69)
Age	0.0223*	0.0227*	0.0270**	0.0249*	0.0159	0.0168	0.0212	0.0192
	(1.68)	(1.72)	(2.00)	(1.82)	(1.18)	(1.26)	(1.56)	(1.39)
Pre_CAR	0.0167	0.0137	0.0193	0.0171	0.0131**	0.0135***	0.0152***	0.0149***
	(1.26)	(1.04)	(1.43)	(1.26)	(2.50)	(2.61)	(2.91)	(2.82)
Non Relate	-1.4523**	-1.4108**	-1.3160**	-1.2127*	-1.4968**	-1.4526**	-1.3683**	-1.2614*
	(-2.19)	(-2.14)	(-1.99)	(-1.82)	(-2.23)	(-2.18)	(-2.04)	(-1.87)
FCF	2.2089	0.4329	-0.9407	-1.0556	0.3998	-1.1181	-2.3547	-2.4295
	(0.44)	(0.09)	(-0.19)	(-0.21)	(0.08)	(-0.22)	(-0.46)	(-0.47)
Firm Size	-0.0140	-0.0728	-0.0888	-0.1172	0.0232	-0.0325	-0.0479	-0.0755
	(-0.09)	(-0.46)	(-0.56)	(-0.73)	(0.15)	(-0.20)	(-0.30)	(-0.47)
Deal size	-0.3767***	-0.3466***	-0.2842**	-0.2784**	-0.3442**	-0.3161**	-0.2601*	-0.2544*
	(-2.82)	(-2.60)	(-2.13)	(-2.06)	(-2.54)	(-2.34)	(-1.92)	(-1.86)
Crossborder	-1.3533***	-1.3561***	-1.1440**	-1.0815**	-1.2748***	-1.2817***	-1.0763**	-1.0156**
	(-2.86)	(-2.89)	(-2.43)	(-2.28)	(-2.66)	(-2.70)	(-2.27)	(-2.12)
Public	2.4343	2.5803*	2.9478*	2.8141*	2.3638	2.5100	2.8705*	2.7412*
	(1.55)	(1.65)	(1.86)	(1.76)	(1.48)	(1.59)	(1.80)	(1.70)
Equity	2.1346*	2.3267*	2.2736*	2.2657*	1.9247	2.1163*	2.0466	2.0480
	(1.75)	(1.91)	(1.85)	(1.83)	(1.55)	(1.72)	(1.65)	(1.63)
Yr2008	-0.8549**	-0.8395**	-0.8383**	-0.7825*	-0.7255*	-0.7100*	-0.7012*	-0.6482
	(-2.06)	(-2.04)	(-2.03)	(-1.87)	(-1.73)	(-1.70)	(-1.68)	(-1.54)
Constant	10.7766***	6.3586*	1.2765	2.1434	9.6950***	5.4443	0.6687	1.5694
	(3.61)	(1.81)	(0.35)	(0.58)	(3.22)	(1.53)	(0.18)	(0.42)
R-squared	0.174	0.191	0.175	0.160	0.173	0.188	0.177	0.162

N	267	267	267	267	267	267	267	267

The *,**, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. The numbers in parentheses denote the standard error.

Table 5: Robust Regression of Malaysian Family Acquirers Cumulative Abnormal Returns (CAR)

The reported dependent variable CAR is regressed against the independent variables for each model from Column (1)-(6). Columns 1, 2 and 3 report the CAR that is estimated using market model. Columns 4, 5 and 6 report the CAR that is estimated from market adjusted model. The CAR denotes cumulative abnormal returns over an event window for each observation. The reported CAR estimated from both the market model and market adjusted model are cumulated over the three-day event window (-1, +1). Refer to Table 1 for variable definitions.

-	Market Model CAR				Market Adjusted Model CAR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Own	-0.0102	0.2127**	0.2010**	0.1956**	-0.0128	0.1996**	0.1909**	0.1842*
	(-0.65)	(2.12)	(2.09)	(2.01)	(-0.80)	(1.97)	(1.99)	(1.89)
Own^2		-0.0023**	-0.0022**	-0.0022**		-0.0022**	-0.0022**	-0.0021**
		(-2.38)	(-2.42)	(-2.33)		(-2.24)	(-2.33)	(-2.23)
%IND	-0.0897***	-0.0854***			-0.0834***	-0.0791***		
	(-4.20)	(-4.04)			(-3.88)	(-3.70)		
Fam_Ind	1.1593**	1.2856**			1.1384**	1.2542**		
	(2.23)	(2.41)			(2.21)	(2.36)		
Fam_Ind≤1			2.8521***				2.7833***	
			(3.29)				(3.23)	
Fam_Ind>1			-0.8211				-0.8567	
			(-1.38)				(-1.44)	
%Fam/IND				3.2832**				3.1289**
				(2.26)				(2.17)
$%Fam/IND^2$				-1.1284**				-1.0818*
				(-1.99)				(-1.92)
DualCEO	-0.2847	-0.4342	-0.6980	-0.6285	-0.4066	-0.5479	-0.7911	-0.7198
	(-0.56)	(-0.86)	(-1.38)	(-1.24)	(-0.79)	(-1.08)	(-1.56)	(-1.42)
RPT	-0.9508**	-1.0291**	-1.0733**	-1.1670**	-1.1144**	-1.1920**	-1.2164**	-1.3147**
	(-2.12)	(-2.23)	(-2.21)	(-2.36)	(-2.38)	(-2.48)	(-2.42)	(-2.58)
Age	0.0223*	0.0227*	0.0270**	0.0249**	0.0159	0.0168	0.0212*	0.0192
	(1.82)	(1.87)	(2.21)	(2.03)	(1.29)	(1.35)	(1.66)	(1.51)
Pre_CAR	0.0167	0.0137	0.0193	0.0171	0.0131**	0.0135**	0.0152**	0.0149**
	(1.00)	(0.82)	(1.23)	(1.07)	(2.16)	(2.28)	(2.52)	(2.41)
Non Relate	-1.4523**	-1.4108*	-1.3160*	-1.2127	-1.4968**	-1.4526**	-1.3683*	-1.2614*
	(-2.04)	(-1.96)	(-1.77)	(-1.62)	(-2.06)	(-1.97)	(-1.82)	(-1.66)
FCF	2.2089	0.4329	-0.9407	-1.0556	0.3998	-1.1181	-2.3547	-2.4295
	(0.41)	(0.08)	(-0.17)	(-0.19)	(0.07)	(-0.21)	(-0.43)	(-0.44)
Firm Size	-0.0140	-0.0728	-0.0888	-0.1172	0.0232	-0.0325	-0.0479	-0.0755
	(-0.10)	(-0.49)	(-0.58)	(-0.76)	(0.15)	(-0.21)	(-0.31)	(-0.48)
Deal size	-0.3767***	-0.3466***	-0.2842**	-0.2784**	-0.3442***	-0.3161***	-0.2601**	-0.2544**
	(-3.07)	(-2.78)	(-2.31)	(-2.26)	(-2.89)	(-2.61)	(-2.17)	(-2.12)
Crossborder	-1.3533***	-1.3561***	-1.1440***	-1.0815**	-1.2748***	-1.2817***	-1.0763**	-1.0156**
	(-3.04)	(-3.07)	(-2.65)	(-2.50)	(-2.86)	(-2.90)	(-2.49)	(-2.34)
Public	2.4343	2.5803*	2.9478**	2.8141*	2.3638	2.5100	2.8705*	2.7412*
	(1.39)	(1.67)	(2.03)	(1.86)	(1.32)	(1.59)	(1.97)	(1.80)
Equity	2.1346**	2.3267**	2.2736*	2.2657*	1.9247*	2.1163*	2.0466	2.0480
	(2.04)	(2.07)	(1.88)	(1.78)	(1.76)	(1.84)	(1.64)	(1.57)
Yr2008	-0.8549**	-0.8395**	-0.8383**	-0.7825*	-0.7255*	-0.7100*	-0.7012*	-0.6482
	(-2.00)	(-1.98)	(-2.00)	(-1.83)	(-1.68)	(-1.66)	(-1.66)	(-1.50)
Constant	10.7766***	6.3586**	1.2765	2.1434	9.6950***	5.4443*	0.6687	1.5694
	(4.03)	(2.08)	(0.43)	(0.74)	(3.55)	(1.79)	(0.23)	(0.54)
R-squared	0.174	0.191	0.175	0.160	0.173	0.188	0.177	0.162

N	267	267	267	267	267	267	267	267

The *,**, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. The numbers in parentheses denote the standard error.

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The Influence of Gamification in Enhancing Teaching and Learning in Higher Education: A Preliminary Study at Universiti Sultan Azlan Shah

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Abstract

Employing digital or non-digital game elements in the learning environment to boost students' engagement and participation is very important to achieve specific and specified learning objectives. In a world where technology is touching nearly every element of life, gamification or game-based learning has supported learning skills, and provided opportunities for students to learn and practice soft skills through teamwork within games. One of the main challenges in the classroom of higher learning institutions is the lack of active participation from all students due to fear of making mistakes, shyness, and anxiety. They lack confidence and are afraid to speak the language which can impede the learning objective. Most of the time only the same group of students will contribute to the activities carried out in the classroom. This paper aimed to evaluate the influence of gamification in enhancing students' learning interest, motivation, and engagement in a classroom learning environment. An intervention was carried out among Diploma and Degree students (in a total of 118 students) from Universiti Sultan Azlan Shah. Gamification applications such as *ClassDojo* and *Genially* were used in the classroom lesson. The primary purpose of integrating game-based learning is to give students a different learning experience. It helps to make students motivated during the lesson, enhancing friendly competition among peers and promoting a fun way of learning. After the teaching sessions, students were given a questionnaire to find out their perception of how gamification influence their learning behavior during classroom lessons. The feedback indicated that influence of gamification has a positive effect on the students, and it can significantly increase their learning interest, motivation, and engagement levels, leading to improved learning outcomes in the respective subject matter. In addition, they felt that this new technique of learning was interesting, innovative and enjoyable, hence enhancing their learning interest towards the subject. This shows that gamification can have a positive influence to stimulate teaching and learning by increasing students' learning interest, motivation, and engagement in the classroom.

Keywords
Gamification, game-based learning, teaching and learning, higher education
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1. Introduction
As 21st-century learning skills continued to be an important aspect in the field of education, gamification provided an opportunity for teachers to create lessons with critical thinking, creativity, collaboration, and communication (Retherford, 2020). It includes the basic elements of games thus, it has multiple forms, however in the classroom it has some certain rules; it involves the use of keeping scores, challenges, rewards, digital games, ranking and levels (Angelova, 2017). Through games, students can be motivated, emotionally positive, and independent (Rahmani, 2020). Gamification is more digital than non-digital, but the most important principle of gamification is student involvement and participation (Maloney, 2019). In gamification, students are fully involved and become actors in their learning. This is possible because, in the game, all students can play their part and contribute to the activity. The game is designed to illustrate the world in its principles so that students can also learn how to make decisions and solve problems.

Many students lack the necessary motivation and encouragement to study and enjoy the learning process especially when it comes to traditional classroom learning (Altun & Yassin, 2022). Many students lose their motivation on the learning topic even if they had potential in the beginning, yet students tend to be distracted during classes. At the same time teachers might try to adapt new methods in order to make the lesson inclusive and interesting to everyone and achieve the anticipated outcome. Nevertheless, this is not an easy job and not every teacher is able to do so.

Over the past few years, various changes have emerged in the methods of teaching in higher learning environment. These changes happened to create fun and engaging learning environment (Ibharim et al., 2015). Students in this digital era (especially post Covid-19 pandemic) who are increasingly exposed to various computer

technologies and software, gadgets and portable tools require gamified learning approaches which allow them to be actively involved in a learning environment that is able to provide fun, meaningful as well as to enhance their language skills in line with the 21st century learning environment. Hence, adding gamification can make the learning and teaching process satisfy the students' expectation.

Students tend to adapt better when it comes to game-based learning activities that enable them to learn their concepts alongside. The significance of gamification is the increase in the attentiveness (i.e. learning interest) of the students which resulted in clear and better learning outcomes (Altun & Yassin, 2022).

In addition, study by Chans and Castro (2021) reveals that gamification increased student motivation and engagement, improved attitudes, and improved student grades. It boosted students' confidence and created a motivated atmosphere where students were curious to learn and engage with each other during classes. At the same time, teachers found it easier to deliver their material. The study closely relates to the emotional aspect of the experience, where students felt more enjoyment and excitement towards the learning process which encouraged their effort into the course (Chans & Castro, 2021). Therefore, this study will look into the influence of gamification in enhancing teaching and learning in higher education by focusing on the students' learning interest, motivation and engagement. Figure 1 below illustrates the influence of gamification towards students' learning interest, motivation and engagement in relations to improved learning outcomes in classroom.
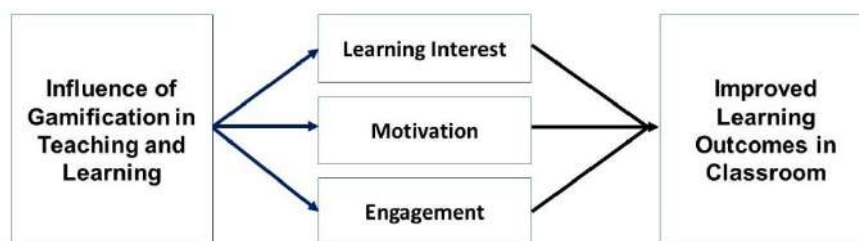
Figure 1: Influence of gamification on learning interest, motivation and engagement towards improved learning outcomes

2. Literature Review

2.1 Gamification

The purpose of gamification is to engage people, motivate action, promote learning, and solve problems (Kapp, 2012). Gamification can increase clarity to students as they adapt better to the process of learning. It also improves self-learning skills and prepares students for their career (Altun & Yassin, 2022). In other words, gamification can be defined as a methodological strategy that uses game design elements in non-game contexts (Deterding et al., 2011). There are other educational approaches that use playful components but are different from gamification, such as game-based learning or serious games. All kinds of games (online and digital video games, table games, outdoor games, and others) or educational games are used to achieve a learning goal. Although the overwhelming majority of current examples of gamification are digital in nature, the term should not be limited to digital technology (Deterding et al., 2011).

Gamification can be understood as an effort to apply the principles and components of the game into a non-game context, which in this case, is the teaching and learning process which usually takes place formally. This is intended to strengthen the practice and effectiveness of learning and relate it to real-life experiences (Burlian et al., 2019). Real-world illustrative creativity causes gamification to be known as one of the innovative approaches in the teaching and learning process (Hernández-Prados et al., 2021).

Initially, gamification was based on game mechanics that prioritized aesthetics and reasoning but did not eliminate the recreational aspect (Burlian et al., 2019). Practically, students do not need to use textbooks all the time. It is more important as to how students can be involved in exploring their potential to develop into trained competencies because they are engrossed in exploring their learning resources (Maloney, 2019).

2.2 Learning Interest

In education, students' learning interest refers to the inclination of the students towards a particular subject where students easily able to connect without any barrier. When a student has an interest in something it becomes easy and even enjoyable to learn about that topic. A high interest in learning will affect the process of successful teaching and learning activities especially in language subject (Triarisanti, 2019). Therefore, it is important to know how gamification affects the students' learning interest in classroom and with their respective subject matter.

2.3 Motivation

Motivation is one of the most important aspects in learning. Motivation is regarded as an important component to

make students want to do well in their education. One of the strategies to motivate students in the classroom is to include a fun and exciting learning experience through gamification (Hayikaleng, Nair & Krishnasamy, 2016).

2.4 Engagement

An effective learning environment requires engagement. One crucial factor associated with students' poor performance is their disengagement in classroom activities (Mekki, Ismail & Hamdan, 2022). An important effect of gamification is that the application engages the students to the learning material. Gamification includes the elements of points and reward system which make students want to do well in the activities carried out during the lesson. It enhances their focus and they will be more connected with the subject.

2.5 Integrating Gamification in the Classroom

Traditional teaching methods in higher education (lecturing, frontal teaching) only convey information from the lecturer to the students, but they do not promote interaction and further thoughts (Rajšp et al., 2017). One significant challenge faced by educators in higher education is to keep their students engaged and interested in the learning activities. Majority of the students refuse to be involved in the activities due to shyness, fear of making mistakes and low self-confidence especially with diploma or first year students. A lesson might be more engaging if students compete or if role-playing is used in place of direct instruction. Applying these techniques effectively requires that students not only listen but also actively engage in the session. Study by Kamiluddin (2019) noted that numerous studies were carried out in the past, revealing that students were more likely to achieve better improvement in learning when they were well-motivated, and their learning preferences were accommodated proportionally. Mufidah (2016) indicated that digital game-based learning, would reduce learning anxiety among students and promote better classroom achievement. By using the necessary digital application in classroom teaching and learning, students become more motivated, interactivity enhanced, and receive feedback on understanding the curriculum much faster and more accurately. These tools do not only support group work, but can also be very important in the individual learning experience (Pusztai, 2021). Thus, gamification is well used to enhance students' positive attitude in the classroom. It is important for the students to have interest in the subject matter (of their choice) and motivation to participate in the classroom. In addition, the lesson must be engaging enough for students to stay focus throughout the lesson which enhances their understanding towards the subject matter. Educators need to create a learning environment where students feel more comfortable and willing to participate in the learning tasks without much stress and anxiety.

Gamification has been used by educators in the Malaysia higher learning institutions that showed positive effects enhancing the teaching pedagogies and to increase students' motivation and interests throughout the learning process (Qing & Halim, 2021). Gamification is an innovative approach to education that is continuously emerging. Since the pandemic, educators are exposed to many digital applications that can be used in their teaching and learning. Some of the most popular tools that are widely used among educators (schools and higher learning institutions) are *Kahoot*, *Quizizz*, *Quizlet* and *Wordwall*.

2.6 *ClassDojo*

ClassDojo refers to an online, gamification tool available for all educators. It is utilized to encourage and monitor students' engagement, participation, behaviour, helpfulness, and teamwork (Brown, 2021). This application awards students with virtual points when they perform positive behaviour during the class based certain tasks achievement. Every student will be assigned one avatar where they can customize however they like. The tool allows teachers to create a fun learning environment, motivating the students through rewards and points. Educators can even create own tasks and criteria which they feel applicable. Collaborative activities can also be enhanced through ClassDojo by rewarding points for any group work assignments.

2.7 *Genially*

Genially is an online tool where educators can create their own gamified activities and teaching materials. It is like creating a slide show but with interactive elements, allowing students to interact with the content and helps them to be more engaged in the topic. Rather than flipping through a slide show, students can explore it in more detail, so they are actively learning in a more exciting way as they progress through the materials. One interesting element that genially offers is to create gamified interactive materials called 'Escape Games' where students need to solve certain quizzes, puzzles or challenges before moving to the next slide. These games would promote teamwork and collaboration. Students are more comfortable in these gamification settings and are open to making mistakes, which leads them to want to try again (Boyd, 2022).

3. Research Method and Design

A methodology aids in the creation of a plan to carry out all necessary actions to obtain the data, enabling the researchers to achieve the desired results in this academic study. Additionally, it gives a view to the researchers

which method to use that would be the most applicable one (Indeed, 2021). For example, one of the most useful ways to reach reliable qualitative data and to support the topic is taking surveys through questionnaires. Questionnaire surveys is a technique for gathering statistical information about the attributes, attitudes, or actions of a population by a structured set of questions. Feedback from the questionnaires given to students is pertinent for this paper. For this reason, a questionnaire survey was carried out with specific questions that helps in proving the premise of the paper. The questionnaire was distributed among 170 undergraduate students from the Faculty of Management and Information Technology (FMIT), Universiti Sultan Azlan Shah (USAS), Kuala Kangsar, Perak. About 118 students responded to the 15 questions that were posed to them, which. The questions given are related to students' learning interest, motivation and engagement in gamification applications such as *ClassDojo* and *Genially* that were used in the classroom lesson.

3.1 Research Participants

The participants or population who participated in this research were selected students (n=170) from FMIT undergraduate program comprising of Diploma and Degree students especially from the Management department. They were selected because of their involvement in using gamification applications such as *ClassDojo* and *Genially* in the lesson by their lecturer.

3.2 Data Collection and Instrument

The data collection instrument that was used in this research was a very practical and time-saving. For any research to be academic and not biased is the way how the data are collected makes a difference. For the purpose of this paper, a questionnaire survey was made consisting of fifteen questions and distributed among students using Googleforms which is very useful while collecting data, and it was sent to the students in their respective classrooms.

4. Findings And Discussion

In this study, the influence of gamification in teaching and learning was analysed along three dimensions: 1) learning interest, 2) motivation, and 3) engagement. Among the 118 students participating in this study, they were 36 were males (30.6%) and 82 females (69.5%), with age range of 19-20 years old (54.2%), 21-22 years old (27.1%), 23-24 years old (17.8%), and above 25 years old (2.5%). Out of 118 respondents, the respondents are comprising of Diploma students (69.5%) and Degree students (31.4%). Table 1, 2 and 3 describes the data demographics of the study gender, age and program distribution respectively.

Table 1: Frequency Distribution of Respondents by Gender

Gender	Frequency	Percentage (%)
Male	36	36.5
Female	82	69.5
Total	**118**	**100**

Table 2: Frequency Distribution of Respondents by Age

Age	Frequency	Percentage (%)
19 - 20 years old	64	54.2
21 - 22 years old	32	27.1
23 - 24 years old	21	17.8
Above 25 years old	3	2.5
Total	**118**	**100**

Table 3: Frequency Distribution of Respondents by Program

Age	Frequency	Percentage (%)
Diploma	82	69.5
Degree	36	36.5
Total	**118**	**100**

In addition, the feedback of respondents is summarized in Table 4. For each of these dimensions, participants indicated their agreement or disagreement on a 4-point Likert scale (strongly disagree, disagree, agree, strongly agree) to a number of related descriptors. The results for each dimension are discussed next in details. Based on the results, it appears that majority of the students feel that gamification has a positive impact to their learning interest, motivation and engagement, thus improving learning outcomes.

Table 4: Summarized result of the questionnaire

Questionnaire Items		Strongly disagree		Disagree		Agree		Strongly Agree	
		Frequency	(%)	Frequency	(%)	Frequency	(%)	Frequency	(%)
Learning Interest									
L1	Gamification increases my interest in the classroom	3	2.5	1	0.8	80	67.8	34	28.8
L2	I enjoy the course subject with gamification	2	1.7	2	1.7	74	62.7	40	33.9
L3	I always look forward to my class with gamification	2	1.7	2	1.7	86	72.9	28	23.7
L4	Gamification helps improve my learning performance	2	1.7	3	2.5	79	66.9	34	28.8
L5	Gamification increases my curiosity to explore the subject	2	1.7	2	1.7	78	66.1	36	30.5
Motivation									
M1	I feel motivated to share my answers when using gamification	2	1.7	3	2.5	91	77.1	22	18.6
M2	Gamification encourages me to participate actively in class	2	1.7	5	4.2	78	66.1	33	28.0
M3	Gamification makes me want to improve my subject matter proficiency	3	2.5	3	2.5	82	69.5	30	25.4
M4	Gamification makes me feel more optimistic towards the subject	2	1.7	1	0.8	82	69.5	33	28.0
M5	Gamification makes me want to finish my subject homework on time	2	1.7	6	5.1	75	63.6	35	29.7
Engagement									
E1	I feel the lesson time passes quickly when using gamification in the classroom	0	0	1	0.8	84	71.2	33	28.0
E2	The reward and point system keeps me engaged throughout the lesson	2	1.7	3	2.5	83	70.3	30	25.4
E3	I connect well with my peers and lecturers during the activities conducted	2	1.7	2	1.7	84	71.2	30	25.4
E4	I give absolute focus during the lesson when using gamification	3	2.5	3	2.5	82	69.5	30	25.4
E5	Using gamification enhances my desire to do well in the activities	2	1.7	3	2.5	81	68.6	32	27.1

Table 4 shows the results of students' feedback towards the three dimensions being studied for this research which is learning interest, motivation and engagement. From the data above, it can be concluded that gamification has a positive influence and give impact towards all the students' behaviour elements due to the percentage of strongly agree and agree higher than the percentage of disagree and strongly disagree.

From the above results, for the element of students' learning interest, 62.7% to 72.9% of the respondents answered agree to questions item L1 – L5, while 23.7% to 33.9% answered strongly agree for the same questions. This shows that all the respondents felt that gamified learning activity sparks their interest in their respective subjects. Majority also agreed gamification makes the lesson more enjoyable, enhances their curiosity and improves their learning. A total of 11 respondents (1.7% to 2.5%) strongly disagree, while 10 respondents disagree with the descriptors given (L1 – L5).

Furthermore, the results on students' motivation (questions item M1 – M5) indicated that 63.7% to 77.1% of respondents agreed that gamification motivates them to participate in class and makes them want to do well in the subject. Majority respondents also strongly agreed (18.6% to 29.7%) that gamification makes them feel more

optimistic towards the subject and motivates them to improve their proficiency in the subject matter. In total, 11 respondents (1.7% to 2.5%) strongly disagree, while 18 respondents (0.8% - 5.1%) disagree with the descriptors given.

In respective of the students' engagement (questions item E1 – E5), the results revealed that 68.6% to 71.2% of students agreed, while 25.4% to 28% strongly agreed that using gamification in the classroom improves students' engagement and sustains their focus throughout the lesson. They also felt that gamification connects them with peers and lecturers in the classroom. A total of 9 respondents (1.7% to 2.5%) and 12 respondents (0.8% - 2.5%) either disagree or strongly disagree with the descriptors E1 – E5.

Therefore, the results revealed that the implementation of gamification has substantial influence on students' positive attitude towards the classroom lesson in the aspects of students' learning interest, motivation and engagement. Hence, it can be proven that gamification has a positive correlation in improving learning outcomes in the classroom.

5. Conclusion

The purpose of this research is to show the intervention of other gamification applications for education to be used in the classroom environment. The tools chosen are *Class Dojo* and *Genially*, which aims to stimulate students' interest, motivation and engagement within the subject. Even if these applications are not widely used among Malaysian educators, this study is essential in giving researchers a platform to evaluate how well these two teaching methods work for all students when it comes to teaching and learning.

The results indicated that using gamification in the classroom can be an effective way in teaching and learning especially in the respective subject matter due to the influence and its positive outcome to stimulate learners in increasing their learning interest, motivation and engagement. However, it should be noted that these findings are based on the implementation of only two gamification tools used in the classroom. Furthermore, this research is only focusing on students from one faculty (FMIT), one department (Management), and from one higher education institution (USAS), thus future studies can be made to involve a larger target group from other higher learning provider with different programs in order to compare the effectiveness of gamification in teaching and learning.

It is recommended that further research is needed to discover other gamification tools that can help in improving the learning process of students, investigate the new mechanics and new applications associated with emerging gamification technologies such as artificial intelligence (AI) that can help improve students' learning behaviour.

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Zakat Compliance: Small and Medium-sized Enterprises

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Abstract

The purpose of this paper is to present a review of the literature on zakat compliance with a specific focus on the small and medium-sized enterprises (SME) sector. Specifically, it aims to provide further knowledge on recent developments in zakat compliance research. This study employed a structured review process and critically examined the contents to ensure that the data are filtered from high-quality peer-reviewed journals. Quality papers were selected from top journals to produce the list and organizing them into four sections; introduction, definition, business zakat collection in Malaysia and the prior studies on determinants of business zakat compliance among SMEs. This study will benefit academics, zakat institutions, policymakers and business owners interested in zakat compliance experiences.

Keywords

Zakat Compliance, Business Zakat, Small and Medium-sized Enterprises

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1. Introduction

Zakat plays a crucial role in developing a country, fostering social security and harmony and helps bridge the gap between the rich and the poor. In fact, Ibrahim and Ghazali (2014) argue that zakat is a significant charitable tool that can help to reduce economic inequality and address unemployment among Muslims, particularly in countries where Muslims make up the majority of the population. Additionally, Tlemsani and Matthews (2013) contend that properly utilizing zakat funds can effectively combat poverty among Muslims. As a result, if underprivileged individuals (asnaf) are given access to better employment opportunities, the country's economy can benefit (Saad,2020).

According to Fathullah (2018), Muslims are responsible for paying zakat, as it helps support others, stabilize the economic system, and bridge the gap between the wealthy and the underprivileged. By fulfilling this duty, zakat can function as both a state instrument and a potential solution to help the country overcome its difficulties. Although zakat is one of the five pillars of Islam that Muslims are expected to perform, it also serves the best interests of the entire community.

Zakat is divided into two categories: zakat on wealth and zakat on fitrah (Sareye, 2017). Zakat-fitrah, which is required of the Muslim father as the head of the family, is typically of lesser value than the counterpart Zakat on wealth since it must be paid by the entire family if they have their daily living expenses covered in three days. Every Muslim, regardless of age, status, or wealth, must pay Zakat-fitrah, which is equal to 3 kg of staple food or an equivalent amount of money (Sareye, 2017).

Zakat on wealth becomes due when the wealth reaches the minimum amount for which Zakat (Nisab) is required or at the end of one full Hijri Year (Haul). Various categories of Zakat on wealth include businesses, employment income, savings, gold and silver, bonds, crops and agriculture, natural resources, and similar items. Refusal to pay Zakat is not an option for Muslims who are obliged to fulfill this duty, as it is a clear obligation in both the Qur'an and the Prophet's Sunnah. For instance, in Surah Al-Baqarah, verse 110, Allah says, "And be steadfast in prayer and give Zakat; and whatever good ye send forth for your souls before you, ye shall find it with Allah; for Allah is All-Seer of what ye do" (Ali, 1994, p. 15).

In Malaysia, the State Islamic Religious Council (SIRC) manages zakat institutions, including collecting and distributing zakat.

1.1 SMEs Background

According to SME Corp. Malaysia (2023), since 2005, a common definition for SMEs endorsed by the National Entrepreneur and SME Development Council (NESDC) [formerly known as the National SME Development Council (NSDC)] has been adopted across Ministries, agencies, financial institutions, and regulators involved in

SME development programs. The definition is as follows:

- Manufacturing (including agro-based) and Manufacturing-related Services: Sales turnover of less than RM25 million OR full-time employees of less than 150
- Primary Agriculture and Services (including ICT): Sales turnover of less than RM5 million OR full-time employees of less than 50

2. Business Zakat Collection in Malaysia

Saad et al (2016) highlight that zakat in businesses is among Malaysia's largest portion of zakat. This type of zakat has a higher potential return value than other forms. The presence of Muslim-owned small businesses in Kedah is a positive trend, but many of these businesses do not pay their zakat through the channels provided by the Kedah State Zakat Board, as reported by Wahab and Borhan (2014). This is due to Malaysia's zakat institution still in progress and effort to increase commercial zakat collection (Halizah, 2011).

The entire amount of business zakat payer is still very low compared to the others. According to Pusat Pungutan Zakat (2022), the report for zakat payer for the years 2022 and 2021 as follows:

Statistik Pembayar Mengikut Jenis Zakat
Statistics of Zakat Payers by Types of Zakat

Jenis-Jenis Zakat Types of Zakat	2022	2021	Perbezaan Variation	+/- (%)
Zakat Pendapatan Zakat on Income	198,825	193,456	5,369	+3
Zakat Perniagaan Zakat on Business	4,559	5,326	-767	-14
Zakat Simpanan Zakat on Savings	38,159	30,660	7,499	+24
Zakat Mal Zakat on Mal	6,368	6,103	265	+4
Qadha Zakat Qadha Zakat	878	1,012	-134	-13
Lain-lain Others	150,276	195,682	-45,406	-23
Jumlah Pembayar* Total Payers*	399,065	432,239	-33,174	-8

*Nota: Jumlah sebenar pembayar 2022 adalah 339,097; dan 2021 adalah 370,300; berbeza dengan jumlah pembayar mengikut Jenis Zakat disebabkan pembayar-pembayar boleh membuat pembayaran lebih dari satu jenis zakat.

*Note: The actual number of 2022 payers is 339,097; and 2021 is 370,300; differs from the number of Total Payers by the Type of Zakat because the payers can make payments for more than one type of zakat.

Figure 1: Statistics of Zakat Payers by Types of Zakat

Figure 1 shows that business zakat payer reduced by 14%, which is among the lowest compared to other types of zakat payer.

3. Prior Study of Business Zakat

Sadallah, M., and Abdul-Jabbar, H. (2022) explored the perception of business owners on zakat compliance by examining the influence of intention to pay zakat, attitude, subjective norm, perceived behavioral controls and past behavior. A total of 575 self-administered questionnaires were distributed to active business owners in Algeria. The

data were analysed using variance-based structural modeling (PLS- SEM) to examine the hypothesised relationships.

The results revealed that the relationships between attitude, subjective norm and perceived behavioural controls were positive and significant with the intention to comply with zakat, which, significantly influences the compliance behaviour of zakat. The variables proposed in the theory of planned behaviour, that is attitudes, subjective norms, perceived behavioural control, and intention, perform an essential role in explaining zakat compliance behaviour; this shows that the Theory of Planned Behaviour (TPB) as a general theory can be applied in.

Abdul-Jabbar & Bin-Nashwan (2022), examined the role of enforcement in zakat and how it can enhance the effect of social motivations, namely perceived institutional credibility and social pressure, on zakat payers' compliance decisions. role of enforcement in zakat compliance social pressure, institutional credibility and law enforcement. This research is underpinned by economic deterrence theory and employed data collected through a cross-sectional approach. A total of 274 Yemeni entrepreneurs responded to the questionnaire and analysed using SmartPLS version 3.2.9. The study found that social pressure and institutional credibility significantly relate to compliance with Zakat. Importantly, enforcement-moderated interactions of social pressure and perceived credibility on Zakat payers' compliance are statistically significant. Khamis et al (2022), studied factors determining compliance behavior among of Business Zakat among SMEs. The researcher distributed 276 questionnaires to SMEs in Selangor. Six factors were identified and included in the model: practices, level of knowledge, length of business operation, government incentives, organization factors, and law enforcement. However, only four factors have significance in this research which are religious practices, level of knowledge, government incentives, and organization factors.

Bin-Nashwan et al. (2022), examined the role of trust in zakat institutions through the relationship between socio-economic determinants (i.e., religiosity, moral reasoning, peer influence, and system fairness) and zakat compliance decisions. From a typical Islamic country, Yemen, a random sample of 274 entrepreneurs was drawn for a self-administered survey to estimate and analyze the compliance model, SmartPLS structural equation modeling was used. The results show that all hypothesized direct relationships are supported. Importantly, the trust-moderated interactions of religiosity, moral reasoning, and peer influence on zakat compliance are significant, although their interaction with zakat system fairness is not.

Zakat compliance is a top priority for zakat administrators, as without compliance from zakat payers, it is difficult to implement an effective and functional system for collecting and distributing zakat. To properly allocate resources and address any administrative shortcomings, it is important to understand the compliance behavior of zakat payers, including business owners. In Malaysia, where the government actively supports economic growth, Muslim-owned businesses have steadily increased. Despite this, there is still a significant discrepancy between the number of businesses paying zakat and the number of Muslim-owned businesses. This highlights the issue of compliance among entrepreneurial zakat payers (Khamis et al, 2011; Muhammad., 2016).

Muhammad (2016) found that the compliance of business owners with zakat was influenced by their attitudes towards zakat and business success. This finding was supported by interview data that showed zakat payers were aware of the obligation and importance of zakat. However, some of them preferred to pay zakat directly to the needy because they did not trust the zakat administrator to distribute it to the rightful recipients. The non-payers, however, reported being unaware of any zakat other than zakat fitr. This highlights the need for the zakat administrator to expand its responsibility in promoting zakat compliance among business owners.

4.   Conclusion

This study aims to present a review of the literature on zakat compliance with a specific focus on the SMEs sector. Specifically, it aims to provide further knowledge in business zakat compliance research. The results show that most of the prior studies on business zakat compliance among SMEs are very limited. Most of the empirical studies were conducted in Muslim countries such as Malaysia, Indonesia, Yemen, Nigeria, and Algeria. The factors that were studied were mostly derived from Planned Behavior Theory. Therefore, the researcher would like to recommend further studies to be conducted in other countries where the study has not been conducted yet to increase understanding of business zakat compliance.

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A conceptual Framework on the Influence of Innovative Corporate Accounting, Political Influence, and Sources of Financing on the Sustainability of Malaysian Social Enterprises

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Abstract

The rise of social enterprises in Malaysia may contribute to the national socio-economy. The outcomes could address economic, social, and environmental concerns. Nonetheless, these social enterprises still encounter many obstacles and uncertainties towards sustainability. The current study aims to bridge the practical and industrial gaps in social enterprise sustainability. Hence, examining social enterprises is essential and relevant in addressing these concerns. Furthermore, research on the board features of social businesses and the sustainability performance of social enterprises is crucial to continue delivering socially and environmentally beneficial activities. The novel study model hypothesised a connection between the sources of financing and innovation on the sustainability of Malaysian social enterprises. The empirical findings contribute to the body of knowledge through valuable inputs to supplement government strategies in establishing guidelines for the best practices to support the local growth of the green social enterprise sector.

Keywords

Sustainable Growth, Financial Access, Political Influence, Innovation Accounting, Social Enterprises
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1. Introduction

Accounting, reporting, and standardisation for sustainability are based on a long-established method. An ideal process begins with employee reporting and progresses to social, environmental, and sustainability reporting (Shrivastava, Shekar & Rebecca, 2022). Sustainability accounting involves measuring, accounting for, and disclosing the economic, environmental, and social performance of an organisation to improve organisational performance and advance sustainable growth. Sustainability accounting has been rapidly developing and has been disseminated throughout the past decade. The fundamental rules of the knowledge surrounding the social and environmental impact should include procedural justice and openness and prevent the expropriation of stakeholders' resources (Shrivastava et al., 2022). In Malaysia, corporations that do not apply international accounting standards for the balance sheet and the income statement are exempted from publicly disclosing exact information (Mohammad, 2019). The notes to the financial statement explain the values of the documents quoted to provide a truthful and accurate portrayal of the economic, financial, and asset status of a firm (Mohammad, 2019). In the comprehensive Malaysian Social Entrepreneurship Blueprint 2030 (SEMy2030), the government seeks to embrace social innovation over the next decade.

The strategy primarily aims to foster a national ecosystem centred on tens of thousands of new social entrepreneurs by 2030 (Samsuddin, Salleh & Sarman, 2022). Moreover, the Sustainable Development Goals (SDGs) seek to end poverty and inequality, protect the planet, and ensure that all people enjoy health, justice, and prosperity worldwide (Eichler & Schwarz, 2019). The social economy (the third sector) encompasses various projects and organisational structures distinguished from private and public organisations based on their social goals and legal structures. Generally, the phrase "social enterprise" refers to a group of organisations with mainly social aims that produce a substantial portion of their revenue from the sale of goods and services. Social enterprises are considered hybrid organisations, which reflects their mixed qualities, such as being value-motivated and operating in the unclear gap between the for-profit and non-profit sectors (Ebrahim, Battilana & Mair, 2014). The social economy provides an

area of socioeconomic activity, which is particularly desirable in achieving environmental and social sustainability objectives and more democratic organisational structures (Asara, Otero, Demaria & Corbera, 2015; Battilana, 2018). Social sustainability is the degree to which a social enterprise achieves its social mission. Meanwhile, financial sustainability is the extent to which a social enterprise could meet its operating costs from a combination of grant and traded income and input from community members. Environmental sustainability is the degree to which social enterprise activities can continue without negatively impacting the environment (Doyle, 2019). The sustainability of social companies should not be defined and judged in monetary terms but rather characterised by the extent to which a social company simultaneously achieves social, financial, and environmental sustainability.

Environmental concerns and sustainability have received greater attention among mainstream enterprises, including the small company sector. Few empirical studies exist despite the growing number of environmentally-inspired activities and organisations within the (green) social economy. Most government bodies have failed to pay systematic attention to the size and extent of the environmental sector on the social economy (Huang, Lee & Lee, 2021). The environment entails a vast and interrelated agenda, which is a significant obstacle for any country. The Malaysian Department of Environment (DOE) has encouraged various activities and social businesses to address environmental issues and achieve its strategic objectives, including sustainable rural regeneration, farming, and food production (Mustafa, 2019). As most economic activities impact the environment, much emphasis has been placed on concepts, such as clean (or sustainable) production, eco efficiency, and the innovative (re)designs of products, packaging, processes, and services in all sectors to minimise the use of energy and other natural resources, and reduce waste and pollution (Stubbs, 2019). Similarly, the concept of sustainable consumption emphasises the changes in behaviour and way of life required for living within ecological constraints and their economic repercussions. Recent empirical investigations have characterised "environmental social enterprise" while the role of innovation is a central issue in the subsequent parts (Li et al., 2022).

2. Literature Review

The Malaysian Social Enterprise Blueprint (2015) is a three-year roadmap outlining the strategic aims to accelerate the sector growth, which estimated that 100 social enterprises operate within the region mainly for areas associated with education (EdSpace), environment and sustainability (Biji-biji), food and beverages (PichaEats), and art, culture, and heritage (EarthHeir). The blueprint emphasises that the scope of Malaysian social enterprises is guided by marginalised groups in a single geographic area or theme (Abdul Kadir & Sarif, 2016). Nonetheless, stakeholders agree that social entrepreneurship can address multiple social issues using for-profit and non-profit enterprises, which highlights the national "hybrid" strategy.

The Malaysian government has also allocated RM20 million via the newly established Malaysian Global Innovation and Creativity Centre (MaGIC) to create a Social Entrepreneurship Unit to drive the national social enterprise market. Increasing numbers of funding intermediaries, such as myHarapan, iM4U, Impact Hub, Tandemic, Social Enterprise Alliance, and local colleges are vigorously expanding social enterprise visibility and promoting society through various social entrepreneurship programmes and initiatives. Furthermore, integrated initiatives from various organisations are required to inform the public and the government regarding the importance of social enterprise and its role in encouraging sustainable national socioeconomic growth.

2.1 The Sustainability of Social Enterprises

A Social enterprise is the outcome of mismatched capital availability and demand, which necessitates social companies to enter the "private sector" and generate the cash necessary to sustain social activities (Eichler & Schwarz, 2019). This pursuit is accomplished through their present non-profit enterprise or new for-profit affiliate firms and cross-sector partnerships with international organisations. Brouard and Larivet (2011) mentioned that contrary to social entrepreneurship, social enterprise is not unique but has extended to various contexts, such as social enterprise as earned-income approaches utilised by non-profit organisations and profit-driven businesses operating in the public service sector. Notably, social enterprise is a broad term that incorporates several distinct types of organisations whose members are business-like but not profit-driven (Ahmad, Saeed, Shah, Gondal & Mumtaz, 2022). In actuality, social enterprises are socially managed businesses with a distinct mission to serve society where income sharing is restricted to private contributors, community-based businesses formed by local citizens' activities, voluntary groups accredited to provide public services, and businesses with a moral conscience (Stansfield, 2020).

The social values where movements coalesce and the sociology of technology view innovation as a fundamentally social process (Khazaei & Tareq, 2021). The green movement involves the promotion of technologies deemed necessary by activists to facilitate a radical transition from an industrial society to an economically steady-state society regarded more as social activities and more in balance with the environment and ecological principles

involving the widespread adoption of green technologies (Khazaei, 2016). The technologies applied include renewable energy, independent eco-housing and communities, cooperative workshops, organic food production and distribution, and small-scale water infrastructures (Smith & Stirling, 2018). The subsequent energy crisis encouraged public and government interest in alternative energy and energy conservation with money allocated to research and development of alternative energy technologies, such as wind, wave, and tidal power, low-energy dwellings, and solar housing (Khazaei, 2019). Past studies emphasised the significance of systematic government backing, including favourable tariff schemes and cooperative local ownership (which contributed to widespread public acceptance of wind turbines) in the early success of the sector (Smith & Stirling, 2018).

The Malaysian government has now focused on the social enterprise sector due to its potential to support sustainable and fair economic growth (Zakaria & Bahrein, 2018). Social enterprise growth in Malaysia is still in its infancy (Zakaria & Bahrein, 2018). Therefore, the current priority is to launch social business growth. The long-term viability of this sector depends on all stakeholders' commitment, including the public and commercial sectors, which must play a significant role in preserving the capacity of social businesses to effectively develop and sustain themselves (Zakaria & Bahrein, 2018; Khazaei, 2016). The longevity of any sector relies on its capacity to exist independently of the state or governing bodies. Consequently, the Malaysian government has strengthened the addressing of environmental issues by establishing the National Entrepreneurship Policy 2030 (DKN2030), the Malaysian New Economic Policy (NEP), and Twelfth Malaysia Plan (2021-2025) (Khazaei & Tareq, 2021; Othman, Mokhtar, Maidin & Moharam, 2021). The Malaysian government has also acknowledged the significance of social business as a means of emphasising its responsibility to deliver social or environmental solutions. Hence, a substantial amount of money was dedicated to supporting the social entrepreneurship ecosystem of Malaysia.

2.2 Innovative Corporate Accounting and Sustainability of Social Enterprises

The critical stream of accounting research highlights the identification of corporate environmental and social misconduct, the perceived inability of companies to contribute to sustainable development, and the creation of transparency through enhanced social and environmental reporting and accounting approaches (Schaltegger, Etxeberria & Ortas, 2017). Concerns over non-financial, financial, social or environmental, or other sustainability measures present an opportunity for businesses to engage in sustainability practices, alter existing enterprises, or launch new initiatives that contribute to sustainable growth. Hence, innovation may be a significant vehicle for establishing corporate sustainability management and accounting practices, which successfully contribute to sustainable development (Schaltegger et al., 2017).

The pragmatic approach to sustainability accounting significantly emphasises the search for improved internal company management accounting methods and processes to support decision-making and implementing sustainability activities and projects to enhance sustainability performance (Schaltegger et al., 2017). In the four decades since the Brundtlandt report was published, several mainstream critical publications have revealed the shortcomings of traditional accounting systems and the first steps undertaken to overcome them. Pragmatically, the time has come to examine how developments in accounting practices and accounting techniques could facilitate the use of organisational resources by businesses to promote sustainable growth. Sustainable growth or development is an evolutionary process of improvement based on real-world challenges involving practitioners and academics in the transdisciplinary collaborative search for innovative approaches to overcome unsustainability issues and produce more sustainable outcomes (Schaltegger et al., 2017). Alvarez et al. (2017), who investigated the relationship between economic development, innovation, and sustainability, discovered that innovation facilitates the transition of the economy towards the usage of renewable energy sources and production.

Thus, the impact of technological advancement and innovation could enhance environmental sustainability. Accounting and reporting may effectively contribute to sustainable development if adequate methods are implemented in numerous organisations beyond publications and pilot projects and organise innovations in sustainability accounting. Any innovation would begin with concepts and trials in pilot projects before spreading to a larger group of companies. The various environmental and social accounting methodologies in research projects that many businesses have not adopted demonstrate that distribution is a significant issue in accounting and reporting for sustainability. For example, material flow cost accounting (MFCA) is an innovative management accounting technique that produces environmental benefits and affects company practices (Schaltegger et al., 2017). The MFCA allows quantifying and observing the inefficiency of manufacturing material flows and use. This method is an excellent example of a completely new accounting technique developed by sustainability management scholars, which provides undisputed ecological and economic benefits (Schaltegger et al., 2017).

2.3 Political influence and Sustainability of Social Enterprises

Social enterprises are entities that acknowledge the complexities of sustainable social growth while maintaining excellent financial performance and minimising economic and political complexities. Social enterprises evolved from combining the private, public, and social sectors where social priorities are incorporated into business methods and practices (Shuayto & Miklovich, 2014; Wang et al., 2018; Moizer & Tracey, 2010). The mechanism used by a social company to define and manage politics plays a crucial role in forming a supporting structure conducive to its emergence and development (Wilson, 2012). Sabella and Eid (2016) identified external contextual enablers as "high-level motors" for social enterprise growth.

Thus, the overall internal and external ability of a company and its chances of achieving better performance and progress are determined by policy influences and commitment levels. Political factors have been incorporated into the social enterprise sustainability formula as an underlying concept (Rahdari et al., 2016). The objective is to develop social networks and institutionalise social values and principles as a foundation for entrepreneurial sustainability to overcome social disorders (Bendell, 2017). Everyone is a participant throughout the creation of social capital (Hoque et al., 2017). For instance, volunteers, supporters, fund-raisers, and community representatives all provide funding and core resources with political factors. These factors are immaterial and vary based on the organisational capacity to establish effective and positive relations with its social facilities.

The political procedure enables the organisation to derive its advantages where such political tools could assist the organisation in confronting the obstacles posed by external economic variables (Samsuddin et al., 2021). A government-resource-dependent organisation might engage in political methods to influence the internal governance structure to be implemented and affect its sustainability performance. Therefore, political influence in social business is connected to the internal governance mechanism influencing social company viability. In terms of social business, strategic elements involving support, network participation, and skills can affect the stakeholders' ability to achieve and acquire capital, such as support and participation in a network. The significant link between the social business and the stakeholder could also influence stakeholder engagement. The distinctive characteristics of social business in Malaysia indicate that political influence is linked to the internal governance structure employed based on various forms of social enterprise, which affects organisational performance. Previous research has demonstrated that organisations with political power affect corporate governance and performance (Samsuddin et al., 2021). As for government-related firms, directors or a government representative on the board often possess relevant political expertise (Samsuddin et al., 2021). Politically linked companies typically receive greater government advantages than politically unaffiliated firms (Wahab et al., 2011).

Hillman (2005) revealed that the presence of politicians on the board of directors is related to improved market-based performance measures. This relationship exists among businesses in tightly regulated industries. Frieling (2018) presented a different concept: political forces are the connections, social norms, principles, trust, connections, and cooperation with social stability and public participation. Essentially, the concept involves a combination of human capital and key institutions, and other community networks (strategic partnerships). Political influences include two forms of political influences, bridge (networking), and political (social legitimacy). Political forces are necessary for social businesses to operate in the proper context, which adjusts and shifts simultaneously outside the context. This situation includes social companies managing local or regional or extra-local interactions to facilitate and establish new networking modes. According to Spear et al. (2013), social enterprises need to gain significant levels of political power (social legitimacy) regarding social awareness, learning, social networks, human capital, and sustainable social enterprise success. Therefore, the present study examined the direct relationship between political influence and social enterprise sustainability.

2.4 Sources of Financing and Sustainability of Social Enterprises

In recent years, the role of social companies in confronting social and environmental concerns and encouraging equitable growth has garnered greater attention in Malaysia, which has led to increasing interest in social enterprises (Fowler et al., 2019). In the past decade, local, national, and worldwide organisations have realised the importance of the social economy, the non-profit sector, and the solidarity economy or the third sector, hence raising their interest in social businesses (Kummitha, 2017). A social enterprise is characterised by its dual objectives of establishing financial sustainability and producing social benefits via the employment of economically marginalised and disadvantaged individuals. Nevertheless, previous research suggested that social enterprises aim to benefit a specific group and permanently transform their lives in a manner detrimental to an established socio-economic balance, thus highlighting the significance of financial access for the social enterprise life cycle (McQuilten, Warr, Humphery, & Spiers, 2020).

Depending on their growth stage, social enterprises acquire money from various sources ranging from subsidies and financial instruments to equity, renewable capital, and impact investments (Roy & Goswami, 2020). Prior research outlined that social firms are adept at managing their dependence on resources while leveraging their community integration and stakeholder relationships to secure external resources and create social opportunities (Ramus & Vaccaro, 2017). Common causes of business failure among social enterprises include scalability issues, inadequate capital, and funding issues. Other significant issues involve cash flow challenges and deficient qualified personnel. In realising sustainable social and environmental goals, addressing the need for various types of well-targeted finance and how they might better match the realities of social businesses is necessary (Stansfield, 2020). Significant investment is crucial as social entrepreneurs continue to emerge in the interface between traditional industries and in investigating this hybridity. Despite its unpredictability, collective forces from many participants, including government and other public organisations, banks, enterprises, investment funds, and individuals worldwide collaborate to promote the growth of this organisational type (Staicu, 2018).

3. Methodology

This conceptual study focused on the Malaysian perspective to provide a new framework for sustainable organisations by reviewing the available literature. This study was based on existing and prior literature review and analysis on (1) Malaysian social enterprises, (2) Innovative corporate Accounting, (3) the influence of stakeholders, (4) sources of funding, and (5) social enterprise sustainability. Keywords, namely Sustainable Growth, Financial Access, Political Influence, Innovation Accounting and Social Enterprises were used to review the literature access from various sources, such as Google Scholar, Mendeley, Science Direct, Scopus, and Web of Science (WoS). This study focused on all registered social enterprises in Malaysia under the Ministry of Entrepreneur Development and Cooperatives (MECD) and Malaysian Global Innovation and Creativity Center (MaGIC), assuming that the Malaysian social enterprises were established based on formal government guidelines. The systematic review analysis was employed to ensure a comprehensive and transparent search in achieving the objective.

4. Proposed Research Model

Scholars have highlighted the issue of innovative corporate accounting, political influence and sources of financing on the sustainability of Malaysian Social Enterprises. Therefore, the present study proposed a link that depicts the relationship between the predictors and social enterprise sustainability in Malaysia that could help enhance the viability of social enterprise as shown in Figure 1 below.
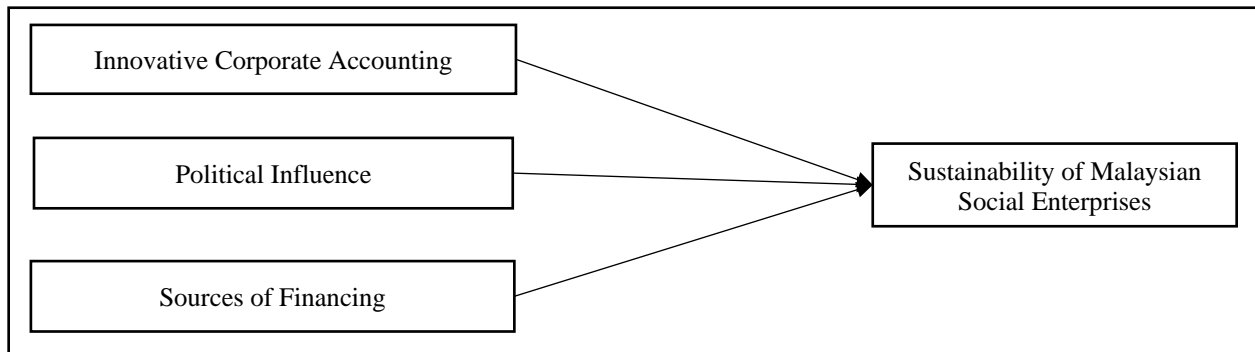
Figure 1: The Proposed Research Model

The study data could be extracted from primary and secondary sources (annual reports, organisation websites, and other relevant documents). The most recent data from the annual reports of each social enterprise (financial statements for the year ending 2015 onwards) could be used to obtain data from the Companies Commission of Malaysia (CCM) and the Malaysian Registrar of Society.

5. Conclusion

Social firms have environmental, economic, and social goals. Defining and prioritising baseline indicators, such as the board characteristics of internal governance is necessary for survival and a green environment as social business in Malaysia is an emerging industry. Social business survival is comparable to a person's requirement for food and

water as part of daily survival. Similar to commercial businesses, social enterprises require sufficient funding governance to operate and manage their social or environmental operations and ensure their long-term survival. The current study addressed the practical and industrial gap between the expectation that social enterprises will fulfil the administrative function of improving the citizens' quality of life and addressed the reality of environmental issues. Consequently, research on social enterprises is critical and relevant in addressing these concerns. Investigating the influence of innovative corporate accounting, political influence, and sources of financing for social businesses and the sustainability performance of social enterprises is vital to continue delivering socially and environmentally beneficial activities. A novel model was proposed for the relationship between the innovative in corporate accounting, sources of financing and political influence on the sustainability of Malaysian social enterprises.

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Ethical Governance and Sustainable Financing for Manufacturers in Malaysia

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Abstract

The growth of the global economy has led to an increase in supply and production, which has led to uncontrolled industrial activities. Although the Malaysian government has done numerous initiatives and allocated a huge amount of funds for green financing, the level of ethical misconduct is still not encouraging since the court cases of environmental violation have kept rising over the years. Hence, this aims to assess the relevant guidelines and regulations on ethical governance and sustainability strategies, examine the factors that facilitate the CFOs and board's involvement in setting up and navigating strategy to effectively structure the sustainable financing eligibility and activities tracker, and propose an ethical governance framework by incorporating sustainable financing eligibility and activities tracker. Data collection and analysis will be performed in three stages. The first stage of this study involves a guideline review on ethical governance and sustainability practices. The second stage will involve content analysis of annual and sustainability reports for the top 300 manufacturing companies. The third stage will employ a protocol interview with a total of 48 interviewees from in-depth face-to-face interviews and focus group discussions by using refined and tested semi-structured interview questions. Fieldwork encompasses the industrial areas at Klang Valley, Gebeng, and Pengerang. Respondents would include the Chief Financial Officer (CFO), finance manager, management team, and employees who directly deal with the company's activities. Expected outcomes include gaining a deeper insight and knowledge regarding sustainable financing eligibility and activities tracker that represent ethical governance for the companies from the perspective of CFOs and boards. A new ethical governance framework will be beneficial for manufacturers and supplement government policies because it is in line with Shared Prosperity Vision 2030's (SPV 2030), focus point of sustainability and green economy (KEGA 12) as well as Sustainable Development Goals (SDGs).

Keywords
Ethical Governance, Sustainable Finance, Sustainability
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1. Introduction
The expansion of the global economy has resulted in an increase in production, which causes the unbalanced exploitation of natural resources (Bansard & Schöder, 2021). The economic development is mainly driven by the industrial sector, which encompasses a broad range of operational activities including processing, exploration, material handling, excavation, and production. Over the last two decades, Malaysia has recorded 51 natural disasters, including haze, water pollution, landslides, and floods, affecting over 3 million people and racking up nearly RM8 billion in damages (Yeo, 2020). Uncontrolled industrial activities require substantial energy consumption which often involves the burning of fossil fuels (coal, oil, and natural gas), generating pollutant gases that cause environmental pollution and consequently lead to global warming. In tackling these issues, Malaysia committed to taking various initiatives in order to protect the environment and promote sustainable development goals (SDGs) such as allocating funds for the Green Technology Financing Scheme (GTFS), Green Investment Tax Allowance (GITA) and Green Income Tax Exemption (GITE). Although the government has provided various incentives to companies to encourage them to enhance their sustainability practices, Malaysia is still in the lower mode in environmental awareness (Ismanto et al., 2023). In addition, based on the report by EY's Malaysia Climate Risk Disclosure (CRD) Barometer 2020, companies in Malaysia are still at a nascent stage of climate risk reporting (in governance, strategy, and risk management), with an overall coverage score of 34% and a quality score of only 12% (Ernst & Young, 2020; Ngo et al., 2022). This illustrates that sustainability practices in a company are being implemented poorly.

Poor sustainability practice is closely related to ethical misconduct that is interconnected with economic expansion and environmental issues. Ethical misconduct, such as bribery and corruption, can exacerbate the negative

impacts of pollution by allowing companies to bypass environmental regulations and engage in environmentally harmful practices. This can result in long-term damage to the environment and can undermine efforts to promote sustainable economic development. Additionally, unethical conduct can erode public trust in institutions, which can have negative economic and social consequences. For instance, in September 2021, an illegal smelting factory in Bukit Selambau's industrial area, Sungai Petani, Kedah, was discovered as the cause of air pollution in the neighborhood. The investigation revealed that the factory did not apply air pollution control systems (FMT Reporters, 2021). Another example is water pollution in Sungai Kim Kim and in Sungai Sengkang. Besides, Nestle Manufacturing (Malaysia) Sdn. Bhd. (Nestle Manufacturing) was fined RM90,000 in December 2020 for discharging five types of industrial effluent containing biochemical oxygen and releasing concentrated chemical oxygen demand, exceeding the standard limit into inland waters (Bernama, 2020). Similarly, the Department of Environment (DOE) received 177 court cases in 2019 for violations of the Environmental Quality Act 1974, with 57 being found guilty and fined in 2021. The principal court cases that were reported include industrial effluent, scheduled waste, and discharge effluent, exceeding prescribed conditions.

The highlighted cases obviously expose the unethical misconduct that violates the concept of ethical governance which refers to the practices and principles that guide an organization in making decisions and carrying out its activities in an ethical and responsible manner. If companies continue to perpetrate these scandals, their corporate image and various stakeholders might be adversely affected. Some of the companies might have problems in adopting the pollution-free product due to financial constraints, but there's also a big and established company that was found guilty in court. According to Rustam, Wang, & Zameer (2020), environmental misconduct and a lack of green initiatives in the workplace suggest that firms are less motivated to disclose sustainable-related issues. Thus, to begin with, based on the reported incidents, there is a dearth of sustainable activities being implemented in companies. Second, there is a lack of communication between the people in charge of sustainability activities in various units, which leads to noncompliance with sustainability regulations. Third, there is a lack of motivation for companies to report on sustainable issues, which results in a lack of green activities in the workplace. Fourth, there is a lack of transparency in financial budgeting and allocation, especially in green projects.

These four highlighted points are closely related to the board of directors as a role in addressing environmental misconduct and promoting environmental responsibility within the company through managing sustainable financing eligibility and activities tracker. There is limited discussion on the reflections of the board of directors, especially in a version of the Chief Financial Officer (CFO) who plays a key role in managing a company's financial resources and ensuring compliance with relevant laws and regulations. As financial leaders, CFOs are responsible for managing financial risks and opportunities, including those related to sustainability. According to Graham & Harvey (2018), CFOs who prioritize sustainability and environmental responsibility can benefit their companies in several ways, such as reducing costs, improving brand reputation, and attracting socially responsible investors. In addition, they recognize that long-term financial success requires consideration of environmental and social factors. These CFOs are likely to prioritize investments in clean technologies and energy efficiency measures, as well as ensure that their supply chains are sustainable and ethical. They may also engage with stakeholders to understand and address their concerns related to sustainability and environmental responsibility and report on their company's progress in these areas. It is perceived that developing sustainability strategies is usually an important challenge for senior management and the board, however, implementing the strategies is a greater challenge.

There is a dearth of research in Malaysia, and it is unclear how the CFOs and board members could drive the sustainability agenda that represents as ethical governance through sustainable financing eligibility and activities tracker of the company. Ethical governance involves ensuring that the activities of an organization align with ethical principles and values. One key aspect of ethical governance is incorporating sustainable financing eligibility and activities tracker, which helps ensure that the organization's financial activities are aligned with sustainable principles. Thus, it is timely to examine CFOs and board members' involvement in setting up and navigating the process of aligning strategy and structure to effectively manage the sustainable financing and activities tracker that reflect the board's action to enhance the sustainable practice in the company. In conclusion, manufacturing companies that prioritize sustainability can benefit from sustainable financing by implementing energy-efficient practices, waste reduction and recycling programs, and sustainable product design that can demonstrate their commitment to sustainability. Additionally, it would improve their eligibility for sustainable financing by tracking their sustainability practices and the financial benefits of those practices, manufacturing companies can continue to improve their sustainability performance and achieve their sustainability goals.

2. Literature Review

The manufacturing sector is one of the most important sectors that hugely contribute to the GDP of Malaysia. The contribution has been noticeable, especially in terms of export products and employment creation opportunities.

However, environmental misconduct is a major issue for manufacturers in Malaysia, particularly in the areas of air and water pollution, waste management, and deforestation. The rapid industrialization of the country has led to a significant increase in pollution and environmental degradation, which has raised concerns among stakeholders and the public. One of the major environmental misconduct issues in Malaysia is air pollution. Many manufacturing companies, particularly those in the oil and gas, chemical, and steel industries, are major sources of air pollution, releasing large quantities of pollutants into the atmosphere. This has led to health concerns among the public, particularly in urban areas with high levels of pollution. On the other hand, the United Nations (UN) established the Sustainable Development Goals (SDGs) in 2015 as a radical challenge to all parties to address sustainability issues, especially corporations. The SDGs are a collection of 17 interlinked global goals aimed at achieving a better and more sustainable future for all. The economic dimension of stability concerns the organization's economic impacts on its stakeholders' economic conditions and economic systems at the local, national, and global levels (Baah et al., 2021). Based on agency theory, companies act as an intermediary to the principle that must obey the sustainability guidelines as established by the United Nations. The sustainability practice in the companies should be directed by the board of directors to all stakeholders to ensure that the objective is achieved, and the efficient strategy could enhance the financial performance of the company (Jamil, Mohd Ghazali & Puat Nelson, 2021). The success or failure of a company under sustainable economic conditions depends on the uniqueness of its corporate social responsibility and sustainable projects or operations. The information in sustainability reports differs depending on the type of stakeholder that affects certain activities and performance and the green initiatives implemented by companies (Xiong & Sun, 2022). Many investors are incorporating environmental, social, and governance (ESG) considerations into their investment decisions, and it has become critical for businesses in terms of risk mitigation and value development (Safri, 2021).

Thus, having ethical governance is essential as it would set up the principles and values that guide an organization's decision-making and behavior and ensure it operates in an ethical and responsible manner. One of the boards that relate to the decision to set up the financing and investment decision is the Chief Financial Officer (CFO). By developing and implementing sustainable financing strategies, tracking sustainability metrics, integrating sustainability into financial reporting, engaging with stakeholders, and implementing sustainability-focused cost management, CFOs can contribute to the achievement of sustainability goals while also contributing to financial success. Additionally, CFOs are responsible for revenues, earnings, and budgeting as well as developing and reviewing business cases and overseeing most other financial aspects of long-term sustainability. Furthermore, the CFO's financial expertise and enterprise-wide perspective can assist the company in aligning its sustainable activities and business strategy. In addition, CFOs contribute to sustainable finance by controlling the costs and expenses of the companies, which are limited to sustainable projects/events, and improving investment coordination in sustainability (Deloitte, 2021).

According to Whelan & Douglas (2021), many companies have pledged to improve their environmental, social, and governance performance, but many CFOs still regard them as an expense rather than a source of value. This makes it harder to expand the necessary internal capital for sustainability investment. Hence, it is not surprising that the practice of sustainable finance in companies is still in a nascent stage. The lack of disclosure and execution related to sustainability activities and reporting indicates that Malaysian companies are not entirely committed to sustainability standards, which requires further investigation. To boost the level of disclosure, all companies in Malaysia should grab the opportunities made by the government's green initiatives such as arranging the company's funding for a sustainable project, which could increase the company's sustainability practice (Jørgensen, Mjøs, & Pedersen, 2021). Therefore, there is a requirement to develop a framework, focusing on ethical governance through sustainable financing eligibility and activities tracker of the company in parallel with the 12th Malaysia Plan, which is aligned with SPV and SDGs. The improved understanding of the role of the CFO and the comprehensive framework developed from this proposed research would help to ensure better sustainability practices by providing a better explanation of sustainable finance and activities tracker.

3. Methods

This study will be conducted in three stages through the use of a mixed-method strategy to respond to the research objectives. A mixed-method research design will be employed in this study which is the approach to collect both quantitative and qualitative data. The first stage involves guideline review, the second stage involves content analysis, and the third stage involves In-depth face-to-face interviews. Fieldwork will be conducted in major industrial areas such as Klang Valley (Selangor), Gebeng (Pahang), and Pengerang (Johor).

The first stage will involve some guidelines review on ethical governance and sustainability strategies for manufacturing companies in Malaysia to reflect the first objective, i.e., to assess the relevant guidelines and regulations on ethical governance and sustainability strategies for manufacturing companies in Malaysia. The review will be made on the requirements for sustainability approach strategies from the regulators such as the Malaysian Code of Corporate Governance (MCCG), Bursa Malaysia (listing requirements), and the related guidelines such as SDGs and integrated reporting. From this information, an index would be developed to assist in document review and content analysis of ethical governance and sustainability strategies (sustainable financing eligibility and activities tracker) in Stage 2.

The second stage will be based on the index for ethical governance and sustainability strategies (sustainable financing eligibility and activities tracker) developed in Stage 1 and content analysis will be conducted. Data will be obtained from annual reports, sustainability reports, and any other corporate reporting information of top manufacturing companies, to gauge the quality of the reports especially the disclosure on corporate governance, corporate social responsibility, and sustainability section as to achieve the second objective; to examine the factors that facilitate the CFOs and boards involvement in setting up and navigate strategy to effectively structure the sustainable financing eligibility and activities tracker among manufacturing companies in Malaysia. The research sample comprises the top 300 manufacturing companies that are established and have good financial conditions so that there would be no bias to the company with low income and unable to utilize money for sustainable practice purposes. Selection of the sample will be made based on their total assets and years of operation (5 years above) using the matched sample approach. The research team will be involved with a particular conglomerate sustainability team to experience the journey and document the process and resolution of conflicts and uncertainties. In this stage, the content analysis of the companies will help the research team to understand the companies' approach to reporting and the content of their reports. It is also useful in the preparation of interview questions for the third stage of the study and in verifying interview data.

The third stage will be conducted to address the third objective i.e., to propose an ethical governance framework by incorporating sustainable financing eligibility and activities tracker that reflect the board's action to enhance the sustainable business among manufacturing companies in Malaysia. Primary data will be obtained from respondents who are identified through purposive sampling methods using semi-structured interview questions. First, a preliminary draft of the questions is devised from the findings of the secondary data in Stage 2. The suitability and appropriateness of questions are then checked by subject matter experts. Based on their feedback, an interim set of interview questions is formulated which is then tested in a pilot study involving a few selected respondents. Findings from the pilot study will then be used to construct the final version of the research instrument. In-depth face-to-face interviews and observation of sites are approaches used to gather the data. The face-to-face interview is useful for exploring participants' knowledge and experiences on the issue directly and deeply about the topic. The interpretation of non-verbal cues will be more effective through observation of body language, facial expression, and eye contact and thus may be seen to enhance the interviewer's understanding of what is being said. In-depth face-to-face interviews will be conducted with 3 top manufacturing companies from each industrial area with 2 representatives of each company. Thus, a total of 18 in-depth interviews will be conducted for the whole research. The interviews will be complemented by focus group discussion sessions that will be performed in the industrial area. Each focus group comprises 10 respondents from each industrial area who are identified through purposive sampling methods. Thus, a total of 30 respondents will be involved in the focus group discussions. According to Creswell (1998), the number of samples for a qualitative study between 20 to 30 people is sufficient to answer research questions. Respondents would include the Chief Financial Officer (CFO), finance manager, management team, and employees who directly deal with the company's activities.

4. Results and Discussion

The results of this study could gain a deeper insight into the sustainable financing eligibility and activities tracker that represents ethical governance and its importance for the companies from the perspective of CFOs and board members. Having a better understanding of how CFOs involved in in setting up and navigating the process of aligning strategy and structure to effectively manage sustainable financing and activities for manufacturers in Malaysia. Developing a new ethical governance framework that will be beneficial for manufacturers and other companies that align with national and international standards. The findings will also contribute to enriching existing knowledge and the literature on ethical governance that highlights the sustainable financing eligibility and activities tracker of the companies which are woefully inadequate at present.

5. Conclusion

The new framework of ethical governance, which incorporates sustainable financing eligibility and an activities tracker devised based on the findings of this research, will be beneficial to all federal, state, companies, and manufacturing companies in Malaysia. This is because the framework would provide common/standardized rules and indicators for ethical governance by exercising sustainable financing eligibility and activities tracker, which are crucial to enhance sustainable practice and reporting by companies. The framework will be more aligned with the national goals of SPV/KEGA12 (Green Economy) and SDG 12 (Responsible Consumption and Production) to assist the Malaysian government in incorporating the SDGs into its national development plan in Budget 2023. The new framework will also outline the sustainable finance measures and activities tracking to improve the sustainability practice of companies based on the current legal provisions and guidelines, such as the Environmental Quality (Compounding of Offences) Rules 1978, Environmental Quality (Amendment) Act 2012, Environmental Quality (Industrial Effluent) Regulations 2009, Companies Act 2016, and Sustainability Guide Bursa Malaysia 2022. Hence, the framework will enable Malaysian manufacturers to be relevant and competitive for the benefit of the environment, society, and economy, by being in tune with the current needs and international standards in terms of sustainability principles, and best practices, and mitigating the root causes of environmental misconduct.

Acknowledgement

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Hyper engineering Communication Skills with Pecha Kucha Technique for Highly Quality Graduate Attributes

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Abstract

Stakeholders in business programs, particularly marketing programs, emphasize the importance of communication skills. Graduates should develop communication skills so that they can be productive employees at work and communicate their ideas effectively to clients. Despite of the significance of being able to communicate effectively for professional graduates, there is little reference to the development of these skills in the current graduate attributes of many universities. This study was carried out to examine students experience on Pecha Kucha technique used for presenting their assignment presentation. A total of 52 students from Retail Management class have participated in the survey distributed from April to May 2022. Majority of students strongly agree that Pecha Kucha technique helped them to improve presentation skills, increase understanding on the subject also encourage more cooperative learning. It was discovered that critical thinking skills were enhanced among students while they preparing for the presentation.

Keywords
Pecha Kucha, Communication Skills, Graduate Attributes, Presentation

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1.   Introduction
According to the Malaysia Job Street survey in 2013, employers are dissatisfied with the quality of fresh graduates in Malaysia (Jobstreet, 20210. The poor ratings were not generally associated with their academic qualifications, but the poor attitude and communication skills shown during interviews or in the workplace. In some companies, graduates were asked to do a presentation during the job screening process. Some university students find presenting outside or inside the classroom difficult. There is a lack of confidence among students when presenting to large groups of people. Students often find the experience of presenting to be stressful and they feel nervous and apprehensive when it comes to giving an oral presentation (Muthusamy, 2019).

As suggested by Murugaiah (2016), the most commonway to present content verbally is to use Microsoft Office Power Point. However, presenting using Power Point has its limitation such as difficult to concentrate on mainpoints, students always reading from wordy slides, and often running out of time. As an alternative to the time-consuming traditional presentations with text-heavy slides, Pecha Kucha has emerged as a result of the creative use of PowerPoint (Klentzin, Paladino, Johnston & Devine, 2015; Robinson, 2010).

Pecha Kucha
Pecha Kucha is known as a 20x20 presentation format, the slide shows 20 images, with the time given only 20 seconds for each slide. It's non-stop and you've got 400 seconds to tell your story, with visuals guiding the way (pechakucha.com). PechaKucha was created in Japan in 2003 by renowned architects, Astrid Klein and Mark Dytham. The word "PechaKucha" is Japanese for "chit chat." Table 1 lists the advantages of Pecha Kucha from students' perspectives.

Table 1: Advantages of Pecha Kucha Technique
Source: Solusia, Fannil Kher and Rani (2019)

The Advantages of Pecha Kucha	1. The presentation is well planned. 2. Pecha Kucha encourages students to practice more before a presentation. 3. The information explained is clear and straight to the point due to the limited time of presentation. 4. The audience pay more attention with the 20 seconds per slide presentation. 5. The presentation slide is more appealing since the use of sentences is very minimal with more graphic/ pictures. 6. Pecha Kucha helps the students focus only on the key points while the normal presentation with no time limit sometimes allow them to talk out of the key points. 7. Pecha Kucha presentation promotes discussion at the end of the presentation session. 8. Presentation helps students in improving their skills in presentation.

Meanwhile, disadvantage of Pecha Kuhca as described by Reynolds (2012) includes the time constraint of 20 second per slide, where the students often find hard time to pick the right word to describe the slides. A similar claim is made that Pecha Kucha requires students to practice and rehearse for a long time prior to presenting. Even though we see the two factors explained above as the two disadvantages of Pecha Kucha, they can be seen as an advantage if these practices are able to reduce the number of mistakes that are commonly made when delivering traditional presentations.

Graduate attributes are defined by the Australian Technology Network (Bowden, Hart, King, Trigwell & Watts, 2000) as the qualities, skills and understandings a university community agrees its students would desirably develop during their time at the institution and consequently shape the contribution they are able to make to their profession and as a citizen. Sometimes referred to as generic skills, transferable skills, core skills, soft skills, graduate capabilities, work-ready skills and key skills, graduate attributes are no longer seen as being independent of discipline knowledge because they interact with discipline knowledge. Students taking the Retail Management course must be able to present clearly and confidently to a large variety of audiences, which is Communication Skill level 3 as specified in the Graduate Attributes of the University of Teknologi Malaysia.

The purpose of this study is to examine the effectiveness of Pecha Kucha techniques in improving communication skills through presentation. This study employed a descriptive method that aims to describe the effectiveness of the *Pecha Kucha* technique in learning activities in Retail Management course, which is a 3 credit course. The survey was distributed after the final presentation of report in class. The research was conducted from April to May 2022 with the third-semester students as the research subjects. There were 52 students participated in this survey.

2. Literature Review

2.1 Communication Skills in Graduate Employability

It was found by Erni, Husna, Astri, Heng, and Khairul (2019) that Malaysian graduates lacked 21st-century skills. Malaysian education quality has been rated poorly by the Program for International Student Assessment (PISA) according to Cheong, Leong, and Hii (2019). According to the JobStreet.com survey, a larger number of fresh graduates have "poor" rather than "good" grades; as a result of the lack of employability skills in the soft skills development field, graduates are less prepared to be employed. Governments and industries are increasingly concerned about the quality of graduates that higher education institutions produce, and this would be a major issue for all higher education institutions around the world. Upon graduation from universities, employers have a number of expectations about the skills a graduate will possess when they start their careers. It was found in the research by Afifah and Razli (2019) that graduates in Malaysia apparently do not possess the appropriate combination of good qualifications coupled with the ability to demonstrate a high level of soft skills to meet the needs of employers. As a matter of fact, employers have identified various shortcomings in graduates' skills and attributes on a variety of aspects (Brenda Ping Ping Yong, & Ying-Leh Ling, 2022) although here was a positive correlation between critical thinking skills and interpersonal skills among Malaysian employers, leadership skills and technology skills ranked lower on employers' lists. There are ten soft skills that are commonly sought by Malaysian employers, those being integrity, willingness to

learn, communication skills, initiative, achievement orientation, teamwork skills, interpersonal skills, flexibility, a positive mindset, and a high self-esteem. Succi and Canovi's (2019) found that communication skills ranked top three in the graduate's category. As part of a recent systematic literature review conducted by Mainga W., et.al., (2022) the authors found that communication skills and teamwork/dynamics were identified as the most important skills while personal qualities are the most important attributes, they sought in prospective graduate students. Communication skills in oral communication are defined as skills of interacting, presenting, and conducting meetings in an effective manner (Coffelt, T. A et.al., 2019). As Hinai, M. R. A et.al., (2020), point out in their study, that the effects of entrepreneurial skills, innovation skills, communication skills, networking skills, teamwork skills, and thinking styles will reflect the character of students, the passion they have, their qualities, and their weaknesses. In this essence, the Ministry of Higher Education recognized how significant soft skills are to the workplace, and it devised a program for soft skills development in higher education institutions. A major component of this program is the development of communication skills, teamwork, critical thinking, lifelong learning, entrepreneurship, ethics and morals, management and leadership skills.

It is widely accepted that English plays a major role in employability. English language is actively used for business communication in Malaysia, especially in the private sector. The Malaysian government and higher education institutions have made a number of attempts in order to produce graduates who are proficient in English, but there is still a perception that there is a mismatch between these educational objectives and employers' expectations in the field of language proficiency. A lack of good English communication skills has been expressed by employers as a concern regarding graduates today who are reported as lacking these skills. Literature has shown that soft skills play a vital role in hiring decisions, and our findings reinforce this prediction. Moreover, in a study conducted by Zainuddin, S.Z.B et.al, (2019), it has been shown that both employers and employees agree that good grammar and a wide range of vocabulary should be emphasized in the interview process. The same thing can be said about the desired qualities in certain contexts, such as a Master's program in Information Technology, among which are problem-solving skills, teamwork skills, and communication skills. In order for a graduate to be employed in your company, they need a set of competencies that they deem necessary. Among the most frequently mentioned characteristics, based on the results of interviews conducted with 120 companies, were the ability to program, the willingness to learn new things, and the ability to communicate effectively (Per Lauvas et.al, 2021). As part of good communication skills, employers in Malaysia expect their employees to possess a high level of accuracy when it comes to both their oral and written communication (Noor Amiera Roslee & Lilisuriani Abdul Latif, 2020). Since English is one of the most essential skills for improving employability and enhancing students' capabilities, initiatives to increase English levels among Malaysian students must continue to be taken to improve their employability. In view of the above, it is demonstrated that soft skills are essential to attain and to enhance their employability. Due to the skills gap that graduates have, there is a large spread of unemployment among them. This failure of HE systems to produce highly qualified graduates in the past has contributed to the work providers continuing to recruit highly skilled workers overseas as a result of the shortfall in the HE system.dd literature review here (10 font)

2.2 Pecha Kucha: An Insight

Known as "Pecha Kucha" by Warmuth and Caple (2022), it is a Japanese word for informal conversation that means "chit chat" or "chatter" (Morrow, Shipley & Kelly, 2018; Liao MK et.al, 2020). Rincon et al. (2018) defined Pecha Kucha as a systematic, innovative method of presenting information in higher education that is structured in an informal and simple way to captivate the audience and grab their attention. It is one of the most innovative and creative formats available where the presentation is conducted using novel PowerPoint style in which the content information is organized systematically and projected for 20 seconds on each slide (Shrivastava & Shrivastava, 2022; Liao MK et.al, 2020). It consists of 20 slides that are presented for 20 seconds each, with the presenter speaking for the duration of the presentation. Using this technique, presenters deliver their content over 20 slides that run automatically for 20 seconds in PowerPoint (PPT). Hence, it is referred to as a 20 X 20 presentation (C. Aragonés Jericó et.al, 2023; Asgher, T. et.al, 2023). Approximately 6 minutes and 40 seconds are needed for this innovative Powerpoint presentation. Photo, image, or graphics are often used in the presentation, while text usage is often limited, thus ensuring a clear and quick flow of information. This method requires synthesizing the information and thinking about the most important ideas, in order to convey them simply, attractively, creatively, impactfully and briefly (C. Aragonés Jericó et.al, 2023). This method of presenting can be used to engage students, instructors, and other presenters in a more vivid and engaging way (Osman Solmoz, 2019: Asri Ruhaya, 2023, Ashger et.al, 2023). Pecha Kucha allows for an interactive and engaging presentation format, where the presenter is able to go into greater depth on the topic being discussed. It also allows for a more interactive audience, as the presenter is able to take questions during the presentation. This can lead to a more engaging and informative lecture, as the presenter can answer questions as they come up. In addition, the Pecha Kucha technique can be used to improve speaking skills as an alternative method and

is a way of presenting for a large audience in a short period of time. Currently, Pecha Kucha is one of the most popular presentation methods in the world. Academicians have also widely used Pecha Kucha to teach presentations as an alternative mode of instruction (Ridzky Firmansyah Fahmi1 & Ida Widia, 2021).

2.2 The Use of Pecha Kucha in Higher Education

As an alternative to traditional PPT presentations, the technique has become increasingly popular in university-level classes in order to develop learner presentations, minimize the drawbacks of traditional presentations, and create opportunities for self-reliance and autonomy among learners. The use of Pecha Kucha in higher education is becoming increasingly popular as it allows for an enhanced learning experience. It can be used in lectures, seminars, and other educational settings. It is particularly useful in classrooms, as it allows for a more interactive lecture and more engagement from students. It can also be used to deliver research presentations, seminars, and other educational activities. As the use of Pecha Kucha in higher education is growing, it allows for a more dynamic and capable to engage students in a variety of educational activities, as well as provide a more interactive way to deliver lectures and seminars and is a great way to engage students and instructors in a more vivid way (García-Sánchez.S, 2022).

There is a plethora of studies in literature which are concerned with investigating the impact of integrating Pecha Kucha into the teching and learning context on improving students' speaking proficiency. For instance, researchers have found that learners have positive attitudes toward Pecha Kucha (PK) usage in higher education settings (Mabuan, 2017; Osman Solmaz, 2019). A number of learning outcomes were positive as a result of the PK technique, such as improved speaking (Colombi, 2017) and fluency (Zharkynbekova, Zhussupova, & Suleimenova, 2017), opportunities for additional language practice (Setberth Jonas Haramba et.at., 2023), improvements in presentation skills (Nguyen, 2015), and reduced anxiety associated with public speaking (Coşkun, 2017). Its fast-paced rigorous format was criticized for sometimes creating pressure on learners, in addition to its identified advantages (Ruiz, 2016). In terms of its simplicity and fun, Pecha Kucha is a very effective method. Pecha Kucha encourages students to present ideas in an informal manner. Pecha Kucha also has the peculiar rule that slides should only contain images. In other words, text cannot be dominant thereby it forces the audience to concentrate exclusively on the presenter's speech for key details (Asri Ruhaya Sari, 2023). A study carried out by Rokhaniyah (2021) revealed that Pecha Kucha was a more effective teaching aid than traditional PowerPoint slides as it decreased lethargy caused by complex PowerPoint slides (Ramos-Rincón et al., 2018; Asri Ruhaya; 2023). However, Liao MK et al. (2020) asserted in their study that traditional and Pecha Kucha formats differ primarily in terms of audience engagement in terms of learning experiences. Specifically, the focus on prioritizing presentation material that can be delivered effectively under the time constraints of the Pecha Kucha format. Additionally, it promotes their visual design literacy while building oral communication skills as well as increasing their motivation in the learning process (Belmamoune, S., & Gasmi, M., 2020).Add hypothesis development (10 font)

3. Methods

A total of 52 students from Retail Management class have participated in the survey distributed from April to May 2022. This study adapted purposive sampling by selecting the Bachelor of Marketing students who enroll in the Retail Management subject due to the fact that this subject assess communication skill. The questionnaires were distributed online using google form platform. The descriptive analysis were carried out and data was presented in percentage. Questions were adapted from Solman (2019) so as to adjust to the subjects nature.

4. Results and Discussion

The results show that learning activities using Pecha Kucha could improve students' speaking skills and self-confidence. By means of Pecha Kucha technique students were trained to summarize information and present it effectively in limited time. Learning to speak became more fun and students realized the importance of choosing the right word to speak effectively. The least popular items receive less than 70% of the votes, including Pecha Kucha which promoted better understanding of the retail subject I presented, improved my English speaking and presentation skills, and contributed to the development of confidence. For other items, majority of the respondents vote strongly agreed to the statements (refer Table 2)
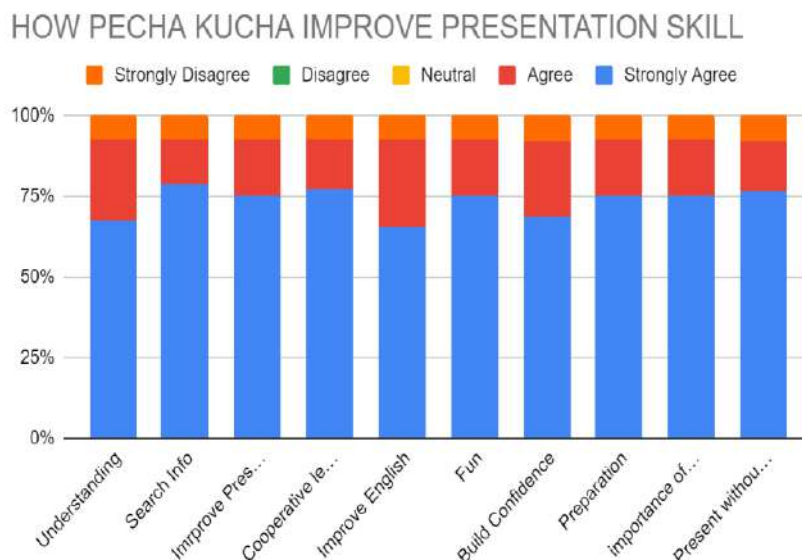
Figure 1: How Pecha Kucha Improve Students' Presentations Skills

Table 2: How Pecha Kucha Improve Communication Skills

How Pecha Kucha Technique Improve Communication Skills	Strongly Agree	%	Agree	%	Neutral	%	Disagree	%	Strongly Disagree	%
Pecha Kucha [improved my understanding of the retail subject that i presented.]	35	67	13	25	0	0	0	0	4	8
Pecha Kucha [encouraged me to find more information on the subject.]	41	79	7	13	0	0	0	0	4	8
Pecha Kucha [were an effective tool to help in improving presentation.]	39	75	9	17	0	0	0	0	4	8
Pecha Kucha [encouraged cooperative learning (learning with peers).]	40	77	8	15	0	0	0	0	4	8
Pecha Kucha [improved my English speaking and presentation skills.]	34	65	14	27	0	0	0	0	4	8
Pecha Kucha [provided a fun learning environment.]	39	75	9	17	0	0	0	0	4	8
Pecha Kucha [helped in build confidence while presenting.]	35	67	12	23	0	0	0	0	4	8
Pecha Kucha [made me prepare myself for each presentation.]	39	75	9	17	0	0	0	0	4	8
Pecha Kucha [created awareness on the importance of preparation before doing any presentation.]	39	75	9	17	0	0	0	0	4	8
Pecha Kucha [taught me to present without too much relying on text in the slides.]	39	75	8	15	0	0	0	0	4	8

Student's comments
The survey included a section with open-ended questions. This section was optional for the students. Here are some of the comments found in this study:

What do you like about Pecha Kucha oral presentations in this class?
Managing our script so that we focus on the main point of the topic.
It can train my speaking and presentation skills with creatively.
Save time, not so boring
An effective presentation because less words used and simple presentation to understand.
the slides are more attractive with more pictures.
Deliver my message in the best, short and optimum notes.
Simple and accurate information.
It's fun and can see everyone's creativity.
Fun and challenging
Improve my speech
I got new experience and improve my presentation skills. Besides, encourage me to find important point.
Point out the important point.
It is interesting.
Can enhance our presentation skills and speaking skills.
It makes me more confident to present without reading the slides or text because it is based on picture only and just focus about the main point of the slide
Present the best part in about the topic, make it short but informative.
Unique presentation because it has a limit time.
Help students to deliver important message in short time.

When asked on whether this technique improve their presentation skills, majority of the students agreed that Pecha Kucha technique helped them to improve presentation skills and increase confidence while presenting. It was found that majority of students commented time and lack of flexibility as the drawback of this technique.

5. Conclusion
As a whole, students tend to have positive attitudes and views towards the use of the Pecha Kucha format in general. However, time constraints and lack of flexibility were reported as drawbacks, despite students reporting that they enjoyed creating and presenting using this format. Pecha Kucha presentation method is recommended for individual project presentation due to its format that will increase students' skills of presenting ideas, solutions and proposal.

Acknowledgement

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The Analysis of Factors Affecting Interest in Continuing to Use Shopee Pay Later

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Abstract

This study aims to determine the factor that influences behavioral intention using Shopee Pay Later. This study used the Theory of Acceptance and Use Technology 2 (UTAUT 2). This research used a quantitative approach. The sampling technique that was used in this study was purposive sampling. Research data was obtained from an online questionnaire survey. Respondents in this study were the user of Shopee with a total sample of 184 people. Multiple regression analysis was used to analyze the data The study shows that 1) performance expectation, effort expectation, social influence, facilitating condition, hedonic motivation, price value, and habit influences the behavioral intention using Shopee Pay Later.

Keywords

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1. Introduction

Globalization in the millennial era has had a major impact on various sectors of human life, one of which is the financial technology sector. Currently, information technology is increasingly being used by the community, resulting in people's lifestyles changing to be fast-paced. Along with the community's needs, various businesses have emerged that offer technology-based financial services, or Financial Technology (Fintech). Financial technology is an entity that unites technology with features of financial services. Financial technology is a technology-based industry in supporting the financial system and providing financial services more effectively and efficiently. Financial technology provides users with various financial services and products in an easy and profitable way (Ginantra et al., 2020).

Pay later is a payment method that provides installment facilities without a credit card with a system of buying products now and paying for transactions later. Currently, pay later is used as a marketing strategy employed by various e-commerce platforms to attract customers such as Shopee, Traveloka, Tokopedia, Lazada, and BliBli (Eviana and Saputra, 2022). According to research conducted by Pratika et al. (2020), there is a close relationship between e-commerce products and pay later. This is because companies that provide payment services using pay later are able to attract consumers to make purchases in e-commerce even though they delay paying for them.

Shopee is one of the largest e-commerce sites in Indonesia and provides a pay later product service called Shopee Pay Later or better known as SPayLater. SPayLater can only be used by active Shopee users who are deemed to have met the requirements to use it. Customers who use SPayLater can make purchases in advance and make payments at the end (installments over the next several months). This makes it very easy for customers to shop and make payments. As with credit cards, there is a borrowing limit provided by Shopee for SPayLater users and does not tolerate if SpayLater users are late in making payments.

According to research conducted by DailySocial that was launched from Databoks Katadata and involving 1500 respondents, the most widely used pay later service throughout 2021 was Shopee Pay Later as much as 78.4%. Then in the second place of interest is Gopay Later with a percentage of 33.8%. Furthermore, 23.2% use the pay later feature on the Kredivo platform, Aku Laku at 20.4%, Traveloka Pay Later at 8.6%, Indodana at 3.3%, and Home Credit at 2.8% (DailySocial.id, 2021).

Shopee is an e-commerce platform that is in great demand by the public and provides pay-later product services. Therefore, the author wants to do research to find out what factors influence people's interest in using the pay later at Shopee application. This study uses the model theory developed by Venkatesh et al. (2012) namely the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). This model states that behavioral intention to use technology is influenced by several factors, namely performance expectancy, effort

expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit. In addition to these factors, the authors add a technology security factor in this study. Security of technology (security) is a guarantee for users to believe that users personal data cannot be accessed and misused by others when conducting online transactions. An individual will use technology if the level of security of the technology is high (Kumala, Prananta, and Thio, 2020).

This study aims to examine the effect of performance expectations, business expectations, social influences, facilitating conditions, hedonic motivation, price values, habits, and security on the use of the Shopee Pay Later feature. This research provides a theoretical contribution by providing new data that tests the UTAUT 2 theory in the context of using technology applications on the Shopee Pay Later feature in Indonesia. This research also provides a practical contribution for business actors and application developers to consider the main factors that become the needs of users of financial technology application services such as online credit financing.

2. Theoretical Foundation

Unified Theory of Acceptance and Use Technology 2

Unified Theory of Acceptance and Use Technology 2 (UTAUT 2) is a development model of the Unified Theory of Acceptance and Use Technology (UTAUT) proposed by Venkatesh et al. (2003). The Unified Theory of Acceptance and Use Technology (UTAUT) is used to determine the actual effect of interest in using new technology. The Unified Theory of Acceptance and Use Technology (UTAUT) formulation consists of 4 indicators, namely performance expectancy, effort expectancy, social influence, and facilitating conditions.

Unified Theory of Acceptance and Use Technology 2 (UTAUT 2) is a development of UTAUT by adding new indicators, namely hedonic motivation, price value, and habit (Venkatesh et al., 2012). In the Unified Theory of Acceptance and Use Technology (UTAUT 2), there are 7 indicators, namely: performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit.

Pay Later

Pay later is a new technology in the payment system that provides installment facilities without using a credit card by buying a product now and paying for it later. Pay later provides easy access for users to register and verify. Shopee Pay Later, abbreviated as SPayLater, is a pay later product owned by one of the e-commerce companies, namely Shopee which was present on March 6, 2019. Shopee collaborates with PT Lentera Dana Nusantara which is registered and supervised by OJK (Financial Services Authority) (Orientani and Kurniawati, 2021).

SPayLater is not a payment system that uses cash and carries system, but a "Buy Now, Pay Later" system or a system for purchasing goods at Shopee where payment is made later. When making SPayLater payments, purchases can be made in advance and paid in the following month (in installments over several months). Payment using SPayLater is the same as shopping using a credit card. There is a loan limit in the form of digital money provided by Shopee to SPayLater users (Divine, 2022). SPayLater can only be used by active Shopee users who are eligible to use it. This payment method can be activated if Shopee users have reached the gold level.

3. Hypothesis Development

The Effect of Performance Expectations on Interest in Continuing to Use Shopee Pay Later

Performance expectation is an individual's level of belief that the use of technology will help him to achieve gains in job performance (Venkatesh et al., 2003). If someone believes that a system has a use, then that person will use the system, otherwise, if someone believes that a system is less useful then that person will not use the system. It can be concluded that individuals will tend to use financial technology if the technology can help and facilitate their work.

Previous research conducted by Mukminin, Rachman, and Wahyudi (2019) showed that performance expectations had a significant positive effect on users' intentions to use pay later in the Traveloka application. In addition, Adirinekso (2021) shows that interest in using fintech pay later is influenced by performance expectations. So, it can be concluded that the interest in using pay later is influenced by performance expectations. Based on the exposure and previous research, hypothesis 1 of this study is formulated as follows:

H1: Performance expectations have a positive effect on interest in continuing to use Shopee Pay Later

The Effect of Business Expectations on Interest in Continuing to Use Shopee Pay Later

Business expectation is the level of ease associated with using the system (Venkatesh et al., 2003). The ease that is felt by the individual in using a system will cause the individual to believe that the system is useful, and the

individual will feel comfortable using the system. If someone believes that a system is easy to use then that person will use it, whereas if someone believes that a system is difficult to use, then that person will not use the system.

Previous research conducted by Mukminin, Rachman, and Wahyudi (2019) showed that business expectations had a significant positive effect on users' intentions to use pay later in the Traveloka application. In addition, Adirinekso (2021) shows that interest in using fintech pay later is influenced by business expectations. Based on the exposure and previous research, hypothesis 2 of this study is stated as follows:

H2: Business expectations have a positive effect on interest in continuing to use Shopee Pay Later

The Effect of Social Influence on Interest in Continuing to Use Shopee Pay Later

Social influence in using technology is the extent to which an individual feels that other people influence the individual to use a technology (Venkatesh et al., 2003). Humans are social beings who cannot stand alone. Humans need the help of others in carrying out their activities, including in making decisions. Humans tend to make decisions based on the influence of others. Including decisions to accept new technology related to finance. People around users play an important role in influencing interest in using financial technology such as pay later.

Previous research conducted by Fadhila, Azhar, and Marpaung (2020) showed that social factors had a positive and significant effect on the decisions of Shopee Pay Later users. Research conducted by Adirinekso (2021) also states that social influences affect the interest in using fintech pay later. Based on the exposure and previous research, research hypothesis 3 is stated as follows:

H3: Social Influence has a positive effect on interest in continuing to use Shopee Pay Later

The Effect of Facilitating Conditions on Interest in Continuing to Use Shopee Pay Later

Facilitating conditions are the extent to which an individual believes that the organizational infrastructure and technical services support the use of a technology (Venkatesh et al., 2003). Facilitating conditions can be in the form of the availability of guidelines that are quite complete in using technology and can help individuals if they experience difficulties in using the technology. Individuals will be motivated to use a technology if the technology provides services, resources, and support that can be easily understood.

Previous research conducted by Mukminin, Rachman, and Wahyudi (2019) showed that the intention to use pay later in the Traveloka application was influenced by facilitating conditions. In addition, Adirinekso (2021) and Eviana and Saputra (2022) also show the influence of facility conditions on interest in using fintech pay later. Thus, it is predicted that the interest in using pay later is influenced by facilitating conditions. Based on the exposure and previous research, hypothesis 4 stated as follows:

H4: Facilitating conditions have a positive effect on interest in continuing to use Shopee Pay Later

The Effect of Hedonic Motivation on Interest in Continuing the Use of Shopee Pay Later

Hedonic motivation is the pleasure obtained from using technology (Venkatesh et al., 2012). A person's hedonic motivation arises when they feel pleasure and satisfaction when using financial technology, such as the use of mobile payments (Prasetya and Purnamawati, 2020). Previous research conducted by Adilang, Oroh, and Moniharapon, (2014) showed that hedonic motivation influenced online product purchases. This is supported by research by Arij and Suwitho (2021) which found that the hedonic aspect of motivation has a significant and positive effect on impulsive buying on Shopee.co.id. Furthermore, research conducted by Adirinekso (2021) shows that interest in using fintech pay later is influenced by hedonic motivation. This study is supported by the results of research by Eviana and Saputra (2022) which states that hedonic motivation has a positive and significant influence on interest in using the pay later payment method. So, it can be concluded that hedonic motivation affects the interest in using the Shopee Pay Later feature. Based on the exposure and previous research, hypothesis 5 is stated as follows:

H5: Hedonic motivation has a positive effect on interest in continuing to use Shopee Pay Later

The Influence of Price Value on Interest in Continuing to Use Shopee Pay Later

The value of the price (price value) is a situation someone weighs benefits and sacrifices. The value of the price of financial technology can affect the interest in using financial technology. Venkatesh et al. (2012) stated that the price value will be responded to positively when the benefits of using technology are greater than the monetary costs incurred. Furthermore, the price value has a positive impact on the intention to use the technology.

Previous research conducted by Putri and Suardikha (2020) showed the results that the price value influenced the intention to use e-money. Another study conducted by Prasetya and Purnamawati (2020) showed

that the interest of accounting students to use OVO mobile payments was positively and significantly influenced by the price value. Based on the exposure and previous research, the 6 research hypotheses are stated as follows:

H6: The price value has a positive effect on the interest in continuing to use Shopee Pay Later

The Influence of Habit on the Use of Shopee Pay Later

Habit is the extent to which users often use technology and become a habit of using that technology (Prasetya and Purnamawati, 2020). If an individual does something continuously, it will become a habit. The more accustomed someone using financial technology, the more interested someone will continue to use financial technology.

Previous research conducted by Putri and Suardikha (2020) showed the results that habit affects the behavior of using e-money. In addition, research conducted by Adirinekso (2021), shows the results that habit has a significant effect on interest in using fintech pay later. Based on the exposure and previous research, hypothesis 7 is stated as follows:

H7: Habit has a positive effect on interest in continuing to use Shopee Pay Later

The Influence of Technology Security on Interest in Continuing to Use Shopee Pay Later

Technology security is a demand that users' personal data cannot be accessed and misused by others when making transactions (Kumala, Prananta, and Thio, 2020). Doing transactions online raises concerns for consumers. The concern is in the form of misuse of consumer personal data submitted to service providers when using these technology services. Technology security is an important indicator of building public trust and interest in using technology. If consumers believe in the security of technology, this is a reason for consumers to use the technology.

Previous research conducted by Kumala, Pranata, and Thio (2020) showed the results that technology security had a positive and significant influence on interest in using GoPay. Mahardika, Fauzi and Mardi (2021) also found that technology security has a positive effect on interest in using the LinkAja Syariah fintech payment. Based on the exposure and previous research, hypothesis 8 is stated as follows:

H8: Technology security has a positive effect on interest in continuing to use Shopee Pay Later

4. Method

Sample

The sample of this research is the Shopee Pay Later application users in several cities in Indonesia. The sampling technique used was the convenience sampling technique. The data used in this study are primary data obtained from questionnaires distributed to respondents online. Questionnaires were distributed online using a google form to the public. A total of 184 samples were obtained and all of them met the requirements for further analysis.

Variable and Measurement

The independent variables in this study are performance expectations, business expectations, social influences, facilitating conditions, price values, hedonic motivation, habit, and technology security. The dependent variable in this study is the interest in continuing to use the Shopee Pay Later feature. Each question posed in the questionnaire was measured using a Likert scale, a scale of 1: Strongly Disagree to 5: Strongly Agree. All variables used to measure the independent variables representing the UTAUT 2 model were adapted from Venkatesh et al. 2012.

Data Analysis

The data was processed and tested using the SPSS program. The data analysis includes descriptive statistical tests, classical assumption tests, F tests, and T-tests. This study uses multiple linear regression analysis to test the proposed hypothesis. Multiple regression analysis was used to determine the effect of independent variables, namely performance expectations, business expectations, price values, facilitating conditions, hedonic motivation, social influences, habits, and technology security on interest in continuing to use Shopee Pay Later (SPayLater). The research model is as follows:

Model 1:

$$Continue\_Using = \alpha + \beta_1 Performance\_Expectation + \beta_2 Effort\_Expectation + \beta_3 Social\_Influence + \beta_4 Facilitating\_Cond + \beta_5 Hedonic + \beta_6 Price\_Value + \beta_7 Habit + \beta_8 Secure + \varepsilon$$

Model 2:

$$Continue\_Using = \alpha + \beta_1 Performance\_Expectation + \beta_2 Effort\_Expectation + \beta_3 Social\_Influence + \beta_4 Facilitating\_Cond + \beta_5 Hedonic + \beta_6 Price\_Value + \beta_7 Habit + \beta_8 Secure + \beta_9 Gender + \beta_{10} Age + \beta_{11} Education + \varepsilon$$

Model 2 is a development of Model 1 by adding the variables of gender, age, and education level which are the control variables in this study.

5.   Result

The respondents of this research are people who use the Shopee application and use the Shopee Pay Later feature. Data was collected by distributing questionnaires to the public online. A total of 184 questionnaires were distributed using Google Forms. All the questionnaires met the requirements for further analysis.

Based on Table 1, most respondents are female. There are 37% of respondents are male and 63% of respondents are female. Characteristics of respondents based on age were divided into 4 groups, namely respondents with age 20 years, age 21-30 years, age 31-40 years, and age > 40 years. Based on the table above, from 184 respondents, 6.5% of respondents aged 20 years, 65% of respondents aged 21-30 years, 8.7% of respondents aged 31-40 years, and 19% of respondents aged > 40 years. So, most respondents who use Shopee Pay Later are the millennial generation between the ages of 21-30 years.

Characteristics of respondents based on their education were grouped into 6 groups, namely elementary school, junior school, senior high school, diploma, undergraduate, and postgraduate. Based on Table 1, the percentage of respondents' last education is as much as 0.5% of respondents graduated from elementary school, 2.2% of respondents graduated from junior high school, 41.3% graduated from high school, 7.6% of respondents graduated from diploma, 44.6% of respondents graduated from undergraduate and 3.8% of respondents are postgraduate. It can be concluded that the majority of Shopee Pay Later users are people with the last education of senior high school and undergraduate.

Table 1: Characteristic of Respondent

Characteristic	Σ	%
Gender		
Male	68	37.0%
Female	116	63.0%
Age		
≤ 20 years old	12	6.5%
21 - 30 years old	121	65.8%
31- 40 years old	16	8.7%
> 40 years old	35	19.0%
Education		
Elementary school	1	0.5%
Junior school	4	2.2%
Senior high school	76	41.3%
Diploma	14	7.6%
Undergraduate	82	44.6%
Postgraduate	7	3.8%

Descriptive Analysis

Descriptive statistical analysis in this study is intended to provide information about the value of the research variables. Descriptive statistical analysis consists of minimum value, maximum value, mean value, and standard deviation for the variables. The results of the descriptive statistical analysis of research variables are presented in Table 2.

Table 2: Descriptive Statistic

Variables	Min.	Max.	Mean	Std. Deviation
Performance Expectation	1,00	5,00	3,80	1,02
Effort Expectation	1,00	5,00	3.98	1,01
Social Influence	1,00	5,00	3,59	1,09
Facilitating Condition	1,00	5,00	3,72	1,01
Hedonic Motivation	1,00	5,00	3,64	1,16

Price Value	1,00	5,00	3,64	1,07
Habit	1,00	5,00	3,45	1,25
Technology Security	1,00	5,00	3,68	1,03
Interest to continuing using SP Later	1,00	5,00	3,48	1,18

n = 184

Based on Table 2, it can be seen that the performance expectation variable has an average value of 3.98 (SD = 1.01), an average social influence of 3.59 (SD = 1.09), an average facilitating condition of 3.72 (SD = 1.01), the average hedonic motivation of 3.64 (SD = 1.16), the average price value of 3.64 (SD = 1.07), the average habit of 3.45 (SD = 1.25), the average technology security was 3.68 (SD = 1.03), and the average interest in continuing to use was 3.48 (SD = 1.18).

Validity and Reliability

This test is used to measure how well the research instrument used (Sekaran & Bougie, 2016). The method used to test the validity of the research instrument used is by looking at the results of the Pearson-Correlation test. If the r value > r table, then the question item can be said to be valid. This r table calculation uses the assumption that df = (N-2) is 182 (184-2) with a significance of 0.05. The result of r table is 0.1447.

Based on the results of the Pearson correlation test, it was found that all question items had a correlation value greater than r table with the lowest r value 0.829 and the highest 0.969. Thus, it can be concluded that the research instrument used is valid. Instrument reliability testing is intended to ensure that the instruments used are stable and reliable. Reliability test was measured using Cronbach's Alpha method. Based on the results as shown in Table 3, it is known that all variables have Cronbach's Alpha values above 0.9 so it can be concluded that this research instrument has met the high reliability element.

Table 3: Validity & Reliability

Variable	Code	r	Cronbach's Alpha	Variable	Code	r	Cronbach's Alpha
Performance Expectation	EK1	0,915	0,953	Hedonic Motivation	MH1	0,954	0,961
	EK2	0,953			MH2	0,959	
	EK3	0,943			MH3	0,949	
	EK4	0,914			MH4	0,927	
Effort Expectation	EU1	0,944	0,962	Price Value	NH1	0,953	0,923
	EU2	0,955			NH2	0,930	
	EU3	0,961			NH3	0,929	
	EU4	0,934		Habit	K1	0,966	0,956
Social Influence	PS1	0,829	0,918		K2	0,961	
	PS2	0,927			K3	0,950	
	PS3	0,935		Security of Technology	KT1	0,932	0,931
	PS4	0,895			KT2	0,956	
Facilitating Condition	KM1	0,872	0,907		KT3	0,926	
	KM2	0,894		Continue Using SP Later	MP1	0,969	0,956
	KM3	0,856			MP2	0.965	
	KM4	0,922			MP3	0,943	

Classical Assumption Test Result
Prior to the T-test, the classical assumption test was first performed. Classical assumption tests performed include tests of normality, multicollinearity, and heteroscedasticity. Normality test is used to determine whether the data is normally distributed or not. This study used the Kolmogorov-Smirnov test. The data is said to have been normally distributed or not in the Kolmogorov-Smirnov test, that is, if the significance value is 0.05, then the residuals are normally distributed. The results of the normality test with Kolomogorov-Smirnov obtained a Z value of 1.183 (Sig. = 0.122) so it can be interpreted that the residuals in this study are normally distributed.

Multicollinearity can be seen from the value of Tolerance and Variance Inflation Factor (VIF). If the Tolerance value 0.10 or VIF 10 then there is no multicollinearity in the regression. This study uses the Glejser test to test heteroscedasticity. The basis for making this test decision is to look at the output results in the sig column in the coefficient table, if the significance value is > 0.05 then there is no heteroscedasticity.

Table 4: Multicollinearity & Heteroscedasticity

Variable	Tolerance	VIF	Glejser Test (Sig.)
Performance Expectation	0.231	4.336	0.067
Effort Expectation	0.388	2.576	0.570
Social Influence	0.408	2.454	0.093
Facilitating Condition	0.372	2.691	0.976
Hedonic Motivation	0.156	6.404	0.676
Price Value	0.260	3.852	0.252
Habit	0.215	4.660	0.858
Security of Technology	0.287	3.487	0.088

Based on the results of the multicollinearity test, all independent variables have a tolerance value of more than 0.10 and a VIF of less than 10, so it can be concluded that all variables in this study are free from multicollinearity. Then for the heteroscedasticity test, based on the results of the Glejser test, it was found that all independent variables in this study had a significance value > 0.05. Thus, it can be concluded that all the variables are free from heteroscedasticity.

Correlation and Regression Analysis
To determine the level of strength of the relationship between the independent variable and the dependent variable, correlation analysis was performed. Based on the results of the correlation analysis, it is known that all independent variables have a strong and significant correlation to the dependent variable. The results of the correlation analysis are shown in Table 5.

The next analysis is multiple regression which is used to determine the effect of independent variable and dependent variable. Multiple linear regression analysis in this study was used to determine the significance of the influence of performance expectations, business expectations, facilitating conditions, price values, hedonic motivations, social influences, habits, and technology security on interest in continuing to use pay later in the Shopee application. The results of the regression analysis are shown in Table 6.

Table 5: Correlation Analysis

Variable	1	2	3	4	5	6	7	8	9
1. Cont_Using	1								
2. PE	0,822**	1							
3. EE	0,753**	0,677**	1						
4. Social_Inf	0.746**	0,718**	0,610**	1					
5. Facilitat	0,777**	0,646**	0,698**	0,603**	1				
6. Hedonic	0,863**	0,853**	0,732**	0,734**	0,715**	1			
7. Price_Val	0,814**	0,786**	0,661**	0,691**	0,650**	0,806**	1		
8. Habit	0,839**	0,777**	0,665**	0,673**	0,738**	0,844**	0,791**	1	
9. Security	0,806**	0,750**	0,656**	0,661**	0,652**	0,799**	0,778**	0,783**	1

** Sig. < 0,05

Based on the results of the correlation analysis (Table 5), it is known that all independent variables have a strong and significant correlation with the dependent variable. The independent variable that has the strongest correlation with the variable of interest in continuing to use Shopee Pay Later is hedonic motivation (r = 0.863), followed by the habit (r = 0.839), performance expectation (r = 0.822), price value (r = 0.814), technology security (r = 0.806), facilitating conditions (r = 0.777), effort expectancy (r = 0.753), and finally social influence (r = 0.746).

Table 6: Regression Analysis

Independent Variable	Hypothesis	Dependent Variable: Coninuing the Use of SP Later	
		Model 1	Model 2
Constant		-0.818 (-4.974)***	-0.873 (-3.827)***
Performance Expectation	H1 (+)	0.151 (2.184)**	0.163 (2.339)**
Effort Expectation	H2 (+)	0.126 (2.335)**	0.143 (2.471)**
Social Influence	H3 (+)	0.117 (2.386)**	0.113 (2.311)**
Facilitating Condition	H4 (+)	0.214 (3.881)**	0.209 (3.780)**
Hedonic Motivation	H5 (+)	0.151 (2.036)**	0.153 (2.050)**
Price Value	H6 (+)	0.130 (2.088)**	0.129 (2.070)**
Habit	H7 (+)	0.132 (2.256)**	0.124 (2.115)**
Security of the Technology	H8 (+)	0.144 (2.342)**	0.140 (2.252)**
Gender			0.109 (1.492)
Age			0.006 (0.148)
Education			-0.004 (-0.114)
F		128.869***	93.630***
R^2		0.855	0.857
Adjusted R^2		0.848	0.848

** Sig. < 0,05; *** Sig. < 0,01

6.   Discussion

The first hypothesis of this study states that there is an effect of performance expectations on interest in continuing to use Shopee Pay Later. Based on regression analysis results, it can be inferred that performance expectations have a significant positive effect on interest in continuing to use Shopee Pay Later ($\beta = 0.151$; t = 2.184; p < 0.05). Based on these results, then **H1 is supported**. This can be interpreted that one of the reasons people use the Shopee Pay Later feature is because of the convenience provided by the feature so that respondents feel helped and find it easy to improve their work performance.

The second hypothesis states that there is an effect of effort expectations on interest in continuing to use Shopee Pay Later. The regression results show that there is a positive and significant effect of the effort expectation variable on the desire to continue using Shopee Pay Later ($\beta = 0.126$; t = 2.335; p < 0,05). Thus, **H2 is supported**. People use the Shopee Pay Later feature because the Shopee Pay Later feature is easy to learn, clear, and understandable.

This study also found that social influence has a positive significant effect on the interest in continuing to use Shopee Pay Later ($\beta = 0.117$; t = 2.386; p < 0,05). Based on these results, **H3 is supported**. It can be interpreted that people's interest in using Shopee Pay Later is influenced by the social environment. The social environment such as family, friends, or people around the user plays a crucial role in influencing the individual decision to use SP Later.

The fourth hypothesis states that there is an influence of hedonic motivation on the interest to continue using Shopee Pay Later. The results of the regression analysis showed that the facilitating condition had a significant effect on the interest in continuing to use Shopee Pay Later ($\beta = 0.214$; t = 3.881; p < 0.01). Based on these results, then **H4 is supported**. The facilities in the form of technical support provided through the Shopee feature have a very largest impact on public retention to continue using Shopee Pay Later. In addition, the feature is compatible with other financial technologies such as m-banking, as well as a help menu if the customer has difficulty using the feature. Facilitating conditions can be in the form of the availability of complete guidelines and being able to assist users if they experience difficulties in using the technology. People will be motivated to use a technology if the technology provides services, resources, and support that can be easily understood.

This study found that the social influence variable had a positive significant effect on the desire to continue using Shopee Pay Later ($\beta = 0.151$; t = 2.036; p < 0,05). Based on the regression results, **H5 is supported**. The Shopee Pay Later feature provides users with fun that encourages them to continue using the application. According to Venkatesh et al. (2012), hedonic motivation is the pleasure that arises from the use of technology. The pleasure felt by the community for using Shopee Pay Later, encourages people to use the Shopee Pay Later feature and is able to encourage them to use the feature on an ongoing basis.

The price value was found to have a positive and significant influence on the interest in continuing to use Shopee Pay Later ($\beta = 0.130$; t = 2.088; p < 0,05). This means that the higher the price value the more

interest in continuing to use Shopee Pay Later. Based on these results, then **H6 is supported**. So it can be interpreted that the Shopee Pay Later feature has benefits or advantages in the eyes of the public as users of the feature. According to Venkatesh et al. (2012), the price value is positive if the benefits received by users when using technology are greater than the monetary costs incurred. When a technology has a price value in the eyes of its users, it will affect the user's intention and interest to continue using the technology.

This study predicts that the interest to continue using Shopee Pay Later is also influenced by habits. The results of hypothesis testing show that there is a positive influence of the significance of the habit variable on the interest in continuing to use Shopee Pay Later ($\beta = 0.132$; $t = 2.256$; $p < 0,05$). This means that the habit of using Shopee can generate interest in using the Shopee Pay Later feature. Based on these results, then **H7 is supported**. So it can be interpreted that people tend to use the Shopee Pay Later feature for transactions so it becomes a habit to continue to use Shopee Pay Later in transactions.

This study predicts that there is an influence of technology security on interest in continuing to use Shopee Pay Later. The regression analysis results show that the technology security has a positive significant effect on the desire to continue using Shopee Pay Later ($\beta = 0.144$; $t = 2.342$; $p < 0,05$). This means that the higher the level of technology security, the greater the interest in continuing to use Shopee Pay Later. Based on these results, then **H8 is supported**. People want to continue using Shopee Pay Later because they believe the personal information they provide will be protected when using the Shopee Pay Later feature. People believe that their personal data will not be seen or misused by unauthorized parties. The higher the security level of technology, the higher the level of individual trust in the technology. When users believe in the security of a system, then this becomes a reason for users to use the system.

This study also found that the control variables, namely gender, age, and education level had no significant effect on interest in continuing to use Shopee Pay Later. This means that the desire to use Shopee Pay Later is not limited to people with a certain gender, age, and education, but can reach all groups of people. This is certainly an opportunity for the fintech industry to attract customers from various generations and educational backgrounds.

7. Conclusion

This study tried to investigate the factors affecting the interest in continuing to use the Pay Later feature on the Shopee Application. Based on statistical analysis, it can be concluded that the variables of Performance Expectations, Business Expectations, Social Influences, Facilitating Conditions, Hedonic Motivation, Price Values, Habits, and Technology Security have a positive significant effect on the desire to continue to use Shopee Pay Later. Among the eight independent variables, the facilitating condition is the most powerful variable influencing the interest in continuing to use Shopee Pay Later. The desire to continue using Shopee Pay Later is not influenced by factors of gender, age, and education level. The results of this study are expected to be able to add to the treasures of knowledge in the field of accounting information systems and technology. In addition, these research findings can also be used by financial technology providers in developing their products and services of pay later.

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Factors Influencing Indonesian Accounting Students' Interests in Undertaking Professional Accounting Education Program

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Abstract

As a repercussion of the establishment of Mutual Recognition Arrangement (MRA) in ASEAN and global free trade, accountants will be in high demand not only in local businesses but also in global corporations looking to expand into Indonesia. However, the number of professional accountants registered with the Ministry of Finance is still very small. Professional Accounting Education (PAE) program is one of the requirements for Indonesian accountants to be registered with the Ministry of Finance. This study aims to identify the influencing factors for accounting students to undertake PAE program. The respondents of this study are 61 accounting students who are doing or have taken their final assignments and/or undergraduate thesis. Data of this study was collected using survey method. This study uses descriptive statistics and multiple regression analysis for the data analysis. Factors that might influence Indonesian accounting students' interests in undertaking PAE program investigated in this study are self-quality motivation, career motivation, job market consideration, economic motivation, and social motivation. The findings show that career motivation, job-market consideration, economic motivation, and social motivation all positively influence accounting student interests in undertaking PAE program. However, self-quality motivation has no influence in Indonesian accounting students' interest in undertaking professional accounting education program. Future studies can use larger scope and number of respondents to be able to generalize findings to accounting students from different provinces in Indonesia.

Keywords
Accounting, Accountants, Proefessional, Education

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1. Introduction
Career is an individual goal to be achieved in any field of works. Accounting has many career options to choose from, such as public accountants, government accountants, management accountants, auditors, tax professionals, accounting educators and many more. Professional accountants in Indonesia are regulated at the state level by the Minister of Finance (MoF) Decree No. 216/PMK.01/2017 and the Public Accountants Act No. 5 of 2011 and are self-regulated by the mandatory membership in one of Indonesia's professional accountancy organizations: Institute of Indonesia Chartered Accountants (IICA) which regulates Chartered Accountants (CA) and Indonesian Institute of Certified Public Accountants which regulates Public Accountants (International Federation of Accountants, 2023).

There are two pathways to becoming a CA in Indonesia. For the first path, under the Ministry of Higher Education Decree No. 153 of 2014 on the Professional Accounting Education (PAE) program, individuals aspiring to be a CA are required to: (i) complete a bachelor's degree in accounting; (ii) successfully complete the IICA Professional Accounting Education program from an accredited university and pass the IICA exam; and (iii) register with the MoF for the state registered accountant title. In the second path, individuals must complete and pass the CA examination qualification, which is overseen by the IICA. The CA examination comprises seven separate examinations, which candidates must complete over a maximum period of three years. To be a registered accountant by the MoF, an individual must pass either the PAE program or CA qualification, have at least three years of practical experience, and be a member of IICA (Institute of Indonesia Chartered Accountants, 2023).

Currently, the IICA provides recognition of equivalent competency in professional exam subjects to participants who meet one of the following criteria: 1) is an active PAE student; 2) have a certificate from the certification exam conducted by IICA or other accounting professional associations recognized by IICA. The assessment of the number of professional level exam subjects that can be given competency equalization (waiver) according to the PAE organizers' accreditation: 1) maximum of 4 (four) exam subjects for PAE providers who have

an A (Superior) study program accreditation; 2) maximum of 2 (two) exam subjects for PAE providers who have study program accreditation B (Very Good).

In line with the needs of accountants, the accounting profession is growing. The development of the economy in Indonesia will require more and more professional accountants. The increasingly complex competition for accountants globally has caused the Indonesian Government to issue the Law Number 5 of 2011 concerning public accountants in which foreign public accountants must achieve the standard of public accounting for a career in Indonesia. The regulation was issued to anticipate the large number of foreign accountants who will work in Indonesia. In line with this, many universities in Indonesia provide training for Professional Accounting Education as listed in Table 1 below.

Table 1: Accounting Professional Education Host Universities
Source: Widiyani and Badera (2019)

No.	Universities	Status
1.	Diponegoro University	State-owned
2.	Mercu Buana University	Private
3.	Brawijaya University	State-owned
4.	Sumatera Utara University	State-owned
5.	Airlangga University	State-owned
6.	STIE Tridharma Bandung	Private
7.	Indonesia University	State-owned
8.	STIE YKPN Yogyakarta	Private
9.	Riau University	State-owned
10.	Widyatama University	Private
11.	Gadjah Mada University	State-owned
12.	STIE IBII	Private
13.	Sebelas Maret University	State-owned
14.	Stiesia Surabaya	Private
15.	Udayana University	State-owned
16.	Lambung Mangkurat University	State-owned
17.	Padjajaran University	State-owned
18.	STIE Stikubank Semarang	Private
19.	Hasanudin University	State-owned
20.	Sriwijaya University	State-owned
21.	Sam Ratulangi University	State-owned
22.	Universitas Islam Bandung	Private
23.	Lampung University	State-owned
24.	Trisakti University	Private
25.	Andalas University	State-owned
26.	STIE Supra Jakarta	Private
27.	Maranatha University	Private
28.	Tarumanegara University	Private

According to the Financial Profession Development Center in the Indonesian Finance Ministry (Putra, 2021), accounting profession in Indonesia has come a long way since the beginning of ASEAN in 1967 to the day Mutual Recognition Agreement (MRA) among ASEAN countries was signed in 2014. One form of agreement in the MRA is the equalization of competence and expertise of professional accountants who have met the requirements in all ASEAN member countries. Furthermore, professional accountants who have met these qualifications are entitled to the designation ASEAN CPA (Chartered Professional Accountant). This MRA is a great opportunity for accountants to be able to obtain legal certainty, work and be recognized equally in the ASEAN region. In terms of the number of ASEAN CPAs, there are currently 5,192 ASEAN CPA holders in ASEAN and 1,900 of them are ASEAN CPAs from Indonesia. However, this number is still very small when compared to the number of Registered Accountants registered at the Indonesian Ministry of Finance. The comparison is only about 8.6%. Therefore, the Financial Profession Development Center continues to provide support and build synergies with accounting professional associations to increase the number of ASEAN CPA holders from Indonesia.

Meanwhile, The Institute of Chartered Accountants in England and Wales (ICAEW) revealed that according

to data reported by the Center for Financial Profession Development in February 2023, the number of active public accountants registered in Indonesia was 1,464 people and the number of public accounting firms in Indonesia is 472 firms (Anggraeni, 2023). ICAEW Head in Indonesia, Conny Siahaan, argued that this is an indication of a good opportunity to become a public accountant in Indonesia. This is because the number of public accountants is very small when compared to the total population of Indonesia, which reaches more than 281 million people. When compared to neighboring countries such as Malaysia and Singapore, data collected from ASEAN CPA and ASEAN country population data from Worldmeter in early 2023, Indonesia has a public accountant ratio of 1:121,792 to the total population (Anggraeni, 2023). The ratio is quite low; thus, it is important to encourage more accounting students to undertake professional accounting education program after they graduate to enable them to be state-registered accountant and be competitive in the job market.

Furthermore, the signed MRA between ASEAN countries has made professional battles in various fields of work between countries in the region inevitable. The accounting profession is no exception, which is considered an important pillar in national economic development. Former Deputy Minister of Finance, Mardiasmo, asked all accountants in Indonesia to act quickly in facing the free trade era and improving the quality and capacity of a public accountant is an absolute thing that must be done (SMT, 2018). According to Mardiasmo, Indonesian accountants must have the courage to compete, and prospective professional accountants must be more progressive in improving their quality. Still according to Mardiasmo, the development of the accounting profession is currently growing rapidly. All accountants in the world continue to pursue standardization of professional competence, to increase competitiveness with other countries, so that they are not underestimated.

Former Secretary General of the Ministry of Finance, Hardiyanto, acknowledged that out of a total of 57 thousand accountants in Indonesia, not all of them have sufficient standardization of competence as a professional accountant. Therefore, Mardiasmo emphasized that there are three important pillars that must be improved by Indonesian accountants: the level of education, training, and competency tests (SMT, 2018). By boosting the three pillars, Mardiasmo believes the quality level of accountants in Indonesia can be increased.

The interest of accounting students in Indonesia in undertaking professional accounting education program has been investigated before, however, the results are mixed. A previous study by Wangarry et al. (2018) shows that economic motivation has no effect on accounting students' interest in undertaking PAE program. Meanwhile, Aryani and Erawati (2016), Prayoga, et al. (2017), Mudrikah, et al. (2018), Kusmaeni et al. (2020), Rikawati and Arumsari (2020) and Septiani and Ferdiansyah (2022) found that economic motivation has a positive influence on the interest of accounting students to undertake PAE program. Another significant factor for accounting students to decide whether to undertake the PAE program is job market considerations (Mudrikah et al., 2018; Febriyanti 2019, Wangarry et al. 2018, and Rikawati & Arumsari, 2020). Nonetheless, Umriatun (2017) found that job market considerations have no effect on the accounting students' interest to undertake PAE program. Other factors that were found to have positive influence on accounting students' interest in undertaking PAE program are social motivation (Prayoga et. al., 2017), self-quality motivation (Aryani & Erawati, 2016; Mudrikah et al., 2018; Yanti et al. 2018; Kusmaeni et al. 2020 & Septiani and Ferdiansyah, 2022) and career motivation (Aryani & Erawati, 2016); Prayoga et al., 2017; Mudrikah et al., 2018; Kusmaeni et al., 2020; and Septiani & Ferdiansyah, 2020).

The low ratio of the number of professional accountants to the Indonesian population and the inconsistent results of previous research has encouraged the authors of this study to investigate the factors that influence the interest of accounting students to undertake professional accounting education program. The interests to undertake PAE program among Indonesian accounting students are crucial for increasing the number of professional accountants in Indonesia.

2. Literature Review

Maslow's hierarchy of needs is a theory that explains motivation of humans based on their pursuit of different levels of needs (Corporate Finance Institute, 2023). The Maslow human motivation theory (1954) explains that humans are forced to meet their needs hierarchically. The hierarchical level of needs according to Maslow from the lowest to the highest are physiological (basic), safety, love and belonging, esteem and self-actualization. When someone reaches a higher level, their motivation is more directed towards this level. However, even though their focus is on the higher levels, the humans will continue to pursue lower levels of the hierarchy but with less intensity. Nonetheless, from a more modern perspective one can say that these levels of needs may overlap (Corporate Finance Institute, 2023).

The Maslow hierarchy of needs starts from basic needs such as food, water, shelter, etc. before moving on to higher needs. This theory final goal is to reach the fifth highest level of needs which is self-actualization. Self-actualization is concerned with the realization of the individual's full potential. At this level, people try to be the best they can be. The need for self-actualization can manifest in various ways, such as: acquired skills, continuing

education, utilize skills, knowledge, and talents, chase the dream of life, or looking for happiness.

Basic needs in the lowest hierarchy of needs in the Maslow theory relates to economic needs. According to Rikawati and Arumsari (2020) economic motivation is an impulse that arises in an individual with the aim of achieving financial rewards to fulfil one's needs. Accounting students undoubtedly will have economic motivation when they decide to undertake PAE. The previous findings on economic motivation of accounting students to undertake PAE program have shown mixed results. Wangarry et al. (2018) found that economic motivation has no effect on accounting students' interest in undertaking PAE program. Meanwhile, Aryani and Erawati (2016), Prayoga, et al. (2017), Mudrikah, et al. (2018), Kusmaeni et al. (2020), Rikawati and Arumsari (2020) and Septiani and Ferdiansyah (2022) found that economic motivation has a positive influence on the interest of accounting students to undertake PAE program.

The next level of needs in Maslow theory after the basic needs is safety and this relates to having a job or work. According to Mudrikah et al. (2018) job market considerations include job availability, job security, career flexibility, and promotion opportunities. Mudrikah et al. (2018) found that job market considerations are important when accounting students decide whether to undertake the PAE program. This is supported by the findings from Febriyanti (2019), Wangarry et al. (2018), and Rikawati and Arumsari (2020) who found that job market consideration has a positive influence on accounting students' interest in undertaking PAE program. However, a study by Umriatum (2017) shows that job market consideration has no effect on the accounting students' interest to undertake PAE program. Another level of needs after safety is love and belonging which includes social needs. Social motivation can be interpreted as the activity of an individual who thinks more about the impact on others when making decisions. Previous study by Prayoga et al. (2017) shows that social motivation has a positive influence on accounting students' interest in undertaking PAE program.

The next level of needs is esteem. One of the esteem manifestations is acquired skills and this is closely related to self-quality motivation. According to Aryani and Erawati (2020) self-quality motivation is a person's motivation that aims to improve the ability and quality in oneself so that that person has high self-quality. Self-quality motivation will encourage a person to go deeper or learn something new in that person's field of work or profession. As a result of acquiring skills, that person can carry out the job better, properly, and correctly; and in the end the person will gain respect and admiration from others. Studies by Aryani and Erawati (2016), Mudrikah et al. (2018), Yanti et al. (2018), Kusmaeni et al. (2020) and Septiani and Ferdiansyah (2022) found that self-quality motivation has a positive influence on accounting students' interest in undertaking PAE program.

Self-actualization can also encourage one's motivation for a better career. Career motivation is the goal of an individual to achieve the desired goals. This goal can be in the form of a career advancement or position that is desired and better than before, and with this desire, people encourage themselves to further increase their will and quality (Mudrikah et al., 2018). Previous studies by Aryani and Erawati (2016), Prayoga et al. (2017), Mudrikah et al. (2018), Kusmaeni et al. (2020), and Septiani and Ferdiansyah (2022) found that career motivation has a positive influence on accounting students' interest in undertaking PAE program.

Based on the discussion, the following hypotheses can be developed:

H1: Economic motivation has a positive influence on students' interest in undertaking professional accounting education program.
H2: Job market consideration has a positive influence on students' interest in undertaking professional accounting education program.
H3: Social motivation has a positive influence on students' interest in undertaking professional accounting education program.
H4: Self-quality motivation has a positive influence on students' interest in undertaking professional accounting education program.
H5: Career motivation has a positive influence on students' interest in undertaking professional accounting education program.

3. Methods

The population of this study are active students majoring in accounting in Daerah Istimewa Yogyakarta province, Indonesia, and the samples are selected using purposive sampling technique. The sampling selection criteria are students majoring in accounting who are doing or have taken their final assignments and/or undergraduate thesis. The research method used in this study is a survey method. The minimum number of samples was determined using Roscoe (1975) formula and the minimum sample of this study is 50. A total of 150 questionnaires were distributed and 61 of them were able to be used for this study. Data analysis in this study were performed by using SPSS software version 26.0 and statistical tests conducted were descriptive statistics, validity and reliability test, classical assumption test and multiple regression analysis.

4. Results and Discussion
This section discusses data collection results, validity and reliability tests, classical assumption tests, numerical results, and discussion.

4.1 Data Collection
This section discusses the results of data collection and demography of the respondents. Table 2 shows the data collection results of this study.

Table 2: Data Collection Results
Source: Processed Data

Information	Total	Percentage
Questionnaires distributed	150	100 %
Unreturned questionnaires	89	59,33 %
Returned questionnaires	61	40,67 %
Complete questionnaires	61	100%

Table 3 displays the gender of the respondents of this study. The results show that there are more male respondents than female respondents in this study.

Table 3: Gender of the Respondents
Source: Processed Data

Gender	Frequency	Percentage
Male	34	54.84%
Female	27	43.55%
Total	61	100.00%

Table 4 shows the age of the respondents of this study. The results show that most of the respondents are 22 years old.

Table 4: Age of the Respondents
Source: Processed Data

Age (yo)	Frequency	Percentage
20	5	8.20%
21	21	34.43%
22	23	37.70%
23	7	11.48%
24	1	1.64%
25	4	6.56%
Total	61	100.00%

Table 5 displays the home university of the respondents. From Table 5, it can be said that the respondents of this study are quite diverse since they come from different universities in Daerah Istimewa Yogyakarta province. Table 5 also shows that most of the respondents of this study are from Gadjah Mada University and Ahmad Dahlan University.

Table 5: Home University of the Respondents
Source: Processed Data

No.	University	Frequency	Percentage
1.	Universitas Islam Indonesia (UII)	7	11.48%
2.	Gadjah Mada University (UGM)	11	18.03%
3.	State University of Yogyakarta (UNY)	6	9.84%
4.	Universitas Muhammadiyah Yogyakarta (UMY)	10	16.39%
5.	Ahmad Dahlan University (UAD)	11	18.03%
6.	Atma Jaya Catholic University Yogyakarta (UAJY)	9	14.75%
7.	Universitas Teknologi Yogyakarta (UTY)	1	1.64%

8.	Universitas Amikom Yogyakarta (AMIKOM)	1	1.64%
9.	Universitas Kristen Duta Wacana (UKDW)	1	1.64%
10.	Sanata Dharma University (USD)	1	1.64%
11.	STIE YKPN Yogyakarta	1	1.64%
12.	Universitas Nahdlatul Ulama (UNU)	1	1.64%
13.	Proklamasi 45 University Yogyakarta	1	1.64%
Total		61	100.00%

4.2 Validity and Reliability Tests

The validity of the questionnaire items of this study was conducted by using Pearson's Correlation Coefficient. The sig. value obtained is 0.00 for all the items to measure variables which is smaller than the significance level of 0.05. Hence, it can be inferred that all the questionnaire items are valid. The reliability test was carried out using Cronbach's alpha. The results of the Cronbach's alpha test show that the lowest Cronbach's alpha value is 0.751 and the highest is 0.881. A Cronbach's alpha value that is above 0.70 is considered a minimum measure of internal consistency (Nunnally & Bernstein, 1994). These results indicate that the questionnaire items employed in this study are consistent and reliable.

4.3 Classical Assumption Tests

The Kolmogorov-Smirnov test shows the Sig value of 0.200 and this is > 0.05. Thus, it can be inferred that the data of this study is normally distributed. For multicollinearity, the smallest VIF value is 3.317 and the largest is 7.626. Furthermore, the smallest tolerance value is 0.131 and the largest is 0.269. Those results show that the resulting VIF values are <10 and the tolerance value is > 0.10, hence, it can be concluded that there is no multicollinearity problem in this study. For heteroscedasticity, a Glejser test was performed. The results show significance value is 0.253 and this is greater than 0.05. Therefore, it can be concluded that there is no heteroscedasticity found in this study.

4.4 Numerical Results

The measurement scale used in this study is the Likert scale with scoring of 1 to 5. The average categorization of each variable indicators is as follows: 1) 1.00 – 1.8 for Strongly Disagree; 2) 1.81 – 2.6 for Disagree; 3) 2.61 – 3.4 for Neutral; 4) 3.1 – 4.2 for Agree; 5) 4.21 - 5 for Strongly Agree. Table 6 shows the descriptive study results of this study by using the average categorization.

Table 6: Descriptive Statistics
Source: Processed Data

Variables	n	Min.	Max.	Mean	Std. Deviation
Accounting students' interest to undertake professional accounting education (PAE) program	61	1,80	5,00	4,26	0,51
Economic Motivation	61	1,50	5,00	4,15	0,53
Job Market Consideration	61	1,44	4,78	4,25	0,51
Social Motivation	61	1,60	5,00	4,19	0,54
Self-quality Motivation	61	1,40	5,00	4,35	0,46
Career Motivation	61	1,80	5,00	4,26	0,45

Table 7 shows the result of the t test conducted to test the hypotheses of this study. The results show that economic motivation, job market consideration, social motivation and career motivation have a positive and significant influence on accounting students' interest to undertake professional accounting education program. Meanwhile, self-quality motivation has no influence on accounting students' interest to undertake professional accounting education program.

Table 7: T Test Results
Source: Processed Data

Independent Variables	Unstandardized Coefficients B	Standardized Coefficients Beta	t	Sig.	Results
(*Constant*)	3,440		2,451	0,017	
Economic Motivation (X1)	0,170	0,351	3,272	0,002	H1 is supported
Job Market Consideration (X2)	0,280	0,507	3,973	0,000	H2 is supported
Social Motivation (X3)	0,514	0,548	4,999	0,000	H3 is supported
Self-quality Motivation (X4)	0,012	0,023	0,188	0,852	H4 is not supported
Career Motivation (X5)	0,264	0,467	3,034	0,004	H5 is supported

The coefficient of determination results show that the Adjusted R square value is 0.814 or 81.4%. The Adjusted R square value means that the independent variables of economic motivation, job market consideration, social motivation, and career motivation influence 81.4% change in accounting students' interest in undertaking professional accounting education program. The remaining 18.6% is influenced by other independent variables not investigated in this study. Table 8 below shows the coefficient determination results of this study.

Table 8: Coefficient of Determination Results
Source: Processed Data

Model	R	R *Square*	*Adjusted* R^2	Percentage (%)
Multiple Regression Analysis	0,911[a]	0,829	0,814	81,4

For goodness of fit, the F test was conducted. The results show Sig. value of 0.000<0.05 which means significant. Thus, it can be inferred that the regression model employed in this study fits the data. Table 9 below displays the F test results.

Table 9: F Test Results
Source: Processed Data

Model	F	Sig.	Conclusion
Multiple Regression Analysis	53,512	0,000	Significant

4.5 Discussion

For economic motivation, the result of this study is consistent with the Maslow's theory and previous studies by Aryani and Erawati (2016), Prayoga, et al. (2017), Mudrikah, et al. (2018), Kusmaeni et al. (2020), Rikawati and Arumsari (2020) and Septiani and Ferdiansyah (2022) who found that economic motivation has a positive effect on the interest of accounting students to undertake professional accounting education (PAE) program. However, this finding is different from Wangarry et al. (2018) who found that economic motivation has no effect on students' interest in undertaking PAE program. This difference could be due to differences in research locations where this research was carried out in Daerah Istimewa Yogyakarta province and Wanggary et al. (2018) conducted their research in Manado in North Sulawesi province. The difference in findings between this research and Wangarry et al. (2018) might also be related to the Gross Regional Domestic Product per capita of North Sulawesi which is 59.043.360 rupiahs in 2022 which is much higher than Daerah Istimewa Yogyakarta in 2022 which is 44.044.640 rupiahs (Badan Pusat Statistik, 2023). Thus, it makes more sense that economic motivation of students to undertake professional accounting education program will be stronger in Daerah Istimewa Yogyakarta province compared to North Sulawesi province.

The findings of this study regarding job market consideration are also aligned with Maslow's theory and consistent with studies by Febriyanti (2019), Wangarry et al. (2018), and Rikawati and Arumsari (2020) who found

that job market consideration has indeed a positive influence on the interest of accounting students to undertake PAE program. However, the results on job market consideration are different from Umriatun (2017) who found that job market consideration has no effect on students' interest to undertake PAE program. The difference results may be due to differences in the diversity of the sample used. The respondents of this study are quite diverse and come from 13 different universities in Daerah Istimewa Yogyakarta province. Meanwhile, the study by Umriatun (2017) is limited to one university in Semarang city in Central Java province only. Hence, the different perception regarding job market consideration may occur. Social motivation has also shown a significant and positive influence on accounting students' interest to undertake professional accounting education program. The results on social motivation are in accordance with Maslow's theory and previous studies by Prayoga et al. (2017) who found that social motivation has a positive influence on the interest of accounting students to undertake PAE program. Career motivation has also proven to have a significant and positive influence on the interest of accounting students to undertake PAE program. Again, this results support Maslow's theory and a study by Aryani and Erawati (2016), Prayoga et al. (2017), Mudrikah et al. (2018), Kusmaeni et al. (2020), and Septiani and Ferdiansyah (2022) who found that career motivation has a significant and positive influence on the interest of accounting students to take PAE program.

In this study, self-quality motivation does not show any influences on the interest of accounting students to undertake PAE program. This result does not support Maslow theory regarding self-actualization level of needs and different from previous studies by Aryani and Erawati (2016), Mudrikah et al. (2018), Yanti et al. (2018), Kusmaeni et al. (2020) and Septiani and Ferdiansyah (2022) who found that self-quality motivation has a positive influence on accounting students' interest in undertaking PAE program. The difference could be caused by different samples investigated in this study and previous studies. The sample of this study are students from Daerah Istimewa Yogyakarta province, whilst Aryani and Erawati (2016) conducted their research in Bali province, Yanti et al. (2018) in Malang, East Java province, Kusmaeni et al. (2020) in Surabaya, East Java province and Septiani and Ferdiansyah (2022) in Banten province.

5. Conclusion

Based on the results of this study, economic motivation, job market consideration, social motivation, and career motivation have positive and significant influences on accounting students' interest in undertaking the professional accounting education program. However, self-quality motivation does not have any influence on accounting students' interest in undertaking the professional accounting education program.

The implications that can be drawn from this study are for accounting students are expected to be more active and proactive in increasing their capacity, especially in the field of accounting, so that they are more interested in continuing their studies by undertaking PAE program. The Indonesian Institute of Chartered Accountants which oversees accounting profession in Indonesia are expected to maintain the CA certificate waiver pattern for PAE alumni to increase the interest in undertaking PAE program. From the government standpoint, the Ministry of Finance as the regulator for accounting profession in Indonesia should cooperate with universities that operate the PAE program for monitoring the quality of the program, innovating PAE's curriculum to align the program with the needs in the job market, as well as monitoring and evaluating the quality of PAE program graduates. The more students who undertake PAE program, the greater the opportunity for these students to become professional accountants and this is encouraging for the future of accounting profession in Indonesia.

This study is limited in terms of its study participants. All study participants of this study were accounting students who study in universities in Daerah Istimewa Yogyakarta province. Hence, the results of this study may not be able to be generalized to other accounting students in another province in Indonesia. Future studies can use larger scope and number of respondents to be able to generalize findings to accounting students from different provinces in Indonesia.

Acknowledgement

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Integrating Technology Readiness and User Acceptance Model to Identify Determinants of Charge-free Transfer Application

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Abstract

In the last few years, Indonesia has continued to develop its advancement in the financial technology (fintech) area. Flip is a fintech application that provides charge-free interbank fund transfer services. This application has grown very rapidly and in 2021, it has processed trillions of rupiah transactions every month. This study aims to determine the effect of optimism, innovation, discomfort, insecurity, and perceived ease of use on interest in using Flip with perceived usefulness as an intervening variable. The model used is the integration of technology readiness and user acceptance called TRAM. The respondents of this study were 110 people. The primary data used was obtained from online questionnaires. Data analysis techniques using SPSS software. The results of this study are that optimism, innovation, and perceived ease of use have a significant effect on perceived usefulness, and perceived usefulness has a significant effect on interest in using flip applications. Meanwhile, discomfort and insecurity did not significantly influence the perceived usefulness.

Keywords

Financial Technology, Flip, TRAM, Perceived Usefulness, Intention to use

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1. Introduction

In the last few years, Indonesia has continued to innovate, especially in the development of the technological financial systems. Statistical data in 2017 revealed that the value of Financial Technology (Fintech) transactions in Indonesia reached 15 billion US dollars (Utomo, 2017 in Suwardana, 2019). Fintech has the function of being able to provide convenience in sending funds to different banks, both overseas and domestically, to adding funds to digital wallets. With this development, the Financial Services Authority (OJK) together with Bank Indonesia are now very concerned about progress in the field of technology, especially technology in the financial sector. Bank Indonesia has supervised online technology-based financial facilities or services, which are then referred to as fintech or financial technology, strictly because of the many obstacles that may occur in the use of this financial technology (Amalia, 2018).

Flip is a fintech company that provides funds transfer services using the transfer method. Flip currently provides solutions to problems that often arise when transferring funds or sending funds with different banks. Flip in 2016 has numerous users reaching tens of thousands and processing 13 billion rupiah of transactions (Pratama, 2017). Flip is experiencing very rapid development with a total of 6 million users in 2021 and has processed trillions of rupiah in transactions every month (Jatmiko, 2021). In the first half of 2022, Flip recorded an increase in the number of users by more than 10 million users. During the same period, Flip served hundreds of companies through its Flip for Business solutions (Flip, 2022).

In this study, the researchers choose the flip application because by using the flip application, transfers of funds between different banks that previously incurred fees become free of charge or without administration fees. The Flip application has several advantages that distinguish it from other e-wallet applications, such as the Flip Protection feature. The Flip application offers additional protection features for users who buy goods online. If the item ordered does not match the description or is damaged during shipping, the user can submit a claim for a refund. The Flip application Rewards Points also provide reward points for every transaction made by the user. Points collected can be exchanged for various attractive prizes such as shopping discounts and free vouchers. The ease of use of Flip app is designed with a user-friendly interface, making it easy to use even by novice users. In addition, this application also provides payment options via bank transfers and other e-wallets. The many transaction features of the Flip application offer various transaction features, such as money transfers without admin fees, purchasing train tickets, purchasing game vouchers and many more that other e-wallet applications do not have. This flip application also provides a high and sophisticated level of security to protect user data and transactions. In addition, this application also provides fast

and responsive customer reporting and assistance services (Flip, 2022). With these various advantages, the Flip application is one of the choices to facilitate everyday financial transactions. Some of these excellent features have attracted the attention of the authors to conduct research on flip applications.

There are several digital payment studies that have used this TRAM model. The following is a summary of the following previous research:

Table 1: Results of Previous Studies

Variable TRI	The TAM variable	Result	Reference
Optimism	Ease of use	Significant	Faizani dan Indriyanti (2021)
		Not	Martens et al (2017), Khadka & Kohsuwan (2018), Simiyu & Kohsuwan (2019)
	Usefulness	Significant	Faizani dan Indriyanti (2021), Martens et al (2017), Khadka & Kohsuwan (2018)
		Not	Simiyu & Kohsuwan (2019)
Innovativeness	Ease of use	Significant	Faizani dan Indriyanti (2021), Martens et al (2017),
		Not	Simiyu & Kohsuwan (2019)
	Usefulness	Significant	Faizani dan Indriyanti (2021), Simiyu & Kohsuwan (2019), Sinuraya (2019)
		Not	Martens et al (2017), Khadka & Kohsuwan (2018)
	Intention to Use	Significant	Widayati dan Sagoro (2020)
		Not	Afriza *et al* (2020), Rizaldi *et al* (2020)
Discomfort	Ease of use	Significant	Martens et al (2017), Simiyu & Kohsuwan (2019)
		Not	Martens et al (2017), Khadka & Kohsuwan (2018)
	Usefulness	Significant	Martens et al (2017), Khadka & Kohsuwan (2018), Simiyu & Kohsuwan (2019), Rifai et al (2019)
		Not	Anggari (2022)
Insecurity	Ease of use	Significant	Martens et al (2017), Khadka & Kohsuwan (2018), Simiyu & Kohsuwan (2019)
		Not	Martens et al (2017), Khadka & Kohsuwan (2018)
	Usefulness	Significant	Martens et al (2017), Simiyu & Kohsuwan (2019)
		Not	Anggari (2022) , Rifai et al (2019), Martens et al (2017), Khadka & Kohsuwan (2018)

Based on the above explanations, this study will analyze the effect of Optimism, Innovativeness, Discomfort, Insecurity, Perceived Ease of Use to Intention to use Flip Application with Perceived usefulness as an intervening variable. The model to be used is a modified TRAM as in Lin, Shih & Sher (2007) as also used in Andayani and Ono (2020). It is expected the results of the study will enrich findings, especially in the field of digital payment**.**

2. Literature Review
Technology Readiness Index (TRI)
TRI is an index to measure a person's readiness to accept and use a new technology, to achieve a goal in life and work. This method is usually chosen because it can classify users based on positive and negative beliefs about more complex technologies. The TRI method can identify groups of users who feel uncomfortable and insecure because the TRI method has 4 personality variables, namely optimism, innovativeness, discomfort, and insecurity (Parasuraman dan Colby, 2015 and Ariani et. al., 2020).
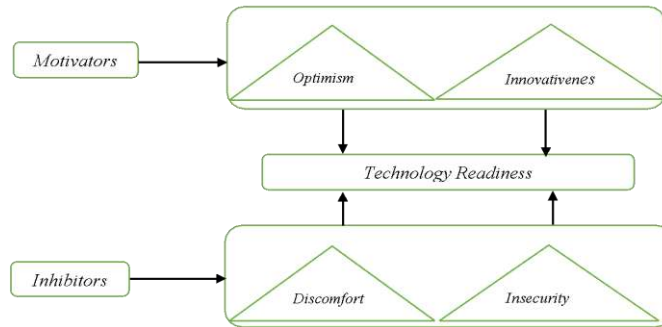
Figure 1: TRI Model

Technology Acceptance Model (TAM)

The TAM model was developed by Davis et al, 1989 who stated that TAM has a goal to provide an explanation of the factors that influence an acceptance of new technology in society. TAM has two variables, Perceived ease of use, which relates to the ease of using a technology system, and Perceived usefulness, which relates to perceived use that provides benefits when using the system and is able to improve the performance of technology users (Venkatesh and Davis, 1996). Both variables can be influenced by external variables. Therefore, they can influence a person's intention in using technology systems (Davis et al., 1989).
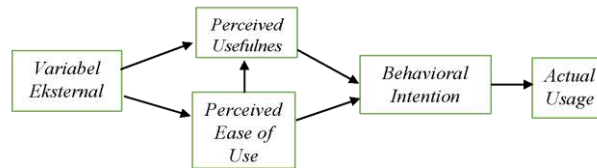

Figure 2: TAM Model

Technology Readiness and Acceptance Model (TRAM)

The TRAM model extends the Technology Acceptance Model (TAM), which is a well-known framework for understanding users' acceptance of information technology. While the TAM primarily focuses on the perceived usefulness and ease of use of technology, the TRAM model adds the dimension of technology readiness. The TRAM model suggests that individuals with higher levels of technology readiness are more likely to accept and adopt new technologies. By considering these four dimensions, researchers can gain a deeper understanding of users' attitudes and behaviors toward technology adoption (lin, Shih, Sher, 2007). Here are variables we use in TRAM model:

- **Optimism** is a trait and attitude that already exists in humans. This attitude contains both positive and negative elements. This attitude of optimism is a choice that a person raises in perceiving a problem. In relation to an acceptance of technology, this optimism can provide a feeling of optimism with the existence of technology so that a feeling or interest in using a technology will arise (Parasuraman & Colby, 2015).
- Khadka and Kohsuwan (2018) say **innovativeness** is a tendency to become a technology pioneer. Innovativeness is one of the variables of the TRI method which gives positive beliefs. In relation to acceptance of technology, innovativeness can make someone interested in trying an experiment using technology.
- **Insecurity** is a variable that describes discomfort when using a new technology. This can be caused by various factors, one of which is privacy issues (Asqia et al., 2022).
- Parasuraman (2000) in Martens et al. (2017) said that **discomfort** is a feeling of lack of control over technology and feelings of discomfort caused by something. This discomfort is a feeling of lack of mastery in operating a system or lack of confidence when using a new technology so that there is a feeling of discomfort in using it.
- **Perceived ease of use** is something that can be used to assess a person's attitude or behavior in accepting a technology. Perceived ease of use shows that individual confidence in using the technology system will not be difficult nor will it require effort or hard work when using it (Sitinjak and Joan, 2019).
- **Perceived usefulness** is defined as the extent where someone believes that using a technology will improve his work (Jogiyanto, 2007 in Prabawalingga and Yadnyana, 2016). From its definition, it is known that the

perception of usefulness is a belief about the decision-making process. Thus, if someone believes that the information system is useful then he will use it (Davis, 1989; Prabawalingga and Yadnyana, 2016).

- **Intention to Use** is a person's or individual's interest in something of course such as an object. Interest is also interpreted as how strong a person is to carry out certain behaviors (Davis, 1989). Intention to use will appear if there is attention, in other words interest is the cause and effect of treatment and attention. Witherrington (1983) says interest is someone who has attention to something being learned, so they have a positive attitude and feel happy about it. Otherwise, the feeling of displeasure will hinder. Interest arises because there are internal and external factors that determine a person's interest (Butarbutar and Harris, 2018).

2.1 Hypothesis Development

Optimism is a dimension that defines positive feelings toward technology and beliefs that can increase control, flexibility, and efficiency in life. According to interviews with several users of the flip application, it was stated that the flip application was more effective and efficient and rarely experienced problems in transactions and there were no admin fees. The use of technology is important to feel that they can use the service (Liljander et al., 2006 in Anggari, 2022). Several previous studies have discussed optimism and innovation in humans and their influence on perceived ease of use and perceived usefulness.

H1: Optimism has a positive effect on the perceived usefulness of using the flip application

Research conducted by Faizani and Indriyanti, (2021) says that if there is an increase in a sense of optimism and innovativeness towards using the QRIS payment method, it will affect the increase in perceived ease of use and perceived usefulness which will also have an impact on increasing user interest in using the QRIS payment method in future. Flip application users also say that the flip application is an application that is easy and simple to use so that consumers are easier to operate.

H2: Innovativeness has a positive effect on the perceived usefulness of using the flip application

According to Liljander et al (2006) in Anggari (2022) said discomfort is a dimension that can determine a person's feelings caused by a lack of control over technology and feeling difficulty in using it. Discomfort in using technology can also be described from users' dissatisfaction with new technology so they feel burdened. Rifai et al (2019) said that discomfort has an influence on the perception of usefulness. This is because users feel uncomfortable due to a lack of understanding regarding the system and operations.

H3: Discomfort has a negative effect on the perceived usefulness of using the flip application

Research conducted by Anggari (2022) in this study stated that there was no influence between the insecurity variable on perceived benefits. In contrast to research conducted by Rifai et al (2019) that insecurity has no effect on perceived usefulness.

H4: Insecurity has a negative effect on the perceived usefulness of using the flip application

A technology that is easy to operate makes it easier for consumers to make decisions about using an application. Putra and Astuti (2015) explained that the convenience variable has an influence on the perceived usefulness of using e-commerce, because there is a significant effect of the ease of using e-commerce variable on the benefit variable of using e-commerce.

H5: Perceived ease of use has a positive effect on the perceived usefulness of using the flip application

According to Jogiyanto (2008) perceived usefulness is a benefit of use which is interpreted if users believe that the technology is valuable, so that users of this technology will depend on using it when on the move. The flip application also has many benefits which can carry out various digital wallet transactions, BPJS, pulses, electricity, data, PDAM, internet packages and others. In accordance with research conducted by Suwardana (2019) which said that the Perceived Benefits have the strongest influence on the level of Use of the Go-Pay Application, most respondents agree that the benefits provided by payment services have been felt and can help them in their daily activities.

H6: perceived usefulness has a positive effect on interest in using the Flip application

3. Methods

The population used in this study is the people of Yogyakarta. This study uses a sampling method, namely purposive sampling. The specific criteria in this study include the people of Yogyakarta who use the Flip application with the ages of over than 17 years, because the age of over than 17 years is the age that enters the adult phase and is considered to be responsible for themselves and their actions (Sudono, 2019). Thus, the calculation of the minimum number of samples needed is as follows:

N = number of indicators x 10
= 5 x 10

= 50 samples

Based on the above calculations, the minimum number of samples in this study was obtained, namely 50 samples.

The data used in this study are primary data. The primary data source in this study was obtained directly from respondents from Yogyakarta people who used the Flip application. The data obtained from this study was obtained from a google form that had been disseminated and filled out by respondents who had been selected and qualified in the study. The data in this study were measured using a Likert scale model 1-5. The Likert scale is used to measure the attitudes, opinions, and perceptions of a person or group of people about social phenomena (Sugiyono, 2017).

The figures below show the distribution of respondents to the people of Yogyakarta
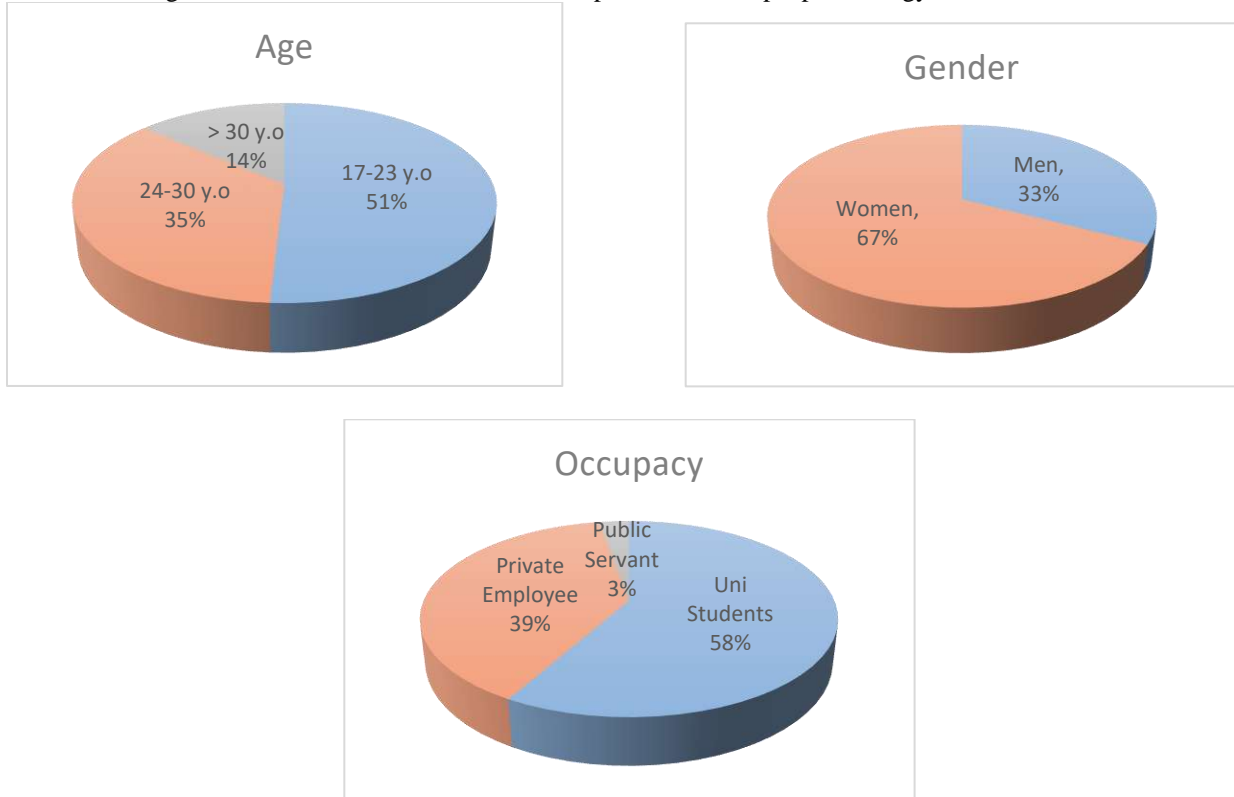
Figure 3: Respondent characteristics

The following is table 2 which shows the number of indicators for each variable adopted in the questionnaire used and their references.

Table 2: Indicators for each variable

Variable Name	Variable Type	Number of Indicators	Reference
Optimism	Independent	3	Andayani and Ono, (2020)
Innovativeness	Independent	4	Andayani and Ono, (2020)
Discomfort	Independent	4	Andayani and Ono, (2020)
Insecurity	Independent	4	Andayani and Ono, (2020)
Perceived Ease of Use	Independent	5	Andayani and Ono, (2020)
Perceived usefulness	Intervening	5	Andayani and Ono, (2020)
Behavior Intention	Dependent	3	Liu et al (2019); Sitinjak and Joan (2019); Vankatesh and Davis (1996)

The research model can be written in the following equation:

$$Z = a + b_1 X_1 + b_2 X_2 - b_3 X_3 - b_4 X_4 + b_5 X_5 + e \qquad (1)$$
$$Y = a + b_6 Z + e \qquad (2)$$

Commentary:
a : Constant
b_1 : Regression coefficient between variables Optimism and perceived usefulness
b_2 : Regression coefficient between variables Innovativeness and perceived usefulness
b_3 : Regression coefficient between discomfort variables and perceived usefulness
b_4 : Regression coefficient between Insecurity variables and perceived usefulness
b_5 : Regression coefficient between perceived ease of use and perceived usefulness
b_6 : Regression coefficient between perceived usefulness and interest in using flip applications
X_1 : Variable of optimism
X_2 : Innovation Variable
X_3 : Variable discomfort
X_4 : Insecurity variable
X_5 : Variable perceived ease of use
Z : Variable perceived usefulness
Y : Behavior Intention

The data analysis method used in this study is the Statistical Product and Service Solutions (SPSS) method. The stages of analysis using the SPSS method according to Sugiyono (2017) are: 1) Descriptive statistical analysis of respondents is used to ensure the data obtained is accurate, complete, and suitable for further analysis 2) Multiple linear regression analysis involving more than one independent variable to explain the dependent variable 3) Validity test to determine the ability of the instrument to measure research variables 4) Reliability test to determine the extent of the results Measurement remains consistent when measured twice or more times 5) Hypothesis test (Test t and Test f) (t-test) is to test the regression coefficient partially, this test is carried out to determine the significance of the role partially and between independent variables against the dependent variable by assuming that other independent variables are considered constant. Statistical test F shows whether all independent variables contained in the model have an influence together on the dependent variable 6) Coefficient of Determination a device that measures how far the model is able to explain the variation of the dependent variable.

4. Results and Discussion

4.1 Numerical Results

Table 3: Validity and Reliability test results

Variable	Item	R-Count	R-Table	Notes	Koefisien Cronbach's Alpha	Cronbach's Alpha	Notes
Optimism	O1	0,79	0,361	VALID	0,914	0,6	RELIABLE
	O2	0,843	0,361	VALID			
	O3	0,789	0,361	VALID			
Innovativeness	I1	0,843	0,361	VALID	0,913	0,6	RELIABLE
	I2	0,802	0,361	VALID			
	I3	0,648	0,361	VALID			
	I4	0,69	0,361	VALID			
Discomfort	D1	0,82	0,361	VALID	0,913	0,6	RELIABLE
	D2	0,73	0,361	VALID			
	D3	0,841	0,361	VALID			
	D4	0,869	0,361	VALID			
Insecurity	INS1	0,865	0,361	VALID	0,913	0,6	RELIABLE
	INS2	0,836	0,361	VALID			
	INS3	0,81	0,361	VALID			
	INS4	0,798	0,361	VALID			

Perceived Easy of Use	*PEU1*	0,41	0,361	VALID	0,63958333	0,6	RELIABLE
	PEU2	0,452	0,361	VALID			
	PEU3	0,463	0,361	VALID			
	PEU4	0,459	0,361	VALID			
	PEU5	0,475	0,361	VALID			
Perceived Usefulness	*PU1*	0,79	0,361	VALID	0,931	0,6	RELIABLE
	PU2	0,843	0,361	VALID			
	PU3	0,789	0,361	VALID			
	PU4	0,843	0,361	VALID			
	PU5	0,675	0,361	VALID			
Intention to Use	*M1*	0,757	0,361	VALID	0,913	0,6	RELIABLE
	M2	0,767	0,361	VALID			
	M3	0,648	0,361	VALID			

Table 4: Hypothesis testing results

Hypothesis	Path	t-count	t-table	Sig.	Notes
H1	O→PU	4,841	1,983	0	Accepted
H2	INN→PU	2,571	1,983	0,012	Accepted
H3	D→PU	2,286	1,983	0,124	Rejected
H4	INS→PU	0,988	1,983	0,326	Rejected
H5	PEU→PU	7,203	1,983	0	Accepted
H6	PU→M	9,651	1,983	0	Accepted

From the table 4, Hypothesis 1 is accepted which means there is an influence of optimism on Perceived Usefulness in the use of the flip application. This research is in accordance with Faizani and Indriyanti (2021) which says that optimism has a positive and significant effect on perceived usefulness. Based on these results, it proves that the use of flip applications has an optimistic attitude and also a positive view that the method of transferring or sending funds is beneficial in their lives because it provides operational convenience in carrying out transfer transactions and can improve the quality of transactions to be faster and more efficient. The optimism variable has an interval of 3.92, which means that the respondent agrees that the flip application is easy to use. This means that users have a positive view that the existence of flip application technology in life can make it easier for them to carry out financial transactions efficiently and also easy to control, because users can easily check balances. Currently there are many benefits in using digital applications such as flip because only by using a smartphone users can transact anywhere and anytime. The current flip application can also be used to make payments such as electricity, pulses and water.

Hypothesis 2 is accepted which means there is an influence of innovativeness on Perceived Usefulness in the use of flip applications. This result shows compatibility with Faizani and Indriyanti (2021) which says that innovativeness has a positive and significant effect on perceived usefulness. Based on these results, the high level of individual innovation, which can be seen from the user's knowledge of the technology without the help of other people, and the lack of problems encountered when using the flip application, proves that the flip application is useful and considered easy to use for payment transactions. When associated with the results of the descriptive analysis, the innovativeness variable has an average value of 3.57, which means that the respondents agree that the flip application has useful innovations that make it easy and comfortable to use.

Meanwhile Hypothesis 3 is rejected which means there is no effect of discomfort on Perceived Usefulness in application use flip. This research is in accordance with Faizani and Indriyanti (2021) who said that discomfort has no effect on perceived usefulness. Based on the research results, it proves that users tend to ignore the discomfort they feel when using the flip application and still think that the flip application is useful and easy to use because it is fast and practical for transfer and payment transactions. The analysis of the discomfort variable shows that most of the indicators have a value of 2.80 to 3.50, which means that respondents are neutral and agree that some of the weaknesses of the flip application technology make it less comfortable to use. Users realize that flip application technology has weaknesses that can make users feel uncomfortable when using it. Factors from outside the individual, such as system errors or problems and bugs or errors in the application so that the application cannot run properly, can also make users feel uncomfortable. Discomfort once occurred when there were network problems in the OVO e-wallet application system, which users complained about. The OVO application cannot be accessed for hours due to

interference which makes the user unable to access the service, because every time the user sign in to the application they are asked to do a fingerprint and an announcement appears that the application is under repair (Franedya, 2019). Based on Khadka and Kohsuwan's research (2018), digital payment service providers need to understand and analyze every important part of the entire service and fix parts that might create inconvenience when users use digital payment services.

Hypothesis 4 is rejected which means there is no influence between insecurity on perceived usefulness in the use of the flip application. This research is in accordance with research conducted by Faizani and Indriyanti (2021) that there is no effect between insecurity on perceived usefulness with a negative and significant value. When linked, the results of the descriptive analysis of the insecurity variable, most of the variable indicators have an average value close to 4.06, which means that it is agreed that when using the latest technology or flip applications, there is a sense of insecurity that the use of flip applications poses a security risk to its users. Users are certainly aware of the risk of insecurity when using e-wallet applications.

Hypothesis 5 is accepted which means there is an influence of perceived easy of use on perceived usefulness in the use of flip applications. This is in line with research conducted by Faizani and Indriyanti (2021) which states that there is a positive and significant influence between the variables perceived ease of use and perceived usefulness. In relation to the results of the descriptive statistical analysis, the perceived ease of use variable has an average value of 4.06, which means that respondents agree that the flip application is easy to use and useful for users. Based on the results of the analysis, it can be concluded that changes in the level of perceived ease of use of the application will affect the level of use of the flip application.

Hypothesis 6 is also accepted which means that there is an influence between the perceived usefulness variable on interest in using flip applications. The results of the descriptive analysis of the variable perceived usefulness of using the flip application have an average value of 4.30, which means that respondents stated that they strongly agree that the flip application is useful for use in transactions and easy to use. The results in this study show conformity with previous research conducted by (Imandari et al, 2017) which states that perceived usefulness has a significant influence on behavioral intention to use the e-learning system. Based on the results of the study, it can be concluded that perceived usefulness has an influence on interest, which means that the higher the perceived usefulness, the higher the user's interest, but conversely if the perceived usefulness in an individual is low, the interest in flip application users will also be low.

5. Conclusion

Based on the results of the research conducted, it can be concluded that optimism, innovativeness and perceived ease of use have a significant positive effect on perceived usefulness. Meanwhile, discomfort and insecurity do not have a significant effect on perceived usefulness. This study proves that perceived usefulness acts as an intervening variable because it has a significant positive influence on interest in using flip applications.

This research has implications, namely 1) Flip application users are expected to be able to further improve security so that unwanted things can be avoided. Flip app users can also help other users to make financial transactions with Flip apps. 2) For Flip Applications: It is hoped that it can provide better performance or performance on the system, and can make menus in applications so that it is easier to use for people who do not understand technology.

The limitation of the research is the use of online questionnaires where this method has weaknesses that cannot be controlled by researchers, for example such as respondents who are not serious or dishonest when filling out the questionnaire. It is hoped that future researchers can conduct broader and deeper research so that they can get even better data.

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Taxpayer Compliance of Micro, Small and Medium Enterprises in Bantul Regency

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Abstract

This study aims to examine the influence of tax understanding, tax knowledge, tax awareness, tax socialization, tax rates, and tax sanctions on MSME taxpayer compliance in Bantul Regency. The population of this research is all SMEs in Bantul Regency. The minimum number of samples is 99 calculated using the Slovin formula. The sampling technique used in this study was convenience sampling and 104 respondents were selected. The results showed that tax understanding, tax knowledge, tax awareness, tax socialization, tax rates, and tax sanctions proved to have a significant positive effect on MSME taxpayer compliance in Bantul Regency. This shows that the higher the level of tax understanding, tax knowledge, tax awareness, tax socialization, tax rates, and tax sanctions will further increase the compliance of MSME taxpayers in Bantul Regency. The results of this study contribute to the government reviewing existing tax regulations in order to determine policies that can affect MSME taxpayer compliance. By increasing MSME taxpayer compliance it is hoped that it can increase MSME's contribution to state revenue from the tax sector.

Keywords
Taxpayer Compliance, Tax Understanding, Tax Knowledge, Tax Awareness, Tax Socialization
_____

1. Introduction
Tax compliance is often a problem in almost all countries in the world, including Indonesia. Tax compliance issues have become a concern in the field of taxation (Indrawan and Binekas, 2018). Almost every year, Indonesia's state revenue target from the tax sector is not maximally achieved.

The largest source of revenue for the Indonesian state is from the tax sector. Morethan 70% of Indonesia's state revenue sources come from taxes, the remaining 30% comes from customs and excise, PNBP (Non-Tax State Revenue), so taxes are still the foundation for funding development in all sectors (Fikri et al., 2020). Based on the 2019 Central Government Financial Report, the realization of tax revenue amounted to Rp1,332.1 trillion. This figure is 84.44% of the predetermined tax revenue target of Rp1,577.6 trillion. In the 2020 State Budget, it can be seen that the amount of state revenue target is pegged at IDR 2,233 trillion, where the portion of tax revenue is IDR 1,865 trillion or equivalent to 84.66% (Kemetrian Keuangan, 2021). The non-achievement of tax revenue targets by the Directorate General of Taxes (DGT) over the past few years is a phenomenon that indicates that there are problems related to tax compliance in Indonesia.

Micro, Small and Medium Enterprises (MSMEs) increase every year. In 2017, the number of MSMEs in Indonesia reached 882,982, in 2018 it reached 969,972, and in 2019 it reached 1,107,240. From these data, it shows that the number of MSMEs in Indonesia continues to increase so that the number of MSME taxpayers has also increased (bps.go.id).

The Indonesian government has empowered Micro, Small and Medium Enterprises (MSMEs), because MSMEs are seen as one of the strategic sectors because they have the potential to encourage community economic activities. However, until now the contribution of MSMEs to tax revenue is still very minimal, which is approximately only 0.5% of total tax revenue. This condition shows that the level of compliance of MSME taxpayers in fulfilling tax obligations is still very low (Rachmawati and Ramayanti, 2016).

Problems in taxpayer compliance are a problem in taxation in Indonesia. The low awareness and compliance in fulfilling tax obligations is very concerning when compared to the increasing growth rate of MSMEs in Indonesia, but the increase in MSMEs is not balanced with awareness in reporting tax obligations (Indrawan & Binekas, 2018). Research that examines the factors that affect the compliance of MSME taxpayers has been conducted by several

researchers before. Factors that influence the compliance of MSME taxpayers are related to socialization and insights that must be understood by every taxpayer regarding taxation (Ananda et al., 2015), knowledge of taxation and sanctions (Hendri, 2016), taxpayer awareness and tax p dance (Yusro &; Kiswanto, 2014). Research conducted by Fikri et al. (2020) Examining the effect of tax awareness, tax knowledge, tax understanding, and tax sanctions on MSME taxpayer compliance shows that taxpayer awareness, tax knowledge, tax understanding, and tax sanctions have an effect significant to taxpayer compliance.

The theory used as a foundation in this study is the attribution theory proposed by Heider (1958). Relevant attribution theory is used as a theoretical foundation in this study because it is able to explain the factors that affect taxpayer compliance. According to Heider (1958), attribution theory is human behavior caused by internal factors and external factors. Internal attribution is the behavior of individuals who originate in the self under consciousness, while external attribution is the behavior of individuals who experience the pressure of circumstances that can affect one's behavior (Nathania et al., 2021).

This research is a development of the research of Fikri et al. (2020). The difference between this study and previous research is the addition of tax socialization variables that allegedly affect the compliance of MSME taxpayers in Bantul Regency. Therefore, the purpose of this study is to examine the effect between tax understanding, tax knowledge, tax awareness, tax initialization, tax awareness, tax consumption , and tax sanctions against thecompliance of wajib pinvite MSMEs in Bantul Regency. The results of this study are expected to provide benefits for the government to review existing tax regulations in order to determine policies that will encourage increased compliance of MSME taxpayers. With the increasing compliance of MSME taxpayers, it is expected to increase the contribution of MSMEs to state revenue from the tax sector.

2. Literature Review
2.1 Attribuion Theory
Attribution theory was first proposed by Heider (1958) and developed by Kelly (1972). According to Heider (1958) in Yunia et al. (2021), attribution theory is human behavior caused by internal factors (dispositional) and external factors (environment). Internal attribution is the behavior of individuals who originate in the self under consciousness, while external attribution is the behavior of individuals who experience the pressure of circumstances that can affect one's behavior (Nathania et al., 2021). Attribution theory is relevant to use in this study because it is able to explain the factors that improve taxpayer compliance. Both internal and external factors can affect taxpayers' assessment of the importance of fulfilling their tax obligations which will then be realized by compliance for MSME taxpayers themselves. Internal factors studied affecting taxpayer compliance in this study are tax understanding, tax knowledge, and tax awareness. While the external factors studied are tax initialization, tax consumption, and taxsanctions.

2.2 Hypothesis Formulation
2.2.1 The Effect of Tax Understanding on MSME Taxpayer Compliance
Regulations regarding taxation must be well known and understood by taxpayers. An understanding of taxation includes an understanding of filling out SPT, the amount of tax owed, and the accuracy of payments by taxpayers in accordance with the laws and regulations that apply to registered taxpayers (Ananda et al., 2015).
Indrawan & Binekas (2018) found that MSME taxpayers' understanding of taxation in Cimahi City was quite good. Understanding of taxation for taxpayers can simplify and speed up the process of reporting as well as depositing or paying taxes. Conversely, taxpayers tend to be disobedient because they do not understand tax rules. Thus, the following hypothesis is formulated:
H1: Tax understanding has a positive effect on MSME taxpayer compliance

2.2.2 The Effect of Tax Knowledge on MSME Taxpayer Compliance
Knowledge of tax regulations according to Handayani (2012) refers to the taxpayer's understanding of the rules in taxation. Taxpayers must know basic knowledge related to taxation, including tax rules, procedures and benefits. Indrawan & Binekas (2018) found that MSME taxpayers in Cimahi City already have fairly good knowledge of taxation. Two of the seven indicators that fall into the fairly good category are knowledge of sanctions and procedures for calculating tax payable. Tax knowledge is very useful for taxpayers to understand how important it is to comply in paying taxes so that MSME entrepreneurs can comply with their tax obligations and continue to improve them. Thus, the second hypothesis is formulated:
H2: Tax knowledge has a positive effect on MSME taxpayer compliance

2.2.3   The Effect of Tax Awareness on MSME Taxpayer Compliance

Consciousness is an element in human beings to understand reality and how to act or behave towards that reality. Tax awareness for taxpayers is the emergence of a sense of sincerity without coercion to carry out tax obligations in the taxpayer. Taxpayers who have a tax-aware attitude can be a separate incentive for taxpayers to pay their taxes (Fikri et al., 2020).

According to Budiman (2018), high public awareness tends to encourage taxpayers to fulfill their obligations properly as a sense of national responsibility and citizenship. Fitria (2017) found that tax awareness has a significant positive effect on the level of compliance of individual taxpayers in South Jakarta. With awareness in the taxpayer will make the taxpayer obedient in paying or depositing taxes. Thus, the third hypothesis is formulated as follows:
H3: Tax awareness has a positive effect on MSME taxpayer compliance

2.2.4   The Effect of Tax Socialization on MSME Taxpayer Compliance

The government's way of increasing tax compliance and awareness is carried out through outreach to taxpayers. The socialization program carried out by the government includes counseling, making billboards, billboards, and websites regarding taxation as part of good morals for citizens. The program has been endeavored to be accessible at any place and time by the general public, especially by taxpayers (Sudrajat & Ompusunggu, 2015).

Sudrajat & Ompusunggu (2015) found that there was an influence between tax socialization and taxpayer compliance at the Pratama Tax Service Office in the South Jakarta DGT Regional Office indicating that tax socialization had an effect on taxpayer compliance. This socialization is carried out by the government to provide information to taxpayers so they can learn and understand how important it is to pay taxes so that it will encourage taxpayers to be more obedient in paying taxes. Thus, the following research hypothesis is formulated:
H4: Tax socialization has a positive effect on MSME taxpayer compliance

2.2.5 The Effect of Tax Rate on MSME Taxpayer Compliance

According to the Directorate General of Taxes, the tax rate is the determinant or basis for imposing taxes expressed as a percentage (Andrew and Sari, 2021). Determination of tax rates must be fair, namely by adjusting the income of the taxpayer, so that the tax rates imposed by MSMEs can change according to conditions. The government plays a very large role in determining policies and also setting tax rates (Ananda et al., 2015).

Ananda et al. (2015) concluded that taxpayer compliance is significantly influenced by tax rates that are perceived as fair by taxpayers. The higher the tax rate, the more obedient the taxpayer will be, and vice versa. The results of research conducted by Nathania et al. (2021), Andrew and Sari (2021), and Septirani and Yogantara (2020) show that tax rates have a positive effect on taxpayer compliance. Therefore, the following hypothesis is formulated:
H5: Tax rates have a positive effect on MSME taxpayer compliance

2.5.6   The Effect of Tax Sanctions on MSME Taxpayer Compliance

According to Machmudah and Putra (2020), tax sanctions are a guarantee that tax regulations will be complied with by taxpayers. Tax sanctions are applied to taxpayers so that taxpayers comply with their tax regulations. Tax sanctions can act as a deterrent effect for violators that are likely to be committed by taxpayers. Fikri et al. (2020) stated that tax sanctions are a variable that influences a taxpayer to comply in paying his taxes. This is because sanctions are negative laws against someone who violates the rules. The results of research by Machmudah and Putra (2020), Hapsari and Kholis (2020), Septirani and Yogantara (2020), Zulma (2020), and Listyaningsih et al. (2019) concluded that there was an effect of tax sanctions on MSME taxpayer compliance. Thus, the following hypothesis is formulated:
H6: Tax sanctions have a positive effect on MSME taxpayer compliance.

3. Methods

3.1 Population and Sample

The population of this study is all MSME entrepreneurs who have been registered with the Small and Medium Enterprises and Trade Cooperative Office of Bantul Regency, Yogyakarta Special Region Province, Indonesia, totaling 49,801 MSMEs. A minimum sample count of 99 is calculated using the Slovin formula. The sampling technique used in this study was *convineance sampling* and 104 respondents were selected. The type of data in this study is primary data collected through questionnaires distributed to respondents through google forms.

3.2 Definition and Measurement of Variables

The variables of this study consist of dependent and independent variables. The dependent variable in this study is taxpayer compliance, while the independent variable consists of taxation understanding, tax knowledge, tax

awareness, tax socialization, tax rates and tax sanctions. Here is the operational definition and measurement of each variable:

1. MSME Taxpayer Compliance

    Taxpayer compliance is the behavior of taxpayers who are obedient to carrying out tax obligations in accordance with applicable regulations (Susmita & Supadmi, 2016). Taxpayer Compliance Criteria refer to the theory of *Internal Revenue Service* (IRS) combined with PP Number 23 of 2018 include: (1) on time in submitting (SPT) or *Filling* Compliance, (2) Payment Compliance, and (3) *Reporting Compliance (*Susmita and Supadmi, 2016).

2. Tax Understanding

    The criteria for understanding taxation by taxpayers refer to the indicators stated by Wahyuningsih (2016), which include (1) understanding of NPWP, (3) understanding of the law and obligations as a taxpayer, (3) understanding of applicable tax sanctions and (4) understanding of Non-taxable Income, tariffs and taxable income.

3. Tax Knowledge

    The measurement of tax knowledge variables is based on the research of Burhan & Zulaikha (2015). Tax knowledge indicators include knowledge of (1) tax laws and regulations, (2) how to calculate taxes payable, (3) how to pay taxes, (4) deadlines for tax payments, and (5) sanctions for late tax payments.

4. Tax Awareness

    The measurement of tax awareness is based on the research of Arum (2012). Indicators of tax awareness include awareness that (1) Taxes are development funds derived from public dues, (2) Taxes are general expenditure funds derived from public contributions to carry out government functions and duties, (3) Taxes are the largest source of state revenue, and (4) Taxes It must be paid because it is a form of responsibility for obligations imposed by the state on taxpayers.

5. Tax Socialization

    Tax socialization is one way that can be done by the government to increase taxpayer compliance in paying taxes. The measurement of the socialization variable is based on research by Rahmat et al. (2020). Statements regarding tax socialization include (1) tax socialization fosters awareness for taxpayers on a regular basis, (2) tax socialization is carried out regularly by the Director General of Taxes, (3) tax socialization builds public awareness of the importance of taxation, (4) tax socialization is very helpful Taxpayers understand tax regulations.

6. Tax Rate

    The measurement of tax rate variables refers to Wahyuningsih's (2016) research. The statement on tax rates includes (1) Taxpayers who have high incomes must pay more income tax, (2) Proportional tax rates are fair, (3) Fair tax rates must be the same for every taxpayer, and (4) The imposition of individual income tax rates is fair.

7. Tax Sanctions

    Tax sanctions are penalties received by taxpayers if they violate tax regulations (Anggini et al., 2021). The measurement of variables per tax in this study is based on Jannah and Puspitosari's (2018) research with 4 (four) indicators, namely: (1) the sanctions set must be clear, (2) the sanctions given are uncompromising, (3) the sanctions given are balanced, and (4) the sanctions given must have a deterrent effect.

3.3 Data Analysis Methods

This research is a quantitative research. The data analysis method used to test the research hypothesis is multiple linear regression analysis with the following equation:

$$Y = \alpha + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + \beta X_5 + \beta X_6 + \varepsilon \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(1)$$

Description: Y: MSME taxpayer compliance, α: constantta, β: regression coefficient, X_1: Tax Understanding taxation, X_2: Tax knowledge, X_3: Tax awareness, X_4: Tax socialization, X_5: Tax rate, X_6: Tax sanctions, and ε: Error term

4. Results and Discussion

4.1 Characteristics of Respondents

The respondents of this study consisted of 104 MSME taxpayers in Bantul Regency. In this study there are 3 (three) characteristics of respondents, namely gender, age and education which are presented in table 1 below.

Table 1: Characteristics of Respondents
Source: Primary Data Processed

Characteristics	Explanation	Total	Persentage (%)
Gender	Male	66	63,4
	Female	38	36,6
	Total	104	100
Ages	17 – 30 years	63	60,5
	31 – 45 years	24	23
	40 years and over	17	16,5
	Total	104	100
Education	Junior high school	8	7,6
	Senior high school	21	20,1
	Diploma	14	13,7
	Bachelor (S1)	61	58,6
	Total	104	100

Most of the respondents were male, with a proportion of 63.4%, the remaining 36.6% were female respondents. As many as 60.5% of respondents aged 17-30 years, 23% aged 31-45 years and finally respondents over the age of 40 years as much as 16.5%. Most respondents had the last education at the Bachelor (S1) level, which was 58.6%, and the least were respondents with the last level of junior high school, which was 7.6%.

4.2 Validity and Reliability Test Results

The results of the validity test show that all statement items from the variables of tax understanding, tax knowledge, tax awareness, tax socialization, tax rate, tax sanctions, and taxpayer compliance have a correlation significance value of less than 0.05. This means that all statement items of the seven research variables are proven valid. The results of reliability tests using Cronbach's alpha value showed that all research variables had a *Cronbach's Alpha* value of > 0.70. Thus, it is concluded that all research variables are reliable.

4.3 Classical Assumption Test

Classical assumption tests conducted in this study include normality tests, multicollinearity tests, and heterokedasticity tests. The results of the normality test using the *Kolmogorov-Smirnov* test show that the value of Asymp. Sig (2-tailed) of 0.920. Therefore, it can be concluded that the data is normally distributed. The results of the multicollinearity test show that all independent variables have a VIF value of < 10 and *tolerance* > 0.10. Therefore, it is concluded that all independent variables do not occur multicollinearity in regression models. Heteroscedacity testing is performed by glacier test. The results of *the glacier* test show that all independent variables have a value of sig. > 0.05. Therefore, it was concluded that the regression model did not occur heteroscedacity.

4.4 Descriptive Statistics

Table 2 below presents descriptive statistics for all research variables:

Tabel 2: Deskriptive Statistics
Source: Primary Data Processed

Variable	Min	Max	Mean	Kategori
Understanding of taxation (X1)	2	4	3,495	High
Tax knowledge (X2)	2	4	3,342	High
Tax awareness (X3)	2	4	3,490	High
Tax socialization (X4)	2	4	2,968	Medium
Tax rate (X5)	1	4	3,314	High
Tax sanctions (X6)	2	4	3,014	Medium
Taxpayer compliance (Y)	2	4	3,312	High

Based on the results of the descriptive analysis above, the tax understanding variable has a *mean* value of 3,495, which is located on a scale range of 3.26 - 4 with a high category. The tax knowledge variable has a *mean* value of 3,342 which is located in the scale range of 3.26 - 4 with a high category. The tax awareness variable has a *mean*

value of 3,490 which is located in the scale range of 3.26 - 4 with a high category. The variable of tax socialization has a *mean* value of 2.970 which is located in the range of a scale of 2.6 – 3.25 with a medium category. The tax rate variable has a *mean* value of 3.315 which is located in the scale range of 3.26 – 4 with a high category. The variable of tax sanctions has a *mean* value of 3.015 which is located in the range of a scale of 2.6 – 3.25 with a medium category. The MSME taxpayer compliance variable has a *mean* value of 3,312 which is located on a scale range of 3.26 – 4 with a high category.

4.5 Hypothesis Testing Results
The results of hypothesis testing using multiple linear regression analysis are presented in the following table 3:

Table 3: Multiple Linear Regression Test Results
Source: Primary Data Processed

Variable	Predictions	Coefficient	T-Statistics	Sig.t
Constant				
X1	+	,143	2,860	,005*
X2	+	,361	3,103	,003*
X3	+	,125	2,252	,027*
X4	+	,115	2,030	,045*
X5	+	,241	2,080	,040*
X6	+	,129	2,190	,031*
F statistic =79,576; sig. F =0,000; Adj R square = 0,421				

Based on table 3 above, it shows that all hypotheses are supported because all independent variables have a positive regression coefficient and a significance value of less than 0.05. This shows that the six independent variables consisting of tax understanding, tax knowledge, tax awareness, tax socialization, tax rates and tax sanctions have proven to have a significant positive effect on the compliance of MSME taxpayers in Bantul Regency.

An F-statistic value of 79.576 with a Sig-F of 0.000 indicates that the regression model has passed the model suitability test. While the Adj-R square value of 0.821 shows that the ability of 6 (six) independent variables consisting of tax understanding, tax knowledge, tax awareness, tax socialization, tax rates and tax sanctions in explaining the variation of taxpayer compliance variables by 42.1%, the remaining 57.9% is influenced by other variables that are not included in the model.

4.6 Discussion
4.6.1 The Effect of Tax Understanding on MSME Taxpayer Compliance
The results of hypothesis testing 1 show that the tax understanding variable has a significant positive effect on MSME taxpayer compliance in Bantul Regency. MSME taxpayers who have a high level of understanding tend to have a tax compliance attitude that continues to show improvement in Bantul Regency. Taxation understanding of MSME taxpayers in Bantul is high. In this context, the risks of gains and losses from compliance with tax regulations are well understood by taxpayers if they commit violations. This finding is in line with the results of a study by Sari et al. (2019), Darmawati & Oktaviani (2018), Imaniati & Isroah (2016), and Riswanto et al. (2017) which states that understanding of taxation has a positive effect on taxpayer compliance.

4.6.2 The Effect of Tax Knowledge on MSME Taxpayer Compliance
The results of hypothesis testing 2 show that the tax knowledge variable has proven to have a significant positive effect on MSME taxpayer compliance in Bantul Regency. MSME taxpayers in Bantul Regency have a high level of tax knowledge. With good knowledge of taxation, MSME taxpayers are able to independently carry out calculations, payments and reporting of taxes that must be paid. This will encourage the level of taxpayer compliance because taxpayers can carry out all their tax obligations independently. The results of this study are in line with Rahayu (2017), Samadiartha and Darma (2017), Siregar, et al. (2020), Sari (2017), and Sabijono, et al. (2014) which states that knowledge of taxation has a significant positive effect on taxpayer compliance.

4.6.3 The Effect of Tax Awareness on MSME Taxpayer Compliance

The results of hypothesis 3 test show that the variable of tax awareness has proven to have a significant positive effect on the compliance of MSME taxpayers in Bantul Regency. The modern tax system emphasizes more on taxpayer awareness (Harahap, 2004). Public perception regarding the level of compliance of taxpayers is influenced by taxpayers' awareness in paying their obligations. The perception in question is closely related to the motivation that will ultimately determine whether or not taxpayers are obedient in fulfilling their tax obligations. Empirically it has also been proven that the higher the taxpayer tax awareness, the higher the level of taxpayer compliance. The results of this study are in line with the results of research by Sapriadi (2013), Cindy & Yenni, (2013), Agustiningsih &; Isroah (2016), Siamena et al. (2017), and Wardani & Rumiyatun (2017) which stated that tax awareness has a positive effect on taxpayer compliance.

4.6.4 The Effect of Tax Socialization on MSME Taxpayer Compliance

The variable of tax socialization is proven to have a significant positive influence on taxpayer compliance. Tax socialization is important to improve because it is related to efforts to foster and provide knowledge to taxpayers related to their tax obligations (Tambun, 2016). In order to encourage taxpayers to fulfill their obligations, the government through the Directorate General of Taxes strives optimally in providing services to the community.

Tax optimization is implemented in the form of socialization so that the public as taxpayers have compliance with the importance of paying taxes. Government officials are also involved in taxation so that taxpayers have tax compliance awareness. This is done by providing counseling, opening tax sites, and installing tax calls such as billboards or billboards. This effort is intended so that information related to taxation can be accessed by the public from anywhere and anytime (Witono, 2016). As tax socialization activities increase, the level of taxpayer compliance will also increase. The results of this study are in line with research conducted by Samadiartha & Darma (2017), Puspita (2016), Winerungan (2013), Dharma & Suardana (2017), and Wardani & Rumiyatun (2017) which states that tax socialization has a positive effect on taxpayer compliance.

4.6.5 The Effect of Tax Rate on MSME Taxpayer Compliance

The results of hypothesis testing 5 show that the tax rate variable has a significant positive effect on MSME taxpayer compliance in Bantul Regency. Regarding tax compliance, it is important for taxpayers to know the tax rate. This will affect the accuracy of the taxpayer in paying taxes. If the tax rate charged tends to be high, the taxpayer will be more obedient. The high tax rate will affect the perception of taxpayers that taxes will become a burden if they are not paid immediately. In addition, fines will apply higher if the tax rate is also higher. Thus, taxpayers will bear higher expenses when they are not tax compliant (Widorini & Nugroho, 2014). Therefore, even though the tax rate is getting higher, if the tax rate is felt to be fair by the taxpayer, it will encourage MSME taxpayer compliance. The results of this study are in accordance with the research of Fitria & Supriyono (2019), Lazuardini et al. (2015), Suhendri (2015), Yusro & Kiswanto, (2014), and Huda (2015) which state that tax rates have a significant positive effect on the level of MSME taxpayer compliance.

4.6.6 The Effect of Tax Sanctions on MSME Taxpayer Compliance

The results of hypothesis 6 test show that the tax penalty variable has proven to have a significant positive effect on taxpayer compliance. To avoid violating tax norms, tax sanctions must be imposed so that taxpayers always comply with applicable tax regulations. Taxpayers who do not fulfill their obligations tend to be subject to sanctions as stipulated in laws and regulations.

Tax obligations that have been paid as a form of implementation of sanctions will tend to make taxpayers more obedient. The pressure given to these taxpayers will direct their perceptions related to heavy fines when they do not comply with taxes (Heryanto, et al 2013). The results of this study are in accordance with the research of Susilawati & Budiartha (2013), Rahayu (2017), Fuadi & Mangoting (2013), Arisandy (2017), Wardani & Rumiyatun (2017), and As'ari (2018) which states that tax sanctions have significant positive influence on taxpayer compliance.

5. Conclusion

The results of this study concluded that tax understanding, tax knowledge, tax awareness, tax socialization, tax rates and tax sanctions proved to have a significant positive effect on the compliance of MSME taxpayers in Bantul Regency. This shows that the higher the level of tax understanding, tax knowledge, tax awareness, tax socialization, tax rates and tax sanctions will encourage MSME taxpayers in Bantul Regency to be more compliant with tax obligations.

The results of this study have implications for the government to review existing tax regulations in order to determine policies that will affect the compliance of MSME taxpayers. With a higher level of compliance, taxpayers will increase state revenue from the tax sector.

This research has limitations, including no assessment related to the type of MSME business sector and the amount of turnover per year which may also affect the compliance of MSME taxpayers. Therefore, it is recommended for future research to conduct a more in-depth study related to the type of MSME business sector and the amount of turnover per year so that the research results can describe more comprehensive conditions.

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Money Laundering Regulation and The Impact on Designated Non-Financial and Business Profession (DNFBP)

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Abstract

Money laundering offences have becoming important issues worldwide. Within the accounting fraternity, discussions have involved an important issue related to obligation of DNFBP towards the anti-money laundering regime in Malaysia. As one of the reporting institution under the anti-money laundering regime, they are required to implement compliance programs such as Know Your Customer, Clients Due Diligent, Record Keeping and reporting of suspicious transaction. This study aims to preparedness of the DNFBP to counter measures of money laundering regime. Content analysis was performed to the MER issued by the APG from year 2019-2023. Nine (9) MER has been evaluated and shows that DNFBP was not play a good role in money laundering regime. Lack of supervision from the competent authority and lack of awareness of the DNFBP in engaging with the new dimension of their task.

Keywords

Money laundering, mutual evaluation report, FATF, designated non-financial, business profession

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1. Introduction

Money laundering is a serious global problem. At the global level, the International Monetary Fund (or the IMF) estimated the extent of money laundering to be at 2% to 5% of global GDP. In Malaysia, for the year of 2011 and 2012, the law enforcement agencies investigated serious crimes involving a total amount of RM13.1 billion. This is the amount that has the potential to be laundered through Malaysia financial system. The amount is predicted more as it is widely acknowledged internationally, for every 10 crimes committed, only one will get reported.

In terms of the legal framework, AML/CFT law and policies in Malaysia are comprehensive. AML/CFT has been passed by the Parliament and gazetted into a law on 29 August this year. The amended law is now known as "Anti-Money Money Laundering, Anti-Terrorist Financing and Proceeds of Unlawful Activities Act 2001" and has come into effect on 1 September 2021.

All reporting institutions are required by law to undertake preventive measures to prevent their institutions from being used as a conduit for money laundering or terrorism financing activities including carrying out risk assessments; conducting customer due diligence, submitting suspicious transaction report and cash threshold report (where relevant); maintaining and retaining records of transactions; and implementing anti-money laundering and countering financing of terrorism (AML/CFT) compliance programme that is reflective of the reporting institution's money laundering and terrorism financing risk exposure and its size, nature and complexity. However, the predicate offences relating to money laundering still increasing.

From the legislative perspective, the Malaysian Anti-Money Laundering Act 2001 defines money laundering as an " act that engages, directly or indirectly, in a transaction that involves proceeds of any unlawful activity, acquires, receives, possesses, disguises, transfers, converts, exchanges, carries, disposes, uses, removes from or brings into Malaysia proceeds of any unlawful activity; or conceals, disguises or impedes the establishment of the true nature, origin, location, movement, disposition, title of, rights with respect to, or ownership of, proceeds of any unlawful activity" (AMLA 2001, Part II, Section 4).

AMLA/CFT 2001 not only imposed to the financial institution but also designated non-financial and business profession (DNFBP). Even though, AML/CFT was initially gazetted in 2001, the requirements enforced on DNFBPs only surfaced after the 2004 amendments. DNFBPs consist of independent legal professionals, credit institutions, auditors, insolvency practitioners, external accountants and tax advisers, trust or company service providers, estate agents, high value dealers and casino operators, lawyers, trust and company service providers (TCSPs), real estate

agents, and dealers of precious metals or stones (Haynes, 2008). Automatically, these professionals like the accountants and lawyers have become reporting institutions and are obliged to report any suspicious transactions that are identified while providing varied services to their clients. The suspicious transactions or such activities must be vulnerable and may lead to intricate money laundering offences. The accountants for example will be able to identify and report money laundering activities because there are accountable to respond on the companies' operations, produce reliable financial statements, and mitigate the risks faced by the companies by holding good internal control and risk management (Melnik, 2003). The compliance industry has capitalised on the emphasis of the prevention of money laundering and the threat image that was created by the authorities (Van Duyne, 2006) to take up an important role in the battle against money laundering (Verhage, 2009).

This study would like to oversee the impact of the AML/CFT regulation to the preparedness of the DNFBP to be a watchdog of money laundering regime. This study would focus on the rating issue by the Asian Pacific Group (APG) through their Mutual Evaluations Report (MER).

2. Literature Review

2.1 FATF Requirements on DNFBPs

Prior to 2012, FATF has introduced 40+9 Recommendations. There are four recommendations of FATF Recommendation that are related to DNFBP. Recommendation 12-Customer Due Diligence (CDD) explains about the customer due diligence and record-keeping requirements. Recommendation 16-Suspicious transactions reporting (STR) explains about suspicious transactions reporting. Recommendation 24-DNFBPs subject to regulatory and supervisory explains on regulatory and supervisory measures as set out in the recommendation and finally Recommendation 25-establishment of guidelines and provide feedback states establish guidelines and provide feedback which will assist DNFBPs in applying national measures to combat money laundering and terrorist financing (FATF, 2003).

However, a new adjustment was introduced in 2012 by FATF that is known as 40 Recommendations. There are only two recommendations that are related to DFNBPs which are Recommendation 22 and 23. Under Recommendation 22, the customer due diligence and record-keeping requirements is set out in Recommendations 10, 11, 12, 15, and 17. These recommendations are applied to the designated non-financial businesses and professions (DNFBPs) in the situations as listed under the recommendation. There is no significant change in terms of requirements set out in the new recommendation as compared to the previous recommendation relating to DNFBPs. However, FATF has simplified all the recommendations related to DNFBPs into only two recommendations as compared to the previous recommendation (FATF (2012) and Normah & Hajudin (2015).

2.2 Mutual Evaluation Reports (MER)

The Mutual Evaluation Report or MERs include an overview of the economy, system of governance, and financial sector of the country that is being reviewed, as well as a close examination of the country's compliance with each of the 40+9 Recommendations and suggestions for improvement. The degree of compliance with each Recommendation is rated in one of four ways: "Compliant," "Largely Compliant," "Partially Compliant," and "Non-Compliant." Compliant refers to the practice whereby all essential criteria are fully implemented. Largely compliant refers to only minor shortcomings, with a large majority of the essential criteria are being fully met. Partially compliance refers to the compliance with some essential criteria and in need of corrective measure. Finally, non-complaint refers to major shortcomings, with a large majority of the essential criteria are not being met (Johnson, 2008).

The report focuses on the assessment of the anti-money laundering and counter financing terrorism (AML/CFT) framework and has become standard activity. The AML/CFT assessment is aimed in strengthening financial systems. It consists of the identification of weaknesses in the financial system and its stability, resilience to macroeconomic shocks, and specific remedial measures. The summaries of the key elements are published together with the consultation documents (Arnone & Paduan, 2008).

MER is assess by APG. APG is the agency under Financial Action Task Force (FATF) that is responsible to set the standard on money laundering and financing terrorism, and supporting the implementation of the standard issued by the FATF. APG was founded in Bangkok, Thailand in 1997, consisting of 41 members. APG is responsible to coordinate assistance and provide training in AML to all the APG members and observer jurisdictions in the region. The technical assistance and training goals will be outlined in the APG Strategic Plan each year (FATF, 2007).

3. Methods

This study will evaluate MER issued by the APG to identify the level of preparedness of DNFBP to oblige their responsibility towards money laundering regime. The document can be downloaded from the APG website. The content analysis will be performed on MER issued from year 2019 until the latest document issued in year 2023. Several countries have been analyzed by the APG among others China; Chinese Taipei; Hong Kong, China; Japan; Korea; New Zealand; Pakistan; Philippines and Vietnam.

4. Results and Discussion

There are a lot of weakness of the DNFBP in implementing the money laundering regime. China's AML/CFT supervisory system is almost exclusively focused on the financial sector, as there are no effective preventive or supervisory measures in respect of the DNFBP sector. The lack of coverage of designated non-financial businesses and professions (DNFBPs) by the AML/CFT framework is a significant vulnerability. The absence of coverage of domestic politically exposed persons (PEPs) is another significant vulnerability, which is particularly noteworthy in the context of a country where corruption is a major predicate offence and state-owned-enterprises play a dominant role in the economy.

Chinese Taipei on the other hand has a generally robust system of AML/CFT supervision for FIs. AML/CFT supervision of DNFBP sectors has only recently commenced. While the full range of FIs and DNFBPs are required to report STRs, there was an underreporting of STRs by higher risk sectors until recent reforms and enhanced risk-based outreach to all sectors.

Meanwhile, Hong Kong, China DNFBPs have demonstrated a good awareness and understanding of their risks and obligations in practice. Most financial institutions and DNFBPs are covered by AML/CFT obligations with the exception of DPMS and a small number of stand-alone financial leasing companies. For DNFBPs and moneylenders, these requirements are recent, which affects the overall implementation of preventive measures.

DNFBPs in Japan have a low level of understanding of ML/TF risks and of their AML/CFT obligations. Not all DNFBPs are under an obligation to report, including some facing specific ML/TF risks. DNFBPs have a low level of understanding of the ML/TF risks,

Korea has imposed casinos only subject to STR reporting requirements. New Zealand extend money laundering regimen to cover all DNFBP sectors only on 2018. Most suspicious transaction reporting are received from banks with a limited number received from DNFBPs. Currently no competent authority has a mandate to undertake supervision of financial institutions or DNFBPs for compliance. In Pakistan, DNFBPs are not supervised for AML/CFT compliance.

Vietnam DNFBPs do not appear to understand their ML/TF risks or AML/CFT obligations. DNFBPs are implementing preventive measures to a negligible extent and the majority do not file STRs and finally Philippines newly imposed money laundering regime on DNFBP.

5. Conclusion

Money laundering regime has been implemented a long years ago. The impact of the money laundering offences may extend beyond our imagination. However, based on the analysis of the DNFBP for nine (9) countries there is still a lot of room for improvement. The supervision of the competent authority would play a biggest role in strengthening the money laundering regime among DNFBP.

Acknowledgement

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Corporate Governance Mechanisms and Financial Distress: Lesson Learned from Malaysia

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Abstract

This study aims to explore how corporate governance mechanisms influence the financial distress of companies listed on Bursa Malaysia. The sample comprises 590 companies from the Bursa Malaysia Main Market during 2020-2021. The study examines the impact of corporate governance elements (board gender diversity, foreign directorship, and board expertise) on financial distress, the latter being the dependent variable. While the COVID-19 pandemic impacts various aspects of businesses, including performance, governance, dividends, liquidity, and debt, the specifics of its effects are not well-established. The research indicates that the expertise of boards negatively affects financial distress, while gender diversity and foreign directorship have positive impacts. This study contributes empirical evidence on the relationship between corporate governance and financial distress during Malaysia's COVID-19 pandemic, filling a gap in the existing literature. Importantly, it offers practical insights for decision-makers in emerging economies regarding board composition and responsibilities that support governance mechanisms and mitigate financial distress.

Keywords

Corporate governance, board expertise, gender diversity, foreign directorship, financial distress

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1. Introduction

The rise in corporate scandals and business failures has brought heightened attention to corporate governance (CG) (Alabede, 2016). The aim of CG mechanisms is to safeguard shareholders' interests, and strong CG can positively impact a country's economic progress (Alabdullah et al., 2022). However, due to mounting instances of corporate scandals like Enron and WorldCom, and the latest of Toshiba in Japan and 1MDB in Malaysia doubts arise about the effectiveness of current CG systems in preventing such incidents (Alabede, 2016). According to Balagobei and Keerthana (2022), inadequate CG structures can lead to agency issues and financial troubles for companies.

After the 1997 financial crisis, Asian nations revised and reinforced their regulatory frameworks, with a focus on corporate governance (CG), transparency, and disclosure (Ho & Wong, 2001). Furthermore, due to the fallout from the 1997 crisis and global financial scandals involving major firms like Enron, WorldCom, Lehman Brothers, and American Investment Group, the discussion on the influence of corporate governance on company financial distress has gained momentum. Prior research has mainly examined how CG factors impact the likelihood of bankruptcy (Suffian et al., 2022) and predict financial distress (Li et al., 2020). In this context, the effectiveness of a company's board of directors holds a pivotal role in safeguarding against excessive vulnerability to financial distress and bankruptcy.

Recently, since it was initially reported in December 2019, the term Coronavirus, also known as COVID-19, has gained prominence in Malaysia. COVID-19 has badly impacted this country and has expanded swiftly over the world (Khatib and Nour, 2021). It continues to spread in an unexpected manner, posing a substantial threat to all economies, primarily the operations of listed corporations. The COVID-19 pandemic has had varied degrees of influence on Malaysia's economic activities in this regard. Some of these include supply-side disruptions to trade and production, a sudden but brief decline in domestic consumption during the outbreak, a potential decline in investment, a decline in tourism and business travel, and spillovers of weaker demand to other sectors and economies via trade

and production linkages (Boone et al., 2020). The role of the good practices of corporate governance is notably important during this time, as it helps determine which functions contribute most to business value amid disruptive events, given that various stakeholders closely scrutinize boards (Croci, 2020).

In Malaysia's attempts to encourage corporate governance practices among publicly traded firms, the establishment of the Malaysian Code on Corporate Governance (MCCG) in 2000 was a significant turning point. The MCCG offers guidelines and suggestions for best practices to enhance the effectiveness, accountability, and openness of boards (Salin et al., 2019). In 2007, 2012, and most recently in 2021 were revisions made to the original MCCG. With each version, new practices and suggestions were included to assist in improving corporate governance standards in step with changing circumstances and world events. Stronger sustainability initiatives, steps to increase board diversity, particularly in terms of women, and improvements to board foundations and governance standards are just a few of the significant changes made by MCCG 2021 (Khatib et al., 2021).

According to Yousaf, Jebran, and Ullah (2022), a corporation would enter financial distress because of economic distress, inadequate management, or a drop in performance. According to the Organization for Economic Cooperation and Development (OECD), when a firm is in a financial crisis, it exposes a major deficit in the organization's corporate governance. When a corporation is in the most critical circumstances, the current rules, processes, or policies fail to offer the necessary checks and balances to foster strong business operations (Fung, 2014). Considering this, establishing a sound board of directors (BOD) can aid in avoiding financial distress.

The BOD is known for overseeing company policies and approving strategic plans for achieving financial and social goals (Van Greuning & Bratanovic, 2020). Thus, it's important to investigate how demographic aspects of the board might influence these decisions. Previous research examining the BOD's role in corporate disclosure has mostly looked at the independence of the BOD and its committees from an agency perspective, or its structure, skills, and experience from a resource perspective (Murugason et al., 2023; Nimer et al., 2023). However, unlike these perspectives, Huse et al. (2009) argue that diverse knowledge and skills among board members lead to better decision-making compared to judgments from a homogeneous group. Board members are expected to contribute their various expertise during discussions, which can translate into innovative products, processes, and services that enhance the company's financial performance (Huse et al., 2009).

Over the last two decades, discussions about women's roles on corporate boards have grown more intense. Research by Benkraiem et al. (2017) indicates that female directors influence corporate governance strategies and diverse board genders impact decision-making and managerial oversight. Female directors contribute to better governance quality, transparency, monitoring, and protecting shareholder interests. Agency Theory suggests that women on boards oversee strategies to align shareholder and management concerns (Guizani and Abdalkrim, 2022). The 2017 Malaysian Corporate Code of Governance (MCCG) aimed for 30% of women directors on large company boards, with the Securities Commission of Malaysia (SC) pursuing the same for listed companies by 2020. However, just 25.3% of the top 100 listed firms have women directors. The 2021 MCCG now urges all boards to have 30% women directors, aiming to hasten women's representation on boards.

The financial distress literature points to two main potential causes: (i) credit institutions and financial creditors not foreseeing and preventing financial distress situations; and (ii) an inadequate recognition of the significance of effective corporate governance mechanisms in this context (Li et al., 2021). Nevertheless, recent times have seen critiques of corporate governance, particularly regarding the diversity of boards of directors in terms of gender and their skills, compounded by a significant decrease in foreign directorship among Malaysian companies (Banerjee et al., 2020). Hence, this study aims to assess how corporate governance mechanisms impact the financial distress of publicly listed companies in Malaysia.

2. Literature Review & Hypothesis Development
2.1 Boards' Gender Diversity and Financial Distress
The Agency Theory is one authoritative perspective on the influence of board diversity on a company's financial crisis (Yousaf et al., 2021). According to the agency's viewpoint, a diverse board strengthens management's monitoring function by bringing together directors from various experiences and perspectives (Benkraiem et al., 2017). Board gender diversity might be utilised to control agency difficulties (UlAin et al., 2020). It is then regarded as a decent CG device in terms of board composition. According to Carteret et al., (2003), improved monitoring that results in more informed decisions is made possible by a gender-diverse board. Gender diversity on boards, according to Adams and Ferreira (2009), enables better oversight since females ask more questions and are less likely to disturb shareholders' interests and minimising agency conflicts. According to Loukil et al., (2019), gender diversity on the board delivers more substantial monitoring advantages to shareholders, resulting in lower agency costs.

Previous research has looked at the association between board gender diversity and financial distress. According to Agyei-Mensah et al., (2021), the participation of women on boards improves board performance and

minimises financial strain. Darrat et al., (2016), for example, found that firms with a higher proportion of female board representation are less likely to declare bankruptcy, which is consistent with studies that found a positive relationship between board gender diversity and operating performance attributable to improved monitoring (Adams and Ferreira, 2009; Benkraiem et al., 2017; UlAin et al., 2020). Kristanti et al., (2016) emphasise that gender diversity on corporate boards can improve financial performance and help firms avoid financial distress.

Conversely, a study conducted by Maghfiroh et al., (2020) discovered that gender diversity can increase the link between profitability and financial distress. This can be explained by the fact that women are more cautious, possess keen business intuition, and have detailed observation abilities that are important in understanding business consequences and dangers. Additionally, the presence of women can attenuate the impact of the activity ratio on the value of the company, even though the activity ratio does not significantly affect the value of the firm in this study. Therefore, gender diversity does not mitigate the impact of liquidity and leverage on company value. As a result, the following hypothesis is suggested:

H1: There is a positive relationship between boards' gender diversity and financial distress.

2.2 Foreign Directorship and Financial Distress

Scholars are more concerned about the nationality of directors or the presence of foreign directors on boards because of the labour market's rapid and advanced globalisation (Masulis et al., 2012; Zaid et al., 2020). Although most academic researchers pay little attention to the nationality of board members, a limited number of studies have shed light on this subject. National diversity among directors is subject to both costs and advantages. Since board members of different nationalities contribute more knowledge and suggestions for expanding operations internationally and are better communicators than other members (Tuggle et al., 2010), they eventually contribute to superior and favourable firm performance (Zaid et al., 2020).

According to research by Nielsen & Nielsen (2013) on Swiss multinational corporations, there is a correlation between financial distress and a board with a diverse nationality. To successfully contribute to strategy planning and improve organisational financial distress, heterogeneous boards with members of different nationalities can work more creatively (Zaid et al., 2020). Masulis et al., (2012) concluded that a nationally diverse board results in ineffective oversight by foreign directors and raises agency costs. However, diversity has been shown to have detrimental consequences on group identification, work satisfaction, and communication among group members (Bowen & Blackmon, 2003). Due to the limited literature on examining the influence of foreign directorship on financial distress, therefore, the following hypothesis is drawn:

H2: There is a negative relationship between foreign directorship and financial distress.

2.3 Boards' Expertise and Financial Distress

In corporate governance literature, the composition of the board is a contentious issue that addresses critical concerns about BODs working in the best interests of shareholders. The board's composition has grown in importance in the aftermath of accounting scandals at Enron, HealthSouth, Tyco, and WorldCom in the 1990s and the 2007 financial crisis, which shook investors' trust. As a result, policymakers enacted new regulations requiring every corporation to have at least one financial expert on its board. Prior work indicates various proxies for measuring market expertise and identifies a person as a financially expert if he or she possesses a degree in the field of finance, accounting, or auditing (Chen & Komal, 2018; Erkens & Bonner, 2013). A chief finance officer, accounts officer, working as an executive in an investment or commercial bank, or is financial professionals are highly knowledgeable about the market, so they can distinguish between risks that are improbable or detrimental to the business's financial health and risks that are likely to be beneficial to the firm (Naheed et al., 2022). According to Francis et al., (2012), financial specialists assist companies in preventing losses during crisis periods by counselling managers and assisting firms in obtaining external resources for the firms (Francis et al., 2012).

According to the search results, it appears that most of the papers explore the possible positive influence of board composition and competence on financial distress. Nonetheless, more study may uncover unfavourable findings or limits in this field. It is crucial to remember that the search results presented here are not complete, and further investigation may reveal different findings. It is worth noting that the search results indicate the possible impact of banking directors during times of financial distress, as well as the requirement for bank loyalty in such circumstances. This might be one area where board expertise's impact has limitations or bad repercussions since their concentration may be on serving the interests of their bank rather than the firm. Therefore, the suggested hypothesis is as follows:

H3: There is a positive relationship between boards' expertise and financial distress.

3. Methods

This study employs a sample of non-financial public companies listed on the Bursa Malaysia focusing on the Main Market from 2020 to 2021. A selection of 2020 and 2021 was made because the economic growth from 2019 to 2020 tended to be negative, but if everything played out as expected, the economic growth rate from 2020 to 2021 would be positive once more (Liu, 2022). Bursa Malaysia Main Market comprises 756 companies and has a total market capitalization of RM1.67 trillion, as of 31 July 2022. There are 13 sectors that represent the market capitalisation under the Main Market of Bursa Malaysia (Bursa Malaysia, 2022). The highest percentage of the market capitalisation is in the financial services sector which represents 21.4% while the lowest is the construction sector, which represents 1.83% of the total sectors under the Main Market.

This study focused on Bursa Malaysia's Main Market, as it boasts the largest number of listed companies and held the highest total market capitalization in 2021 (Bursa Malaysia, 2022). Data for research variables were gathered from Refinitive Eikons and companies' annual reports. Specifically, non-financial firms were considered, excluding banks and insurance companies due to their distinct regulations under the Financial Services Act, 2013. The study period spanned from 2020 to 2021, guided by data availability. The collected data consisted of 590 Annual Report samples. Therefore, out of the 756 Main Market listed companies, only 590 samples, comprising a total of 1,180 firm observations from diverse sectors, were used. Consequently, this study relies on secondary data to address research questions and evaluate its assumptions.

Table 1: Measurement of Independent Variables

Independent Variables (IV)	Measurement	References
Boards' Gender Diversity	The number of females directors in the board composition where minimum 30%.	(Mohd Suffian, 2021; Ud-Din et al., 2020)
Boards' Expertise	The number of boards' expertise in the composition of the board.	(Mohd Suffian, 2021; Ud-Din et al., 2020)
Foreign Directorship	The number of foreign directors in the board composition.	(Mohd Suffian, 2021; Ud-Din et al., 2020)
Dependent Variables (DV)		
Altman Z Score	The total of the activity ratio, liquidity ratio, solvency ratio, leverage ratio, and profitability ratio.	(Isa et al., 2013; Nustini and Mohd Suffian, 2021)

4. Results and Discussion

4.1 Descriptive Results

Table 2's results reveal that the lowest values for board gender diversity, board expertise, and foreign directorship are 0. Altman Z Score, used to gauge financial distress, has a minimum of -10.0056. Among control variables, the firm size's minimum is 2.1584. Similarly, both leverage and firm growth have a minimum of 0. This suggests that among the sampled companies, some lack gender-diverse, skilled, or foreign directors on their boards. Descriptive statistics indicate that the highest values are 8, 9, and 8 for board diversity, expertise, and foreign directorship, respectively. As for financial distress measurement, the highest value is 10.2721. In the realm of control variables, firm size tops at 8.9478, leverage at 24.4369, and market growth at .2328.

The mean for the number of boards' gender diversity, boards' expertise, and foreign directorship after the descriptive test were 1.32, 2.36, and 0.5 respectively. The mean values of financial distress were measured using the Altman Z Score is 2.0040. For control variables, the mean values for firm size, leverage, and firm growth were 5.8709, .2494, and .0010, respectively. It can be concluded that the average numbers of boards' gender diversity, boards' expertise, and foreign directorship are 1.32, 2.36, and 0.5 respectively.

Table 2: Descriptive Statistics

N=1180	Min	Max	Mean	Skewness	Kurtosis	Std. Dev.
Boards' gender diversity	0	8	1.32	1.135	0.986	1.135
Boards' expertise	0	9	2.36	0.877	1.418	1.185

Foreign directorship	0	8	0.5	2.967	1.0042	1.159
Financial distress	-10.0056	10.2721	2.004	-0.259	0.984	4.6061
SIZE	2.1584	8.9478	5.8709	0.786	1.98	0.7537
LEV	0	24.4369	0.2494	2.7713	8.7093	0.7624
GROW	0	0.2328	0.001	3.0484	9.9398	0.0071

4.2 Regression Analysis

Regression analyses examine the connection between independent and dependent variables. The study's independent variables are corporate governance practices, represented by board expertise, gender diversity, and foreign directorship. Financial distress, measured using Altman Z Score, is the dependent variable. Furthermore, control variables include company size, leverage, and firm growth. The regression equations used in this study are as follows:

$$FD = \alpha 0 + \beta 1 GENDER + \beta 2 EXPERTISE + \beta 3 DIRECTORSHIP + \beta 4 FSIZE + \beta 5 LEV + \beta 6 GROWTH + \varepsilon it \quad (1)$$

Where,
FD	Financial distress of the company measured by Altman Z Score
DIVERSITY	Number of female boards in the board composition
EXPERTISE	Number of expertise in the board composition
DIRECTORSHIP	Number foreign directors in the board composition
FSIZEi,t	Company size measured by the natural logarithm of total assets for company i in year t
LEVi,t	Leverage measured by total debt divided by total assets for company i in year t
GROWTHi,t	Market value of a company at the end of the year divided by book value of the total assets for company i in year t
$\varepsilon i,t$	Error term

Based on Table 3, the results indicate that gender diversity on boards has a significant positive impact on financial distress at a 10% level (t-value = .232). However, there's a non-significant negative relationship between boards' expertise and financial distress at a 10% level (t-value = 1.462). Additionally, there's a significant positive link between foreign directorship and financial distress at a 5% level (t-value = 3.618). The analysis of control variables provides mixed outcomes. For firm size, there's a significant positive relationship with financial distress at a 5% level (t-value = 2.463). However, regarding the other control variables—leverage and market growth—the findings indicate a significant negative connection between leverage and financial distress at a 1% level (t-value = -4.343). Similarly, a negative relationship between market growth and financial distress is observed at a 10% level (t-value = -.955). These findings are consistent with past studies (Nustini & Mohd Suffian, 2021; Isa et al., 2013).

The adjusted R-squared for this study is low, standing at 0.42. This suggests that only 4.2% of financial distress is explained by the studied variables. The bulk, 99.58%, is accounted for by other unexamined factors contributing to financial distress. This indicates that the predicting factors in this study are not well-suited to explaining a significant portion of the outcome's variation, as shown by the F-statistic value of 9.455.

Table 3: Multiple Regression

	Financial Distress
Constant	-.735
	(-.662)*
Boards' gender diversity	.232
	(1.783)*
Boards' expertise	-.172
	(1.462)*
Foreign directorship	.421
	(3.618)*
SIZE	.483
	(2.463)
LEV	-.757
	(-4.343)*
GROW	-18.238

	(-.955)*
R Square	.047
Adjusted R²	.042
F Statistic	9.455
N	1180

Note: *Significant at the 10% level (1-tailed); **Significant at the 5% level (1-tailed); ***Significant at the 1% level (1-tailed).

5. Conclusion

This study aims to assess the impact of corporate governance mechanisms, including board expertise, foreign directorship, and gender diversity, on financial distress using the Altman Z Score. The research focuses on the period surrounding the COVID-19 outbreak, investigating how businesses can employ corporate governance to navigate financial challenges, especially during crises like the pandemic. This approach enhances operational effectiveness, reduces transaction costs, and addresses production and liquidity concerns within a company's internal structure. The study examines Bursa Malaysia-listed companies, excluding financial institutions, from 2020 to 2021, revealing insights into the relationship between these governance variables and financial distress.

These insights underscore the significance of corporate governance principles for board diversification, audit committees, investors, and other stakeholders in Malaysia. The pandemic highlights the importance of responsibility, openness, and integrity, emphasizing the value of ethical practices in governance. Strategically, these insights enable better decision-making for the management and help prevent financial distress, showcasing the direct connection between governance and organizational outcomes. Poor governance has been linked to performance failures, while effective governance ensures efficient communication, information access, and timely prioritization of actions, bolstering sustainability and resilience during economic challenges.

However, limitations are present. The impact of corporate governance and government responses during pandemics can vary among nations, affecting outcomes. The study's focus on specific governance aspects highlights the need for more characteristics and alternative financial distress indicators for a comprehensive perspective. Furthermore, the study is confined to publicly traded Malaysian companies over a two-year period (2020–2021). While the study demonstrates the effectiveness of strong corporate governance in managing financial distress, there's room for further research to address gaps. Comparative studies spanning different countries and broader contexts could provide deeper insights. Expanding the analysis to Southeast Asian countries beyond Malaysia could yield more supporting evidence. Longer studies could better understand the connection between explanatory factors. Future research might explore the interplay of COVID-19 and country-level factors on corporate governance and outcomes. Including diverse mechanisms and ownership structures would enrich findings. Lastly, extending the study to Malaysian small and medium enterprises (SMEs) could offer valuable insights into tackling pandemic-related financial distress in this sector.

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Transfer Pricing and Financial Fraudulent Activities: Evidence from Bibliometric Analysis

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Abstract

This bibliometric analysis provides an overview of the transfer pricing and financial fraudulent activities research landscape from 1996 to 2022 for 27 years. The study includes 290 papers from the SCOPUS database and employs a variety of bibliometric indicators, such as co-authorship based on authors, countries, and organizations. The findings reveal that the number of articles on transfer pricing and financial fraudulent activities has steadily increased over the last four decades, with a substantial increase in the last ten years. The analysis lists the most influential journals, authors, and institutions in transfer pricing research. The citation analysis identifies the most prominent papers and authors in the field, whereas the co-citation analysis identifies the primary transfer pricing and financial fraudulent activity's themes and research clusters. The study also analyses the most used keywords and their co-occurrence patterns, which provide insights into the significant transfer pricing and financial fraudulent activities research themes and trends. Overall, this bibliometric analysis gives a thorough overview of transfer pricing and financial fraudulent activities research, highlighting key contributors, themes, and trends in the field. The study's findings may be helpful to researchers, practitioners, and policymakers interested in transfer pricing and financial fraudulent activities.

Keywords
Transfer pricing, financial fraudulent activities, bibliometric analysis, co-authorship
_____

1. Introduction
In the world of international trade and taxation, transfer pricing is a critical yet challenging topic (Sebele-Mpofu et al., 2022; Brauner, 2008). It is concerned with how much is to be paid for products, services, or intellectual property when they are exchanged inside a multinational organization, especially when these transactions take place across international borders. To ensure that these intra-company transactions are legal and in compliance with local tax laws, the main goal of transfer pricing is to establish fair and arm's-length rates. Transfer pricing can be abused, too, since some multinational firms may do so to reduce their overall tax obligations by moving income from high-tax jurisdictions to low-tax ones. Due to this practice, regulatory oversight has been more intense, and international norms are now required to address the problems with transfer pricing.

Financial misconduct is an enormous issue that affects the whole financial industry (Suffian et al., 2023; Suffian et al., 2022; Suffian et al., 2022). These actions cover a broad variety of dishonest and unlawful conduct intended to manipulate financial data or transactions for individual or corporate gain. Embezzlement, in which people in positions of trust misappropriate money or property, accounting fraud, in which financial statements are manipulated to present a false financial picture, and securities fraud, which covers dishonest business practices involving investments and securities, are some examples of common types of financial fraud. Financial fraud poses serious dangers to investors, stakeholders, and the general stability of the financial system, underscoring the

significance of strong regulatory measures and moral behavior within the financial industry to effectively battle these problems.

Financial fraud and transfer pricing both provide significant regulatory issues (Eden and Smith, 2022). To guarantee that transactions are carried out at arm's length, which means they are equivalent to open-market transactions, proper transfer pricing requires adherence to both international standards and state tax rules. To stop tax evasion, regulators and tax officials from different nations keep a watchful eye on transfer pricing. However, given the complexity of transfer pricing agreements and the resources needed for strict control, successful compliance can be challenging. This complexity makes it easier for financial scammers to take advantage of regulatory loopholes and commit fraud, which makes the problem worse.

The necessity to thoroughly comprehend the academic environment and research trends around these important subjects is what drives the study of bibliometric analysis in relation to transfer pricing and financial fraud. This is a preliminary study which may chart the development of research in various fields using bibliometric analysis. By using bibliometrics to analyze the literature, this study will increase the breadth and depth of research on financial fraud and transfer pricing, particularly on the co-authorship elements based on authors, countries, and organisations.

2. Literature Review

Financial fraud and transfer pricing are two separate but related problems that frequently collide in the intricate world of international trade and finance (Fletcher et al., 2021). Fundamentally, transfer pricing is the process of establishing fair prices for transactions carried out among several branches or subsidiaries of a multinational organization. This is crucial to ensuring that such intra-company transactions are in line with market pricing and adhere to local tax laws. Financial fraud, on the other hand, refers to a variety of fraudulent tactics used to distort financial data or transactions in order to benefit people or organizations secretly. Due to the possibility for dishonest individuals to use transfer pricing processes as a weapon for financial fraud, these two notions have a complex connection. In other words, while transfer pricing, when carried out in accordance with regulations, is a legitimate financial practice, it can be difficult for authorities to distinguish between legitimate transfer pricing adjustments and fraudulent schemes due to its complexity and the opacity of some transactions. This point of convergence emphasizes how crucial it is to address these problems jointly to advance justice, openness, and integrity in the international commercial and financial scene.

Transfer pricing is an important topic that touches on the larger problem of financial fraud (Crane et al., 2019). The potential abuse of transfer pricing as a tool to enable financial fraud is one of the most important issues in this area. When transferring commodities, services, or intellectual property between their many subsidiaries or branches, multinational firms may use manipulative methods by purposefully fixing transfer prices below the real market worth of such items, services, or intellectual property. In nations with high tax rates, in particular, this willful undervaluation can generate fictional losses, which effectively lower the corporation's overall tax obligation.

The fact that these dishonest actions muddy the line between lawful transfer pricing adjustments and fraudulent activities makes this problem particularly difficult (Cotoc et al., 2021). The distinction between legitimate intra-company price changes made in conformity with tax rules and regulations and fraudulent operations intended to evade taxes or falsify financial performance is extremely difficult for tax authorities and regulatory organizations to make because of this line-blurring. As a result, the possibility of financial fraud through the abuse of transfer pricing highlights the necessity of more transparency, stricter monitoring, and efficient regulatory measures in the field of international trade and taxation. Promoting openness is crucial for dealing with the nexus of transfer pricing and financial fraud. By encouraging openness and responsibility within the corporate sector, transparency acts as a guiding principle in the fight against these problems (Beebeejaun, 2019).

At long last, transparency emerges as a critical pillar in combating the convergence of transfer pricing and financial fraud, fostering fairness, discouraging fraudulent activities, ensuring regulatory compliance, facilitating global cooperation, and bolstering trust and confidence within the business community (Kamga, 2021). It is critical to encourage ethical conduct, accountability, and transparency within the corporate sector to reduce the occurrence and effect of these complicated challenges in international business and finance. While transfer pricing and financial fraud are independent concerns, their junction stems from the possibility for transfer pricing mechanisms to be abused for fraudulent reasons (Treidler, 2021). Addressing these complications requires a comprehensive strategy that includes more regulatory control, increased openness, and an unrelenting commitment to ethical business behavior. Governments as well as businesses can work together to create a more equal and safer financial environment by tackling transfer pricing problems and financial fraud at the same time.

3. Methods

The bibliometric approach entails systematic quantitative tools for analyzing academic publications, such as metrics such as publication year, topic area, journal source, nation, authorship, and institution. The data for this investigation came from the reputable SCOPUS database, which is well-known for its high-quality social science material (Donthu et al., 2021). By accessing database patterns, this technique intends to select high-impact publications (Merigó & Yang, 2017) and is evolving with the usage of upgraded database versions (Archambault et al., 2009; Suffian et al., 2023). Precise keyword selection is critical for accurate data collection, which influences result quality and comprehension of the study landscape. In conclusion, bibliometrics provides an organized, quantitative way to analyze academic publications, with SCOPUS serving as a credible data source.

This study used the following query, which was chosen after careful deliberation, to guarantee that all or most of the associated publications from the SCOPUS database were selected: ' TITLE-ABS-KEY ("transfer pricing") AND ("financial fraudulent activities") OR ("financial fraud") OR ("tax avoidance") OR ("tax evasion") AND PUBYEAR > 1995 AND PUBYEAR < 2023. However, this study has made some limitations in terms of year of publication, subject area, document type, language and keyword. Therefore, the final query was, 'TITLE-ABS-KEY ("transfer pricing") AND ("financial fraudulent activities") OR ("financial fraud") OR ("tax avoidance") OR ("tax evasion") AND PUBYEAR > 1995 AND PUBYEAR < 2023 AND (LIMIT-TO (EXACTKEYWORD , "Transfer Pricing") OR LIMIT-TO (EXACTKEYWORD , "Transfer Prices") OR LIMIT-TO (EXACTKEYWORD , "Abusive Transfer Pricing") OR LIMIT-TO (EXACTKEYWORD , "Negotiated Transfer Pricing") OR LIMIT-TO (EXACTKEYWORD , "Transfer Pricing Aggressiveness") OR LIMIT-TO (EXACTKEYWORD , "Transfer Pricing Methods") OR LIMIT-TO (EXACTKEYWORD , "Transfer Pricing Regulations") OR LIMIT-TO (EXACTKEYWORD , "Transfer Pricing Rules") OR LIMIT-TO (EXACTKEYWORD , "International Transfer Pricing") OR LIMIT-TO (EXACTKEYWORD , "Transfer Price")).

This inquiry was chosen because of the many terminologies used by scholars to explore transfer pricing and financial fraudulent behaviors. This query is intended to collect the most relevant publications on this issue, particularly within the selected topic area. There were 318 publications and reviews on the connected subject at first. However, many criteria were used to filter the dataset in this analysis, including eliminating items from 2023 and restricting the selection to English-language publications. The research also concentrated on phrases such as transfer prices, transfer pricing laws, and international transfer pricing. A rigorous examination of the title and abstract of each article was done to verify that the gathered data clearly matched the study's intended topic and eliminated non-related or shallow talks (Suffian et al., 2023), resulting in a final dataset of 155 relevant articles and reviews. From 1996 until 2022, this data spans 27 years.

4. Results and Discussion

4.1 Co-authorship based on Authors.

Figure 1: Co-authorship based on authors

According to Figure 1, 3 authors out of 152 authors met the thresholds. It indicates that each author has at least a minimum of 2 publications published in SCOPUS journals between 1996 and 2022 in this area of study. Countries are represented as nodes in the network above, and co-authorship ties are shown as edges. This graphic depiction can provide a clear sense of the overall co-authorship landscape among the countries that have been chosen (Jan et al., 2022; Martínez et al., 2022). According to the graph above, each of the 3 authors has an equal contribution to the dataset. It demonstrates that all the authors chosen are influential and prolific authors who actively participate in research collaborations. Nonetheless, no clusters or subgroups of authors commonly collaborate with one another. To add on, as the year ended 2022, Clempner and Pozynak have 19 citations, Nguyen et al. have 9 citations and Oguttu has 4 citations. As a result, there is a scarcity of possible research networks or theme areas for collaboration. It also reveals the writers' unusual research interests or shared ties.

The study may successfully explain the co-authorship trends among the selected authors based on the minimal document criterion by using this approach. It can discover prolific authors, highlight collaboration clusters, uncover interdisciplinary collaborations, and investigate author partnership dynamics. Such findings can help writers gain a better understanding of research relationships and encourage further study of prospective collaborative prospects.

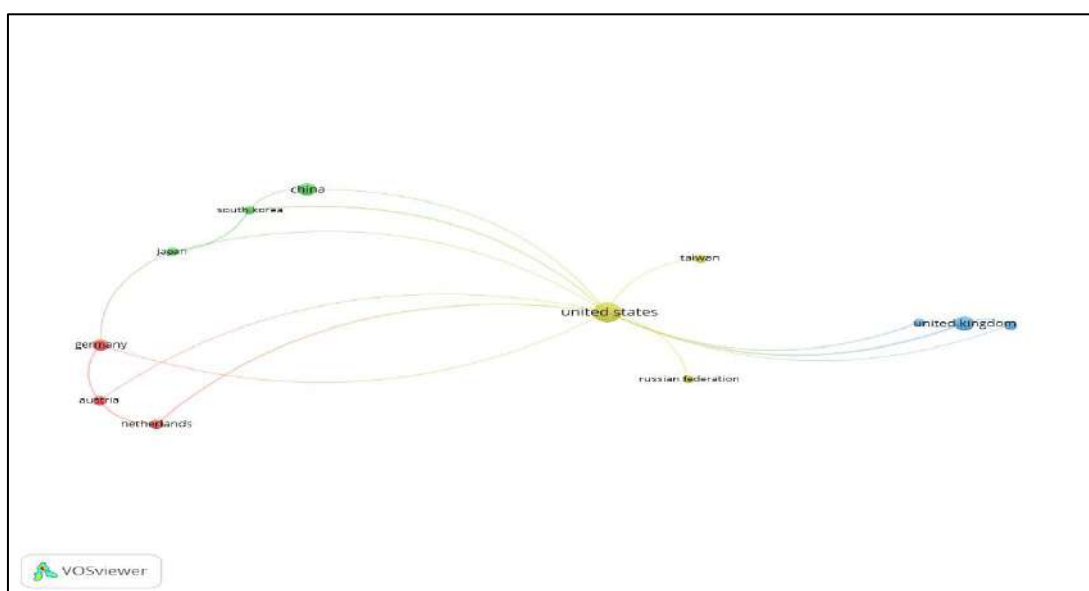## 4.2   Co-authorship based on Countries.

Figure 2: Co-authorship based on countries

According to Figure 2, there are 18 countries that are linked to one another. Initially, there were 60 countries; however, after limiting to a minimum document of a country of 4, only 18 countries met the thresholds and connected from one to another. Countries are represented as nodes in the network above, and co-authorship ties are shown as edges. It depicts the pattern throughout the 16 countries. This graphic depiction can provide a clear sense of the overall co-authorship landscape among the countries that have been chosen (Robertson et al., 2020). However, only 12 countries are shown in the above figure as all of them are connected to each other.

According to the figure above, the United States has the most collaborations inside the dataset. United Kingdom and Germany follow. It demonstrates that these three countries have already built robust research networks and collaborative alliances. It can also provide insights into the countries that actively participate in international research cooperation.

The analysis can provide a full understanding of co-authorship patterns among countries in the context of the minimal document threshold by presenting and debating these findings. It can provide insights into countries that actively participate in research collaborations, highlight regional or theme patterns, and propose possible areas for more research and collaboration.

4.3   Co-authorship based on Organisations.

Figure 3: Co-authorship based on organisations

Co-authorship based on organizations refers to the collaboration between researchers or authors from different organizations or institutions in the creation of scholarly documents, such as research papers or publications (Avelar, Farina, & da Silva Pereira, 2022). In this case, the criterion for considering an organization as a co-author is that it should have a minimum number of documents equal to or greater than two.

Utilizing the insights presented in Figure 3, the analysis reveals the presence of a comprehensive dataset comprising a total of 282 distinct organizations. Within this extensive pool of organizations, a stringent criterion has been applied, requiring that an organization must have generated a minimum of 2 documents to be included in further consideration. Remarkably, upon applying this threshold, a mere 5 organizations have successfully met this stringent requirement. This pivotal threshold signifies that out of the 282 organizations initially under scrutiny, only this selects dozen has engaged in repeated collaborative endeavours with researchers or authors from diverse institutions, culminating in the creation of multiple scholarly documents.

It is important to emphasize that this distinctive group of 5 organizations stands out due to their capacity to consistently collaborate across institutional boundaries, resulting in a prolific output of scholarly contributions. The depth and breadth of their collaborative efforts are noteworthy, as they have demonstrated a commitment to engaging with a diverse range of academic partners. Furthermore, Figure 4 casts light on the interconnections within this subset of institutions. These five institutions, namely Departmental of Political and Economic Studies, University of Helsinki, Finland, School of Graduate Professional Studies, Penn State University, USA, Stanford University, USA, School of Accounting, Curtin University, Australia and Vienna University of Economics and Business, Austria, emerge as the co-authorship based on organisations. These institutions have successfully fostered and maintained relationships that transcend geographical and institutional boundaries, engendering a conducive environment for sustained collaborative scholarly endeavours.

5. Conclusion

Finally, the bibliometric analysis on the link between transfer pricing and financial fraud uncovers some interesting trends and findings. To begin, an examination of co-authorship based on authors reveals that a wide set of academics and specialists from various backgrounds has contributed to this field of study. This multidisciplinary approach indicates a rising interest in and acknowledgment of the complicated relationship between transfer pricing and financial fraud, with experts from accounting, finance, economics, and law working together to investigate this vital subject.

Second, country-based co-authorship suggests that this study issue is not limited to a single geographical location. Instead, it has received global prominence, with contributions from authors from all around the world. This multinational partnership emphasizes the universal importance of transfer pricing and its link to financial fraud, transcending national boundaries and rules. Finally, when evaluating co-authorship based on organizations, academic institutions are actively involved in this study field, driving theoretical and empirical understanding of the issue.

This paper has some limitations which may provide recommendations. First, this study only focuses on co-authorship based on authors, countries, and organisations. Hence, future study can look at other perspectives such as citations, keywords, and type of journals. Second, this paper can go in depth to determine the number of publications in study based on the number of articles published in other databases such as Web of Science (WOS). This will provide more understanding on the number of publications, citations, keywords, and co-authorship from WOS database.

Acknowledgement

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Effective Tax Investigation in Malaysia

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Abstract

According to information provided by the Tax Operation Department, all investigation branches in Malaysia's northern region performed substantially low than other branches. Therefore, this study attempted to investigate the determinants of effective tax investigation among tax investigation officers who are located in the northern region of Malaysia. A sample of 42 respondents was selected based on non-probability judgmental or purposive sampling techniques. The research findings revealed that tax knowledge and skills, tax enforcement strategy, and tax penalty have significant influences on effective tax investigation among tax investigation officers. Complex tax laws, on the other hand, had no significant impact on effective tax investigation, assuming that the majority of the investigation officers have worked in tax office are more than ten years and have sufficient knowledge to interpret complex tax laws. The results of the multiple regression analysis also showed that 84.1% of the variance in the effective tax investigation could be accounted for by the independent variables examined. As a result, it was determined that the model used in this study was appropriate and capable of predicting the dependent variables. In order to strengthen the effectiveness of the tax investigation, the tax authority must plan and take extra steps by improving its tax enforcement strategy, evaluating its tax penalty policy, and increasing the competence of the investigation officer.

Keywords

effective tax investigation, tax knowledge and skills, tax enforcement strategy, tax penalty, complex tax law
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1. Introduction

According to Raig, Pope, and Pinto (2014) tax compliance, including tax evasion, will always exist even tough had efficient tax system. Tax evasion is defined as avoiding tax liabilities illegally, attempting to evade tax liabilities unfairly, and failing to report taxable income (LHDNM, 2020). Alm, Martinez-Vazquez, and McClellan (2016) defined tax evasion as individuals' unlawful and intentional attempts to reduce the amount of tax payments that are legally required to be made. Tax evasion significantly reduces the government's ability to collect taxes and leads to a great deal of injustice in society (Bott, Cappelen, Sorensen & Tungodden, 2017). Governments all around the world have struggled to control tax evasion because of the innovative and rapidly evolving strategies used to do it (Alleyne & Harris, 2017). The tax investigative department plays a crucial role in preventing tax evasion and serving as a coordinator to enhance tax compliance and revenue collection. There are about 250 tax investigation officers and cases settled is decreasing from 2019 till 2021 (Tax Operation Department, IRBM (2022). This study provides a broad indication of the determinants of effective tax investigation. According Raig et al. (2014) the main determinant of an effective tax investigation is the level of compliance and deterrent rather than the amount of tax collected. Tax investigation is to detect unintentionally breached tax laws, promote voluntary tax compliance, and bring offenders into the tax system by educating and enlightening taxpayers (Beredugo, Azubike & Mefor, 2019). Raig et al. (2014) conclude that one of the enforcement techniques that should be employed to achieve high deterrence is pursuing more tax investigation cases. A tax penalty is a punishment that the income tax system sanctions for undertaking conduct that is prohibited or for failure to execute an obligation, including failure to submit a return before the deadline or filling inaccurate or devalued returns (Oladipupo & Obazee, 2016). The penalty is a significant factor influencing Malaysian small and medium-sized businesses' compliance behaviour (Tilahun, 2019). The complexity of the income tax legislation affects tax compliance levels. Martinez and Silva (2021) stated that there may be consensus that poorly readable tax laws are more difficult for taxpayers to understand, which may lead to low tax compliance and a high cost of compliance for the taxpayer as well as the tax authority. Ayuba, Saad, and Arifin (2016) defined tax knowledge as the competence of the taxpayer to comprehend the tax legislation and rules. Raig et al. (2014) stated that knowledge and skills are directly related to the quality of tax investigation work, where high quality tax investigation work would lead to an effective tax investigation. The knowledge and skills of an investigation officer will determine their capability to identify tax fraud and uphold the standard of their investigation

work. These assertions prompted this study to look into the factors that influence effective tax investigation in order to achieve a high level of compliance, discourage tax evasion, and increase tax revenue for the government.

2. Problem Statement

Malaysia's tax-to-GDP ratio was 12.4% in 2019, below the Asia and Pacific average of 21.0% by 8.6 percentage points. Additionally, it was 21.4% points behind the OECD average (33.8%). The lower percentage of tax collection over GDP indicates that tax compliance in Malaysia has not yet reached its best level (Samitah, 2019). IRBM Chief Executive Officer (CEO) Datuk Mohd Nizom Sairi said that the size of the shadow economy in Malaysia was about 18.2% of Malaysia's gross domestic product (GDP) in the year 2019 (Adilla, F., 2021, December 16). This figure of 18.2 percent indicates that Malaysia has low levels of tax compliance as well as significant tax losses caused by the shadow economy. The desired situation is tax revenue collected as targeted. The issues could be the performance of investigative officers in the Northern Region which has shown a considerable decrease in case settlements which requires further improvement (Tax Operation Department, IRBM (2022). What factor is the most important in determining whether a tax investigation is effective? Hence, there is a clear need for more empirical research on the factors that affect effective tax investigation. Therefore, this research is intended to discover the determinate while also solving a theoretical gap in an effective tax investigation. It has been established that the effectiveness of a tax investigation depends on the level of an officer's knowledge and skills, an effective tax enforcement strategy, high monetary tax penalties, and complex tax law (Raig et al. 2014). The study seeks to accomplish to determine the level and relationship of complex tax laws, tax knowledge and skills, tax enforcement strategy, tax penalty, and effective tax investigation among tax investigation officers. The research would assist tax authority to collected tax as desired.

Limited studies have been conducted on effective tax investigation in Malaysia. For the government a higher degree of tax compliance is crucial, as this will directly affect how much revenue is collected. The findings of the study could assist the government in allocating appropriate investigation officers to the appropriate investigation duties and could assist in developing tailored training programmes to improve the caliber and competency of investigation officers currently working in investigation departments as well as those who will be deployed there. Scotchmer (1987) states that an effective enforcement mechanism can guarantee that all of a country's tax-paying residents are in compliance; this statement is also supported by Slemrod, Blumenthal, and Christian (2001).

The purpose of this study was to examine the variables that affect effective tax investigations. The tax investigation officers working in the Northern Region of Malaysia, are the target respondents for this study. There were 253 investigation officers and 42 of them (17%) were stationed in the Northern Region of Malaysia. This study investigated four (4) main variables, which include complex tax laws, tax knowledge and skills, tax enforcement strategy, and tax penalty.

3. Literature Review

Deterrence theory explores the deterrent effect of punishment threats on illegal or undesirable behaviour (Grasmick & Scott, 1982). Allingham and Sandmo (1972) contended that rational taxpayers' decisions to evade tax or comply are based on their choice in terms of risk and uncertainty. Khlif and Achek (2015) describe this theory as the capability of a legal system (through sanctions) to reduce the phenomenon of tax evasion in one country. A tax investigation is considered effective if there is a high level of compliance and deterrence for all taxpayers (Raid et al., 2014). Tax investigations are conducted with the objectives of preventing taxpayers from evading taxes, finding those who do so, and prosecuting them; increasing voluntary tax compliance; treating compliant taxpayers fairly; and obtaining the adequate amount of taxes (LHDNM, 2020).

Complexity of tax legislation might discourage compliance. McKerchar (2002) found that uncertainty in tax regulations was the main cause of complexity, and that the level of detail provided to taxpayers as a result of this uncertainty contributed to the complexity. According to the findings of a study that was carried out by McKercher (2005) among tax agents in Australia, it was discovered that tax agents were unsatisfied with the rising complexity of tax legislation. It was abundantly clear that the complexity of tax law would have a direct influence on tax compliance. Furthermore, Raig et al. (2014) found that complex tax laws might affect the performance of the investigation officer.

Tax knowledge refers to the extent to which taxpayers are aware of or comprehend the provisions of various tax laws (Musimenta, 2020). Raig et al. (2014) defined the knowledge and skills of the investigation officers as: high proficiency in tax laws; comprehensive knowledge of tax investigation working procedures; high expertise in investigation skills; capability of exercising intuitive skills to detect tax fraud; good negotiation skills; high level of practical accounting knowledge; and being highly competent in conducting tax investigation cases. Tax knowledge is important for the investigating officer.

To ensure the highest possible level of tax compliance and foster a feeling of fairness, a taxation system requires a tax enforcement strategy that is both trustworthy and efficient (Mckerchar & Evans, 2009). Baldry and Kasipillai (1996) defined tax enforcement strategies, including tax authorities' legal powers, tax penalties, and organisational strategy. Tax enforcement strategy is one of the drivers of an effective tax investigation. The strategy that was established is to enforce the tax laws on tax evaders with the objective of discouraging tax evaders and potential tax evaders (Raig et al., 2014). Raig et al. (2014) discovered that a huge percent of participants agreed that the number of tax investigation cases that are carried out ought to be increased so that the presence of tax enforcement activities can be generally felt by all taxpayers.

A tax penalty is a punitive measure imposed by the tax law for performing an illegal act or failing to uphold a required act, such as having failed to file a return on time or filing incorrect or undervalued returns, among other things (Oladipupo & Obazee, 2016). According to Allingham and Sandmo (1972), imposing tax fines can lead to an increase in tax compliance. Chau and Leung (2009) argued that increasing the tax penalties that are associated with tax evasion could help to minimise the amount of tax evasion that occurs. Under the economic deterrence model, there is a positive relationship between penalty rates and tax compliance (Allingham & Sandmo, 1972; Yitzhaki, 1974). A high amount of tax penalty supports the intention to achieve effective tax investigation, which subsequently instils high deterrence among taxpayers (Raig et al., 2014). Implementation of non-monetary sanctions might influence and help to achieve effective tax investigation.

4. Methodology

The research framework indicates the theoretical relationship between effective tax investigation as dependent variable and complex tax laws, tax knowledge and skills, tax enforcement strategy, and tax penalty as independent variables. that will be tested and analysed. The following hypothese were developed.

Majority of previous research has concluded that complex tax law affects taxpayers' compliance behaviour (Kirchler, Niemirowski, and Wearing (2006) and Isa (2013)). Raig et al. (2014) argued that complex tax laws do affect the performance of tax investigation officers,

H₁: There is a positive relationship between complex tax law and effective tax investigation.

Most studies find that tax knowledge and skills positively affect employee performance. (Mayasari and Tridayanti (2019), Berman, Down, and Hill (2002). Raig et al. (2014) supported strongly that all investigation officers should have the absolute highest level of skills and knowledge in order to maximise their capability to detect tax fraud and perform tax investigation tasks in an expert manner

H₂: There is a positive relationship between tax knowledge and skills and effective tax investigation.

Luttmer and Singhal (2014), the strategy of enforced compliance, which might include a higher penalty or a higher likelihood of detection, leads to a decrease in tax evasion. Raig et al. (2014) study demonstrate that tax enforcement strategy is consistent with the tax office's aim to encourage voluntary compliance among Malaysian taxpayers, and the majority of respondents were in agreement that high deterrence and compliance are the results of an efficient tax enforcement system. Due to this fact, it is expected that a reliable and effective tax enforcement strategy would lead to an effective tax investigation. Therefore, the hypothesis with regard to tax enforcement strategy is as follows:

H₃: There is a positive relationship between tax enforcement strategy and effective tax investigation.

Allingham and Sandmo (1972), Beck, Davis, and Jung (1991) and Park and Hyun (2003) demonstrated that stiffer penalties reduce tax evasion and positively impact tax compliance. In general, tax penalties are expected to influence the tax compliance level, reduce tax evasion, and influence the effective tax investigation.

H₄: There is a positive relationship between tax penalty and effective tax investigation.

4.1 Research Design

This is quantitative research using deductive approach examines the determinants of effective tax investigations, among tax investigation officer located in the northern region of Malaysia (Pulau Pinang, Alor Setar, and Ipoh. Survey method is applied with an email questionnaire to fill out. This study used a research design known as cross-sectional research to analyse the study's target population at a specific point in time. There are a total of 253 investigation officers throughout Malaysia. This study chose all the 42 investigation officers of the Northern Region Investigation branches. According to Sekaran (2003), the appropriate sample size range is between 30 and 500. A self-administered questionnaire was developed and distributed to respondents as an online survey. The survey was created using the free Google Forms application.

In this study, levels of agreement and disagreement were indicated for the statements that were provided using five-point scales. The scales ranged from 1 (strongly disagree) to 5 (strongly agree), with 1 representing severe

disagreement and 5 representing strong agreement. The measurement used in this study was created based on adapted from the exploratory questionnaire by Raig et al. (2014). All the variables has 4 items each.

A quantitative approach used and questionnaires were selected as the instrument to collect numerical data from investigation officers in the Northern Region of Malaysia. The data gathered in the field was checked and filtered to remove any abnormalities before being analyzed. The data was analysed using Microsoft Excel and the Statistical Package for Social Sciences (SPSS). Descriptive analysis is the process of using statistical methods to present a summary of the study sample's background in descriptive statistics that are the data's mean, minimum, maximum, and standard deviation.

Sekaran and Bougie (2016), the reliability test is the method that is used to measure the level of inaccuracy in the measurement. This method guarantees consistent measurement throughout time and across items in the instrument. In addition, the reliability test is the method that is used. Sekaran & Bougie (2016), regression analysis can be applied when it is predicted that an independent variable might have an effect on the dependent variable (for hypotheses).. This coefficient is a model approximation of the actual data and is expressed as a number ranging from 0 to 1. The coefficient of determination, denoted R^2 or r^2 and pronounced "R-squared", value of 1 indicates that the regression model can accurately predict the relationship between variables and vice versa. Sekaran & Bougie (2016) found that R^2 can be used to evaluate the overall quality of the model if the accompanying p-value is lower than 0.05. Pre-tests were carried out in order to get feedback from experts on how to improve the questionnaires before the main study. To improve the measuring tools, a pre-test might be conducted with colleagues, surrogate respondents, or actual respondents. The evaluation and comments of experts were solicited in order to ascertain whether or not the questions included in the questionnaires were vague or whether or not they were relevant.

5. Findings

Study results were figured out by analysing the survey data by data's reliability and suitability for data analysis, response rate, the accuracy of the data entry and descriptive statistics for the constructs. In verifying the hypothesis correlation and multiple regression analysis in order to establish the nature of the relationship between the variables. The link to the questionnaire was emailed to 42 investigation officers in Northern Region (Pulau Pinang, Alor Setar, and Ipoh) and 40 (or 95%) were usable questionnaires which exceeded the recommended rate of 30% (Sekaran, 2003) for cross sectional and Sekaran's (2003) rule of thumb (minimum of 30 observation) to conduct significant statistics.

Table 1: Demography of Respondents (n=40)

Demography	Frequency	Percentage
Gender		
Male	20	50.0
Female	20	50.0
Race		
Malay	34	85.0
Chinese	3	7.5
Indian	3	7.5
Age		
30 – 40 years	13	32.5
41 – 50 years	25	62.5
>50 years	2	5.0
Marital status		
Single	3	7.5
Married	36	90.0
Divorced	1	2.5
Highest level of education Master Degree		
	3	7.5
Bachelor Degree	37	92.5
Main field of study		
Accounting	32	80.0
Finance	3	7.5
Economics	2	5.0

Management	3	7.5
Professional qualification		
MIA & ACCA	1	2.5
MIA	5	12.5
Nil	34	85.0
Working experience in tax office		
<10 years	7	17.5
10 – 15 years	9	22.5
16 – 20 years	18	45.0
>20 years	6	15.0
Working experience in investigation department		
<5 years	16	40.0
5 – 10 years	17	42.5
10 – 15 years	7	17.5
Have you attended CTIP Course ?		
Yes, I have	29	72.5
Never	11	27.5

Cronbach's alpha values for all the five variables with 4 items each exceeded the 0.60 threshold considered acceptable as defined by Hair et al. (2006). Overall, all variables were within acceptable figures under this reliability analysis (effective tax. Effective Tax Investigation 0.603, complex tax laws. 0.671, tax knowledge 0.621 and tax penalty 0.698).

Factor analysis is necessary to determine whether or not items are patterns in the same construct. KMO measures of sampling adequacy for the 20 constructs range from 0.530 to 0.684. This range is considered acceptable, as the general rule of thumb judges the construct adequate if it is above 0.50 (Hair et al., 2006). The highest KMO value is 0.684 for complex tax laws. The tax enforcement strategy construct, on the other hand, reports the lowest KMO value at 0.530. As for the variance explained, the specified percentage of variance explained for effective tax investigation is 46.901%, complex tax laws is 52.778%, tax knowledge and skills is 54.775%, tax enforcement strategy is 47.258%, and the tax penalty is 55.433%. As for the value of BTOS, all the items are significant at 0.000. Overall, the value of KMO in this study is acceptable because the value is above 0.50, and this factor analysis presented the need to maintain all items in the questionnaires without any need for deletions as well.

Descriptive statistics were obtained to describe the basic features of each variable. The minimum, maximum, mean, and standard deviation values for each item were obtained through descriptive analyses based on the number of usable responses. The means for all the five variables ranges from 4.29 to 4.76 with standard deviation from 0.283 to 0.373, suggestion that Nothern Region investigation officers, strongly agreed with the statements in the questionnaires in order to achieve an effective tax investigation. Most of the respondents (majority) agreed that complex tax laws, tax knowledge and skills tax enforcement strategy and tax penalty influence an effective tax investigation.

Statistical analysis is necessary to address the research question and test the hypotheses. The normality analysis and Pearson correlation were run before the multiple regression analysis. All the variables have normal distributions, with mean test results between ±2 standard deviations. In order to establish a normal univariate distribution, values for skewness and kurtosis between ±2 are deemed acceptable (George & Mallery, 2010). In light of this, further analysis of the study's data was appropriate.

The results of the correlation analysis reveal that complex tax laws ($r = 0.355*$), tax knowledge and skills ($r = 0.860**$), tax enforcement strategy ($r = 0.816**$), and tax penalty ($r = 0.796**$) are significantly positively correlated with effective tax investigation among tax's investigation officers, especially for those who are located in the Northern Region of Malaysia.

Multiple regression analysis enables researchers to evaluate the strength of the relationship between an outcome (the dependent variable) and a number of predictor variables as well as the contribution of each predictor to the relationship, often with the effect of other predictors being statistically eliminated (Petchko, 2018).

The purpose of this analysis is to explain the second research objective, which is to determine the relationship between complex tax laws, tax knowledge and skills, tax enforcement strategy, tax penalty and effective tax investigation among tax investigation officers, especially in the tax office investigation branch in the Northern

The adjusted R square is 0.822 indicating that this model can predict 82.2% of effective tax investigation by using four significant variables in the equation (i.e., complex tax laws; tax knowledge and skills; tax enforcement strategy; and tax penalty).

The multiple regression result shows that complex tax laws, $\beta = 0.023$, $t = 0.305$, and $p > 0.05$ indicate an insignificant relationship with effective tax investigation among tax investigation officers. Therefore, H_1 is rejected. Further analysis shows that tax knowledge and skills ($\beta = 0.428$, $t = 3.732$, and $p < 0.01$), tax enforcement strategy ($\beta = 0.297$, $t = 2.741$, and $p < 0.01$), and tax penalty ($\beta = 0.280$, $t = 2.689$, and $p < 0.05$) are positively correlated, and they have significant relationships with effective tax investigation among tax investigation officers, especially those located in the Northen Region of Malaysia. Therefore, H_2, H_3, and H^1 are accepted.

6. Discussion, Recommendation and Conclusion

The aim of study is to find out the level and relationship of complex tax laws, tax knowledge and skills, tax enforcement strategy, tax penalty, and effective tax investigation among tax investigation officers. Deterrence theory served as the foundation for the research framework. The influence of complex tax laws, tax knowledge and skills, tax enforcement strategy, and tax penalty on effective tax investigation among investigation officers was significantly and the findings of the multiple regression analysis suggested that tax knowledge and skills, tax enforcement strategy, and tax penalty all had substantial influences on the effectiveness of tax investigations except complex tax laws. Tax knowledge and skills (beta value of 0.428) were shown to be the four predictors that contributed most to effective tax investigations followed by tax enforcement strategy (beta value of 0.297), tax penalty (beta value of 0.280). Tax knowledge and skills has the highest mean value (4.66), followed by tax penalty (4.58) and tax enforcement strategy (4.56) and complex tax laws has the lowest mean value (4.29). The respondents' perception that complex tax laws shouldn't have a substantial impact on the overall performance of the investigation officers due to cloud-based knowledge sharing system and access to experts who are able to help the investigation officers by interpreting and clarifying intricate tax regulations. As an experienced investigation officer, they have enough knowledge to interpret complex tax laws.

Therefore, it seems like complex tax laws do not have a substantial impact on the overall performance of the investigation officer and do not influence an effective tax investigation. Investigation office claimed to have high tax knowledge and skills, the result is consistent with Raig et al. (2014), who claim that investigation officers have the highest level of tax knowledge and skills necessary, which will maximize their capacity to identify tax fraud and effectively carry out tax investigation activities. Tax enforcement strategy positively influences effective tax investigation. This finding has similarities with previous research findings made by Luttmer and Singhal (2014), Xynas (2010), Luttmer and Singhal (2014), and Raig et al. (2014) who assert that tax enforcement strategies such as increasing the likelihood of an investigation or imposing a higher penalty lead to a decrease in tax evasion, driving tax compliance. A high tax penalty deters taxpayers from engaging in tax evasion and increases the effectiveness of tax investigations. In this context, this study's finding is consistent with Allingham and Sandmo's (1972) and Park and Hyun's (2003) finding that stiffer penalties reduce tax evasion as well as) finding that penalties positively impact tax compliance, which is one of the main objectives of tax investigations. The results offer another insight into the way to understand an effective tax investigation and its factors. The findings of this study are not only important for professionals, academics, and researchers in general, but they are also important for all other stakeholders. As a result, it is critical to maintain the quality of the officers to ensure they are up to date with changing rules and regulations and competent to conduct the investigations. Conducting workshops, seminars, training programmes, and other similar activities to ensure the quality of the investigation officers. One of the proposals is to move towards prosecution of those tax evaders, which will indirectly have a huge impact on society, in order to promote tax compliance. The responses were obtained from the investigation officers who worked and located in the Northern Region of Malaysia only. As a result, the findings of this study cannot be used to generalize the perspective of all investigation officers in Malaysia. The survey's data accuracy is largely dependent on how truthful the respondents were. Untruthful responses could result in an incorrect conclusion. Certain terms in the survey questionnaire might be interpreted differently by every respondent. For instance, if the level of complex tax laws is rated on a scale from one to five using the Likert scale, level three (or any other scale) could be understood differently by multiple distinct responders due to the fact that each of them has their own viewpoint and value. Therefore, this must be taken into account while interpreting the results. However, there are still areas for improvement and gaps that need to be covered, which may be explored in further studies., when collecting data, the sample size must be increased. to obtain findings with 0.80 at a very reliable alpha level (Sekaran & Bougie, 2016) and strongly suggested that future research take other factors into account so

that we can learn more about what makes an effective tax investigation Therefore, in order to strengthen the effectiveness of the tax investigation, the tax authority must plan and take extra steps, such as improving its tax enforcement strategy, evaluating its tax penalty policy, and increasing the competence of the investigation officer

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Ruminating Undergraduates' Experiences on Parental Involvement and Parents' Socio-Economic Status during Open and Distance Learning (ODL)

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Abstract

This paper explores the experiences of undergraduates in relation to parental involvement and parents' socio-economic status during Open and Distance Learning (ODL). As ODL platforms continue to gain prominence in the educational landscape, understanding the role of parental involvement and socio-economic factors becomes crucial for supporting the academic success and well-being of undergraduate students. The study presents the findings of a survey conducted among undergraduate students engaged in ODL, aiming to capture their perspectives on parental involvement and socio-economic factors. The survey collected data on the challenges faced, the extent of parental involvement, and the perceived impact of socio-economic factors on the students' educational journey. By analyzing the survey responses, this research contributes to the existing literature on parental involvement and socio-economic factors in ODL. The findings provide valuable insights for educators, policymakers, and parents, enabling the development of strategies and support systems that enhance the educational experience and well-being of undergraduate students in ODL environments.

Keywords

Open and distance learning, Socio-economic status, Parental involvement, Students' experience, undergraduates

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1. Introduction

Education plays a pivotal role in shaping the future of individuals and societies, enabling personal growth and socioeconomic development. In recent years, the landscape of education has witnessed a significant transformation with the advent of Open and Distance Learning (ODL) platforms. ODL provides opportunities for flexible learning, catering to diverse learners, including undergraduates seeking higher education. As undergraduate students embark on their educational journey through ODL, they often encounter unique challenges that differ from those faced in traditional face-to-face learning environments. ODL allows learners to pursue education at their own pace, offering the flexibility to balance their academic pursuits with other commitments. However, this newfound flexibility also presents its own set of complexities, particularly in relation to the role of parental involvement and parents' socio-economic status.

Parental involvement is widely recognized as a critical factor influencing students' academic success and overall educational experience. Research has consistently shown that students with involved parents tend to perform better academically, exhibit higher motivation levels, and have increased self-esteem. Furthermore, parents' socio-economic status has been found to influence students' educational outcomes, including access to resources, educational opportunities, and academic achievement. However, the extent and nature of parental involvement, as well as the influence of parents' socio-economic status, may vary significantly in the context of ODL. Unlike traditional educational settings, where parents may have direct interactions with teachers and participate in school-related activities, ODL often requires a higher degree of self-regulation and independent learning. This shift in learning dynamics may raise questions about the role of parents in supporting undergraduate students pursuing education through ODL platforms.

In light of these considerations, it becomes essential to explore and understand the experiences of undergraduates in relation to parental involvement and parents' socio-economic status during ODL. By examining these aspects, we can gain insights into the challenges faced by undergraduates, the support they receive from their parents, and the potential impact of socio-economic factors on their educational journey. This knowledge can inform educators, policymakers, and parents themselves to enhance the support systems and resources available to undergraduate students engaged in ODL.

This study aims to delve into the experiences of ruminating undergraduates, exploring the intersection of parental involvement and parents' socio-economic status within the ODL context that will capture the nuanced perspectives of students, shedding light on their experiences, and perceived benefits related to parental

involvement and socio-economic factors. By examining the experiences of undergraduates in the realm of ODL, this study seeks to contribute to the existing body of literature on parental involvement, socio-economic factors, and their implications for higher education. Ultimately, the findings will offer valuable insights to inform the development of effective strategies and support systems for undergraduate students pursuing education through ODL platforms, fostering their academic success and overall well-being.

2. Literature Review

The introduction of Open and Distance Learning (ODL) has transformed how undergraduate students pursue their academic goals in the current educational environment. ODL greatly widens access to education (Jena, 2020) by giving students the freedom to pursue their studies from distant regions (Alvarez, 2020). The functions of parental involvement and parents' socioeconomic position have become more apparent within this transition (Liu, Zhang, & Jiang, 2020). Within the framework of ODL, these elements are no longer incidental but rather crucial to students' experiences, academic success, and general well-being (Thomas, Muls, De Backer, & Lombaerts, 2020)

Parental involvement in a child's education has long been acknowledged as having a good impact on academic results (Thomas, Muls, De Backer, & Lombaerts, 2020; Lase, Zega, Daeli, & Zaluchu, 2022). However, the idea of parental involvement has additional dimensions in the context of online distance learning. As their children negotiate the ODL process, parents can continue to play a critical role by providing guidance, encouragement, and emotional support. Due to ODL's virtual character, it is crucial for parents and students to communicate clearly (Adam, Radin, Hashim, & Sulaiman, 2021). This interaction becomes a crucial tool for academic help and counselling. Additionally, studies have shown that families with frequent parent-child interaction tend to have adults who are less lonely as well as happier and more fulfilled young people, demonstrating the ongoing importance of family support in an increasingly computerized educational environment (Flurry, Swimberghe, & Allen, 2021).

Within the ODL paradigm, the socioeconomic condition of the parents is a significant influence on many aspects of a student's education (Viola & Nunes, 2022). Parents' financial support can have a big impact on a student's capacity to get access to crucial learning tools. The financial support is crucial for everything from technology to texts and a suitable learning environment. The effects of socioeconomic issues, however, transcend beyond monetary matters. Students from lower socioeconomic origins may face particular difficulties, such as scarce financial resources and weak social networks (Destin, Debrosse, Rheinschmidt-Same, & Richeson, 2022). These difficulties could cloud their academic progress. Therefore, it is crucial to investigate how parents' socioeconomic situation especially affects their children's experiences in ODL for Part 4 Diploma in Accountancy students.

Parents' involvement and socioeconomic conditions present a unique set of difficulties for university students participating in ODL (Şengönül, 2022; Tang, Duan, & Long, 2022). Among the challenges they encounter are difficulties with communication, striking a careful balance between family obligations and academic commitments, and obtaining the required support resources (Yip & Maestre, 2022). The literature does, however, also point to potential benefits linked to parental involvement and socioeconomic assistance. These benefits include increased motivation, better academic achievement, and higher self-esteem (Viola & Nunes, 2022; (Destin, Debrosse, Rheinschmidt-Same, & Richeson, 2022; Şengönül, 2022; Tang, Duan, & Long, 2022). Designing specialized interventions and support systems that address the unique demands of higher education levels, with a particular focus on Part 4 Diploma in Accountancy students engaged in ODL, depends on an understanding of these complex dynamics.

In the ODL environment, improving academic achievement and wellbeing depends on a number of key elements (Jena, 2020). The cornerstone of creating a supportive atmosphere for learning is continued effective parent-student communication. Levelling the playing field for all students depends on equal resource distribution and access to financial aid (Adam, Radin, Hashim, & Sulaiman, 2021). Collaboration among educational institutions, policymakers, and parents is required to promote and facilitate parental involvement in students' ODL journeys. A diversified strategy is also required to address the difficulties Part 4 Diploma in Accountancy students from various socioeconomic backgrounds confront in ODL. In this, complete support services, mentorship programs, and program implementation are all included. These tactical actions seek to empower all students while simultaneously addressing inequalities and creating an inclusive learning environment.

3. Methodology

This study focused on undergraduate students who have experience on continuing their education through open and distance learning (ODL) before this and currently enrolled in the Part 4 Diploma in Accountancy. A simple random sampling approach was used to ensure the fairness of participant selection, giving every member of the population an equal chance to be included. In the end, 67 students took part in this survey.

The main tool for gathering data was a structured survey with two sections: (1) demographic information and (2) survey questions about parental involvement and parents' socioeconomic standing during ODL. These

survey questions, with a particular focus on the experiences of accountancy students in ODL, were painstakingly developed to match with the research objectives and the body of literature. For accessibility, data collection was made easier with the help of an online survey tool.

Through a provided link, participants were invited to access the survey. Participants received thorough information on the study's goals, the voluntary nature of participation, and the guarantee of confidentiality and anonymity for their answers prior to enrolling. To provide flexibility in their engagement, participants were urged to take the survey whenever it was convenient for them.

The research team used descriptive statistics during the data analysis stage, concentrating on frequencies and percentages. Survey responses were methodically categorized before being input into a statistical analysis computer. The data could be summarized succinctly and insights into patterns and trends within the dataset were provided through the computation of frequencies and percentages. This method allowed for a thorough examination of the viewpoints and experiences of Part 4 Diploma in Accountancy students who participated in ODL, which helped to clarify the goals of the study.

4. Results and Discussion
4.1 Demographic Characteristics

Table 1: Demographic Traits

Item		Frequency	Percentage
Gender	Male	17	25.4
	Female	50	74.6
First_Hi_EDU	Yes	18	26.9
	No	49	73.1
Caregiver	Yes	11	16.4
	No	56	83.6
Parent_EDU	PHD	1	1.5
	MASTER DEGREE	5	7.5
	BACHELOR DEGREE	20	29.9
	DIPLOMA	23	34.3
	SECONDARY SCHOOL/CERTIFICATES	16	23.9
	OTHERS	2	3.0
HSE_INC	B1	12	17.9
	B2	10	14.9
	B3	5	7.5
	B4	7	10.4
	M1	4	6.0
	M2	9	13.4
	M3	1	1.5
	M4	6	9.0
	T1	6	9.0
	T2	7	10.4

The participants in this study consisted of Part 4 Diploma in Accountancy students engaged in Open and Distance Learning (ODL). The sample included 67 students from a specific discipline, providing insights into the experiences of undergraduates in accountancy regarding parental involvement and parents' socio-economic status during ODL.

In order to highlight the study's participants' different backgrounds, this paper analyses the demographic traits of survey respondents. The information, which was gathered from a sample of people, offers useful insights about the respondents' distribution of gender, educational backgrounds, caregiver roles, parental education levels, and household income groups.

Both genders were fairly represented in the survey. 25.4% of the total respondents identified as men, while 74.6% of the respondents identified as women. This evenly distributed gender allows a more thorough comprehension of the study's conclusions and consequences, taking into account any potential gender-related variances. The responders' educational backgrounds were diversified, displaying a wide range of intellectual accomplishments. A significant 73.1% of respondents said they are the first sibling among their siblings to pursue higher education (Hi-EDU), while 26.9% said they are not. A significant number of respondents (83.6%) answered

that they were not caregivers when asked about their duties in caregiving. On the other hand, 16.4% of respondents said they were taking on caretaker duties. The various familial and caring duties among the survey participants are highlighted by this piece of data.

A wide range of educational attainment was seen when looking at the respondents' parents' education levels. Parents with a Bachelor's degree (29.9%) made up the majority, while those with a PHD (1.5%) or Master's (7.5%) were in the minority. The majority of parents (34.3%) had a diploma, while only 23.9% had a secondary education or a certificate. Additionally, a small proportion of respondents (0.3%) said that their parents' education level was "Other". The distribution of the data across different income tiers illustrates the socioeconomic diversity of the respondents' households. B1 (17.9%) and B2 (14.9%) family income groups were reported by the majority of respondents. Income brackets B3 (7.5%), B4 (10.4%), M1 (6.0%), M2 (13.4%), M3 (1.5%), M4 (9.0%), T1 (9.0%), and T2 (10.4%) saw lower percentages of the population. This large range of income levels shows that the respondents came from a variety of socioeconomic backgrounds.

4.2 Parental Involvement

Table 2: Parental Involvement throughout ODL Journey

Item	Scales	Percent	Frequency
COMM	Occasionally to always	82.09%	55
EMO_SUPP	Moderate to very high extent	88.06%	59
ASSIST_EDU	Moderate to extremely involved	68.6%	46
CHALLENGES_FI	Moderate to strongly agree	79.1%	53
IMPACT_SUCCESS	Moderate to very positive impact	78%	64

According to the survey results shown in Table 2, a significant percentage of participants (82.09%) reported talking to their parents about their ODL studies frequently, ranging from occasionally to always. 88.06% of participants reported receiving a lot of emotional support from their parents during their ODL experience in the form of guidance, inspiration, and assistance in completing the ODL journey. The relevance of parental support in the study of accounting during ODL was further demonstrated by the fact that 68.6% of participants believed their parents were somewhat or extremely interested in assisting them with academic-related chores. Although due to family participation, 79.1% of the participants encountered some difficulties or impediments throughout their ODL journey. Contrarily, 95.5% of them concur that family support has a moderate to considerably good impact on their academic progress and general well-being during their ODL journey, despite the difficulties they have faced.

4.3 Socio-Economic Factors

This study explores survey respondents' perceptions and experiences, providing insightful information about their perspectives on a range of financial support, open and distance learning (ODL) experiences in relation to socioeconomic status (SES), and the impact of SES on their academic lives.

Table 3: Socio-Economic Factors towards ODL Journey

Item	Scales	Frequency	Percentage
FIN_SUPP	Moderate to very sufficient	65	97
ODLEXP_SES	Agree to strongly agree	29	43.3
RES_SES	Moderate to very positively influenced	65	97
CHALLENGES_SES	Agree to strongly agree	21	31.3
IMPACT_SES_SUCCESS	Somewhat positive to very positive impact	29	43.3

Almost all respondents (97%) said they had financial help that was "Moderate" to "Very Sufficient." These findings suggest that a considerable number of those respondents believe their financial support substantially meets their needs. This favourable impression shows that the majority of respondents feel well-supported in their academic activities. 43.3% of respondents gave their opinions on their experiences with socioeconomic status (SES) in ODL, with responses ranging from "Agree" to "Strongly Agree." This shows that a sizable majority of respondents acknowledge a link between their socioeconomic level and their ODL experiences. This realization can be further investigated to learn more about how SES affects ODL experiences. A significant majority (97%) of respondents indicated that they believed socio-economic status to have some influence on resources, ranging from "Moderate" to "Very Positively Influenced." According to the findings, the majority of respondents seem to think that their SES positively affects their ability to obtain the resources they need for their academic goals. Understanding the contribution of socio-economic elements that influence resource accessibility can depend on

how one perceive the world. About 31.3% of respondents agreed, ranging from "Agree" to "Strongly Agree," when asked about the difficulties posed by socioeconomic level. This information implies that a sizeable proportion of respondents are aware of the difficulties related to SES throughout their educational path. The nature and size of these difficulties can be determined by further research. 43.3% of those respondents said that SES had a favourable effect on academic achievements, ranging from "Somewhat Positive" to "Very Positive." This result shows that a significant number of respondents think their parents' socioeconomic level has a favourable impact on their academic success. Understanding this viewpoint can provide information on the factors that are thought to influence academic achievement.

5. Conclusion

With regard to the demographic structure, viewpoints, and experiences of Part 4 Diploma in Accountancy students enrolled in Open and Distance Learning (ODL), this study has provided insightful information. The sample of respondents is broad and well-balanced, representing a range of gender identities, educational backgrounds, caregiving responsibilities, parental education levels, and family income levels, underscoring the thoroughness of this study. This diversity enhances our comprehension of the study's environment and emphasizes the importance of taking these demographic characteristics into account in future research projects.

Additionally, the opinions and experiences of the respondents have shed light on the intricate interactions between socioeconomic status (SES) and ODL. A significant percentage of respondents acknowledged the impact of SES on their ODL experiences, resource accessibility, and academic progress, even if the majority of respondents believed their financial support to be adequate. These results highlight the complex nature of SES as a chance and a problem, opening the door for subtle interventions that cater to the particular requirements of students from various socioeconomic origins.

The study's findings emphasize the value of specialized interventions and support systems that take into account the complex interplay between socioeconomic variables and Part 4 Diploma in Accountancy students in ODL's academic path. Education institutions can seek to promote more equity, inclusivity, and academic success for everyone, regardless of socioeconomic background, by delving further into these relationships. This research adds to the continuing conversation about socioeconomic diversity in education and lays the groundwork for further investigation and the creation of policies in the area of distant learning

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Understanding of Halal Certificate Practice on Malaysia Halal Meat Based Industry

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Abstract

Global demand for Halal meat products is expected to grow exponentially, significantly impacting Malaysia's Halal food industry. Halal is an essential part of the Muslim faith. Since the early 2000s, Malaysia has established its procedures and standards to protect consumer interest through Halal certification. Protecting its Muslim consumers' assurance that Halal meat-based products include all elements, processes and Halal certification procedures and practices poses a huge challenge. Therefore, this study discusses the nature practice of Halal certification and its importance in Malaysia's meat-based industry. Library research and document analysis were employed to incorporate detailed ideas by referring to primary and secondary sources such as article journals, official portals, and conference papers. The extracted data were analysed thematically based on the practice, importance, and agencies involved in Halal certification. This study reveals that JAKIM is the key agency in the Halal certification system, attending to the current practice and issues of the Halal certification system in Malaysia. Recommendations based on the research findings suggest that the Malaysian government and JAKIM need to strengthen Halal certification processes and monitoring methods, while the industries must fulfil all requirements that the government has set and provide lawful food for consumers. Maintaining the integrity of Halal certification is crucial not only for religious reasons but also for business and economic considerations. It ensures trust, quality, and access to a significant and growing global market. As the demand for Halal products continues to rise, businesses that prioritize and uphold the integrity of their Halal certifications are more likely to thrive in this lucrative market.

Keywords
Halal certification practice, Halal, meat-based industry, Malaysia.

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1. Introduction
According to Halal Food Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2022-2027, by 2027, Halal food exports in global markets are expected to reach USD3 trillion (RM13.3 trillion) from USD2 trillion in 2021. The current international scenario suggests an increase in Halal food demand is imminent. Thus, the global market demand for Halal products and services significantly impacts the growth of Malaysia's domestic Halal food industry. The Halal market demand has risen due to the increase in the Muslim population and awareness of the consumption of Halal products (Ahmad et al., 2020), but Halal demands also go beyond religious obligation (Adekunle and Filson, 2020). Therefore, every individual is responsible for ensuring the food's status, including the ingredients source, the ingredients themselves, and the method of slaughter (Ishak et al., 2018). According to Ariffin et al (2021), consumers' attention has been drawn to concerns about Halal integrity and ethical values practiced by Halal governance agencies. These agencies are the responsible bodies that monitor the Halal status of products in the Halal market. Being an integral part of the Halal industry, the integrity of Halal assurance on products is crucial because it protects Muslim and non-Muslim consumers rights as it relates to the objective of ensuring societal well-being was written in the Shared Prosperity Vision 2030 (Sungit et al., 2020)

Despite Malaysia's growing Halal food industry, it remains vulnerable to threats of fake and fraudulent Halal products in the local market. A meat cartel syndicate based in Senai, Johor Bahru was reported in late 2020 and led to concerns about the adulteration of Halal labeling and tarnishing Malaysia's reputation as a global Halal pioneer (Laporan Penyata Rasmi, 2020). The cartel operated for four decades due to a lack of effective enforcement by respective agencies and Halal governance agencies (Yaacob et al., 2016). This criminal case sparked public outrage and demands for justice against those responsible for supplying fake Halal meat to Malaysians.

As a result, the nature of the meat-based industry posed a huge challenge for authorities in Malaysia who are established to protect Muslim consumers from consuming haram and unsafe meat-based products. The community has been made aware of non-Halal imported meat that uses fake Halal labels via the meat cartel's distribution mechanism. Halal is the image of Islam, and these negative issues threatened local and international consumers trust of the country's Halal standards practices. Previous literature identified that Halal certification is often fraught with issues and challenges (Nasir et al., 2021; Maichum et al., 2017). The Malaysian Halal certification and logo are issued by a body authorized by the Malaysian government. The government controls the system with multi-agencies support under the Department of Islamic Development Malaysia (JAKIM). JAKIM is a legally mandated competent authority for Halal certification. JAKIM is responsible for determining the product's Halal status at every stage and process by conducting official inspections, administering and issues Halal certification, and the monitoring and enforcement of Halal regulations in Malaysia. Halal certification will be issued if the basic principles and procedures are compiled with and revoked if not complied with.

Therefore, this study is aimed at discussing the practice of Halal certification and its importance in the Halal meat-based industry to maintain and safe-guard the integrity of Halal food in Malaysia and its ecosystem.

2. Literature Review
2.1 Definition and Concept of Halal
The word 'Halal' is derived from an Arabic word that means allowed or permitted according to Shariah (Islamic) law (Rejeb, 2018). On the other hand, *tayyiban* means good quality, safe, clean, nutritious, and authentic (Shaikh, 2006). Halal *and tayyiban* conceptualises the aspects of hygiene, safety, and quality. The concept of *Halalan tayyiban* helps determine all the physical and spiritual benefits of food befitting mankind. In this context, *Halalan tayyiban* can be defined as foods permissible to eat (Halal) and benefits the human body (Arifin et al., 2021). The Halal certification is issued based on the basic principles and procedures that the products must be good, safe, and fit to consume. Allah SWT explains about food that is Halal and *tayyib*, avoiding the steps of the devil and his misguided whispers, especially about the matter of faith and worshiping Allah SWT as stated in the Qur'an:

$$\text{يَٰٓأَيُّهَا ٱلنَّاسُ كُلُوا۟ مِمَّا فِى ٱلْأَرْضِ حَلَٰلًا طَيِّبًا وَلَا تَتَّبِعُوا۟ خُطُوَٰتِ ٱلشَّيْطَٰنِ إِنَّهُۥ لَكُمْ عَدُوٌّ مُّبِينٌ}$$

Meaning: "O mankind, eat from whatever is on earth [that is] lawful and good and do not follow the footsteps of Satan. Indeed, he is to you a clear enemy." (Surah Al-Baqarah: 168).

For Muslims, not all ingredients are allowable. Prohibition is good for the sake of humanity because eating harmful and unlawful foods is both spiritually and physically dangerous. According to the Department Standard of Malaysia (2019), Halal products include food and drink permitted under the Shariah law and fulfil the following conditions, which are a) does not contain any parts or products of animals that are non-Halal by Shariah law or any parts or products of animals that are not slaughtered according to Shariah law; b) does not contain *najs* according to Shariah law; c) safe for consumption, non-poisonous, non-intoxicating, or non-hazardous to health; d) not prepared, processed, or manufactured using equipment contaminated with *najs* according to Shariah law; e) does not contain any human parts or their derivatives that are not permitted by Shariah law and; f) during its preparation, processing, handling, packaging, storage, and distribution, the food is physically separated from any other food that does not meet the requirements stated in items a), b), c), d), or e) or g) any other things that have been decreed as *najs* by Shariah law.

In the context of Halal meat-based products, Islam contains detailed prescriptions for animal-derived foods. Before being eaten, all permissible livestock must be slaughtered in accordance with Shariah law (Hashim et al., 2019). Allah SWT forbids His servant from eating carrion, an animal that dies before being properly slaughtered or killed (Sidek and Ridzwan, 2018). The following verse describes what is Halal and what is prohibited (haram) for Muslims to eat (Fuseini et al., 2016). It is important to remember that at the end of the verse, Allah SWT makes it clear that these dietary rules do not exist in emergency situations that stated in the Quran:

$$\text{حُرِّمَتْ عَلَيْكُمُ الْمَيْتَةُ وَالدَّمُ وَلَحْمُ الْخِنْزِيرِ وَمَا أُهِلَّ لِغَيْرِ اللهِ بِهِ وَالْمُنْخَنِقَةُ وَالْمَوْقُوذَةُ وَالْمُتَرَدِّيَةُ وَالنَّطِيحَةُ وَمَا أَكَلَ السَّبُعُ إِلَّا مَا ذَكَّيْتُمْ وَمَا ذُبِحَ عَلَى النُّصُبِ وَأَنْ تَسْتَقْسِمُوا بِالْأَزْلَامِ ذَٰلِكُمْ}$$
$$\text{فِسْقٌ الْيَوْمَ يَئِسَ الَّذِينَ كَفَرُوا مِنْ دِينِكُمْ فَلَا تَخْشَوْهُمْ وَاخْشَوْنِ الْيَوْمَ أَكْمَلْتُ لَكُمْ دِينَكُمْ وَأَتْمَمْتُ عَلَيْكُمْ نِعْمَتِي وَرَضِيتُ لَكُمُ الْإِسْلَامَ دِينًا فَمَنِ اضْطُرَّ فِي مَخْمَصَةٍ غَيْرَ مُتَجَانِفٍ لِإِثْمٍ فَإِنَّ}$$
$$\text{اللهَ غَفُورٌ رَحِيمٌ}$$

Meaning: "Prohibited to you are dead animals, blood, the flesh of swine, and that which has been dedicated to other than God, and [those animals] killed by strangling or by a violent blow or by a head-long fall or by the goring of horns, and those from which a wild animal has eaten, except what you [are able to] slaughter [before its death], and those which are sacrificed on stone altars, and [prohibited is] that you seek decision through divining arrows. That is grave

disobedience. This day those who disbelieve have despaired of [defeating] your religion; so, fear them not, but fear me. This day I have perfected for you your religion and completed my favour upon you and have approved for you Islam as religion. But whoever is forced by severe hunger with no inclination to sin then indeed, God is Forgiving and Merciful." (Surah Al-Mai'dah: 3)

Zabiha or *Dhabihah* or the killing of animals for Muslim use, must follow the requirements stated in the Quran and Hadith (Marzuk and Yazid, 2012). Slaughtering is a practice that requires cutting the throat in order to sever the trachea, oesophagus, and main blood arteries that run from the head to the heart. The left and right carotid arteries (from the heart to the head) and the left and right jugular veins are the main blood vessels (from the head to the heart). The act of slaughtering must sever the trachea (*halqum*), esophagus *(mari')*, carotid arteries, and jugular veins (*wadjain*), according to Halal slaughtering process (Hashim et al., 2019). Not all ingredients are permissible for Muslims to eat. Allah SWT told all Muslims in the Qur'an to take only what is good and Halal. Allah S.W.T said in the Quran:

$$\text{وَطَعَامُ الَّذِينَ أُوتُوا الْكِتَابَ حِلٌّ لَّكُمْ وَطَعَامُكُمْ حِلٌّ لَّهُمْ}$$

Meaning: "This day [all] good foods have been made lawful, and the food of those who were given the Scripture is lawful for you, and your food is lawful for them." (Surah Al-Mai'dah: 5)

2.2 Issues in the Malaysian Halal Meat-Based Industry

Malaysia aims to be the Global Halal Hub since 2010. To achieve this goal, the Halal Development Corporation (HDC) recommends that the country's Halal food industry have at least 10,000 competitive and internationally marketed Halal food firms (Noor and Wahid, 2015). The Halal meat-based industry has undergone industrialization, and it must comply with certain Halal regulations to guarantee that its products are Halal and *tayyib* within contemporary methods (Ruzulan et al., 2021). The demand trend for Halal meat and meat-based products among Muslims worldwide has increased in recent years. In general, the meat industry in Malaysia involves two main commodities, namely the production of beef, buffalo, mutton, and sheep (Ministry of Agriculture and Food Industries, 2021).

Malaysia has recently experienced a scandal involving Halal meat, which has caused distrust and uncertainty among the Muslim community regarding the safety of available Halal meat products in the market (Riza et al., 2022). There is no doubt that Halal meat-related issues have frequently been discussed in public discussion, particularly with the Halal status of locally produced and imported (Ruzulan et al., 2021). According to Laporan Penyata Rasmi (2020), a group has allegedly smuggled illegal meat from four nations (China, Ukraine, Brazil, and Argentina) into Malaysia using fraudulent documentation such as falsified customs forms, import permits, Halal certificates, and payment receipts to bypass unauthorized checks by the authorities. Indeed, the meat scandal had stoked the flames of discontent among the Muslim majority and, as a result compromised the Malaysian Halal system (Whitehead, 2021). Prioritizing the consumers' need for Halal integrity is of utmost importance. Religious sensitivity has raised significant concerns among the Muslim community in Malaysia, prompting heightened awareness and attention (Idris and Noor, 2013). Numerous stakeholders, particularly consumers, demand reassurance and certainty and requests explanation of the Halal status of the imported meat products (Laporan Penyata Rasmi, 2020).

The topic of meat cartels has sparked a discussion among the community, with one of the key concerns being how the syndicate operated without the authorities' detection. This is particularly puzzling given that all meat products must be thoroughly inspected before being sold to consumers (Riza et al., 2022). The journey of the meat product starts with its entry at the national border, followed by transportation to a factory where it is repackaged, and finally, it is branded before being distributed to entrepreneurs and markets (Ariffin et al., 2021). Meanwhile, other worse issues related to fake meat created from recycled human waste were reported by a team of researchers in Japan waste (Salahudin et al., 2018). Besides that, other Halal issues related to meat cartel crime are the origins of raw materials, distinguishing Halal products, expired certificates, and abuse of Halal labelling and logo (Ali and Suleiman, 2018). The general procedure to import livestock or animal product to Malaysia is shown in Figure 1.
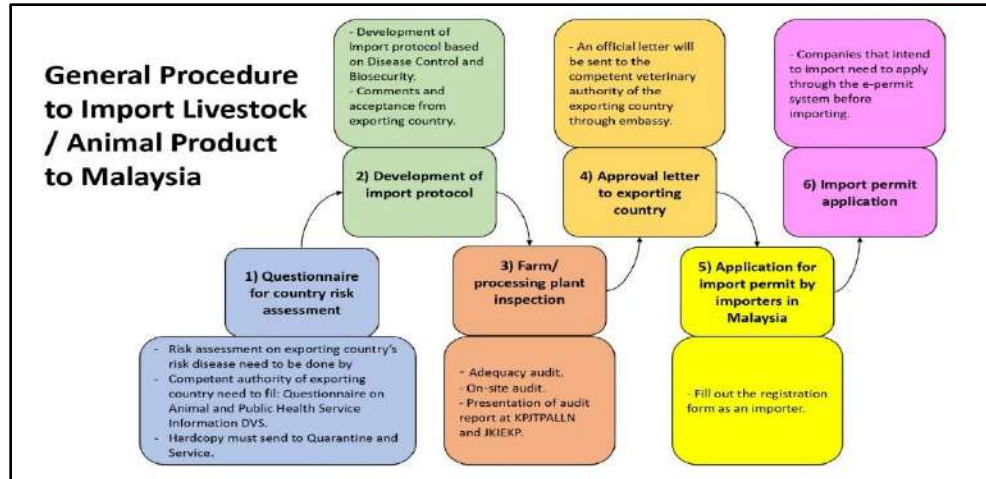
Figure 1: General procedure to import livestock or animal product to Malaysia.
Source: Department of Veterinary Services (2023)

Over the last decades, issues in the Halal meat-based industry have been studied from various perspectives, for instance, on attributes of Halal products, awareness of Halal products, consumer perception, and consumer behavior when purchasing Halal meat-based products, and it reflects the important of Halal certification as it provides recognition of quality and assurance. For instance, the entry of meat-based products into the country with the purpose of consumption by Muslims is subject to strict restrictions, only allowing those endorsed by JAKIM-certified entities and acknowledged as Halal. Consumers often perceive the presence of the Halal logo on products as a guarantee of their cleanliness, being free from any impurities *(najs-free)* and conforming to the concept of *tayyib* (wholesomeness) (Tieman et al., 2012). This association assures Muslim consumers that their products comply with Halal standards and meet religious dietary requirements. The Halal logo symbolizes trust, enabling consumers to make informed choices when selecting Halal-certified meat-based products (Tieman et al., 2012).

This issue is further exacerbated because consumers put their trust in agencies and major players who act as key regulatory bodies in monitoring the quality assurance to safeguard the Halal product integrity from farm to fork. Serious crimes such as corruption and bribery among government officers must be eradicated because these activities damage the management system, increasing the crime rate (Azrae et al., 2018). The trust and authority given to law enforcement officials is tainted and abused with corruption and profiteering. According to reports by Suruhanjaya Pencegahan Rasuah Malaysia (2021), corruption and bribery are suspected to be the root cause of this issue. It must be taken seriously because this problem can hinder the country's development in all aspects, including Halal industry development.

3. Methods

The study focuses on the issue in the Halal meat-based industry, the practice of Halal certification, and its importance in the Halal meat-based industry. This research applied a qualitative research design via the library research approach; relevant data were extracted from authoritative sources as a research base. The main base data was used to complete the research, reference, or secondary bibliographic materials such as articles, journals, conference proceedings, books, and other related sources. Then, the data were analysed from a Halal meat-based perspective before further discussing the Halal certification process and its importance. The analysis outcome was analysed according to the thematic method. The analytical approach was used to develop an understanding of Halal certificate practice in Malaysia's meat-based industry by analysing the opinions of scholars, researchers, and reporters in disseminating information. The flow chart for this study is shown in Figure 2.
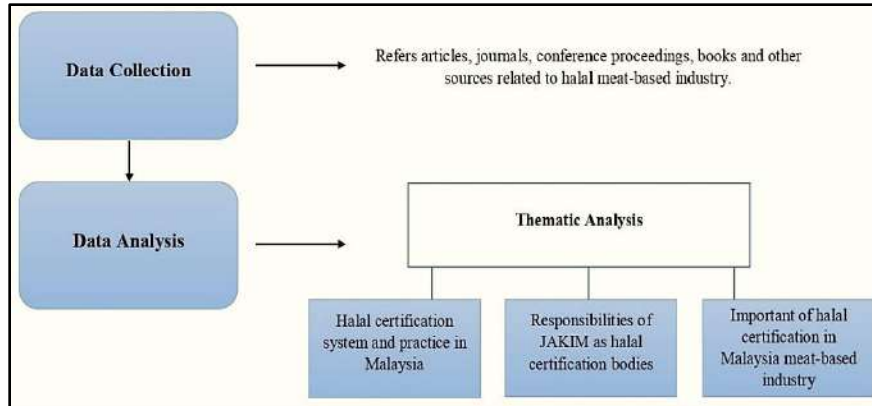
Figure 2: Flow chart of data collection used

4. Results and Discussion

4.1 Halal Certification System in Malaysia Meat-Based Industry

In Malaysia, Halal certification is issued by a body that the Malaysian government authorizes. The government controls the system with major support from multi agencies and organisations led by the Department of Islamic Development Malaysia (JAKIM), an important body that plays a significant role in Halal certification practice and process in Malaysia (Noordin et al., 2009). From 1994 until 2008, JAKIM is an authorised body to handle the certification process (Noordin et al., 2009). Besides, the State Islamic Religious Department (JAIN) and State Islamic Religious Council (MAIN) have the authority to issue Halal certificates and logos for the domestic market (Noordin et al., 2009). In April 2008, the government appointed Halal Industry Development Corporation (HDC) to handle local and international Halal certification processes (HDC, 2008). HDC is a private company wholly owned by the Malaysian government. It was established in 2006 to facilitate Malaysia's Halal hub project. In fact, until October 15, HDC had successfully certified 637 companies of which 627 were local companies and 10 for international companies (Shahrul, 2008).

Since the Trade Description Act amendment in 2011, JAKIM has been Malaysia's exclusive Halal certification authority, certifying local and exported products. It also acts as a regulatory body in monitoring and enforcing Halal standards. Under this act, the Department of Islamic Development Malaysia (JAKIM) was granted the legal authority to audit companies that held Halal certification, with the power to renew, suspend, or revoke such certifications based on the audit outcomes (Adham et al., 2022). This newfound authority enabled JAKIM to implement a structured and systematic Halal certification process, resulting in the evolution of best practices within the Halal assurance system in the industry. The only Halal certification that can be recognized is the certification issued by JAKIM. The government has recently restructured the certificate issuance process, with JAKIM responsible for certifying food products for both domestic and international export (Shirin, 2017). Meanwhile, JAIN will issue certificates bearing the same Halal logo to companies producing food solely within their respective states (Suhaimee et al., 2019; Asa and Azmi, 2011).

In Malaysia's Halal meat-based industry context, the Malaysian protocol for Halal meat and poultry production was developed by JAKIM to give clear guidance in Halal meat production. This protocol is intended to support implementing Malaysia's requirements for Halal meat-based products. This protocol also applies to all establishments producing Halal meat and poultry and its products. This protocol prescribes practical guidelines for abattoir and poultry processing plants on stunning method, slaughtering, further dressing process, storage, and transportation of Halal meat.

4.2 Responsibilities of JAKIM as Halal Certification Bodies

By the 2010s, the Halal certification process had achieved a more stable and established state, with the certification program by the Department of Islamic Development Malaysia (JAKIM) emerging as the predominant model and the widely accepted standard among various stakeholders, including the government, industry players, and consumers (Adham et al., 2022). JAKIM is the competent authority in Malaysia stipulated by law for Halal certification (JAKIM, 2020). JAKIM has the power to enforce Halal-related matters following their relevant act and jurisdiction with other enforcement authorities. JAKIM officers have been appointed as assistant controllers of Trade descriptions and given the authority the card to warn, suspend and revoke the business license. With JAKIM assuming the central authority

in managing Muslim affairs in Malaysia and introducing Orders under the Trade Description Act 2011, JAKIM gained increased power and jurisdiction to effectively oversee Halal certification programs (Adham et al., 2022).

According to Buang and Mahmod (2012), to acquire Halal certification, JAKIM must ascertain the product's Halal status throughout each stage and process. It also involves conducting official on-site inspections of factories to assess the maintenance of the Halal status of raw materials. By performing these inspections, JAKIM ensures adherence to Halal standards and guarantees the integrity of the certification process.

Under JAKIM, Malaysia has enacted several laws regulating the Halal meat-based industry. Effective law enforcement is critical to guarantee that Halal food producers follow the laws' requirements and, more critically, to increase Muslim customers' faith in Halal meat-based products (Rahman et al., 2018). JAKIM published the Malaysian Halal Certification Procedure Manual (MPPHM) in 2005, which was recently amended in 2014 and further enhanced in 2019. It gives JAKIM the authority to act as the Halal certification body. MPPHM includes Halal certification criteria for JAKIM and MAIN inspection officers. MPPHM includes information on Halal certification application methods, certification process, and financial levied, in addition to defining the terms and requirements for Halal certification (Rahman et al., 2018). The Halal certification practices standards and guidelines are written in the Malaysian Halal Certification Procedure Manual 2020 (MPPHM 2020), MS1500:2009 Halal Food - Production, Preparation, Handling and Storage - General Guidelines (Third Revision), Food Act 1983 and Trade Description Act 2011. The industry players must comply with this guideline to obtain Halal product certification. The Malaysian Halal Standards were created in response to the increased demand for Halal products, services, and infrastructure as a counterpoint to Malaysia's Halal ecosystem. Muslim consumer understanding of the Halal problem has also contributed greatly to this need. The Malaysian Halal Standards series was developed with the idea of Halal built-in by the relevant parties (Department of Standards Malaysia, 2019).

In addition, the empowerment of the Food Act of 1983 by the Ministry of Health (MOH), as well as laws such as the Food Regulations of 1985 and the Food Hygiene Regulations of 2009 implemented to protect consumers by guaranteeing that any food supplied does not include dangerous materials in terms of food preparation and safe to consume (Rahman et al., 2018). This law was created to ensure that food safety control is more secure and maintained in the food industry and that food preparation is also protected from harmful things to consumers. The Malaysian Halal certificate program is divided into nine schemes: food and beverages, cosmetics, pharmaceutical, food premise, slaughterhouse, logistics, original equipment manufacturer (OEM), medical devices, and consumer goods. Halal certification means that the product and its production methods (including raw materials, ingredients, processing equipment, and other handling equipment used in manufacturing) adhere to the Islamic law (Shariah Law) requirements.

4.3 Important of Halal Certification in Malaysia Meat Based Industry

The Halal market is growing domestically and globally. In 2018, the Malaysian Halal market grew to USD 68.4 billion and was targeted to achieve USD 113.2 in 2030. The global Halal market's net worth became USD 3.1 trillion in 2018 and is expected to achieve USD 5.0 trillion in 2030 (Kementerian Hal Ehwal Ekonomi, 2020). Expanding the Halal market will give a huge opportunity to the country and society. In the Muslim majority country like Malaysia, the concept of Halal is an absolute key to consumption. The Halal certificate is one of the Malaysian government's initiatives designed to help Muslim consumers.

Besides, the growth of the Muslim population worldwide encourages the growth of the Halal meat-based industry since all Muslim customers are obligated to seek out Halal products and services. The consumer's sensitivity was affected by the Halal meat-based industry issue. The Halal meat market will drop due to the loss of trust, especially the Muslim consumers in Malaysia. The meat-based industry must comply with the Halal certification process to build consumer trust and interest. The worst part is the potential lack of trust by consumers in Malaysia toward the Halal certification authorities, especially JAKIM. A low level of assurance in the Halal meat products in the Halal meat-based industry would have adverse impacts on consumers' confidence in consuming the products, which will lead to low producers' sales, as well as might jeopardize the credibility and status of JAKIM Halal certificate, which is supposed to preserve the Halal, *tayyib* and well-being of Muslim consumers. Thus, the Halal certificate practice is important to fulfill the quality and requirements in the Halal meat-based industry. Halal certification is important to make sure the product is free of toxins and contamination, includes no dangerous ingredients, and is clear of fraud in terms of weight, quality, expiry date, ingredient, and name (Ariffin et al., 2021; Nakyinsige et al., 2012; Zulfakar et al., 2014; Ngah et al., 2014; Yaacob et al., 2021).

According to Baharuddin and Ismail (2018), Halal meat is meat from a permissible animal slaughtered in a Shariah-compliant manner. Furthermore, meat imported from other countries with the Halal logo recognized by JAKIM does not violate Halal standards and is safe for customers. Meat production must meet industry, economic, and manufacturing needs and government health standards without negatively impacting Islamic religious

requirements derived from the Qur'an and Hadiths (Shahdan et al., 2016). According to the Ministry of Agriculture and Food Industries, meat demand is expected to increase from 1.4 million tons in 2010 to 1.8 million tons in 2020, with a growth of 2.4% per annum. As a result, Malaysia became one of the significant Muslim countries involved in Halal meat production. The Halal market is expanding both domestically and internationally. Malaysia's Halal market grew to USD 68.4 billion in 2018 and is expected to reach USD 113.2 billion by 2030. The world Halal market's net worth increased to USD 3.1 trillion in 2018 and is expected to reach USD 5.0 trillion by 2030 (Riza et al., 2022).

Halal certification practices must be controlled strictly to maintain the quality and integrity of Halal food. Due to that, all parties, either the government, the industries, the workers, or the consumers themselves, must cooperate and be responsible for empowering Halal industry values. The Halal certification system in Malaysia has undergone significant development over the past five decades, starting from a lack of any Halal assurance system to widespread distrust of Halal integrity and assurance in the 1970s, and ultimately leading to the establishment of a reputable Halal assurance system (Adham et al., 2022). This development was made possible by implementing various laws, policies, regulations, standards, guidelines, and fatwa decisions. These systems were designed to adapt to the diverse, multicultural industry contexts of Malaysia and to ensure that the practices of food handlers, service workers, and providers did not conflict with the needs of Muslims in Malaysia to observe Halal rules in consumption and other aspects, under Shariah requirements (Adham et al., 2022).

5. Conclusion

The primary food crime issues concerning meat products encompass meat adulteration, mislabeling of meat-based products, and manipulation of meat, such as substituting beef with buffalo meat in sausage production. Furthermore, there have been cases where prohibited meat, such as pork, is illicitly exchanged for beef, or dog meat is misrepresented as mutton. Additionally, meat from animals not slaughtered under Halal requirements may be fraudulently introduced into the market. These issues highlight the challenges faced in ensuring the integrity and compliance of meat products within the industry. However, there is limited study on Halal certification practice in meat production since many issues about meat hit Malaysia's Halal industry.

An effective regulatory framework plays a vital role in overseeing the safety and quality of Halal meat across the entire supply chain within the Halal meat industry. Halal certification and compliance primarily pertain to ensuring product safety and quality assurance. To maintain the safety and quality of Halal meat products, adherence to standards and regulations is essential throughout the entire supply chain process. In order to get the Halal certification, the entire supply chain, from the farm to the fork, must be Halal. The Halal meat supply chain, encompassing raw material acquisition, production, packaging, transportation, and storage, is governed, and controlled by a robust regulatory framework. However, inadequate enforcement and monitoring by local authorities can lead to non-compliance with regulations, potentially compromising the products' Halal status, safety, and quality. Additionally, industry players in the Halal meat sector often lack understanding and exposure to the proper regulatory framework governing Halal operations. Therefore, enhancing the operations within the Halal meat industry requires increased awareness and preparedness from all stakeholders involved in the industry.

The study's findings are expected to add current knowledge on the practices of Halal certification in the meat-based industry, and it will benefit both industry players and the government. This study aims to propose enhancements to Halal certification practices by exploring various methods that can be employed to ensure that marketed products adhere to the requirements of Halal certification. The research will identify and recommend strategies and approaches to improve the effectiveness and reliability of Halal certification processes. It is anticipated that the assurance of Halal status in certified products can be strengthened, fostering greater confidence among consumers and stakeholders in the Halal industry. Besides that, this study also provides recommendations to the government in improving enforcement aspects to the authorities, which can be refined in more depth. Moreover, this study recommends that the meat-based industry improve standard operating procedures. Halal certification often involves rigorous food safety and quality control standards. Maintaining the integrity of certification ensures that Halal products meet these high standards, reducing the risk of contamination or substandard products entering the market. In addition, halal certification serves as a guarantee to consumers that the product meets strict quality and ethical standards. If consumers have confidence in the certification process, they are more likely to purchase Halal products, which can lead to increased sales and brand loyalty for manufacturers.

Acknowledgement

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The Effect of Environmental Disclosure on Financial Performance on Manufacturing Companies in Indonesia and Singapore

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Abstract

This study aims to analyze the effect of environmental disclosure on the financial performance of manufacturing companies in Indonesia and Singapore. The data used in this study is secondary data taken from the Indonesia Stock Exchange and the Singapore Stock Exchange in 2019. The sample in this study used 108 manufacturing companies from Indonesia and 102 Singapore manufacturing companies. The data analysis technique used multiple linear regression. The regression results prove that Environmental Disclosure has a positive effect on ROA, ROE, and NPM in manufacturing companies in Indonesia. However, in Singapore, Environmental Disclosure does not have a positive effect on any of the financial performance variables (ROA, ROE, NPM, EPS). Furthermore, this study highlights differences in environmental disclosure implementation between Indonesia and Singapore.

Keywords
Environmental disclosures, ROA, ROE, NPM, EPS

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1. Introduction
Environmental pollution is one of the significant issues that we are facing. One of the causes of environmental pollution is pollution and waste generated by the company. Several types of company waste need further processing before being disposed of so as not to cause environmental damage, especially hazardous waste (hazardous materials). In other words, the company has a close relationship with the environment. With this relationship, companies need to create an environmental disclosure as evidence of the company's responsibility to the environment (Asrori et al., 2019). Manufacturing companies are the most contributor to the gross domestic product in Indonesia while contributing the most emissions and waste. Moreover, the fashion industry is ranked fourth in contributing to waste in landfill (Nurjihanti, 2021).

Manufacturing companies are an indicator of a country's progress. It is because manufacturing companies can meet domestic needs and compete with other countries in the economic sector. Moreover, economic growth in Indonesia and Singapore is inseparable from the manufacturing companies. In Singapore, the sector that plays a significant role in the Singapore economy is the manufacturing industry (Edison, 2019). Similar to Singapore, data from the United Nations Industrial Development Organization (UNIDO) in 2018 shows that in terms of manufacturing value added, the manufacturing industry in Indonesia continues to increase from USD 202.82 billion in 2014 to USD 236.69 billion in 2018. The Secretary General of the Ministry of Industry revealed that Indonesia is in the top 10 in the world as an industrial country with high added value (Kemenperin, 2017). On the other hand, along with the development of the manufacturing industry, several manufacturing companies in Indonesia often ignore environmental concerns that may harm the environment. As a result, manufacturing companies are one of the causes of environmental damage (Kurniawan, 2017).

One of the elements disclosed in corporate social responsibility is environmental information (Nor et al., 2016). Disclosure of this information is a form of corporate responsibility to the environment in which the company stands. With CSR, the company can provide an overview of the environmental conditions and activities carried out by the company.

Environmental disclosure is a set of information items related to past, current, and future environmental management activities and performance (Berthelot & Magnan, 2003). Companies have different disclosure methods when reporting this disclosure (Rahman et al., 2009). Most companies provide the information in an annual statement or separate sustainability reports (Chaklader & Gulati, 2015).

Previous research shows inconsistent results on the influence of Corporate Social Responsibility (CSR) on the company's financial performance. Research by Rizkan et.al., (2016), Aulia & Hadinata, (2019); Haninun et al., (2018); Pertiwi Dkk (2018); and Wulandari (2020) show that CSR has an effect on ROA, while Heryanto &Julianto

(2017); Tahu, (2019); and Sin Yi et al., (2022) prove the opposite result. Furthermore, Haninun et al., (2018); Manisa & Defung, (2017); Sin Yi et al., (2022); and Wulandari (2020) show that CSR affects ROE. However, Heryanto & Juliarto (2017) stated that environmental disclosure does not affect ROE.

The other proxy for financial performance is NPM. Sin Yi et al., (2022) show that CSR has an effect on NPM. On the other hand, Heryanto & Julianto (2017) and Wulandari (2020) prove that CSR affects NPM. For the EPS proxy, Ningtyas & Triyanto (2019) and Yi, Choong, & Muthaiyah (2022) show that environmental disclosure affects these variables. Meanwhile, Heryanto & Julianto (2017) proved the opposite result.

Research by Loh et al., (2016) states that Singapore is ranked second in ASEAN in environmental information. Furthermore, Loh et al., (2016) show that Singapore and Indonesia have values that are not much different, namely 48.8 and 48.4, respectively. Therefore, this study also examines whether there are differences in the environment between Indonesia and Singapore.

This study aims to examine the effect of Environmental Disclosure on financial performance as measured by ROA, ROE, NPM, and EPS. In addition, this study also examines whether there are differences in the level of environmental disclosure in Indonesia and Singapore. The results of this study provide input for capital market authorities regarding the relevance of environmental disclosure information in the company's annual report. Furthermore, this research can give input to companies in considering whether the company should disclose environmental disclosure information in their annual report or not.

2. Literature Review
Stakeholder Theory
Stakeholder theory emphasizes that organizations should not operate solely for their self-interest but should benefit all groups or individuals who can influence or be influenced by the organization's objectives (Chariri & Ghozali, 2007). Stakeholders can be divided into primary, who have a direct impact on the company's sustainability, and secondary, who are indirectly related to its continuity (Trianaputri & Djakman, 2020). Companies now must consider social factors alongside economic goals as part of their societal concern and support (Phillips, 2011). Seeking support from stakeholders, adapting to their influence, and maintaining stakeholder relationships are crucial for a company's sustainability (Chariri & Ghozali, 2007). This support can be garnered through transparent disclosure of both financial and non-financial information, enhancing the company's reputation, and positively impacting its performance through product use or investments, ultimately influencing profitability ratios.

Agency Theory
Agency theory explains the relationship that occurs between shareholders as owners of the company (principal) and management as agents. In this case, the shareholders hand over the responsibility to the management to manage and run the company so that the company's goals are achieved. In practice, within the company there is often a conflict called agency conflict because the parties involved, namely the principal (who gives the contract or the shareholder) and the agent (who receives the contract and manages the principal's funds) have conflicting interests (Sukma Perdana, 2014).

In the context of environmental disclosure, shareholders (principals) are the owners of the company, and management (agents) is responsible for the day-to-day operations. Agency theory states that information asymmetry and conflicts of interest can arise between shareholders and management. Shareholders may be concerned that management will prioritize their own interests over environmental concerns.

To address this agency conflict, manufacturing companies can use environmental disclosure as a monitoring mechanism. By disclosing information about their environmental practices, companies can signal to shareholders and other stakeholders that they take environmental issues seriously. This disclosure can help align the interests of shareholders and management regarding environmental performance.

Signaling Theory
Signal theory explains the reasons why companies push to provide financial report information to external parties, namely, the existence of information asymmetry between internal parties (companies) and external parties (investors and creditors). Companies have more information than outsiders (investors and creditors). The emergence of this asymmetric information problem makes investors on average give a lower valuation of all company shares. In the language of signaling theory, this tendency is called a pooling equilibrium because good quality companies and bad quality companies are included in the same evaluation "pool". One way to reduce information asymmetry is to provide signals that are relatively expensive, which do not allow low-quality companies to imitate but their well-performing companies can still finance it.

Signaling theory posits that companies use disclosure as a signal to convey information about their attributes, performance, and future prospects to external stakeholders. In the case of manufacturing companies, disclosing environmental information can serve as a positive signal to investors, customers, regulators, and the public. By voluntarily disclosing environmental information, companies can demonstrate their commitment to environmental sustainability. This can enhance their reputation and image, attract environmentally-conscious investors and customers, and potentially create a competitive advantage. In some cases, regulators require manufacturing companies to disclose specific environmental information. Compliance with these regulations can also be seen as a signal of the company's commitment to environmental responsibility.

2.1 Environmental Disclosure and ROA

One form of corporate responsibility for environmental impacts arising from company operations is environmental disclosure (Solikhah & Maulina, 2021). This disclosure is also a tool for investors and other interested parties (Solikhah & Maulina, 2021). Based on stakeholder theory, company management works in the interests of stakeholders. The form of corporate responsibility includes a more transparent disclosure of environmental information on the impacts of its operational activities. When the company can fulfill its commitment, it will maintain the trust of interested parties, especially customers. Customers will buy the products provided by the company because they believe that the company also protects the environment in producing its products. It will increase the company's profit over time. In other words, stakeholder trust in the company can increase Return on Assets (ROA) in the future (Aulia & Hadinata, 2019). Previous research has tested the effect of environmental disclosure on Return on Assets (ROA). The results of the study by Aulia & Hadinata (2019); Haninun et al., (2018); Pertiwi et al., (2018); Rizkan et al., (2016); Wulandari (2020) prove that environmental disclosure affects ROA. Based on the explanation above, the alternative hypotheses of this research are:

H_{1a}: *Environmental Disclosure* has a positive effect on the ROA in Indonesia.
H_{1b}: *Environmental Disclosure* has a positive effect on the ROA in Singapore.

2.2 Environmental Disclosure and Return on Equity (ROE)

Environmental disclosure is a form of corporate responsibility to interested parties regarding the impacts caused by the company environment. According to stakeholder theory, management manages the company based on stakeholder interests. The community and customers are part of the stakeholders who play a significant role in the company. When companies disclose environmental responsibility, companies can increase public and customer trust. It will increase the company's profit because the community and customers believe that in producing these products, the company is also responsible for the impact it has on the environment. In other words, the increase in the company's profit will increase the Return on Equity (ROE). Previous research on environmental disclosure and ROE showed consistent results. The study conducted by Haninun et al., (2018); Manisa & Defung (2017); Sin Yi et al., (2022); Wulandari (2020) show that environmental disclosure has a positive effect on ROE. Based on the explanation above, the alternative hypotheses of this research are:

H_{2a}: *Environmental Disclosure* has a positive effect on the ROE in Indonesia.
H_{2b}: *Environmental Disclosure* has a positive effect on the ROE in Singapore.

2.3 Environmental Disclosure and Net Profit Margin (NPM)

Stakeholder theory describes the company's responsibilities to interested parties. One of these responsibilities is environmental disclosure. The activities carried out by the company have an impact on the surrounding environment. Furthermore, companies will get support from stakeholders when they disclose corporate social responsibility. The more the company contributes to protecting the surrounding environment, the more support from stakeholders. One form of stakeholder who plays a role is a buyer of the company's products. They can increase the company's product sales profit so that the company can achieve the predetermined profit target and can increase the profitability ratio too. In other words, this increases the Net Profit Margin (NPM) ratio so that the company's profit increases too. Research conducted by Heryanto & Julianto (2017) and Wulandari (2020) shows that environmental disclosure affects NPM. Based on the explanation above, the alternative hypotheses of this research are:

H_{3a}: *Environmental Disclosure* has a positive effect on the NPM in Indonesia.
H_{3b}: *Environmental Disclosure* has a positive effect on the NPM in Singapore.

2.4 Environmental Disclosure and EPS

Environmental disclosure is the disclosure of information needed by stakeholders related to the environmental impact of company activities (Solikhah & Maulina, 2021). By disclosing this information, the company has fulfilled its

responsibilities to stakeholders. It is in line with the stakeholder theory that states management manages the company on the stakeholders' behalf. Disclosure of environmental information will increase stakeholder trust in the company, one of which is the customer. When the company can increase customers' trust, they will buy more products from the company. This form of support has an impact on increasing company profits. Not only the customers but also the shareholder will feel the benefit. It is because increased profits will also increase their earnings. In other words, environmental disclosure by the company can increase the company's earnings per share (EPS). Previous research by Ningtyas & Triyanto (2019) and Yi et al., (2022) examined the effect of environmental disclosure on earnings per share. The results showed that the disclosure affected the company's earnings per share. Based on the explanation above, the alternative hypotheses of this research are:

H4a: *Environmental Disclosure* has a positive effect on EPS in Indonesia.
H4b: *Environmental Disclosure* has a positive effect on EPS in Singapore.

2.5 Environmental Disclosure in Indonesia and Singapore

Loh et al., (2016) conducted a test between ASEAN Countries consisting of Indonesia, Malaysia, Singapore, and Thailand. The study explains that disclosure among ASEAN countries is still low and needs to be improved. The results in terms of environmental aspects show that Indonesia is in the third position while Singapore is in the second position in ASEAN. It may be due to differences in the application of environmental disclosure in Indonesia and Singapore. Based on the explanation above, the alternative hypotheses of this research are:

H5: There are differences in the application of environmental disclosure in Indonesia and Singapore.

3. Methods

3.1 Sampling

This study uses a sample of manufacturing companies listed on the Indonesia Stock Exchange and Singapore Stock Exchange in 2019. The sample companies in this study were selected based on purposive sampling, with the following criteria: (1) Listed on the Indonesia Stock Exchange and Singapore Stock Exchange in 2019. (2) Publish a complete annual report in 2019. (3) Have complete data related to research variables.

3.2 Dependent Variable

Return on Assets (ROA)

ROA is a ratio used to measure the rate of return on resources or assets owned by the company.

$$ROA = \frac{Earnings\ after\ tax}{Total\ Assets}\ x\ 100\%$$

Return on Equity (ROE)

ROE is a ratio used to measure the company's ability to generate a return on the company's capital.

$$ROE = \frac{Earnings\ after\ tax}{Total\ Equity}\ x\ 100\%$$

Net Profit Margin (NPM)

NPM is a ratio used to measure the company's ability to generate profit on sales made by the company.

$$NPM = \frac{Net\ Profit}{Sales}\ x\ 100\%$$

Earnings per Share (EPS)

EPS is a ratio used to measure the total profit earned by investors for each share.

$$EPS = \frac{Earnings\ after\ tax}{Average\ Outstanding\ Shares}\ x\ 100\%$$

3.3 Independent Variable

The independent variable in this study is environmental disclosure. This variable was measured using the environmental disclosure guidelines framework issued by the Global Reporting Index (GRI). It contains 12 aspects and 34 items. The formula used in the calculation of this variable is as follows.

$$\sum ED = \frac{Number\ of\ items\ disclosed}{34}$$

4. Results and Discussion
4.1 Numerical Results
This study uses 108 of the 196 manufacturing companies listed on the Indonesia Stock Exchange, while the sample from the Singapore Stock Exchange uses 102 of 202 companies. The classical assumption test has done before the regression test. The results of the classical assumption test are as follows.

a)   Normality Test
The first classic assumption test is the normality test. The tables below show the result of the normality test. Table 1 shows the normality test for Indonesia, while table 2 refers to Singapore.

Table 1: Normality Test (Indonesia)
Source: Output SPSS

Variables	Asymp.Sig. (2-tailed)	Results
ROA	0,069	Normal
ROE	0,131	Normal
NPM	0,068	Normal
EPS	0,077	Normal

Table 2: Normality Test (Singapore)
Source: Output SPSS

Variables	Asymp.Sig. (2-tailed)	Results
ROA	0,101	Normal
ROE	0,064	Normal
NPM	0,129	Normal
EPS	0,073	Normal

Based on the two tables above, the Asymp sig (2-tailed) is below 0.05. Therefore, the data used in this study is normally distributed.

b)   Multicollinearity Test
The multicollinearity test used in this study examines whether the regression model found a correlation between independent variables. Table 3 and Table 4 present the result of the multicollinearity test.

Table 3: Multicollinearity Test (Indonesia)
Source: SPSS's Output

Variables	Multicollinearity Statistics		Results
	Tolerance	VIF	
ROA	1,000	1,000	There is no multicollinearity
ROE	1,000	1,000	There is no multicollinearity
NPM	1,000	1,000	There is no multicollinearity
EPS	1,000	1,000	There is no multicollinearity

Table 4: Multicollinearity Test (Singapore)
Source: SPSS's Output

Variables	Multicollinearity Statistic		Results
	Tolerance	VIF	
ROA	1,000	1,000	There is no multicollinearity
ROE	1,000	1,000	There is no multicollinearity
NPM	1,000	1,000	There is no multicollinearity
EPS	1,000	1,000	There is no multicollinearity

The two tables above show no multicollinearity in the data. The VIF value in this study is less than ten means the data from both countries have no multicollinearity.

c)   Heteroscedasticity Test
Furthermore, Table 5 and Table 4.6 present the results of the heteroscedasticity test. This study uses the glejser test for the heteroscedasticity test.

Table 5: Heteroscedasticity Test (Indonesia)
Source: Output SPSS

Variables	Sig.	Results
ROA	0,086	There is no heteroscedasticity
ROE	0,476	There is no heteroscedasticity
NPM	0,443	There is no heteroscedasticity
EPS	0,178	There is no heteroscedasticity

Source: Output SPSS

Table 6: Heteroscedasticity Test (Singapore)
Source: Output SPSS

Variables	Sig.	Results
ROA	0,123	There is no heteroscedasticity
ROE	0,114	There is no heteroscedasticity
NPM	0,199	There is no heteroscedasticity
EPS	0,479	There is no heteroscedasticity

The table above shows that the significant values for all variables are greater than α (0.05). This means that the regression model does not exhibit heteroskedasticity.

d) Hypotheses Test

Based on the results of the simple regression analysis, the following are the results of hypothesis testing in this study as follows:

Table 7: Hypotheses Test
Source: Output SPSS

Code	Hypothesis	β	Sig	Results
H1$_a$	*Environmental Disclosure* has a positive effect on the ROA in Indonesia	0.030	0.007	Supported
H1$_b$	*Environmental Disclosure* has a positive effect on the ROA in Singapore	-0.017	0.259	Not Supported
H2$_a$	*Environmental Disclosure* has a positive effect on the ROE in Indonesia	0.077	0.013	Supported
H2$_b$	*Environmental Disclosure* has a positive effect on the ROE in Singapore	-0.073	0.016	Not Supported
H3$_a$	*Environmental Disclosure* has a positive effect on the NPM in Indonesia	0,050	0,021	Supported
H3$_b$	*Environmental Disclosure* has a positive effect on the NPM in Singapore	-0,027	0,401	Not Supported
H4$_a$	*Environmental Disclosure* has a positive effect on the EPS in Indonesia	0,009	0,072	Not Supported
H4$_b$	*Environmental Disclosure* has a positive effect on the EPS in Singapore	0,012	0,517	Not Supported
H5	There are differences in the application of environmental disclosure in Indonesia and Singapore		0,000	Supported

Table 7 indicate that the influence of Environmental Disclosure on financial performance, as proxied by ROA, ROE, NPM, and EPS, is not consistent across Indonesia and Singapore. In Indonesia, Environmental Disclosure has a positive and significant impact on ROA and ROE, implying that increased disclosure positively affects these financial performance metrics. However, in Singapore, there is no significant impact of Environmental Disclosure on ROA or ROE. For NPM, Indonesia shows a positive and significant relationship, while Singapore does not exhibit such an effect. Regarding EPS, Environmental Disclosure does not significantly affect it in both countries.

Additionally, there is a notable difference in the level of Environmental Disclosure between Indonesia and Singapore. This difference is attributed to varying regulations, with Indonesia having voluntary environmental disclosure regulations, while Singapore enforces mandatory disclosure, potentially leading to increased reporting. Nevertheless, some companies in Singapore still fail to report certain environmental aspects within the GRI framework, highlighting the complexity of environmental reporting practices. Singapore has also introduced a

sustainability reporting policy with a "comply or explain" basis, aimed at assessing the environmental impact of corporate activities. Overall, the research suggests that the relationship between Environmental Disclosure and financial performance is not uniform across countries, and regulatory differences play a significant role in shaping disclosure practices.

5. Conclusion

This study aims to investigate the influence of Environmental Disclosure on the financial performance of companies, proxied by ROA, ROE, NPM, and EPS. The companies under examination in this research are manufacturing companies listed on the Indonesia Stock Exchange (BEI) and the Singapore Stock Exchange (SGX) in 2019. Using purposive sampling, a total of 108 samples were obtained for Indonesia, and 102 samples for Singapore. This study employs the Global Reporting Initiative (GRI) disclosure index with 34 items. The conclusions drawn from this study are as follows: (i) Environmental Disclosure significantly and positively affects the financial performance of companies, proxied by Return on Asset (ROA) in Indonesia. However, Environmental Disclosure does not have a positive influence on the financial performance of companies in Singapore, as measured by ROA; (ii) Environmental Disclosure significantly and positively influences the financial performance of companies, proxied by Return on Equity (ROE) in Indonesia. In contrast, Environmental Disclosure does not have a positive impact on the financial performance of companies in Singapore, as measured by ROE; (iii) Environmental Disclosure significantly and positively affects the financial performance of companies, proxied by Net Profit Margin (NPM) in Indonesia. Nonetheless, Environmental Disclosure does not have a positive influence on the financial performance of companies in Singapore, as measured by NPM; (iv) Environmental Disclosure does not have a positive impact on the financial performance of companies, proxied by Earnings Per Share (EPS) in both Indonesia and Singapore; (v) There is a difference in the level of environmental disclosure implementation between Indonesia and Singapore, primarily due to variations in environmental disclosure regulations. Environmental disclosure regulations in Indonesia remain voluntary, whereas in Singapore, they are mandatory.

In this study, several limitations were identified. Firstly, the observation period was confined to just one year, specifically 2019, resulting in a notably limited sample size. Additionally, the research utilized only four variables, namely ROA, ROE, NPM, and EPS, to gauge financial performance. To address these limitations and enhance future research endeavors, several recommendations are put forth. It is suggested that future studies include a wider range of company types beyond manufacturing, so as to facilitate comparison of disclosure indices across industries. Furthermore, researchers are encouraged to introduce additional variables that influence the company's financial performance, such as Return on Investment (ROI), Return on Sales (ROS), and Gross Profit Margin (GPM).

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Determinants of Corporate Social Responsibility Disclosure in Indonesia

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Abstract

This study aims to analyze the factors that influence the disclosure of Corporate Social Responsibility in Indonesia. The population in this research is manufacturing companies in the consumer goods industry sector listed on the Indonesia Stock Exchange for the period 2018-2020. The samples used in this research were 33 companies, so there are 99 data companies. The sampling method is carried out by the purposive sampling method. The analysis method in this research is multiple regression analysis. The results of this research show that profitability, leverage, and risk minimization have a positive effect on disclosure of Corporate Social Responsibility, while liquidity does not have a positive effect on disclosure of Corporate Social Responsibility.

Keywords
Corporate Social Responsibility, Leverage, Liquidity, Profitability, Risk Minimization
_____

1. Introduction
In carrying out its business activities, the company is not only responsible to stakeholders but also must be responsible for the social environment (Said, Zainuddin and Haron, 2009). Decision making does not only consider the company's financial and operational performance but also considers the company's Corporate Social Responsibility. The implementation of Corporate Social Responsibility shows the company's performance indicators towards environmental concern.

In Indonesia, there are regulations regarding the importance of protecting the environment which are regulated in Law no. 40 of 2007 Article 74. Corporate Social Responsibility (CSR) aims at three aspects, namely social aspects, economic aspects, and environmental aspects. The social aspect aims for the company to make a positive contribution to stakeholders and society. The economic aspect aims for companies to maximize profits. The environmental aspect aims to maintain the quality of the environment in which the company operates. Corporate Social Responsibility (CSR) is a form of social, economic and environmental responsibility that must be carried out by companies when running their business.

Research that examines Corporate Social Responsibility is increasing, so that the factors that influence the disclosure of Corporate Social Responsibility (CSR) are also increasing. These factors include profitability, leverage and liquidity. Profitability is a tool used to determine a company's ability to gain profit and operational effectiveness of the company (Van Horne and Wachowicz, 2008). Leverage is a tool for assessing a company's ability to fulfill its capital management (Van Horne and Wachowicz, 2008). Liquidity is a tool for measuring a company's ability to meet short-term liabilities so that the company's short-term liabilities can be fully guaranteed (Van Horne and Wachowicz, 2008).

The results of previous studies provide different results. Rindawati and Asyik (2015), Nurkhin (2010), and Ruroh and Latifah (2018) state that profitability has a significant effect on the disclosure of Corporate Social Responsibility. Whereas in the research of Respati and Basuki (2015), profitability has no effect on disclosure of Corporate Social Responsibility.

Research from Wawo and Arif (2016), Ruroh and Latifah (2018) states that leverage affects the disclosure of Corporate Social Responsibility. Meanwhile, research from Kurniawan, et al (2018), and Rindawati and Asyik (2015) states that leverage has no limited effect stating that liquidity affects the disclosure of Corporate Social Responsibility and Wawo and Arif (2016) states that liquidity affects the disclosure of Corporate Social Responsibility. Whereas research by Samosir and Panjaitan (2022) liquidity has no effect on disclosure of Corporate Social Responsibility.

This research was conducted because in previous studies there were still inconsistencies in the results of the research. This research is a replication of Kurniawan's research, et al (2018). The update in this study is to add a risk minimization variable. According to Ruroh and Latifah (2018), risk minimization is an indicator used by companies

to minimize the risk of damage that occurs after the company's operational activities. The results of Ruroh and Latifah's research (2018) prove that risk minimization affects the disclosure of Corporate Social Responsibility. Another update is that this research is applied to manufacturing companies in the consumer goods industry sector. Manufacturing companies in the consumer goods industry sector are industrial companies that operate in processing raw materials into finished goods as daily necessities by utilizing natural resources. Company activities in this sector can have a negative impact on the company's environment, such as environmental pollution resulting from company waste, either directly or indirectly, or other environmental damage resulting from excessive use of natural resources. This study aims to determine whether profitability, liquidity, leverage, and risk minimization affect the disclosure of Corporate Social Responsibility.

2. Literature Review
2.1. Stakeholder Theory
Stakeholders (stakeholders) are all parties, both internal and external, who influence or are influenced by the company directly or indirectly (Hadi, 2011). The success of a company can be seen from the company's management ability to build relationships between companies and stakeholders. Corporate Social Responsibility (CSR) activities have an impact on the survival of the company and gain support from stakeholders. Disclosure of Corporate Social Responsibility in the annual report describes information relating to the company's social and environmental efforts and responsibilities to stakeholders.

2.2. Legitimacy Theory
Legitimacy is an important thing that affects companies with social boundaries so that companies comply with the rules, values and norms that apply in society (Dowling and Pfeffer, 1975). Legitimacy theory is a theory that focuses on the relationship between organizations and the social environment. Legitimacy theory is a theory that explains that organizations carry out their business activities in accordance with social boundaries and norms (Deegan, 2016). Legitimacy limits company actions to social values, thus requiring companies to disclose corporate social responsibility to prove their social compliance to society.

2.3. Agency Theory
Agency theory is a theory that explains the relationship between principal and agent, in which the principal as the authorized party gives orders to the agent to carry out tasks on behalf of the principal's interests (Jensen and Meckling, 1976). In a company there is a separation of interests between the principal (investor) and the agent (manager). Investors as parties that give authority to managers to make decisions that are useful for the company, while managers as parties who obtain delegation from investors to manage company resources.

2.4. Corporate Social Responsibility (CSR)
The World Business Council for Sustainable Development (WBCSD) defines Corporate Social Responsibility (CSR) as a company's commitment to contribute to sustainable economic development and improve the quality of life through cooperation between employees, employee families, local communities and society (Popa, 2015). Regulations for the implementation of Corporate Social Responsibility (CSR) in Indonesia are embodied in Law no. 40 of 2007. Corporate Social Responsibility (CSR) aims at three aspects, namely social aspects, economic aspects, and environmental aspects. The social aspect aims for the company to make a positive contribution to stakeholders and society. The economic aspect aims for companies to maximize profits. The environmental aspect aims to maintain the quality of the environment in which the company operates. Corporate Social Responsibility (CSR) is a form of social, economic and environmental responsibility that must be carried out by companies when running their business.

2.5. Profitability
Profitability ratio (profitability ratio) is a ratio that aims to assess the company's ability to earn profits and show the operational effectiveness of the company (Van Horne and Wachowicz, 2008). According to (Brigham and Houston, 2015), the profitability ratio is the end result of all the company's financial and operational policies. This relates to profits generated from sales and investment income. Profitability measurement uses the Return on Assets (ROA) indicator. Return on Assets (ROA) is a financial indicator that shows a company's ability to generate returns on the total assets owned by the company (Van Horne and Wachowicz, 2008). The greater the value of the ROA indicator, the better the condition of the company's management because the company is able to generate greater profits than its assets.

2.6. Liquidity

The liquidity ratio is the ratio used to measure or assess a company's ability to meet its short-term liabilities (Van Horne and Wachowicz, 2008). This is related to the company's ability to pay short-term liabilities using current assets. Liquidity ratio measurement uses the Current Ratio indicator. Current Ratio is a financial ratio that shows a company's ability to pay short-term liabilities using the company's current assets (Van Horne and Wachowicz, 2008). The greater the value of the liquidity indicator, the better the company's ability to meet its short-term liabilities.

2.7. Leverage

The leverage ratio is a ratio that aims to measure a company's ability to manage the company's sources of funds originating from debt or assets owned by the company (Van Horne and Wachowicz, 2008). The leverage ratio shows the capital structure owned by the company with the debt owned by the company, so the measurement indicator is based on the Debt-to-Equity Ratio. Companies that have a high level of leverage show that the company depends on the debt it has. Conversely, a company that has a low level of leverage indicates that the company uses the company's capital for the company's operations.

2.8. Risk Minimization

According to Ruroh and Latifah (2018) Risk minimization is an indicator used by companies to minimize the risk of damage that occurs after the company's operational activities. In order to avoid greater environmental risks, companies must have a responsibility to minimize unwanted risks when implementing Corporate Social Responsibility (CSR) or post-activities of the company's activities. It is the responsibility of the company to minimize risk by establishing a risk management system or risk management committee. The risk management system is tasked with assisting the Board of Commissioners to identify, evaluate, and monitor the company's exposure to risk and ensure that all risks can be anticipated effectively (Sambera and Meiranto, 2013).

2.9. Research Hypothesis

Profitability ratio is a ratio that aims to measure a company's ability to make a profit and show the company's operational effectiveness. Companies that have a high level of profitability will disclose a higher Corporate Social Responsibility because of a high source of funds. Rindawati and Asyik's research (2015) shows that profitability has a positive effect on disclosure of Corporate Social Responsibility. Nurkhin's research (2010) states that profitability has a significant effect on the disclosure of Corporate Social Responsibility. Research by Ruroh and Latifah (2018) states that profitability has a significant effect on disclosure of Corporate Social Responsibility.

H1: Profitability has a positive effect on the disclosure of Corporate Social Responsibility (CSR)

The liquidity ratio is the ratio used to measure or assess a company's ability to meet its current liabilities. Companies that have a high level of liquidity will disclose higher Corporate Social Responsibility because the company has high assets. Wawo and Arif's research (2016) shows that liquidity has a positive effect on disclosure of Corporate Social Responsibility. Kurniawan's research, et al (2018) states that liquidity has a significant effect on disclosure of Corporate Social Responsibility.

H2: Liquidity has a positive effect on the disclosure of Corporate Social Responsibility (CSR)

The leverage ratio is the ratio used to measure how much a company's activities are financed with debt. Companies that have a high level of leverage indicate that the company uses a lot of debt for its operations. Wawo and Arif's research (2016) shows that leverage has a positive effect on disclosure of Corporate Social Responsibility. Ruroh and Latifah's research (2018) shows that leverage has an effect on Corporate Social Responsibility.

H3: Leverage has a positive effect on the disclosure of Corporate Social Responsibility (CSR)

Risk is an event or uncertainty that will occur in the future. Company activities may pose environmental risks. To minimize risk, the company must have a risk management system or risk management committee. Ruroh and Latifah's research (2018) shows that risk minimization affects the disclosure of Corporate Social Responsibility. Thus, the risk minimization strategy undertaken by company management can have a positive effect.

H4: Risk minimization has a positive effect on the disclosure of Corporate Social Responsibility (CSR)
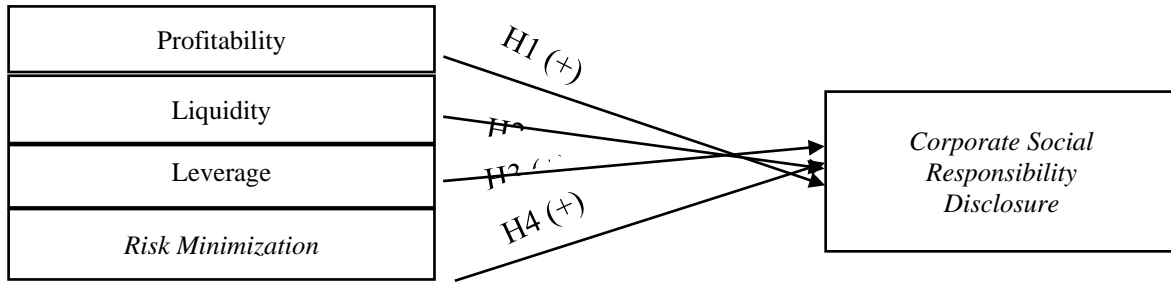
2.10. Research Framework

Figure 1: Research Framework

3. Research Method
3.1. Population and Sample
The population in this study are manufacturing companies with the consumer goods industry sector listed on the Indonesia Stock Exchange (IDX) for the 2018-2020 period. Sampling in this study was purposive sampling with the following criteria: 1). Consumer goods industry sector companies listed on the Indonesia Stock Exchange (IDX) during the 2018-2020 period, 2). The company publishes an annual report for the 2018-2020 period, 3). The company suffered no losses in 2018-2020

3.2. Research variable
The dependent variable in this study is the disclosure of Corporate Social Responsibility. The data is obtained from the annual reports of consumer goods industry companies listed on the Indonesia Stock Exchange (IDX). Measurement of Corporate Social Responsibility disclosure in this study uses GRI indicators. The calculation method is based on the items contained in the GRI G-4 (www.globalreporting.org) with the items disclosed by the company in the annual report.

$$CSRDi = \frac{\sum Xi}{n}$$

Information :
    CSRDi : corporate CSR disclosure i
    Xi.   : The number of items disclosed by the company, if disclosed is worth 1 and if not disclosed is worth 0
    N   : Number of CSR disclosure item indicators

The independent variables in this research consist of profitability, liquidity, leverage and risk minimization.
Profitability measurement uses the Return on Assets (ROA) indicator.
              ROA= Net profit/Total assets
The liquidity ratio is the ratio used to measure or assess a company's ability to meet its current liabilities. Liquidity ratio measurement uses the Current Ratio indicator.
              Current ratio= Current assets/Short term liabilities
The leverage ratio shows the extent to which a company's operations are funded with debt. The measurement is based on the Debt to Equity Ratio.
              Debt to Equity Ratio= Total Debt/Total Equity
To avoid a greater environmental risk, the company must have a risk management system. Risk minimization is an indicator used by companies to minimize the risk of damage that occurs after the company's operational activities (Ruroh and Latifah, 2018). Risk minimization measurement is based on the existence of risk management contained in the company's annual report of the company's corporate governance section with a dummy scale, if there is (1), and if there is not (0)

3.3. Analysis Data Method
Analysis Data Method in this study : 1). Descriptive Statistics. 2). Classical Assumption Test.   3). Determination Coefficient Test. 4). Model Feasibility Test. 5). Multiple Linear Regression.

4. Results and Discussion
4.1. Research Sample
Based on predetermined criteria, the research samples that meet these criteria are:

Table.1: Research Samples

No	Information	Amount
1	Companies in the consumer goods industry sector listed on the Indonesia Stock Exchange	76
2	Companies whose financial reports cannot be accessed on the website of the Indonesia Stock Exchange in 2018-2020	(29)
3	Companies that suffered losses in 2018-2020	(14)
	Companies as Sample	33
	Research Period (2018 – 2020)	3
	Total samples	99

4.2. Descriptive Statistics
Descriptive Statistic in this study are as follows :

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	99	.00	.92	.1131	.12304
CR	99	.65	13.27	3.0209	2.57919
DER	99	.13	3.16	.7135	.55075
CSRDi	99	.02	.29	.1698	.06354
Valid N (listwise)	99				

Descriptive Statistics

Dummy Variable	Frequency	Percentage (%)
Risk Minimization	95	96.0
Non-Risk Minimization	4	4.0
Total	99	100.0

4.3. Classical Assumption Test Results
The normality test in this study uses graphical analysis (normal probability plot) and statistical tests (One-Sample Kolmogorov-Smirnov). Based on the results of the normal probability plot test, it can be concluded that the residual pattern in the study is normally distributed. Based on the results of the One-Sample Kolmogorov-Smirnov test it can be concluded that the Asymp. Sig. (2-tailed) research data of 0.200. Asymp value. Sig. (2-tailed) or the significant value is greater than 0.05 so it is assumed that the residuals are normally distributed.

The results of the multicollinearity test show that there is no correlation for each independent variable because the tolerance value for each independent variable is above 0.10 and the VIF value is below 10. The results of the heteroscedasticity test using the scatterplot graph illustrate that the pattern of distribution occurs randomly, does not form a specific pattern and spreads either above or below the number 0 on the Y axis. Thus, it can be concluded that the regression model in this study did not occur heteroscedasticity

The autocorrelation test results show that the Durbin-Watson (Dw) value is 1.943. The Dw value with a total sample of 99, a total of 4 independent variables, and a significance level of 5% obtained an upper bound value (Du) of 1.7575, so 1.7575 < 1.943 < 2.2425. Thus, the regression model does not have autocorrelation.

4.4. Determination Coefficient Test Result
The results of the test for the coefficient of determination in this study showed that the value of the adjusted R square was 0.166. Thus, it can be concluded that the level of influence of the independent variable on the dependent variable in the regression model is 16.6% and the rest is influenced by other factors not analyzed in the regression model of 83.4%.

4.5. Model Feasibility Test (F Statistical Test)
Based on the results of the F statistical test, it is known that the F test value obtained was 5.821 and a significance value of 0.000. The resulting significance value is less than the significance level (0.000 <0.05) so, it can be concluded that the regression equation model is feasible to be used as a hypothesis test in this study.

4.6. Multiple Linear Regression Results
The results of multiple linear regression analysis are listed in table 3 below:

Table 3: Results of Multiple Linear Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.051	.024		2.143	.035
	ROA	.106	.048	.214	2.237	.028
	CR	.002	.002	.109	1.034	.304
	DER	.032	.012	.297	2.731	.008
	RISK	.065	.029	.208	2.235	.028

a. Dependent Variable: CSRDi

Based on the results of multiple linear regression analysis, the regression equation is as follows:

$$CSRD = 0.051 + 0.106ROA + 0.002CR + 0.032DER + 0.065RISK + \varepsilon$$

4.7. Discussion
4.7.1. Effect of profitability on Corporate Social Responsibility
The results of this study explain that profitability has a positive effect on the disclosure of Corporate Social Responsibility. This is evidenced by the significance value (0.028 <0.05) which describes profitability as having a positive effect on Corporate Social Responsibility. Thus the first hypothesis is supported. The higher the level of company profitability, the higher the disclosure of social responsibility information.

Companies that have high profitability will be in the public spotlight, because the public thinks that the company is in good condition. So that the company will distribute some of its profits for social activities so that the company is not considered a profit-oriented company. The results of this study are in line with the research of Rindawati and Asyik (2015), Nurkhin (2010), and are in accordance with the results of research by Ruroh and Latifah (2018) which state that profitability has a significant effect on the disclosure of Corporate Social Responsibility.

4.7.2. Effect of liquidity level on Corporate Social Responsibility
The results of this study indicate that the level of liquidity has no significant effect on the disclosure of Corporate Social Responsibility. This is evidenced by the significance value (0.304 > 0.05), so the second hypothesis is not supported. The company's liquidity level cannot determine the scope of the company in disclosing social responsibility information.

Companies registered in the consumer goods industry sector include companies that have high liquidity so that companies will continue to disclose Corporate Social Responsibility information. In addition, Corporate Social Responsibility is not just a company activity but an obligation for companies to be able to maintain the company's survival and comply with regulations as stipulated in Law no. 40 of 2007 as well as a form of commitment to stakeholders. The results of this study are in contrast to the research of Kurniawan et al (2018), Wawo and Arif (2016) which state that liquidity affects the disclosure of Corporate Social Responsibility.

4.7.3. Effect of leverage level on Corporate Social Responsibility
The results of this study prove that the level of leverage has a positive effect on the disclosure of Corporate Social Responsibility. This is evidenced by the significance value (0.008 <0.05) which shows leverage has an effect on Corporate Social Responsibility. Thus, the third hypothesis is supported. High leverage indicates that the company is more dependent on loan funds as capital so that the company discloses Corporate Social Responsibility information in more detail.

Companies have an obligation to disclose social and environmental responsibility information widely with the aim of convincing creditors. Companies that have a high level of leverage are obliged to disclose Corporate Social Responsibility information so that creditors know that the company uses capital to fulfill its obligations and the company continues to carry out its social responsibility to the community. The results of this study are in line with the research of Wawo and Arif (2016), and Ruroh and Latifah (2018). The results of this study are in contrast to research

from Kurniawan et al (2018), Rindawati and Asyik (2015) which state that leverage has no effect on disclosure of Corporate Social Responsibility.

4.7.4. Effect of risk minimization on Corporate Social Responsibility

The results of this study prove that risk minimization has a positive effect on disclosure of Corporate Social Responsibility. This is evidenced by the significance value (0.028 <0.05) which shows risk minimization has an effect on Corporate Social Responsibility. Thus, the fourth hypothesis is supported. Companies that establish a risk management system will tend to disclose social and environmental responsibility information widely, because the company has tried to minimize the risk of impact from the company's activities.

The existence of a risk management system helps companies to carry out business continuity in accordance with the interests of society. The results of this study have a relationship with legitimacy theory in which the entity's actions are in accordance with the social norms of society. The results of this study are in line with research of Ruroh and Latifah (2018) which states that risk minimization affects the disclosure of Corporate Social Responsibility.

5. Conclusions, Suggestions and Implications

5.1. Conclusions

The results of this study prove that profitability, leverage and risk minimization have a positive effect on disclosure of Corporate Social Responsibility. The results of the study also prove that liquidity has no effect on the disclosure of Corporate Social Responsibility

5.2. Suggestions

This study has limited testing which is exposed to an adjusted R square value of 16.6%. That is, the ability of the independent variables to influence the dependent variable only reaches 16.6%. Future researchers are advised to add independent variables (independent variables) or use more varied research samples in order to maximize research results that are more complete and represent all company sectors.

5.3. Implications

The implications of the results of this study are: 1). Companies that have high profitability should use their profits for social activities so that the company is expected not to be seen as a profit-oriented company by the community. 2). Companies tend to ignore the level of liquidity as a disclosure factor triggering the disclosure of Corporate Social Responsibility. It is expected that companies pay attention to disclosure of Corporate Social Responsibility so that the company's reputation can be maintained. 3). Companies that have a high level of leverage will try to disclose their social and environmental responsibilities so that conflicts do not arise between creditors and management related to creditor rights. 4). Companies that have risk management can disclose detailed social and environmental responsibility information. Companies that do not yet have a risk management committee are expected to form a risk management committee. This is so that the company's activities continue to run in accordance with community norms.

Acknowledgement

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Explore Organisation Ability in Managing User Innovation: An Open Innovation Discussions

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Abstract

In today's fast-paced business environment, organizations face a significant challenge in fostering innovation. To keep up with changing environments and societal needs, businesses are increasingly looking to engage with customers beyond their traditional operations. This involves leveraging online platforms to gather customer ideas and contributions, leading to valuable insights for successful innovation. However, businesses often struggle to connect and collaborate effectively with the right customers, necessitating the development of strategies to manage user-driven innovation. This paper explores how organizations can effectively manage co-creation initiatives for innovation, specifically focusing on consumer participation in digital platforms. By evaluating and optimizing co-creation activities, organizations can enhance their understanding of how to engage customers in the innovation process. The study identifies research gaps in the strategic management of consumer participation in co-creation and provides practical insights for organizations navigating this evolving landscape.

Keywords
innovation, co-creation, customer engagement, management

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1. Introduction
Innovation in the organisations has become a challenge for modern economies and as part of condition for keep-up with changes in the environment, societies, social groups, and individuals (Hamidi et al. 2020). Businesses has shown their interest to work with customers beyond their conventional business operations. It started with establishing a sponsored online brainstorming sites (See-To and Ho 2014), social engagement platforms (Dessart et al. 2015) and digitalised communication platform (Ramaswamy and Ozcan 2016). These platforms are considered to 'centralised' the ideas, comments and contribution of users, thus creates valuable insights. This has favoured the businesses to have a successful innovation in which benefiting both parties (business and customer) (Mazurek-Łopacińska 2021). In addition, taking advantage by creating an online engagement platform and adapt the social media concept is one of organisational strategy to maintain their engagement with customers. This would allowed businesses to have more direct communication and acknowledge customer experiences. Businesses felt pressures with the innovation where is has seen as determine the business success. While it is benefiting the organisation for having an active engagement among consumers, businesses faced challenges when they wish to connected, co-create and collaborate with the right customers, thus identifying the right strategy to cope with the user innovation is essential.

> **"**Creating innovation from the customer's perspective is a way to invest in customers and to increase their value for the company"
> - (Dobiegała- Korona 2010).

The participation of customer in open innovation activities derived from several forms. According to Mazurek-Łopacińska (2021), there are four primary forms which address open innovation as competitiveness, collaborative communities, complementors communities and gamification. Each of the forms serve different goals, challenges and problems and the purpose of using these forms as an act of open innovation. Thus, within these range of forms, ultimately, customer is the lead actor of the 'online communities' which many scholars addresses (for example Breidbach et al. 2012, Ketonen-Oksi Jari Jussila Hannu Kärkkäinen et al. 2016, Fernandes and Remelhe 2015).

With online communities' platform, customers able to personalized their needs with the right channels and thus co-create with the organisation. However, identifying 'the right consumer to co-create for the right purpose' is priority as the act of co-creation is to clearly identified the actor. This allows increasing the effectiveness of their influence on these customers (Mazurek-Łopacińska 2021). Previous studies suggest several strategies should adopt into the organisation before enable co-creating of value. According to Mazurek-Łopacińska (2021), organisation should specifying the customer types to enabling the co-creation of value and to encourage their contribution.

Following the needs for having an open innovation between the organisation and the customers, the firm-level capabilities in managing such forms is thus challenging. The information gathered through the engagement between customer and the organisation may sometimes overwhelm. This has impact the organisation ability to 'synthesizing' large amount of new knowledge and information to be exploit for innovation (Ulrich Lichtenthaler 2011). In addition, Mazurek-Łopacińska (2021) address the needs for adopting a strategic perspective in considering customer participation for knowledge management process.

The research addressing this problem due to increase of digital platform influence organization communication with consumers which obviously challenges conventional organisations to react to a co-creation experience ((Ramaswamy and Ozcan 2016). However, there are managerial consequences on the capability of the organization in connecting individual consumers through the operability of engagement platforms. In a co-creation concept, active engagement with actors has become priority due to the pressure of modern economy. Therefore, there are clearly important questions about the antecedents of managing co-creation in digital platform with customers (Kohtamäki and Rajala 2016).

With that understanding, the current study considers managerial insight and actionable steps of evaluating and optimising the co-creation initiatives for innovation(Ostrom et al. 2015). The contribution of this study is to develop a better understanding on how organization manage the co-creation for innovation with consumer participation in digital platform. The study attempted to identified research gaps for the study where the discussion of strategizing consumer participation in co-creation activities is limited and less reported. It is therefore useful to review some of the critical topics of debate within co-creation context.

The research objectives of identifying the organizational ability in managing online customer innovation directly relate to the co-creation and customer engagement literature. Co-creation refers to the collaborative process where customers actively participate in generating value through the development of new products, services, or ideas. Customer engagement, on the other hand, involves building strong and interactive relationships between customers and the organization, fostering the idea for innovation. By investigating the organizational ability to manage online customer innovation, this research contributes to the co-creation literature by exploring how companies effectively involve customers in the innovation process through digital channels. Additionally, it contributes to the customer engagement literature by understanding how successful management of online customer innovation can lead to enhanced engagement and ultimately foster stronger innovation. The study aims to shed light on the best practices and strategies that organizations can employ to leverage customer input and involvement in the online innovation process, ultimately benefiting both the company and its customers.

2. Literature Review

According to Zwass (2010), social media plays a significant role in empowering customers by enabling them to share ideas, actively collaborate, and become valuable assets for organizations. This research project encompasses a cross-disciplinary approach, incorporating the fields of service management, customer management, and social media. The rationale behind this integration stems from the understanding that customer desires and actions can have a profound impact on achieving strategic success (Chris, 2010). By investigating the assimilation of social media at the organizational level, this study addresses a critical research gap, as there is a clear need for more comprehensive examination of how organizations collaborate with social media platforms (Bharati et al., 2013).

> "The more knowledge that the firm is able to acquire, the greater the possibility for the firm to spot opportunities in the market and for its technology".
> McKelvie et al. (2015)

The existing of social technologies through various platforms has encouraged companies to strategically design and implement co-creation practices. Successful companies such as LEGO, Hallmark, IBM and many more are getting benefits from it. Many others will apply the same. Similarly, the phenomenon of co-creation has tremendously created a different synergy within organization. Utilizing the social technologies has provided more advantages rather than disadvantages despite the risk when go online. Social technologies is refer as enabler for

products and services using social interactions in digital realm in order to communicate, add, modify or consume content (Bughin et al. 2012).

The role of social media not only for 'social' activities, but also benefiting most organisation to reach potential customer with their experiences. Continuous engagement enable the organisation to open up more opportunities for organisation to reach potential customer through different social media platforms (Rathore, A., Ilavarasan, P. & Dwivedi 2016). The success of a business reputation is not solely depending on knowledge and expertise within the organization, but also depending on active customer's skilled, informed and mutual benefiting between them in social media (Saarijärvi, 2012). To fulfil such requirement, organisation need careful consideration. Studies also shown that the customer commitment is one of the criteria is needed to ensure long-term relationship can be build-up while managing innovation. Co-creation scholars explained that it is developed based continuous engagement, adapted with individual live experience and extend from the consumption of service experience. (Prahalad and Ramaswamy 2004, Ramaswamy and Gouillart 2010).

> *"Companies are discovering new ways to create and sustain emotional connections with the brand . . . thus engaging customers through innovation and design" (Institute 2008)*

3. Methods

The methodology adopted for this research paper is based on a qualitative research approach, specifically utilizing document analysis and pilot study interviews to investigate the organizational ability in managing online customer innovation. The study initiates with a thorough literature review, which serves as the foundation for understanding co-creation, user innovation, open innovation, and organization involvement in managing innovation initiatives. This literature review aids in developing a theoretical framework to guide the data collection and analysis process.

The primary data collection method involves document analysis, where relevant documents such as company reports, internal memos, and organizational policies related to innovation and customer engagement are carefully examined. The document analysis provides valuable insights into the current practices and strategies employed by organizations in managing online customer innovation.

Furthermore, a pilot study is conducted through semi-structured interviews with several managers who play direct roles in user innovation within their respective organizations. The interviews aim to gain in-depth understanding of their experiences, challenges, and successes in managing online customer innovation. Through narrative analysis, themes and patterns emerging from the interview data are identified and interpreted, providing valuable insights into how organizations effectively involve customers in the innovation process.

By employing a qualitative research methodology, this study offers a rich and nuanced exploration of the organizational ability in managing online customer innovation. The document analysis and pilot study interviews provide comprehensive data and in-depth perspectives, allowing for a thorough understanding of the strategies and practices that organizations employ to harness customer input and participation in the innovation process.

4. Results and Discussion

The findings section presents the results of the qualitative research conducted to explore the organizational abilities in managing online customer engagement for open innovation. Through in-depth interviews and document analysis, this study delved into the perspectives of managers and examined organizational practices related to customer engagement and co-creation. The data analysis yielded valuable insights into the strategies and approaches employed by companies to effectively involve customers in the innovation process. This section highlights the key discussions and patterns that emerged from the narrative analysis, shedding light on the essential aspects of organizational ability and customer engagement for successful open innovation.

Table 1: Narrative Data - M1

Data (M1)	Descriptive Analysis
"Customer today is opinionated and informative as well as they want to get engaged with the organization. For companies, through social media, they can get customers easily."	Customers are becoming more vocal and active in engaging with organizations, and social media plays a significant role in facilitating this interaction.

Table 2: Narrative Data - M5

Data (M5)	Descriptive Analysis
"Innovation means to create. It is very important because it is focused on the future buyer – Generation Y. This is a very interesting point where indicates that the future of the buyer is Gen Y. This is because all the information, specifications, and upgrading the car is to attract Gen Y to buy the product. This means that Gen Y is much needed consideration in co-creation. They are the future customers."	Innovation is driven by the focus on future buyers, particularly Generation Y, making co-creation with this demographic crucial for the organization's success.

Table 3: Narrative Data- M3

Data (M3)	Descriptive Analysis
"These engaging activities allow us to improve and design the product according to the customer's specifications. All the customers participating in the survey will be invited to a 'Clinic' which focuses on engineering the product together."	Engaging activities and customer involvement in the product design process lead to improvements and co-creation of products, fostering a stronger connection between the organization and its customers.

The narrative analysis highlights the growing role of customers in the innovation process, facilitated by social media and engaging activities. Customer surveys and face-to-face interactions emerge as valuable sources of customer insights that drive product/service design and organizational innovation. This would ensure the definite input derive from the constant communication with the customers allows the organization to be able to collect more information, thus initiate more innovative action. The extent of customer engagement varies based on the organizational size and resource allocation, with larger companies having specialized teams dedicated to customer engagement. However, it also depends on the organizational size that may influence the organization ability to conduct the engagement activities. Notably, the research underscores the significance of catering to Generation Y as future buyers, making their co-creation involvement pivotal for organizational success. These findings offer crucial implications for organizations seeking to harness customer input and maximize the potential of customer-driven innovation in the era of digital connectivity.

5. Conclusion

In conclusion, this research paper emphasizes the significance of identifying organizational abilities in managing online customer engagement for open innovation, given the evolving role of customers from passive consumers to active participants in the innovation process. By actively involving customers in the co-creation of products, services, and ideas, organizations can tap into a vast pool of valuable insights derived from customers' experiences and knowledge. The paper highlights the importance of effectively managing this new knowledge and information generated through customer engagement to drive organizational innovation successfully.

Moreover, the central objective of this thesis is twofold. Firstly, the research strives to identify and understand the specific organizational abilities required to effectively manage customer engagement in online platforms for open innovation. By exploring successful practices and strategies employed by organizations, the study sheds light on how companies can harness the potential of customer input in the innovation journey. Secondly, the paper aims to develop a comprehensive customer engagement framework tailored specifically for open innovation. This framework serves as a practical guide for organizations, helping them structure their customer engagement initiatives to foster a collaborative and mutually beneficial relationship with customers, ultimately enhancing the value derived from shared information and driving innovation within the organization.

In conclusion, the research underscores the critical role of customer engagement in open innovation and emphasizes the need for organizations to adapt to the changing dynamics of customer involvement. By identifying the organizational abilities necessary for effective customer engagement and proposing a customer engagement framework, this paper provides valuable insights and practical guidance for organizations seeking to leverage customer input to achieve successful open innovation outcomes. As customers continue to play a more active role in the innovation process, the understanding and implementation of these organizational abilities and frameworks become paramount for organizations to stay competitive and innovative in the dynamic market landscape.

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A Qualitative Exploration of Tax Compliance Factors Among Micro-Businesses in Malaysia

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Abstract

Government of Malaysia's has provided continuous financial support to about one million micro businesses in view of the vulnerability of the type of business especially to any shock to the economy. Therefore, it is essential for the micro businesses to contribute back to the government via voluntary income tax payment. This qualitative study explores the factors that contribute to tax non-compliance among micro-businesses. Five micro-business owners were interviewed in the study. Overall, most of the interviewed micro-business owners have declared income tax, even though they have mixed feeling about paying income tax. The micro-business owners feel that lack of tax knowledge and lack of tax guidance available are the main factors in complying tax laws and regulations. IRB should be more proactive in encouraging tax compliance by providing tax educational courses and seminars to micro-businesses. In addition, tax volunteer scheme should be established to encourage voluntary income tax declaration. The information could help the tax authorities in using the allocation of resources and focusing their efforts in encouraging voluntary tax declaration among micro businesses.

Keywords
Malaysian taxation, micro-business, voluntary tax declaration, tax compliance

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1. Introduction
Micro, Small and Medium Enterprises (MSMEs) contribute significantly to the economy of Malaysia (Yusof et al., 2018), in both gross domestic product (GDP) and job opportunities. Based on Figure 1, from 2015 to 2021 MSMEs contributed 37% to 39% to Malaysian GDP. In term of employment, as depicted in Figure 2, in 2021 MSME provided job opportunities to 7.3 million workers, a staggering 47.8% of total employment in Malaysia.
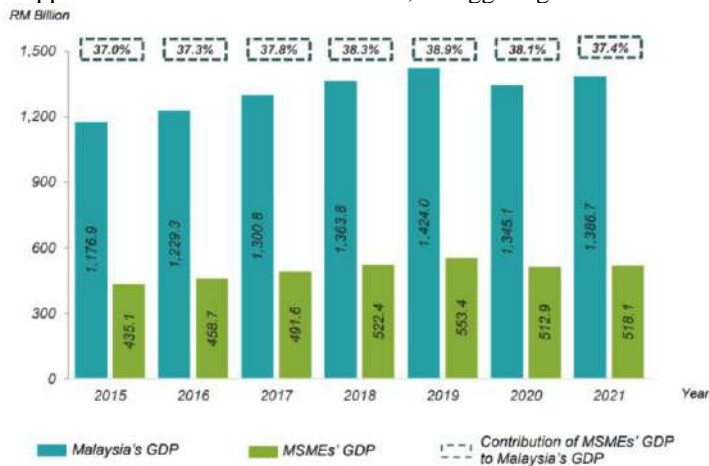

**Figure 1: Contribution of MSMEs' GDP to Malaysian GDP 2015-2021 (at Constant 2015 prices)
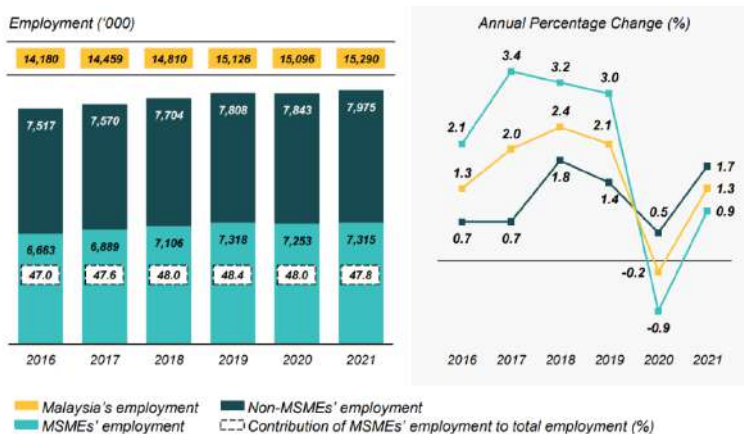Source:(DOSM, 2022a)**

Figure 2: Employment and Annual Percentage Change 2016-2021
Source: (DOSM, 2022a)

Micro-businesses represent the highest number in MSME category. The number of micro-businesses is estimated at one million by June 2022 (DOSM, 2022b). SME Corp Malaysia (2022) defines micro-business as a business with sales turnover of less than RM300,000 or less than 5 full-time employees. While no publicly available data for micro-businesses' contribution to GDP and number of job opportunities, the category is estimated to contribute significantly to both economic indicators.

Due to the significant contribution of micro-business to the economy, the government have allocated significant sum of fund to help micro-businesses. During the recent Covid-19 period, out of the government's allocated special grant (Geran Khas Prihatin, or GPK) of RM4.78 billion (Business Today. 2021), micro businesses enjoyed a significant percentage of the amount. In Budget 2022, the government of Malaysia, through Tabung Ekonomi Kumpulan Usaha Niaga (Tekun) introduced RM425 million a financing scheme for micro-business and the informal sector (Malaymail, 2021). During the 2022 Budget, the government also provided, under BNM Fund, additional RM20 million to aid micro-businesses from low-income groups (BNM, 2021).

In view of the amount spent by the government for micro-businesses, it is essential for the micro-businesses to also contribute back to ease the financial burdens of the Malaysian government. Micro-business owners together with individual taxpayers, since in the Malaysian tax system micro-business owners is classified as individual taxpayer, paid around RM27 billion or 11.6% of the total Malaysian government's revenue in 2021 (MOF, 2022), a very significant contribution. The amount, however, could be improved if all eligible taxpayers voluntarily declare and pay income tax. The challenge in tax management in Malaysia is that many eligible taxpayers do not submit tax returns. It is estimated that 85% of the taxpayer, including self-employed taxpayer; the category in which micro-business owner are classified into, does not pay their taxes (Abd Ghani et al., 2020; Hamid et al., 2019).

On top of the fact, the accuracy of tax return of MSMEs are also doubtful. In 2011, out of 9,815 tax investigations by Inland Revenue Board (IRB) of Malaysia involving MSMEs, 2,849 cases or 29% of the cases were liable to extra tax and penalties due mainly to underreported revenue and overclaimed expenditures (Mohamad & Hamid, 2016). High cost of tax compliance, attitude towards tax, i.e., benefits of tax to the country, and perception of tax complexity are the reasons for tax non-compliance among MSMEs (Pope & Abdul-Jabbar, 2008). The high cost of tax compliance is also due to the fact that the MSMEs are also prone to tax audit. This is because MSMEs are deemed as high-risk taxpayers because they have a low cash flow, fluctuating income, and a lack of tax knowledge (Delloite & MICPA, 2021).

This qualitative study explores the factors that contribute to tax non-compliance among micro-businesses. Micro-business is selected because there are very few studies to understand the problems faced by micro-business in Malaysia in meeting their tax compliance issues. In addition, micro-businesses are facing different challenges as compared to SMEs and multinational corporations and need to be studied. Lastly Covid-19 pandemic and its economic chain reactions afterwards have significantly affected micro-businesses, and this could have changed drastically their view on tax compliance among the business owners, which need to be carefully studied.

2. Literature Review
2.1 Tax Attitude or Morale
Tax morale is intrinsic motivation that arise from religious beliefs or moral values to comply with tax rules and regulations (Mohd Ali & Pope, 2012), and is significantly affect the level of tax compliance (Yunus et al., 2017; Abd

Ghani, 2020; Hartikayanti & Siregar, 2019; Hardika et al., 2020; Kon@Sapawi et al., 2022). It is also influenced by external elements such as government, tax authority, society and individual's own attitudes. Among the external influence that affect tax morale and subsequently positively related to tax compliance are good governance and the government's fair treatment on taxpayers (Kirchgässner, 2011). On the other hand, if taxpayer feels that they are being suspected of tax cheating or negatively treated, the intrinsic motivation, or tax morale, may reduce (Lars & Bruno, 2004).

Based on Theory of Planned Behaviour (TPB) (Kariyoto, 2010; Geetha & Sekar (2012), attitude, subjective of norms and perceived behavioural control influence the tax non-compliance behaviour. In TPB, behavioural belief, which refers to belief of certain behaviour consequences, influence an individual attitude towards a certain behaviour.

Tax knowledge and understanding influence the tax compliance since both knowledge and understanding increase self-awareness that non-compliance behaviour attracts harsh punishments (Nurlis, 2010). Thus, tax knowledge improves taxpayer attitude and behaviour (Hardiningsih & Yulianawati, 2011). Therefore, understanding tax system, especially tax penalty, is one of the ways to improve tax compliance behaviour. Evaluation of tax knowledge and understanding is vital to understanding tax compliance behaviour of taxpayer (Muzakkir, Indrijawati & Syamsuddin, 2019). This is because knowledge, personality traits, social attitudes that form behavioural traits could be used in predicting human behaviour and reactions (Ajzen, 1991). In addition, taxpayers are behaved based on their level of knowledge of tax systems, especially tax rules and procedures (Gangl, Hofmann & Kircher, 2015).

2.2 Tax Awareness

Tax awareness among taxpayer is the most important factor that contributes to tax compliance. This is further escalated by the fact that Malaysian tax system is using self-assessment approach since the year of assessment 2000, and this really require adequate tax knowledge to comply with tax laws and regulations (Palil et al., 2013). Tax awareness is defined as the ability to calculate, report and make payment of taxes (Hastuti, 2014). The tax awareness also must be accompanied by the awareness of the requirement to pay tax by following a set of tax regulation and at the end make tax payment (Zanaria & Lestari, 2020). Tax awareness is also an act of following tax provisions that involve attitude which covers view, beliefs, reasoning and knowledge (Ratnawati et al., 2019).

In the absence of tax awareness, the taxpayer will be unwilling to pay tax (Saifi et al., 2015). In order to improve tax awareness, tax literacy and tax education should be improved among taxpayer (Hastuti, 2014), where both tax knowledge and awareness affect taxpayer compliance (Rahayu et al., 2017), where high tax compliance rate is usually resulted by higher level of understanding (Nalendro & Isgiyarta, 2014). Tax knowledge and tax legislation comprehension, tax service quality, perceived taxation effectiveness have affected tax awareness among taxpayer (Nugroho & Zulaikha, 2012). Tax awareness occurs when the taxpayers are conscious of the implications of tax laws, understand the reasons for tax payment, know the taxpayer rights and duties and lastly are willing and able to accurately calculate, pay and declare tax (Munari, 2005).

2.3 Tax Knowledge or Education

Tax compliance is positively affected by tax knowledge (Kasipillai et al., 2003; Loo, 2006; Yunus et al., 2017; Hardika et al., 2020; Kon@Sapawi et al., 2022). In the recent study in Malaysia, however, tax education is not significantly affect tax compliance (Abd Ghani, 2020). In Malaysia, tax knowledge is a must due to the implementation of self-assessment system and this fact significantly affect the tax compliance (Loo, Mckerchar & Hansford, 2009). Tax knowledge also significantly influences urgency of the taxpayer to meet tax deadlines and increase the possibility tax submission (Mohamad, 2010) and following tax rules (Park and Hyun, 2003). This mainly due the fact that the educated taxpayer aware of their obligations and non-compliance consequences (Mahmood, 2012).

Tax knowledge and education positively influence tax compliance among taxpayers, where the the tax awareness is enhanced by better tax education as compared to basic tax knowledge, i.e., filling tax returns (Nzioki and Peter, 2014). Therefore, it is important to educate the taxpayer in order to improve tax compliance (Mukhlis et al., 2015). The tax education strategy should also be introduced in higher education institutions. If it is introduced in higher learning institutions, real working environment and simulation should be incorporated in the structure of tax education to enable better appreciation among the students on the significance of acquiring tax knowledge (Putro & Tjen, 2020). Tax education should also be simple and less complicated to enhance tax compliance (Alkhatib et al., 2020). Tax education requirements should be carefully identified to ensure successful tax educational strategy outcome (Twum et al., 2020).

2.4 Tax Complexity

Tax complexity has become a concern among MSMEs and big corporations alike. Tax complexity is resulted from more sophisticated law introduced (Sawyer & Richardson, 2001). It could be in variety of aspect of taxation: computational complexity and forms complexity (American Institute of Certified Public Accountants, 1992),

compliance complexity and rule complexity (Carnes & Cuccia, 1996); procedural complexity (Cox & Eger, 2006) and low readability level (Pau, Sawyer & Maples, 2007; Richardson & Sawyer, 1998; Saw & Sawyer, 2010). Internationally, the tax systems in the United Kingdom, the United States, Japan, France, and Italy have been classified as extremely complex as compared to moderately complex tax system in Sweden and the Netherlands, in a comparative study involving seven countries (Strader & Fogliasso, 1989). Tax complexity is significantly affecting tax compliance in Malaysia (Abd Ghani, 2020). The recent study on micro-business in Malaysia suggest that simplicity in tax system has significant impact on tax compliance (Kon@Sapawi et al., 2022).

Tax environment in the Asia Pacific countries is categorised as unclear and their tax systems are deemed complicated in Asia Pacific Tax Complexity Survey (Deloitte, 2017). Tax complexity is mainly due to two factors: first, the introduction of complex regulation to ensure equal opportunity as well as closing the gap due to tax base erosion, and secondly, the introduction of incentives to attract investments, resolving uncertainties, reducing costs and allowing for new tax planning (Hoppe et al., 2018). One of the examples of tax complexity in the Malaysia involved self-assessment system in Malaysia, mainly on recordkeeping, excessive tax law details and ambiguity (Mustafa, 1996). Ambiguity, changes, calculations, details, record-keeping, and forms are six factors that affect complexity (Long & Swingen, 1987). Tax complexity exists in all aspects of tax, even in the simplest tax calculation involving salaried taxpayers (Saad, 2011). The tax complexity categories in Malaysia consist of tax ambiguity, tax computations, and record-keeping (Isa, 2014).

2.5 Tax Guidance and Volunteer

While tax volunteer concept is still an alien to Malaysian tax environment, the idea, however, is not new. This is a community equipped with tax education, knowledge and experience, and its function is to provide mentoring services to taxpayers. In the United States the programme, initiated in 1971, are called VITA (Volunteer Income Tax Assistance) and TCE (Tax Counseling for the Elderly) and are tasked to assist in fulfilling tax obligations, especially tax e-filing (Davis-Smith & Thomas, 1991). It is known as the Community Volunteer Income Tax Program (CVITP) in Canada and provides broader tax services including tax returns for eligible taxpayers (Dwianika & Sofia, 2019). The service of tax volunteer has significantly affected tax compliance (Hardika et al., 2020).

2.6 Tax Penalty

Penalty and sanction are among various tax administration strategies to address combat tax tax non-compliance and tax fraud. The main target of the strategy is to tackle serious tax avoidance among taxpayers including significant unreported income called "black" economy, which is estimated up to 10% of GDP in developed and 70% in developing countries (Yunus et al, 2017 cited The Economic Times, 2014).

Tax penalty rate is viewed as significantly affect tax compliance (Obid, 2014; Yunus et al., 2017). On the other hand, some studies found that the relationship between the penalty rate on non-compliance is insignificant (Mohd Yusof, Lai & Yap, 2014: Kamdar, 1997). Among the explanation for the insignificant relationship between penalty and non-compliance are that the taxpayer was a risk-taker and the amount of penalty is not too high (Sapiei & Kasipillai, 2013), or rebellious act towards the government (Mohdali, Isa & Yusoff, 2014). Education on tax penalties plays a significant role on tax compliance (Marhaini, 2012). Tax knowledge positively correlated with tax planning attitudes, a legally allowed ways in minimising tax liability exposure, and negatively correlated illegal tax evasion attitudes (Kirchler, Boris and Friedrich, 2001). The penalty, however, creates resentment of tax systems if it is used extensively (Schmolders, 1970), and could lead to tax non-compliance. The tax penalties, which is widely used enforcement strategy in Malaysia in the self-assessment system, has resulted much concern, dissatisfaction and stress among taxpayers (Ern, Evans and McKerchar, 2010). Tax penalties and frequent tax audits should be used intelligently as to reduce tax non-compliance (Cummings, Vazquez and McKee, 2005).

2.7 Tax Compliance Costs

There are two types of costs: monetary compliance costs and psychological costs. Monetary costs involve time and resources expended i.e., monies and opportunity costs, in complying with tax rules and regulations. Psychological costs contain pressure and anxieties in complying with the tax rules and regulations (Evans et al., 2014). Tax compliance costs significantly affect tax compliance in Malaysia (Abd Ghani, 2020). The increase in tax rate would lead to non-tax compliance (Crane, & Nourzad, 1987; Obid, 2004; Ho, Loo, & Kim, 2006: Ahangar, Bandpey, & Rokny, 2011; Hartikayanti & Siregar, 2019). Individual taxpayers prefer to self-complete their tax return rather than wasting money in appointing tax agent (Trivedi, Shehata, and Mestelmen, 2004). In some cases, smaller company and self-employed workers incurred higher tax compliance costs than larger company since they need to hire tax preparer as they have no accounting or tax department to take care of the tax matters (Slemrod, & Venkatesh, 2002). Higher tax compliance costs may cause financial difficulty (Isa, 2014) and reduce the level of taxpayers' tax compliance

levels (Arachi, & Santoro, 2007). In average, tax compliance cost has decreased in SMEs with the implementation of self-assessment system (Abdul-Jabbar, 2009).

3. Methods

This qualitative study purportedly meant to explore the views of the micro-business owners on income tax compliance in Malaysia. The study employed the phenomenological research method as it is concerned with the study of experience from the perspective of the individual (Lester, 1999). This study has been conducted qualitatively since the exploratory nature of this method is the best approach for the researchers to obtain data in a more detail and wider perspective (Creswell, 2003). Strauss and Corbin (1998) mentioned that qualitative approach enables researchers to obtain data that are more detailed, which involves one's perceptions, feelings and thinking with regard to a particular phenomenon. The sample set in qualitative research tends to be relatively small and can range from 1 or 2 to 30 or 40 participants (Creswell, 2003).

Semi-structured interviews were conducted, from October 2022 to January 2023 with five micro-business owners in the state of Perak, Malaysia. The interview gathered data about the micro-business owners' views on income tax in Malaysia, and also the opinion on their effort to counter this issue. This study uses the purposive sampling where micro-business owners are selected to become the participants in the live interviews conducted by the researchers. The reason for this sampling method is because it allows the researchers to gain a deeper understanding on the issue through the interview process. The open-ended semi-structured interview questions were designed to explore or discover new knowledge framed by the main research questions in order to discover factors which motivate an individual to declare income tax, to identify the reasons why there are non-compliance of tax rules, to recognize the impacts of non-compliance and to identify and determine the appropriate measures to encourage voluntary income tax declaration.

The interviews were recorded using digital devices. Interview were conducted at quite locations for recording purposes, conducive to anonymity, and lastly free from interruptions. Each interview is between 20 to 30 minutes depending on the availability of the respondents' free time. Researchers had ensured a rich, thick descriptions to convey the findings, clarify any bias, and keeping field notes of each interview (Creswell, 2003; Morse et al. 2002; Tuckett, 2005). The raw data were transcribed manually from audio format data into a text form. Afterwards the transcribed data are coded into meaningful data. The researchers then validated the accuracy of the transcripts by re-listening to each recorded interview and comparing it with the transcription. Data source triangulation methods (Patton, 1999) are used to verify the validity of respondents' claims by checking relevant documents, i.e., tax return forms, correspondences with tax authorities, financial statements, and other relevant supporting documents. In addition, at least two interviewers with theoretical and practical tax experiences were involved in each interview to ensure trustworthiness of the data gathered.

4. Results and Discussion

4.1 Background of respondents

All of the respondents are micro-business owners in the state of Perak, Malaysia. MB01, MB03 and MB05 are involve in food and beverages industry. Both MB01 and MB05 are restaurants owners. MB03, however, is only operating from home and in addition has a number of homestays. MB02 involves in retail industry and has a grocery shop. Lastly, MB04 involves in services industry and is operating in a shop. The summary of the respondents are detailed on Table 1 as follows:

Table 1: The Background of Tax Respondents

Respondent	Industry
MB01	Food & beverages
MB02	Retail
MB03	Food & beverages and Services
MB04	Services
MB05	Food & beverages

4.2 Results and Discussion

4.2.1 Compliance Costs

Below, Table 2, is the summary of micro-business owners' opinion on the compliance cost of income tax in Malaysia. MB01 and MB05 think that the compliance cost of the Malaysian income tax is too burdensome due to the fact that their business is small and the revenue from the business is just enough to cover their operating costs. All of the respondents do not appoint any tax agent due to cost factors and this supported Trivedi, Shehata, and Mestelmen (2004) observations. MB01 mentioned that: *"The tax compliance cost is really burdened the business. Our business is not a big business."*. This statement is supported by MB05.

MB02, MB03 and MB04, however, feels that the compliance costs are not that high. This is mainly due to the fact that MB04 has some knowledge on Malaysian taxation while MB03 has a family member to turn to on tax matters. MB02, even though has limited knowledge on income tax, has the courage to learn on the Malaysian income tax laws and regulations. This is supported by Trivedi, Shehata & Mestelmen (2004) which stated that taxpayers are reluctant to appoint tax agent due to cost consideration.

Therefore, from the above, unless the micro-business owners have some type of support, either some knowledge on income tax or knowledge support from family member or relative, the cost of compliance will be considered as high and burdensome to them.

Table 2: Micro-Business Owners' Opinion on the Compliance Cost of Income Tax in Malaysia

Respondent	Opinion on Compliance Cost
MB01	It is a burden to micro-business
MB02	It is not a big problem
MB03	The cost is not too burdensome
MB04	The cost is minimum
MB05	Too costly to small business

4.2.2 Tax Complexity

Table 3 shows the summary of micro-business owners' opinion on the complexity of income tax in Malaysia. All respondents acknowledged that the income tax computation as well as the need to maintain adequate records to support the income tax computation. MB04, who has adequate income tax knowledge, has also agreed to the fact that without further guidance it is very difficult for the micro-business owners to comply with the requirements of the Income Tax Act, 1967, even though they have the conscious to fulfill their obligation. The rest of the respondents were unable to answer our questions on basic or intermediate tax issues.

Table 3: Micro-Business Owners' Opinion on the Complexity of Income Tax in Malaysia

Respondent	Opinion on Compliance Cost
MB01	It is too complex to understand without help
MB02	It is difficult to understand but is willing to explore further
MB03	Without guidance, it is very difficult
MB04	Without tax knowledge, it is very difficult
MB05	Too complicated to understand

Tax complexity and coupled by unwillingness or inability to afford compliance cost has given micro-business owner a reason to avoid voluntary income tax declaration, thus become tax compliance taxpayer.

4.2.3 Tax Morale

Table 4 shows that all of the micro-business owners at least have the conscious to comply with the income tax declaration requirements. As of to date only MB05 has not voluntarily declared income tax to Inland Revenue Board. However, MB05 is planning to do it in the near future after all necessary information are available, i.e., annual financial statements, and when the business is fully stabilised. Furthermore, during the interview period, the business situation was not conducive for the MB05 to declare income tax. This is similar to the findings by Hartikayanti & Siregar (2019), that taxpayers are unwilling to pay tax when the business environment is not stable.

MB03 stated that: "*I do not think it is necessary* (for small business to declare income tax). *The income of small business is too small ...*". This opinion is also shared by others. MB01 also stated that: "*I am not really satisfied with the amount of taxes I am paying now ... and have to pay higher tax because the profit looks higher on paper, especially when our business is not that big. ... The taxes make our life miserable. Letters from IRB make us uncomfortable. It is really a burden*". This response is similar to the findings by Lars & Bruno (2004), which concluded that tax morale is reduced when the taxpayer is suspected of tax cheating.

MB04, on the other hand, said that tax compliance is necessary for the business to expand in the future through bank loans and government grants. MB02 maintained that the micro-business must pay tax to support the government, unless it is too small.

Table 4: Micro-Business Owners' Morale or Attitude on Income Tax

Respondent	Tax Compliance	Tax Morale / Attitude
MB01	Full compliance	Current income tax payment is too high for small business
MB02	Partly compliance	Micro-business must pay tax to support the government. However, if it is too small, micro-business should not be burdened by income tax
MB03	Full compliance	Micro-business should not be burdened by income tax

Respondent	Tax Compliance	Tax Morale / Attitude
MB04	Full compliance	Income tax declaration essential for future business expansion
MB05	Do not comply.	Plan to comply in the future.

4.2.4 Tax Knowledge

Based on Table 5, all respondents have no or very little tax knowledge except MB04. Surprisingly, except MB04, none of them has attended any tax course or seminar. This has shown that the efforts by Inland Revenue Board (IRB) or other related governmental agencies in educating the micro-business communities on tax knowledge is ineffective. Nevertheless, taxpayers have personal responsibility to understand the tax law and regulation and should be proactive to understand them. Unless a taxpayer has tax education/knowledge or is willing to learn the tax knowledge himself, through tax courses or seminars, the possibility of voluntary income tax declaration among micro-businesses and comply with tax laws and regulations is very slim. This is supported by Kasipillai et al. (2003).

MB01 mentioned that: "*I think IRB is not providing any services to the taxpayer. They are only finding faults. And they are always asking the reason why we are not paying tax. In fact, they are not providing any guidance to the taxpayer*". MB02 explained that most of his tax knowledge is from IRB's and business communities' Facebook. MB02 also revealed that: "*The IRB officer did not tell me about capital allowances, but I have figured it out myself. The officer only mentioned to me that we need to pay tax at the end of year*".

Table 5: Micro-Business Owners' Tax Education or Knowledge

Respondent	Tax Education / Knowledge	Tax Courses / Seminar Attended
MB01	No tax knowledge	No course or seminar attended
MB02	Very little tax knowledge	No course or seminar attended
MB03	No tax knowledge	No course or seminar attended
MB04	Has adequate tax knowledge	Attended tax course or seminar
MB05	No tax knowledge	No course or seminar attended

4.2.5 Other Factors

Other factors especially external factors play a major role in encouraging the taxpayer to declare income tax voluntarily or involuntarily. As depicted on Table 6, MB01 started declaring the income tax after an investigation by the tax authority. Meanwhile, MB02 and to a certain extent MB04 have been encouraged by the business communities to declare income tax and to avoid future problems with IRB due to non-compliance with tax laws and regulations. In addition, family members, as in the case of MB03, also play a role in encouraging the taxpayer to voluntarily declare income tax.

Table 6: Micro-Business Owners' Other Factors on Income Tax Compliance

Respondent	Other Factors on Income Tax Compliance
MB01	Compliance due to IRB's investigation
MB02	Compliance due to self-awareness and advice from business communities
MB03	Compliance due to advice by family member
MB04	Compliance due to self-awareness and tax knowledge
MB05	Yet to comply. But has been advised by business communities to comply with tax laws and regulations.

On top of the above, one of the external factors that encourage voluntary income tax declaration is the government grant that is directly linked with income tax declaration, Geran Khas Prihatin (GKP). Except MB05, all the respondents received GKP and were happy about it. GKP, based on the interviews, at some extent relieved the respondents from Covid-19 effect on economy and at the same time encourages voluntary declaration.

Therefore, external factors such as IRB investigation, business communities and family member have effect on voluntary income tax declaration. In addition, benefits received, such as government grants that are linked to income tax compliance, has direct effect on the voluntary tax compliance.

4.2.6 Tax Penalty

Tax penalty is always a potent tool for IRB to encourage voluntary income tax declaration among taxpayers as also observed by Yunus et al. (2017) and Obid (2014). As shown on Table 7, MB01 has had a bad experience on tax penalty. MB01's advice is: "*I have always advised my children to file income tax return. Because even if our business is small, and no tax to be paid, we still need to file the return. This is to avoid being penalised by IRB, as in my case. It is burdensome to pay the tax and also the penalty*". MB05 also said the same tune: "*I will definitely be prepared before IRB come knocking*". The MB05 case shows that sometimes taxpayer is also risk-taker and willing to pay tax

penalties as observed by Sapiei & Kasipillai (2013). Tax compliance of MB02, MB03 and MB03 shows that tax education indeed encourages tax compliance among taxpayer as suggested by Marhaini (2012).

Table 7: Micro-Business Owners' Opinion on Tax Penalty

Respondent	Tax Penalty
MB01	Has been penalised before
MB02	Plan to fully comply with tax laws and regulations to avoid penalty
MB03	Fully aware of it
MB04	Fully aware of it
MB05	Will prepare to avoid penalty

4.2.7 Tax Volunteer

Table 8 shows that MB01 stressed the need to have tax volunteer to help the taxpayers. MB01 said: "*This is most welcome.* (This can be done) *by any agency. We really need guidance from any accountant who can guide us. Because we have no tax knowledge. ... We are really do not know. We need helper to guide us*". MB03 also said: "*Because I have zero knowledge on taxation*". MB05 also mentioned the same: "*I really need guidance. I personally think that the tax law is too complicated".* MB04, however, might require help in the future: *"May be when my business is expanding".* All the respondents feels that free advice is preferable: MB04 said: "*.... I am not willing to pay more than I am supposed to pay.*"

Table 8: Micro-Business Owners' Opinion on Tax Volunteer

Respondent	Tax Guidance and Tax Volunteer
MB01	Really need help from both IRB and tax volunteer, especially independent parties
MB02	Need help and prefers from IRB
MB03	Need help and prefers from IRB
MB04	Need help and prefers from IRB
MB05	Need tax advice from independent parties

MB01 requires guidance from both IRB and independent parties. MB01 said: "*I think IRB, as a government agency, should give advice, pay us a visit etc. IRB officer has yet to visit us. I have invited them to come and visit us, to see if we are making a lot of profits. I would prefer for them to come as a stakeholder to help us in business, and not only showing their power as IRB officer*". This is in line with the finding in Abd Hamid et al. (2022). However, MB01 prefers independent parties than IRB: "*We prefer independent consultant than IRB officer, because they* (IRB officers*) are most likely to pressure the business. IRB officer most likely feels that the business is really wanting to avoid tax. Therefore, outsiders (independent parties) are preferred. I really do not like their statement that we are actually avoiding tax. We are not avoiding tax. That statement was really making me mad. Therefore, I prefer outsiders. I prefer IRB officer only if they are coming as stakeholder. But it is impossible for them to come as stakeholder. We cannot blame them. In that case we are not able to be frank with them in our dealings. They will certainly pressure us.".* This is shared by MB05, which is mainly due to the fact that the respondent is yet to declare income tax. This calls for tax volunteer services to be incorporated into Malaysian tax ecosystem as suggested by Hardika et al. (2020).

MB02, MB03 and MB04 feel that the guidance should be from IRB. MB02 said: "*I prefer IRB to give the guidance. Because they are more knowledgeable on taxation. So, they should be more proactive to guide the businesses. But so far IRB has not done it yet. Most of the guidance from them is through social media such as Facebook. They should conduct a training for those interested.... IRB should emulate the proactive approach of Perak State Islamic Council in collecting zakat".*

Therefore, tax guidance from both IRB and tax volunteer is essential in encouraging voluntary income tax compliance. IRB is still viewed as having authorities on tax matters while tax volunteers are viewed as independent from IRB and the taxpayer can communicate effectively on their tax issues.

4.3 Opinion on Malaysian Income Tax

Based on the findings discuss above, as summarised by Table 9, all respondents feel that the tax system is very complex to understand by the micro-business owners with no tax knowledge. All respondents also think, except MB04, that micro-business owners should be taxed due to the fact the income is small. Perhaps these opinions relate back to net income generated by their respective business. Except for MB04 and MB05, all respondents do not think that IRB provides adequate help to the micro-business owners in voluntarily declare their income tax, and this is in line with the findings in Abd Hamid et al. (2022).

Table 9: The Micro-Business Owners' Opinion on Malaysian Income Tax

Respondent	Opinion on Malaysian Income Tax		
	Is it a burden?	**Is IRB helpful?**	**Is the tax system complex?**
MB01	Income tax is a burden.	IRB is not helpful.	Tax system is too complex.
MB02	Paying tax is important except for very small micro-business.	IRB does not provide adequate information to taxpayers.	The tax system is complex but is still willing to learn it.
MB03	The tax is not necessary for micro-business.	No tax information received from IRB.	The tax system is too complex.
MB04	Declaring tax is good for business expansion.	Not required.	The tax is too complex for micro-business owners to comprehend.
MB05	The tax is not necessary for micro-business.	Not applicable.	The system is too complex.

5. Conclusion

Malaysia is still relying on SMEs, including micro-businesses, to contribute significantly to its GDP as well as providing job opportunities to its citizens. However, the majority of taxpayer does not pay their taxes (Abd Ghani et al., 2022), and this will affect the financial ability of the government to develop the country. This qualitative study is aimed at understanding the factors that contribute to income tax compliance among micro businesses.

Overall, most of the interviewed micro-business owners are paying taxes, even though some respondents were claiming that the income tax is too high for the size of their business and mentioned that micro-business should not be burdened by income tax. However, complex tax system, limited tax knowledge and lack of tax guidance available are holding them back from voluntarily and accurately declaring income tax, hence becoming tax compliance taxpayer. While tax penalty is one of the most effective ways in forcing tax compliance among micro-business owners, others softer approaches should also be explored as suggested by Cummings, Vazquez & McKee (2005). Among the approaches are linking government grants with income tax declaration or compliance, reducing compliance costs by providing free tax educational events, such as free tax course or seminars, and encouraging tax volunteers to help micro-businesses.

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Investment Fraud: A Literature Review

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Abstract

This paper aims to present a literature review on investment fraud, concentrating on identifying the factors that influence investment fraud. This paper will provide additional knowledge and insights about investment fraud to safeguard those victimised. The authors classify and differentiate the factors that influence investment fraud by reviewing of prior empirical studies. This exercise in classification facilitates comprehension of the distinct causes of investment fraud. This study identifies the risk factors associated with investment fraud, allowing for the consideration of tailored risk mitigation strategies to prevent or detect investment fraud. Because investment fraud victimisation is a distinct risk factor, enforcement actions can also become more efficient. This research should result in a more effective method of protecting investors from investment deception when they know it.

Keywords
Investment fraud, financial fraud, Ponzi Scheme, Pyramid Scheme

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1. Introduction

Every year, thousands of people in Malaysia are affected by investment fraud, yet their experiences as victims of fraudsters have received limited attention from researchers. Investment fraud is a subset of financial fraud, and it occurs when someone 'knowingly misleads an investor using false information for monetary gain' (Beals *et al.* 2015). In other words, investment frauds arise when an investor (victim) is offered a profitable investment project. Still, the investment is based on false information, so the investor is deceived and suffers a financial loss (Anis, 2018). Investment fraud typically involves the deception of investors by providing incorrect information, inducing them to purchase or sell, and promising them higher returns on investment, thus violating regulatory provisions (Deb & Sengupta, 2020). Investment fraud increases due to the high-profit offer without explaining investment risk.

Investment fraud, as defined by Baker & Putonen (2017); unlawful acts in which the offenders convince the victims to make investment decisions based on false information. According to Reurink (2016), investment frauds are fraudulent activities done by tricking investors into devoting their money to promising special projects (corporations, investment funds, real estate projects, or insurance policies), which, in reality, do not exist. In other words, investment fraud lures its investors by promising abnormally high rates of returns with little risk to investors (Interpol, 2019). Besides, according to BNM (2010), investment fraud is defined as illegal deposit-taking activities by receiving or accepting deposits such as money and other valuables from members of the public. Investment frauds are promises to repay investment returns without a valid license under the banking law. Whereas, Albrecht et al. (2014) defined investment fraud as "any fraud that is related to stocks, bonds, commodities, limited partnerships, real estate, or other types of investments", often built upon deceitful promises and agreements, where targets are persuaded or coerced into investing.

A few characteristics of investment fraud are visible from the existing literature, published reports of Security Exchange Board of India (SEBI) and other regulatory authorities and the major cases of Sahara India and PACL investment fraud cases (Deb & Sengupta, 2020). The characteristics of investment fraud include:

- Illegal schemes for fundraising;
- Purported sale of financial instruments;
- Guaranteed high returns on investment;
- Low or no risk attached initially; and
- Usually, a large population falls prey to dubious schemes.

Chariri et al. (2018) identify five early warning signs which indicate the fraudulent nature of investment schemes, namely, schemes offering high returns, salesperson of plans forcing people to subscribe to the scheme immediately, unreasonable underlying core business, no explanation of how the funds will be managed and investments without information of the structure of management, ownership, business and address of the company. Another similar study done by Lee et al. (2019) defined that fraudsters use five tools, namely, noble pursuits, perceived success, an air of familiarity, claim to authority and framed authenticity, which stops the need

for further investigation by individuals, and they succumb to becoming the prey. Meanwhile, the FBI (2018) lists 23 "common fraud schemes" on their website, of which some could be utilised for wine investment fraud, including advance fee schemes, internet action fraud, internet fraud, investment fraud, Ponzi schemes and telemarketing fraud (boiler room fraud).

Kieffer and Mottola (2016) state that investment fraud includes scams like penny stock fraud, pre-IPO scams, oil and gas scams, Ponzi schemes, and high-yield investment program fraud, to name a few. More generally, financial fraud includes other types of economic frauds, like a lottery and sweepstake scams, scams involving worthless or non-existent products, and services such as bogus weight loss products or fake memorabilia. The tricky victims are not only people who have a lot of money and are highly educated (Hidajat, 2018), but they were also people who live at an average level and have a low level of education. All investors (victims) are aware of fraudulent practices by schemers, but they still join in it because they expect to benefit from joining that investment. Unfortunately, the previous study of investment fraud is more attributed to the nature of investment frauds, such as the Ponzi (Anis, 2018; Wilkins, Acuff & Hermanson, 2012).

Keeping in consideration the gravity of investment fraud, this study aims to examine the factors that contribute to investment and vulnerability to investment fraud. The investigation into investment fraud in Malaysia is relatively limited, particularly in terms of understanding the demographics of those who are easily deceived by fraudulent schemes and the underlying motivations behind their investment choices. It is our aspiration that this body of literature will serve as a valuable resource for researchers conducting studies on investment fraud in Malaysia.

2. Investment fraud in Malaysia

In Malaysia, one of the earliest investment frauds is the "Pak Man Telo" scheme, which became famous in the media in 1992 after it was uncovered by the authority (Takiyudin & Bahyah, 2017). The scheme was founded by Osman Hamzah in 1972 and had caused 50,000 investors to incur losses with a total amount of RM 90.0m. Another famous scheme in the limelight in 2006 was the Swisscash Mutual Fund. The scheme claimed to have invested in a wide range of investments and promised investors a return of up to 300% within 15 months of investment, the so-called "Swisscash-fund" was able to induce an investment amount of, reportedly, RM 585.5 million from Malaysian investors (Jayasankaran, 2017). Instead, it failed to fulfil the promise and defrauded investors worldwide of as much as RM 83.0 m (Sulaiman et al., 2016). Armed with "convincing" claims via the internet of numerous investments in equities, commodities as well as foreign exchange, among others, and of an average investment return of up to

Investment fraud is one of the financial frauds that has caught worldwide attention due to the increasing number of victimisations globally, including in Malaysia. Indeed, in Malaysia, more than 4,800 white-collar crimes were reported over the past two years involving investment fraud with losses exceeding RM420 million and a total of 906 individuals were arrested in 2020, while last year saw 1,833 individuals held for investment fraud offences (Bernama, 2022). To date, there are no specific laws and regulations for dealing with investment fraud in Malaysia, making it difficult to frame a scheme as investment fraud legally. Table 1 indicates the number of investment fraud cases in Malaysia reported to the Bukit Aman Commercial Crime Investigation Department from 2019 to 2022 increased by 2299 cases. This increasing trend signals the urgent need to investigate the factors that affect cyber investment fraud in Malaysia.

Table 1: Cases of Investment fraud reported in Malaysia

No.	Types of Crime	Cases				
		2018	2019	2020	2021	2022
1.	Investment Fraud	1046	968	1664	3186	3267

Note: Data from Commercial Crime Investigation Departments

Besides, the Bukit Aman Commercial Crime Investigation Department (CCID) reported that the number of investment fraud cases in Malaysia increased from 2019 to 2022. In 2018 the data show that investment fraud reports decreased from 1046 cases in 2018 to 968 cases in 2019 (78 cases, around 7.5 %). However, the cases increased in 2020, and it was reported that 968 cases were reported in 2019, to 1664 cases in 2020 increase of 696 cases (41.83 %). Meanwhile, the large number of investment fraud includes 3186 cases in 2021 compared to 1664 cases in 2020. It increased by 1522 cases (92%). Whereas, in 2022, the cases show a slight increase from 3186 cases in 2021 to 3267 cases in 2022, around 41 cases. Thus, Malaysian people are exposed to being victimised by investment fraud because their routine activity is changing by the COVID-19 pandemic.

Besides, "These parties use various names for fraudulent investment activities. They may also impersonate or clone licensed capital market intermediaries by using the name, logo, credentials, website and other details of legitimate entities to promote the illegal scheme (Berita Harian, 2022). According to the Malaysian

Securities Commission, they also created a public group on Telegram to promote investment packages that are usually accompanied by fake testimonials and are also advertised as Shariah compliant. Interested investors will be asked to send direct messages to representatives to start investing in the various packages offered (Berita Harian, 2022).

3. Prior Studies on Investment Fraud

Kadoya et al. (2020) investigated the demographic, socioeconomic, and psychological variables f financial fraud. This study employed a sample size of 1,226 respondents (victims of financial scams) joint survey of the Hiroshima Bank and Hiroshima University, Japan conducted in 2017 and the logit regression model to determine what increases the likelihood of being a victim. These results show that economic unhappiness increases the possibility of being a victim of a financial scam. Furthermore, this study discovered that no other demographic or socioeconomic characteristic is associated with financial scam events. The only personality attribute (extraversion, agreeableness, conscientiousness, neuroticism, and openness) that increases the likelihood of being a victim of a financial scam is a lack of conscientiousness because people with low conscientiousness are easily targeted. According to the study, financially unsatisfied people engage in potentially unsafe and deceptive projects.

Deb & Sengupta (2020) highlight the factors that entice people at the bottom of the pyramid (BoP) to participate in a fraudulent scheme. The sample comprises 30 people living at the poverty line in and around Kharagpur, West Bengal, India. According to the research, the Affinity or trust element is vital for any investment choice in rural communities. Furthermore, a lack of sufficient education, poverty, and economic isolation promote the trust elements to play a significant role.

Furthermore, Kieffer & Mottola (2016) conducted their research with three (3) main research objectives; to investigate demographic and psychographic patterns associated with investment fraud victimisation, to investigate the roles of targeting in victimisation, and to explain how fraudsters use social influence tactics to defraud their victims. This study's sample size was 1,721 people in United State, America (aged 40 to 94), and the analysis employed a regression framework to analyse and logistic regression models (predicting investment fraud). This study focuses on five (5) persuasion strategies recognised as widely utilised in investment fraud: phantom wealth, scarcity, source trust, social consensus, and reciprocity. This study discovered that four characteristics, namely financial literacy, perception of debt, risk tolerance, and impulsiveness (inability to recognise common Red Flags of fraud), are all significantly and positively connected to investment fraud victimisation. In contrast, age and solicitation are significant and associated with victimisation. However, household wealth and college education are highly and positively connected to investment fraud solicitations.

Hidajat et al. (2021) aim to identify psychological factors that drive people to participate in Ponzi and Pyramid Schemes (the average amount of money invested in a scheme). This study's sample size is 98 respondents (investors) in 11 cities in Indonesia who are were or had invested in an investment program with a Ponzi or pyramid scheme (17% victims of the Pyramid Scheme and 83% victims of the Ponzi Scheme), and the sample was chosen using snowball sampling because the population of this study is difficult to know and should be contacted in a personal manner. The results demonstrate that optimism (emotional bias), confirmation bias, representativeness bias, framing bias, and overconfidence (cognitive bias) positively influenced Ponzi and Pyramid scheme investment decisions. However, herding harms investment decisions.

Badua (2020) did a related study to learn the causes of investment fraud, the effects of victimisation, and victims' coping mechanisms. The sample comprises 12 victims from Laoag City, Batac City, and San Nicholas Municipality. The authors employed snowball sampling to identify the individuals for this study's example. The information was acquired through an in-depth interview (IDI) utilising an interview guide. This study's findings were classified into reasons, effects, and compensation. The researcher discovered that people are victims of investment fraud for six (6) reasons: a desire to gain income, scarcity in life, persuasion, trust and confidence, the profile of the victims, and carelessness. The victims' victimisation resulted in financial losses, feelings of betrayal, depression, frustrations, vigilance, powerlessness, relationship impairment, and loss of appetite, and they were greatly affected because they did not suffer from a single effect but from all of them. However, all independent variables of effect are negative except alert, which has a positive impact because victims will become more cautious about investing. Nonetheless, the findings suggest openness, hopefulness, courage, and self-help when dealing with the consequences of investment scam victimisation.

Ullah et al. (2022) identify the primary patronage reasons that influenced the public's decision to invest in the Modaraba Scam. This is a qualitative study in which semi-structured interviews were done with the scam's investors, followed by theme analysis to conclude the subject matter. The sample size for this study is 18 people (investors) from Pakistan, and the sample was chosen using the snowball sampling method. The findings show that multiple cues, broadly classified as monetary stimuli, religious stimuli, and lubricants, mobilised investment towards the hoax. In general, a lucrative rate of return on investment and the personality of the agents, who were religious clerics, were the two main arguments that persuaded all investors unanimously. An innovative and eye-catching tagline of the strategy was the religiosity stimulant (agents' personalities and Shari'ah-compliant business).

The significant demographic and socioeconomic characteristics of persons inclined to invest in a fraudulent investment scheme are identified by Singh & Misra (2022). The sample size for this study is 11,234 respondents from 20 Tier-II cities in India, and the data is drawn from the "India Assessment of Financial Capability 2018" survey, which is nationally representative. This study employed logistic regression to assess investment in financial scams as a dichotomous outcome variable with demographics, socioeconomic variables, and explanatory variables as a result, this study concludes that males between the ages of 40 and 59 who are well-educated (at least graduates), have low financial literacy, are middle-income, and belong to the SEC (socioeconomic class) A3 household are the most vulnerable to victimisation by financial fraudulent investment schemes. It discovers that financial knowledge considerably reduces the likelihood of investing in deceitful schemes.

Hidajat (2018) empirically investigates the impact of financial literacy on investment decisions using Ponzi and Pyramid schemes. This study's respondents include 43 people who was living in the city of Bandung and Wonosobo, Indonesia investing their money in Ponzi and Pyramid schemes. In his research, the author utilised snowball sampling to choose respondents randomly. The conclusion was that social and economic variables had a beneficial influence on financial literacy. At the same time, financial knowledge influences investment decisions through Ponzi and Pyramid schemes. Interestingly, the findings show that It's strange since people with solid financial knowledge (work occupation, education, gender, and income) are locked in these trash investment tactics paradigms. However, it was considered that other reasons, such as psychological characteristics and individual greed, led financially literate people to invest in both garbage investment schemes. Furthermore, this study proposed a change in financial literacy measurement because existing financial literacy measurement techniques could not accommodate the comprehension of Ponzi and Pyramid scheme investment.

Lokanan & Liu (2021) investigate the demographic aspects of investors that contribute to financial victimisation in Canada from June 2008 to December 2019. This study employed descriptive analysis to demonstrate the demographic features of investors who have been victims of economic crime in Canada. The sample for this study consisted of 616 cases from all tribunal cases published by IIROC from June 2008 to December 2019. According to the findings, these investors aged 60 and up were more likely to become victims of financial crime. Furthermore, the results revealed that pensioners and individuals with poor investment understanding are more vulnerable to criminals than others.

Prakosa (2019) identifies the factors influencing investors to participate in a Ponzi scheme in Indonesia and investigates the impact of psychological biases (optimism bias, overconfidence, representativeness bias, confirmation bias, framing, and herding) on investors' decisions to participate in a Ponzi scheme. This study's sample size is 42 investors (victims) who lived in several rural districts of Yogyakarta, Indonesia, between September 2016 and January 2017. Despite this, 38 volunteered to answer every item on our questionnaire, and the author interviewed them. Regression analysis and linear regression were employed in this investigation. According to the findings of this study, optimism bias, overconfidence, representativeness bias, confirmation bias, framing, and herding behaviour all have a substantial impact on investment decisions. In other words, anyone involved in a Ponzi scheme has undoubtedly acted unreasonably, both logically and emotionally.

Sari (2016) study how overconfidence, availability bias, herding, and risk preference influence financial decisions about Ponzi schemes. This study's sample consists of 115 respondents (based on questionnaire responses) from investors in Bandung, and the sampling strategy utilised was purposive random sampling. The survey explanatory, multiple linear, and regression analysis (t-test, F-test, and the determination coefficient) were employed as research methods. The findings of this study revealed that overconfidence, availability, herding, and risk preference are the primary fundamentals in processing information to make financial decisions. Furthermore, the availability heuristic, herding, and risk tolerance all positively and significantly influence investing decisions. As a result, of the four variables (overconfidence, availability heuristic, herding, and risk tolerance), overconfidence affects the decision to invest in a Ponzi scheme.

Furthermore, Liew et al. (2019) researched what types of people participate in money games in Malaysia based on their motivations, reasons for trust in the scheme, and investment decision-making process. This study's sample size is 43 respondents (investors alone), which may not represent the whole population of Malaysian money game investors. Because the people of respondents cannot be defined, non-probability sampling methods such as convenience sampling (only those with experience and deemed fit to offer data) and snowball sampling (respondents referred other participants to the researchers) are utilised in this study. According to the findings, there are five sorts of people who are easily duped by the money game in Malaysia: early birds, FOMO (fear of missing out), affinity devotees, and desperate and naive dupes. Furthermore, this study discovered that their decision-making process was influenced by human weaknesses such as avarice and gullibility, the sociology of the victimisation process, human psychological disposition, and asymmetric information. This study discovered that their decision-making process was influenced by human weaknesses such as avarice and gullibility, the sociology of the victimisation process, human psychological inclination, and asymmetric information.

4. Conclusion

This study aims to present a literature review on determinants that influence investment fraud among investors. The previous research in the literature review allowed us to understand how investment fraud is perpetrated and the nature of the victims of the fraud. Most empirical studies were conducted in a few countries, namely, Japan, India, America, Indonesia, Philippines, Pakistan, and Canada, where the factors that were primarily studied derived from Gullibility Theory. Therefore, the researcher would like to recommend further studies to identify more theories related to investment fraud; the findings of previous studies are limited experiences of the real victim of investment fraud because of the difficulties the researchers to get close to victims to collect survey samples because they don't have any information about who is had experienced. Therefore, future studies may be extended by conducting interviews as well as survey among victims of investment fraud.

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Determinants of Tax Awareness Among E-Commerce SMEs in Malaysia

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Abstract

This study investigates the determinants of tax awareness among e-commerce SMEs in Klang Valley, Malaysia. Today's accelerated expansion of e-commerce has generated several obstacles. Since e-commerce enterprises are conducted online or over the phone, avoiding taxation is a major concern among practitioners. They believe tax authorities will be unable to discover their business income. Therefore, the main objective of this study is to examine the factors of tax knowledge, taxpayer attitudes, and tax penalties that influence tax awareness among owners of online businesses. Data were collected from 158 owners of e-commerce SME businesses, and a quantitative non-experimental research design was employed in this study. The data were analysed using Statistical Package for the Social Sciences (SPSS) version 27. The results of the regression analysis indicated that there is a significant relationship between taxpayers' attitudes and tax penalty the tax awareness among e-commerce SMEs. However, tax knowledge does not have a significant relationship with tax awareness among e-commerce SMEs. This study contributes to knowledge in the form of understanding the factors that influence tax awareness among the owners of e-commerce businesses. As a result, the findings of this study can assist the government, in particular tax authorities, in finding a way to overcome the factors that would lead to tax evasion. This study also can help professionals boost SME self-assurance in carrying out their obligations as taxpayers.

Keywords

E-Commerce, Small Medium Enterprise, Tax Awareness, Tax Knowledge, Taxpayers Attitude

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1. Introduction

Small and medium-sized businesses (SMEs) are regarded as the foundation of Malaysia's economy since they provide a substantial contribution to employment, innovation, and economic expansion. As of December 2019, there were 1.02 million. SMEs in Malaysia, account for 98.5% of all company establishments in the nation, according to the SME Corp Malaysia Annual Report, 2020. SMEs also employ 7.3 million people, or 67.2% of the workforce, and provide almost 40% of the nation's GDP (SME Association of Malaysia, 2016). Wilayah Persekutuan and Selangor have been encouraged by the growth of SMEs over the past decade. In addition, SME Corp Malaysia will ensure that SMEs in Malaysia receive robust support through the Go Global Malaysia project. The Go Global Malaysia project is more extensive because it offers SMEs a complete end-to-end package. Since both SMEs and large enterprises have equal access to the internet, e-commerce is expected to give SMEs a considerable advantage in terms of market access. Through various efforts and policies, the Malaysian government and pertinent organizations will probably continue to support and promote the expansion of SMEs in the nation.

Additionally, adopting e-commerce can reduce costs, broaden the target market, increase operational efficiencies and business processes, and give businesses a competitive advantage. However, adopting e-commerce is difficult because technology and business must be updated frequently. Ahmad et al. (2015) noted that the expense of obtaining e-commerce infrastructure in developing nations is typically considerable for many SMEs. However, adopting e-commerce also can negatively impact the nation. According to Atawodi et al. (2012), the government relies heavily on tax revenue to fund its development initiatives. Consequently, society will gain from it. Higher levels of tax evasion will result in significant revenue losses for the government and will affect the nation's economic expansion. Sun et al. (2012) mentioned that due to the owner of the e-commerce business failing to pay taxes, Malaysia Royal

Malaysian Customs Department (RMCD) and IRBM are predicted to lose billions of ringgits. These tax authorities are examining ways to tax individuals or SMEs operating digital online enterprises in addition to keeping a watch on the major multinational corporations in the sector. However, the current e-commerce industry explosive rise has entirely generated several difficulties. One common complaint among e-commerce professionals is that because they do their business over the phone or online, they may easily avoid paying taxes. They believed that the tax authorities would be unable to determine their income from their firm. Therefore, the government must improve the tax system to be more adaptable to technical and economic developments. Taxpayers also need to know how and when they have to pay taxes. The taxpayer also needs to understand the tax penalty imposed by the authority. If not, there could be double or no taxation (OECD, 2003).

Therefore, taxpayers benefit from tax awareness because it enhances their comprehension of the tax system in order to calculate, pay, and report their income. Taxpayers with inadequate tax knowledge are likely to demonstrate unwillingness or avoidance of tax payment, whether intentionally or unintentionally. In Malaysia, a dearth of tax awareness has resulted in taxpayers; unwillingness to pay taxes (Saifi et al., 2015). Nonetheless, tax awareness could be enhanced if taxpayers were diligent in their tax literacy and education to comply with the law (Hastuti, 2014). Evidently, taxpayer compliance is influenced by both tax knowledge and awareness (Rahayu et al., 2017). In addition, as taxpayers; level of comprehension increased, they were better able to evaluate their behavior in relation to taxation provisions, resulting in a high compliance rate (Nalendro & Isgiyart, 2014). Thus, based on these tax issues, this paper examines the relationship between tax knowledge, attitude, and tax penalties imposed by the authority among SMEs in Klang Valley, Malaysia.

The remainder of the paper is organized as follows. Section 2 includes previous literature on SME and tax awareness and elaborates on the development of research hypotheses. Section 4 explains the research design and methodology. Section 4 presents and discusses the findings and section 5.0 provides the summary and conclusion.

2. Literature Review

The rapid expansion of e-commerce in recent times has presented various challenges. The online nature of e-commerce operations has raised concerns among practitioners about potential tax evasion. This apprehension arises from the belief that tax authorities might struggle to detect business income generated through online transactions. This distinction stems from the unique nature of internet-based e-commerce, setting it apart from traditional business models (Coupey, 2001). Li (2004) and Mukti (2000) underscore that neglecting taxation or providing preferential tax treatment to this sector could significantly impact tax revenue collection. Taxes play a pivotal role in a nation's development beyond merely generating revenue. Following the tax neutrality principle, a tax system should remain neutral to ensure business decisions are guided by economic merits rather than tax considerations. Concurrently, the inherent benefits of e-commerce have sparked the interest of individuals and businesses alike. Poorangi et al. (2013) emphasize that Malaysian SMEs are increasingly adopting e-commerce, recognizing its potential to confer competitive advantages in the globalized economy, irrespective of their scale. With the surge in e-commerce participation, especially among SMEs, Malaysia's e-commerce sector has witnessed substantial growth.

However, the 2020 Fiscal Outlook revealed that although 62.4% of the 1,251,190 registered companies in Malaysia were listed with the Inland Revenue Board (IRB), only 7.8% were subject to taxation. The Royal Malaysian Customs Department (RMCD) and IRBM project substantial revenue losses due to non-compliance among e-commerce business owners (Tallaha et al., 2014). These tax authorities are exploring ways to tax individuals and small and medium-sized enterprises engaged in digital businesses, aside from monitoring large multinational corporations. Amid the rapid e-commerce growth, challenges such as tax evasion have emerged as significant concerns. Failure to compel a considerable number of e-commerce businesses, particularly SMEs, to file accurate tax returns or report accurate tax liabilities could result in significant revenue losses for the government and impede national development.

Considering these challenges, this study aims to identify the determinants influencing tax awareness among Malaysian e-commerce SMEs, particularly those in the Klang Valley. Specifically, the research seeks to establish the relationship between three behavioral factors: tax knowledge, taxpayers' attitudes, and tax penalties among these SMEs. This inquiry can potentially encourage voluntary tax compliance (Saad, 2009) and enable policymakers to grasp the importance of tax knowledge and the intricacies of the tax system, ultimately leading to enhanced future compliance efforts.

Furthermore, many e-commerce SMEs possess limited understanding of tax regulations and requirements. This knowledge gap hinders their ability to maintain tax compliance, potentially resulting in penalties and legal repercussions. Familiarity with tax laws is essential for taxpayers to calculate taxes accurately, especially under the Self-Assessment System (SAS) (Pope et al., 2008). In this context, Anto et al. (2016) emphasize that understanding taxpayers' knowledge and compliance behavior poses a challenge, particularly under a self-assessment system.

Findings from Saad's interview-based research (2014) reveal that taxpayers often lack an in-depth grasp of the technical aspects of the income tax system.

Moreover, Damajanti and Karim (2017) contend that tax knowledge encompasses comprehension of tax reporting, estimating taxes, and tax payment—a critical aspect impacting tax compliance. Taxpayers are more likely to comply when they understand tax reporting processes, calculation methods, and payment procedures (Damajanti & Karim, 2017). Proper internalization of tax knowledge empowers taxpayers to navigate the tax process effectively, indirectly bolstering voluntary compliance and reducing tax evasion (Machogu & Amayi, 2013). According to Ratnawati et al. (2021), taxpayer awareness involves attitudes, beliefs, reasoning, and information shaping individuals' inclination to abide by tax laws. Negative attitudes toward tax compliance can lead to non-compliance and penalties. Malaysia's Inland Revenue Board (IRBM) provides an e-filing platform for recording income, ensuring accurate tax submissions under the self-assessment system.

Besides, Alasfour et al. (2016) discovered that factors like age, education, gender, occupational status, and background significantly influence attitudes and choices related to tax awareness. Elements such as tax administration, compliance perceptions, trust in officials, and willingness to obey play a pivotal role in shaping individuals' attitudes toward taxes (Torgler et al., 2008). Torgler (2008) emphasizes that public institutions represent tax authorities, and taxpayers' perception of the fairness and effectiveness of the tax system greatly influences attitudes. Moreover, tax penalties, as described by Devos K. (2014), serve as deterrence mechanisms enforced by tax authorities to ensure compliance. Effective implementation of penalties encourages prompt tax payment, accurate registration, and reporting of tax objects. However, taxpayers may view penalties as inadequate or excessive, undermining tax policies if enforcement lacks consistency. Prior research by Erani & Meiliana (2016), Siamena, Sabijono, & Warongan (2017), and Siregar (2017) demonstrates the impact of tax fines on taxpayer compliance. Consequently, consistent, and well-structured tax penalties can enhance taxpayer compliance and contribute to improved tax revenue collection.

2.1 Hypothesis Development

Reflecting the above considerations, this study endeavors to examine the determinants influencing tax awareness among e-commerce SMEs in the Klang Valley. Addressing this issue is crucial to ensuring tax law compliance within the e-commerce sector, which, in turn, contributes to national revenue generation. Tax knowledge plays a pivotal role in achieving a heightened level of tax awareness. The comprehension of the tax system and law significantly hinges on a taxpayer's grasp of tax knowledge. Moreover, it entails maintaining meticulous records, making advanced tax estimations, and engaging in monthly tax payments, which are integral aspects of the Self-Assessment System (SAS). A strong command of tax law is particularly advantageous for taxpayers utilizing the SAS (Redea, 2016). Recognizing taxpayers' expertise holds considerable importance for governments and tax authorities, especially within the context of a self-assessment system (Saad, 2009). Alabede et al. (2011), has highlighted the positive influence of tax knowledge on tax awareness behavior. This leads to the formulation of the following hypotheses:
H1: Tax knowledge has a positive influence on tax awareness among E-commerce SMEs in Klang Valley, Malaysia.

In accordance with the assertions made by Helhel and Ahmad (2014), tax authorities are advised to direct their attention towards individual psychological variables, particularly moral beliefs and attitudes, given their non-economic ramifications on tax consciousness. Furthermore, Nkundabanyanga et al. (2017) contend that ethics serves as a potent instrument and avenue for fostering tax consciousness. Individuals possessing strong moral compasses, characterized by remorse and an innate understanding of right and wrong, are more likely to willingly fulfill their tax obligations, devoid of coercion. The empirical findings of Nkundabanyanga et al. (2017) lend weight to the assertion that two paramount factors influencing voluntary compliance with tax legislation are social norms and attitudes. Within the context of Malaysia, tax awareness behavior may be substantially molded by perceptions of tax justice and the overall attitude toward taxation (Forest and Sheffrin, 2002). Additionally, the existing literature showcases various dimensions of tax attitudes, encompassing perceived fairness (Hite and Roberts, 1992), the level of moral reasoning exhibited by taxpayers (Chan et al., 2000), augmented tax knowledge (Roberts, 1994), opportunities for financial gain (Baldry, 1987), and the perceived trustworthiness of the government (Torgler, 2005). A relevant study conducted by Bobek (1997) revealed that a positive attitude towards tax payment directly correlates with a heightened intention to fulfill tax obligations, a notion further supported by Witte and Woodbury (1985) who emphasized the pivotal role of attitude in shaping the intention to adhere to tax laws. Bobek and Hatfield (2003) corroborated this finding by establishing a significant link between compliance attitude and tax payment behavior. In the present study, attitude offers insights into the taxpayer's belief in the benefits derived from meeting their tax responsibilities. In light of these considerations, the ensuing hypotheses are posited:
H2: Attitude positively influences tax awareness among E-commerce SMEs in Klang Valley, Malaysia.

The degree of tax payment in financing the state has increased as a result of respondents realizing that taxes are a source of state money for funding state needs up to public facilities and infrastructure. Therefore, tax penalties will promote tax compliance and subsequently increase the tax awareness of the corporate taxpayers themselves if the imposition of tax penalties is carried out consistently and in an orderly manner. (Rahmayanti and Prihatiningtias, 2020). Additionally, it is believed that tax penalties are necessary to ensure someone pays their taxes. Palil (2010) discovered that taxpayer awareness of tax penalties is strongly associated with tax compliance. The greater one's cognizance of their tax obligations, the greater their comprehension of the legal and administrative sanctions for noncompliance. The implication is that tax penalties will enhance taxpayer compliance. These findings would lead to the following hypotheses.

H3: Tax penalty has positively influenced tax awareness among E-commerce SMEs in Klang Valley, Malaysia.

3. Methodology

This research endeavors to explore the determinants shaping tax awareness within Small and Medium Enterprises (SMEs) situated in the Klang Valley, Malaysia. The primary focus of the study centers on the proprietors who are actively engaged in the management of these SME establishments. The research is based on Ajzen's (1991) Theory of Planned Behavior, which served as the foundation for the theory. This research studied the influence of tax knowledge, taxpayer attitudes, and tax penalties on tax awareness among e-commerce small and medium-sized enterprises (SMEs). All the independent variables (tax knowledge, taxpayer attitudes, and tax penalties) similarly were investigated in a previous study (Adhikara et al., 2022; Hamid et al., 2022; Khamis & Mastor, 2021).

The selection of Small and Medium Enterprises in the Klang Valley is guided by the statistical insight provided by DOSM's Economic Census (2016), which underscores Selangor's position as the jurisdiction housing the most extensive registry of SMEs. The researcher opted for Google Forms as the platform for questionnaire development, considering its cost-effectiveness and operational efficiency in data collection. The generated output can be readily converted into Excel format and seamlessly imported into SPSS for further analysis. Dissemination of the questionnaires was conducted via communication channels such as WhatsApp, Facebook Messenger, and Email, chosen for their potential to effectively capture the attention of business owners. Prior to distributing the questionnaires, the researcher diligently verified the eligibility of respondents by cross-referencing their online presence on websites and social media platforms including Instagram, Facebook, and TikTok. The compilation of SME listings was derived from the Smart Selangor website (https://sme.smartselangor.com.my/) to ensure a comprehensive and accurate selection process. A total of 448 questionnaires were distributed to potential respondents, yielding 176 completed questionnaires returned. Subsequent scrutiny led to the exclusion of 18 questionnaires that did not meet the stipulated analysis criteria.

Consequently, the final data set comprised 158 respondents, constituting a 35% response rate for the analysis phase. The response rate falls within the acceptable range as suggested by Kerlinger and Pedhazur (1973), who indicate that response rates between 20 and 40 percent are deemed suitable for analysis. The questionnaire is structured into five distinct sections: Demographic information, Level of Tax Awareness, Tax Knowledge, Attitude, and Tax Penalties. The questionnaires utilized in this study were adapted from established sources, namely the works of Savitri and Musfialdy (2016), Carolina and Simanjuntak (2011), and Barone and Mocetti (2011). Data screening, inferential analysis, normality, and validity tests were conducted to ensure the validity and reliability of the results obtained especially in the descriptive analysis and regression analysis. Figure 1 represents the Theoretical Framework for this research:
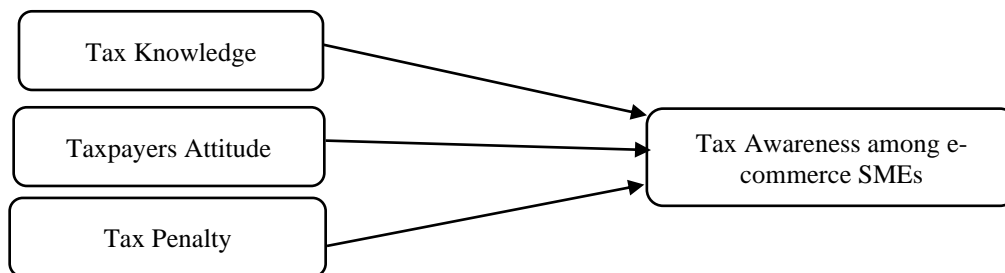

Figure 1: Theoretical Framework

4. Results and Discussion
The results of the analysis of the determinants of tax awareness among e-commerce SMEs in Malaysia are presented as follows:

4.1 Descriptive Analysis Statistics
The analysis of respondent demographics reveals interesting insights. Table 1 represents the descriptive analysis for demographics for this research. In terms of gender distribution, most of the responses were provided by 93 (58.9%) female participants, while the remaining 65 (41.1%) responses were from male participants. This observation potentially signifies a trend wherein women are increasingly engaging in online businesses as compared to their male counterparts. Notably, the age group between 30-39 years recorded the highest participation, with 88 (55.7%) respondents falling within this category. This finding can be attributed to the fact that individuals within this age range are typically more adept at utilizing technology, which could motivate them to explore online business opportunities. Moreover, the educational background of the respondents sheds light on their qualifications. The survey garnered a substantial number of responses from individuals holding a bachelor's degree or a Diploma/equivalent, with each category accounting for 67 (43.4%) respondents. This prevalence of respondents with relatively higher educational backgrounds suggests that they might possess a more comprehensive understanding of financial and taxation matters.

Table 1: Descriptive Analysis for demographic

Gender of respondents:	Frequency	Percentage (%)
Female	93	58.9
Male		
Age of respondent of respondents:	65	41.1
Under 30 years old	41	58.9
30 – 39 years old	88	41.1
40 – 49 years old	28	25.9
Above 50 years old	1	55.7
Education Level:		
SPM or equivalent	23	14.6
Diploma or equivalent	67	42.4
Bachelor's Degree or equivalent	67	42.4
Master and Ph.D. or equivalent	1	0.6
Firm Size:		
Small (5-49 employees)	136	86.1
Medium (50-99 employees)	22	13.9
Business Duration (years):		
Less than 5 years	80	50.6
5-10 years	72	45.6
11 and above	6	3.8

Respondents Profile, N=158

Assessing the size of the firms represented, most of the responses emanated from 136 (86.1%) small-size organizations. This finding highlights the prominence of small businesses in the e-commerce landscape. Additionally, the analysis revealed that a significant proportion of respondents, precisely 80 (50.6%) organizations, are relatively new, having established their businesses in the past five years. This trend implies that most of the participants hail from recently founded e-commerce ventures. In summary, most of the respondents are affiliated with small-scale e-commerce enterprises that have been in operation for less than five years. The demographic insights provide valuable context for interpreting the study's findings and understanding the characteristics of the participants in this research endeavor.

4.2 Regression Analysis Statistics

Table 2: Regression Analysis Statistics

Variable	Unstandardized Coefficients	Std Error	t-stat	p-value	VIF
Constant	2.685	.299	8.977	.001	
Tax Knowledge	.014	.073	.194	.846	1.373
Taxpayers' Attitude	.295	.081	3.639	.001	1.788
Tax Penalty	.151	.075	2.005	.047	1.667
R (R²)	0.486 (0.236)				
Adjusted R^2	0.221				
F-statistic (p-value)	15.835 (0.001)				
Durbin Watson statistic (p-value)	1.992 (0.001)				

a.   Predictors: (Constant), Tax Knowledge, Taxpayers' Attitude, Tax Penalty
b.   Dependent Variable: Tax Awareness

Table 2 presents the regression analysis statistics. Based on the results, the correlation R for all variables is 0.486 meanwhile the R2 is 0.236 and the adjusted R^2 is 0.221, indicating a positive correlation toward Tax Awareness among E-Commerce SMEs in Klang Valley, Malaysia. While R^2 explained how much of the variations of the dependent variable are explained by the dependent variables in the regression. This means there is a 0.236 variation in Tax Awareness being explained by all independent variables (Tax Knowledge, Tax Attitude, and Tax Penalty).

However, the coefficient of Tax Knowledge of 0.14 (p = 0.846), shows that there is no relationship between Tax Knowledge and Tax Awareness among E-Commerce SMEs in Malaysia. Based on a standard confidence interval of 95%, H1 is rejected. This contradicts the findings of previous investigations. This is highly probable due to a few factors, including knowledge that is very likely to be common without formal education and awareness of tax hazards. It is even conceivable for taxpayers to believe that SMEs with a small turnover do not affect the target sector or state tax revenue. Taxpayers' Attitude has a coefficient value of 0.295 (p = 0.001). This means that based on this research model, Taxpayer Attitudes would be a major factor affecting the tax awareness of business owners of E-commerce SMEs in Klang Valley. Based on a standard confidence interval of 95%, the H2 is accepted and supported.

Tax penalty has a coefficient value of 0.151 (p = 0.047). This means that based on this research model, the Tax Penalty would be one of the major factors that affect the tax awareness of business owners of E-commerce SMEs.

Based on a standard confidence interval of 95%, the H3 is accepted and supported. This would positively mean Tax Penalty has 15.1% of impact in making the business owner aware of the taxation.

This study may have several potential interpretations, one of which is that for Hypothesis 1, Tax Education, may not influence the degree to which small businesses comply with tax laws. According to Ghani et al.'s research from 2020, the respondents were unaware that they were even required to pay taxes, and as a result, they were unaware that they should comply with the tax regulations. Lin and Carrol (2000), who demanded that tax knowledge does not have any direct major influence on compliance behaviour, provided support for this finding. Therefore, because of this, there is now a minimal association between tax knowledge and tax awareness, which explains why the result of their study was not statistically significant. Regarding H2, the observed significance level of taxpayers' attitudes towards tax awareness, indicates a positive and statistically significant relationship between taxpayers' attitudes and tax awareness. This finding is consistent with the research conducted by Alm et al. (1992), Salawati et al. (2021), and Hantono (2021), which collectively suggest a positive correlation between tax attitude and tax awareness. This implies that when taxpayers possess a positive moral outlook, there is a corresponding increase in their compliance with tax obligations due to heightened awareness. Hypothesis 3 establishes a significant relationship between tax penalties and tax awareness within the context of E-commerce SMEs in Malaysia.

The imposition of tax penalties exerts an influence on online business owners' inclination to fulfill their tax obligations. When individuals engage in unlawful practices such as non-compliance with tax regulations or tax evasion, they become subject to penalties as stipulated by the Income Tax Act of 1967. The potential threat of penalties often undermines taxpayers' willingness to adhere to tax laws. As a business owner, the desire to avoid financial losses stemming from penalties acts as a compelling factor in promoting tax law compliance. Consequently, the incorporation of punitive measures in the form of penalties is seen to drive tax compliance. This finding echoes the conclusions drawn from the research by Nurlis and Kamil (2015), underscoring the impact of tax penalties on enhancing business owners' tax awareness.

5. Conclusion

This study contributes empirical evidence concerning the interplay between tax awareness among e-commerce SMEs and the factors of tax knowledge, taxpayers' attitudes, and tax penalties. Grounded in the framework of the "Theory of Planned Behavior" this study posits and subsequently explores three key hypotheses.

The first finding regarding Hypothesis 1 posits that tax knowledge influences the awareness of taxation among proprietors of online businesses. However, the empirical findings of this study reveal that exposure to formal or informal tax education does not yield a significant impact on the extent of tax awareness prevalent among proprietors of online businesses. The assertion is reinforced by a congruence of past research. The work of Ghani et al. (2020) illustrated that respondents remained uninformed about their tax obligations, while Lin and Carrol's (2000) investigation contended that tax knowledge lacked a direct correlation with compliance behaviors. Consequently, the current findings attest to a nuanced connection between tax knowledge and tax awareness, elucidating the non-statistically significant nature of their interrelation.

The second finding regarding Hypothesis 2 asserts that the attitudes of taxpayers will significantly influence the degree of tax awareness inherent in online business proprietors. In congruence with this hypothesis, the research findings underscore that a sense of trust and responsibility leads to the observance of tax regulations and rules by taxpayers. This underscores the notion that heightened taxpayer morale catalyzes increased tax compliance awareness. Notably, the study's respondents may harbor a vested interest in projecting ethical conduct by adhering to tax laws. Evidently, the enhancement of tax attitudes accentuates the intrinsic inclination to fulfill tax obligations. This intricate interplay underscores that it is the intrinsic motivation, rather than mere adherence to legal frameworks, that underscores the bedrock of tax system trust.

The third finding regarding Hypothesis 3 posits that tax penalties will significantly impact tax awareness among online business proprietors. Notably, the empirical findings of this study underscore that the anticipation of punitive measures or penalties, administered by governmental authorities, significantly prompts adherence to tax laws and regulations. The legal framework, embodied by the Income Tax Act of 1967, empowers tax officials to penalize individuals who transgress the boundaries of tax laws, encompassing actions like tax evasion. In this context, penalties are demonstrated to effectively dissuade non-compliance, with the gravity of punishment serving as a determining factor in shaping taxpayers' compliance behavior. The rationale is further buttressed by the economic consideration that business proprietors seek to avoid financial losses that arise from penalties. As such, the imposition of penalties serves as a potent tool to ensure tax compliance. A resonance with the findings of Nurlis and Kamil (2015) further underscores the role of tax penalties in engendering business owners' awareness of taxation.

This study has certain limitations. It predominantly focuses on online businesses operating in the Klang Valley, specifically targeting the Selangor region. Consequently, offline businesses were not included in the research. Including offline businesses could offer valuable insights, as different factors may influence tax awareness among business owners. To address these limitations, future research should diversify the sample by including various business types and sizes. Comparing findings across different regions and business profiles will enhance our understanding of the factors influencing tax awareness. This comprehensive approach to research can yield higher-quality outcomes, ultimately benefiting Malaysia's economy. Additionally, the current study focused on specific factors influencing tax awareness among e-commerce SMEs, such as tax knowledge, taxpayer attitude, and tax penalty. Future research should expand on this by considering other factors aligned with the Theory of Planned Behaviour, which encompasses a range of relevant aspects.

Acknowledgment

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The Factors that Influence Accounting Graduates to Choose the Accounting Field as A Career Path in Malaysia

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Abstract

This study delves into the determinants influencing the career choices of accounting graduates, specifically focusing on students from Universiti Teknologi MARA Kelantan Branch (UiTMCK). The primary objective of this research is to analyze the impact of self-efficacy, personal interest, and social influences on the career intentions of accounting graduates. Data were collected from a sample of 194 students, employing a quantitative non-experimental research design. The data underwent analysis using Statistical Package for the Social Sciences (SPSS) version 27. The results of the regression analysis demonstrate a significant relationship between self-efficacy, personal interest, and social influences on accounting students' career intentions. This study contributes valuable insights by shedding light on the factors that drive accounting graduates to pursue careers in the field of accounting. Consequently, these findings can serve as a valuable resource for professional accounting institutes seeking to understand students' interests in accounting professions. Additionally, educational institutions can utilize this study to enhance and tailor their accounting course programs, ultimately fostering greater student interest in the accounting field.

Keywords

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1. Introduction

It is typical for students to enroll in a certain subject of study but not to choose a career in that (or a closely related) field. It makes sense that students can decide to modify their job goals after receiving more education and experience throughout their university years. Particularly in the accounting profession, we observe students switching to other programs for a variety of reasons, such as an inability to handle the pressure and challenge of the program as well as its learning process (Pauzi, 2021). A career in accounting offers a graduate-friendly workplace, possibilities for interaction with others, professional certification, high pay, and a high salary. Prior research concentrated on the most crucial professional decision-making elements that might assist universities in developing sections specifically for the accounting curricula that are responsible for drawing students into the accounting sector (Muhamad et al., 2020). The choice of a vocation has a significant impact on how students see their potential career paths. As a result, the professional accounting field has raised worry over the lack of talented universities that produce graduates with interests in accounting.

Accounting students must comprehend and manage their career paths. The professional path is a lifetime commitment to employment (Joseph et al. 2012). Planning and career plans are required to land a certain life-long job position. Students can pick from a variety of educators, corporate accountants, as well as government accounting professionals (Wijayanti,2001). It is up to the students to choose their future professional paths. As a result, the student must think carefully about several crucial factors when making his career choice. According to the Institute of Labour Market Information and Analysis, Malaysia, accountants are now the fourth most in-demand professionals in Malaysia, ranking fourth among the top five hottest jobs in May (The Star, 2021). Despite the pandemic, financial skills are among the most in-demand competencies in today's competitive employment environment. According to professional recruiting consultant Robert Walter Malaysia, graduates require an excellent blend of business and accounting skills to get a job as a finance leader (The Star, 2021)

In late 2018, Accountancy Europe expressed significant concerns regarding the recruitment and retention of young professionals, a crucial factor for the long-term success of the accounting profession. This issue was particularly pronounced in Malaysia, where the demand for professional accountants was high across various sectors and countries. As a result, a substantial number of accountants in Malaysia chose to pursue career opportunities outside of public practice. This trend presented a substantial challenge for audit firms, as they struggled to retain employees and guide recent graduates along a path that would lead to a successful career in audit (Malaysian Institute of Accountants, 2018).

Furthermore, prior research has highlighted a shortage of certified public accountants in numerous countries, which has failed to keep pace with the growing demand for their services (Kravitz, 2022, Tawiah, 2019, Nor et al., 2013; Van Zyl and de Villiers, 2011; Yusoff et al., 2011). This shortage can be attributed to a significant portion of undergraduate students opting not to pursue careers in accounting (Samsuri et al., 2016). This lack of interest among students in pursuing accounting as a profession has contributed to the shortage of qualified accountants in various regions Jackling and Calero (2006).. Furthermore, the COVID-19 pandemic has cast a negative shadow on the accounting profession due to the physical constraints that hinder accountants from engaging in face-to-face interactions with colleagues. This has led to a distinct shift in their work environment. Consequently, the pandemic has been observed to impede accountants' productivity, their ability to complete tasks, and their capacity to maintain connections with both clients and colleagues (Heltzer, 2021). This situation raises concerns for accounting and audit organizations, particularly in terms of recruiting new graduates, as the likelihood of these graduates not choosing a career in accountancy is significantly elevated.

Traditionally, accountants have often been perceived as individuals who produce historical financial reports with limited decision-making value (Warren and Parker, 2009). Their meticulous attention to detail is also a hallmark of their profession. Adjectives such as dull, uninteresting, rigid, and lacking creativity have frequently been associated with them (Hammani and Hossain, 2010). Accounting students sometimes hold the belief that accounting discipline is heavily regulated (McDowall and Jackling, 2010). Instances of financial scandals, irregularities, and the 2008 subprime mortgage crisis have further marred the image of the accounting profession (Jackling et al., 2007; Sugahara et al., 2009). Matters such as potential conflicts, earnings management, and whistleblowing have emerged as significant concerns within the profession (Jackling et al., 2007). As a result, the integrity of the profession has come under scrutiny. Nonetheless, research conducted among students and professionals outside of Malaysia has indicated that the accounting profession enjoys a relatively favorable reputation (Hammani and Hossain, 2010), though it may not be as prestigious as other fields like medicine or law (McDowall and Jackling, 2010). Additionally, accounting lacks the same level of media exposure as some other professions.

In light of the fact that many top accounting graduates from higher education institutions are no longer opting for accounting as their primary career path, the percentage, and quality of accounting students choosing accounting as their future profession have declined. Churchman (2013) asserts that businesses universally face challenges in attracting and retaining accountants. According to Churchman (2013), professional accountants and educators must offer opportunities, clear communication, and accurate impressions of the accounting profession to students, given the diverse array of career options available. The career decisions of accounting students are influenced by several factors. Most undergraduate accounting students still believe that professional accountants will continue to enjoy ample career opportunities, high demand in the job market, and competitive compensation (Samsuri et al., 2016).

However, some students opt to steer clear of the accounting field due to the perception that it no longer offers a promising future. Hashim et al. (2012) note that lower salary levels, insufficient information about career prospects in the accounting field, and alternative career options contribute to students avoiding accounting as their chosen career path. The workload associated with accounting and the resulting impact on work-life balance has also shaped students' mindsets, leading them away from pursuing accounting as a primary career path (McDowall & Jackling, 2010). Students' perceptions wield significant influence over their career choices. Factors like demanding workloads, stress, and challenges in maintaining work-life balance associated with the accounting industry (Baldacchino, 2021) are crucial considerations when selecting a career (Sweeney and Summers, 2002). Furthermore, learning experiences, as noted by Astuti (2018), play a role in enhancing interest and shaping students' perceptions of the accounting profession.

Hence, this study endeavors to explore the factors that impact students' decisions to pursue careers in the accounting field. This issue holds importance as it raises the prospect of how students are molded during their 6-month internship programs at accounting and audit firms. A few years of education alone may not suffice to sway students towards an accounting career. Rather, students are heavily influenced by the inherent characteristics of the profession. If this trend persists, the shortage of accounting professionals will endure and potentially worsen, especially in the context of the new normal brought about by the COVID-19 pandemic. The study's findings offer a significant

contribution by identifying the pivotal variables that exert the most influence on accounting students' career decisions. Professional accounting institutions can utilize this study to gauge the level of interest accounting students harbor toward entering the field. In light of the well-established trend of fewer accounting students opting for careers in this domain, the study helps shed light on this evolving landscape. Despite the allure of alternative job opportunities, the field of accounting offers a compelling package, encompassing competitive salaries, abundant career prospects, job security, and avenues for ascending to senior roles within organizations. Notably, accountants often play a crucial role in steering their firms towards financial prosperity, all while maintaining a harmonious work-life equilibrium. These intrinsic benefits underscore the attractiveness of pursuing accounting as a career path.

Moreover, this study carries the potential to enhance educational institutions' accounting programs, thus cultivating greater interest among students in the accounting field. Additionally, the study serves to expand the horizons of academic knowledge in accounting education, introducing a diverse array of specializations. For instance, accounting education can delve into areas like accounting information management and technology. This specialized focus equips accountants with the acumen to navigate the latest technological advancements in the finance sector. Consequently, accountants become adept at leveraging cutting-edge tools to drive financial innovation. The study's outcomes also hold promise for companies endeavoring to craft strategic blueprints aimed at attracting accomplished accounting students to further their organizational objectives. This symbiotic relationship between companies and proficient accounting professionals contributes to overall economic growth and stability. The sustained demand for the technical expertise possessed by professional accountants remains a cornerstone for driving global economic progress. By extension, these efforts can lend support to government initiatives geared towards economic expansion and stability. The rapid progress of companies, fueled by exceptional accounting talent, aligns with the broader objective of fostering economic growth. In an environment characterized by rapid changes and evolving financial landscapes, the enduring demand for the technical prowess of professional accountants continues to drive forward global economic vitality.

The subsequent sections of the paper are structured as follows: In Section 2, an exploration of prior literature pertaining to the accounting field as a career path and Social Cognitive Career Theory is presented. Section 3 delves into the formulation and elaboration of the research hypotheses. Moving on to Section 4, an in-depth explanation of the research design and methodology is provided. Following that, in Section 5, the presentation and discussion of the findings take center stage. Finally, Section 5.0 offers a comprehensive summary and conclusion of the study.

2. Literature Review

Yusoff et al. (2011) propose that a person's career path should be envisioned as a lifelong pursuit, requiring thoughtful planning from the outset. In contrast, Joseph et al. (2012) define a career path as a profession an individual commits to throughout their lifetime. Career options encompass diverse fields such as business, law, academia, entertainment, and more. The terms "career route" and "career choice" are used interchangeably. In the context of this study, the "career route" pertains to the selection an accounting student makes post-graduation. Within the realm of accounting, students can opt for careers in areas such as audit, tax, management accounting, financial accounting, finance, and beyond. It is common for accounting students to gravitate towards audit and tax professions.

Ng et al. (2017) highlight that students with heightened exposure to the professional landscape are better poised to chart their career objectives. Here, "career exposure" denotes a student's familiarity with career-related information. Notably, professional accounting bodies play a central role in acquainting accounting students with the nuances of the accounting profession (Ng et al., 2017). Said (2004) underscores the importance of acquainting students with job characteristics, such as the roles accountants fulfill, aiding students in determining their desired path within the realm of accounting. This underscores that enhanced exposure to career-related insights can enhance an individual's capacity to make informed decisions about their future career trajectory.

The diversity of job opportunities available to accounting graduates is widely acknowledged, particularly given the emphasis on specializing in professional practice and the range of roles encompassed. These roles include accountants, auditors, accounts inspectors, controllers, and more. Despite the regulatory framework that safeguards the professional practice market, it is important to dispel the notion that all students embarking on or completing an accounting course necessarily aspire to pursue a professional career within this domain. The concept of a career has evolved from its earlier association with positions within an organizational structure. This evolution has been driven by shifts in organizational and technological landscapes, encompassing an individual's professional journey as well as their multifaceted roles over time (Duberley, Mallon, & Cohen, 2006). In this contemporary interpretation, "career" encompasses the amalgamation of roles an individual assumes throughout their professional trajectory. It extends

beyond the confines of specific job tasks, encompassing a spectrum of roles across various employment opportunities in the long term.

This study is grounded in the Social Cognitive Career Theory (SCCT), which stems from the broader Social Learning Theory (SLT) developed by Albert Bandura (Tetteh et al., 2021). SCCT encompasses three primary cognitive-person characteristics that play a pivotal role in professional development: self-efficacy, optimism, and motivation. Previous research, such as that conducted by Lent et al. (2000), has emphasized the significance of outcome expectations and personal goals. This research suggests that self-efficacy beliefs and educational interests exert influence on both career choices and educational pursuits. Notably, it underscores the importance of students' perceptions of their own abilities, talents, motivations behind selecting disciplines, initial employment decisions, as well as their self-efficacy and ability to effectively engage and thrive within an academic setting. In essence, the interplay of individual attributes, environmental factors, and behavioral tendencies creates a complex network of connections and interactions. Lent et al. (2000) have taken this understanding a step further by establishing a conceptual framework that aids in comprehending individuals who have transitioned to different career paths, thus addressing the associated challenges. The social-cognitive elements embedded within this framework hold the potential to forecast academic satisfaction and success.

2.1 Hypotheses Development

Firstly, according to the constructs of the Social Cognitive Career Theory (SCCT), students' inclination to consider a career in audit is driven by their expectations of outcomes, which encompass high earnings/monetary incentives and the social prestige associated with the job. Additionally, self-efficacy belief, exemplified by possessing ethical values, contributes significantly to this decision-making process. The anticipation of gaining self-efficacy belief from engaging in a job forms a core motivational aspect. Students hold the belief that selecting a profession in accounting provides them with a platform to showcase their intrinsic ethical principles. These study findings are in line with earlier empirical evidence, demonstrating that self-interest plays a role in influencing students' job preferences within the accounting domain (Umar, 2014). Drawing from insights derived from prior research, the following hypothesis is formulated:

H1: There is a significant relationship between self-efficacy and the intention of accounting graduates to opt for the accounting field as their chosen career path.

Moreover, individuals should factor in their personal interests when making career choices, as aligning with one's interests often yields superior performance in a chosen field. Opting for a career that resonates with personal interests is likely to lead to success and potentially greater financial rewards. Engaging in a sector that captivates one's interest tends to result in a sense of fulfillment and happiness. For instance, someone inclined toward communication might find professions like politics or teaching more appealing, as opposed to careers in mechanics or chemistry. Prior research has demonstrated that personal interest in accounting, challenges with numerical concepts, and the perception of accounting jobs being mundane and unstimulating are all significant intrinsic factors that impact students' decisions regarding careers within accounting-related fields (Ng et al., 2017). Based on the considerations discussed above and the divergent outcomes observed in previous research, this study postulates the following hypothesis:

H2: There is a significant relationship between personal interest and the intention of accounting graduates to select the accounting field as their chosen career path.

Factors such as financial incentives, professional training, job market prospects, personality traits, and the work environment all merit consideration when individuals contemplate embarking on a career path in accounting. The interplay of self-concept, personality traits, interests, socialization, support systems, role models, globalization, and readily available resources—such as knowledge and financial means—all collectively shape the course of career decisions. Furthermore, attitudes, variations in job attributes, ethnic background, subject preferences, educational duration, and levels of success, notably Grade Point Average (GPA), all serve as variables impacting students' perceptions of specific job opportunities. Lidiyawati & Anis Sahara (2020) emphasize that students with exemplary academic performance are more inclined to pursue accounting careers, given the influential and positive impact of a robust GPA on their career aspirations during their undergraduate years.

In the Malaysian context, students often find themselves drawn towards accounting due to the pervasive influence of social pressures. The opinions of experts, family members, teachers, and close friends wield considerable importance in shaping students' decisions. Attitudes conveyed by family, teachers, close friends, and significant individuals significantly influence students' personal interests and their choice to major in accounting. The likelihood of a student selecting accounting as their major is heightened in tandem with the extent of positive reinforcement they receive from these influential figures (Muhamad et al., 2020). In a similar vein, Sugahara's study (2009) delved into the pivotal factors affecting Japanese tertiary students' career choices. They assert that intrinsic value was the most

influential aspect determining accounting students' career decisions and prospects. The second most crucial factor was deemed to be social influences.

Considering the above arguments and the divergence in findings, this study proposes the following hypothesis:

H3: There is a significant relationship between social influence and the intention of accounting graduates to opt for the accounting field as their chosen career path.
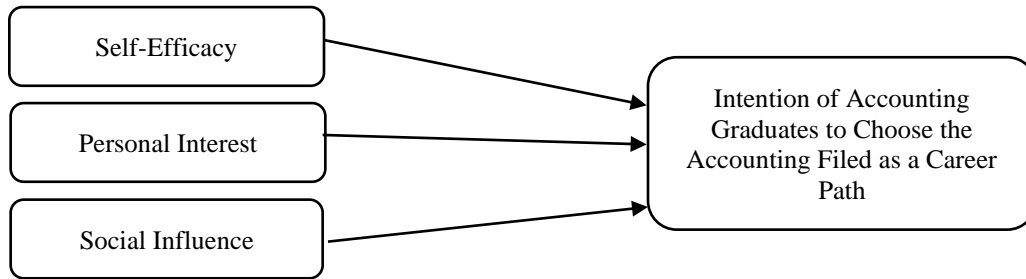
3. Methods

Figure 1: Conceptual Framework

A quantitative non-experimental research design was implemented for this study, incorporating three independent variables: self-efficacy, personal interest, and social influences. The dependent variable pertains to the intention of accounting graduates to opt for the accounting field as their chosen career path. This design was selected due to its capacity to gather responses from respondents comprehensively, within a reasonable timeframe, and while remaining cost-effective (Sekaran & Bougie, 2016).

For data collection, questionnaires were employed as the primary source. These questionnaires were crafted using Google Forms and subsequently disseminated through channels such as WhatsApp and email. This approach ensures that respondents can complete the questionnaire comfortably in their preferred setting, often utilizing their smartphones. The questionnaire was structured using a five-point Likert scale spanning from 1 to 5. Commencing with demographic inquiries such as age and gender, the questionnaire subsequently delved into the variables under investigation. The population of 540 accounting students from the Bachelor of Accountancy in Universiti Teknologi MARA Kelantan Branch (UiTMCK) was selected for this research in the year 2022. The questionnaire consisted of a total of 17 questions, distributed across three sections. Section A encompassed 5 questions aimed at eliciting respondents' demographic particulars, encompassing factors such as age, gender, year of study, CGPA, and internship experience. In Section B, a set of 9 questions was included to gauge student intention vis-à-vis the factors of self-efficacy, personal interest, and social influence. Section C, comprising 3 questions, was dedicated to assessing respondents' intentions regarding the selection of the accounting field as their chosen career path. Data screening, normality, reliability, and validity are conducted before proceeding further analysis. A total of 232 responses were received for the self-administered survey conducted through Google Forms. However, 38 of these responses were identified as outliers and subsequently excluded from the analysis. As a result, the dataset comprised 194 valid entries.

4. Results and Discussion

The results of the analysis of the factors that influence accounting graduates to choose the accounting field as a career path in Malaysia are presented as follows:

4.1 Descriptive analysis

Table 1 provides an overview of the descriptive analysis pertaining to the demographic characteristics examined in this study. In terms of gender distribution, most responses were contributed by 120 (61.9%) female students, while the remaining 74 (38.1%) responses were from male students. The prevalent age range recorded was between 21 to 24 years old, constituting 165 (87.1%) students. This pattern aligns with the fact that the survey was conducted among bachelor's degree students majoring in accountancy. The highest number of responses emerged from students in the fourth-year group, totaling 144 (74.2%) students. Regarding Cumulative Grade Point Average (CGPA), the greatest number of responses emanated from students who achieved a CGPA ranging from 3.01 to 3.50, comprising 95 (49.0%) of the sample. Conversely, only 1 (0.5%) response was attributed to those with a CGPA between 2.00 and 2.50. This indicates that the data was collected primarily from students who demonstrated stronger academic performance. In

terms of internship experience, 117 (60.3%), had undergone internship experiences, while the remaining 77 (39.7%) respondents did not possess internship experience.

Table 1: Descriptive Analysis for demographic

Gender of respondents:	Frequency	Percentage (%)
Male	74	38.1
Female	120	61.9
Age of respondent of respondents:		
18 - 20 years old	13	6.7
21 – 24 years old	169	87.1
Above 24 years old	12	6.2
CGPA:		
2.00 – 2.50	1	0.5
2.51 – 3.00	33	17.0
3.01 – 3.50	95	49.0
3.51 – 4.00	65	33.5
Year of Study:		
Year 1	3	1.5
Year 2	19	9.8
Year 3	28	14.4
Year 4	144	74.2
Internship experience:		
Yes	117	60.3
No	77	39.7

Respondents Profile, N=194

4.2 Regression Analysis

Table 2: Regression Analysis Statistics

Variable	Unstandardized Coefficients	Std Error	t-stat	p-value	VIF
Constant	-0.378	0.186	-2.028	0.044	
Self-efficacy	0.341	0.049	6.962	0.001	2.353
Personal Interest	0.205	0.071	2.905	0.004	3.381
Social Influences	0.527	0.067	7.895	0.001	2.788
R (R²)	0.887 (0.787)				
Adjusted R^2	0.784				
F-statistic (p-value)	234.383 (0.000)				
Durbin Watson statistic (p-value)	2.246 (0.000)				

a.   Predictors: (Constant), Self-efficacy, Personal Interest, and Social Influences
b.   Dependent Variable: Career path

Table 2 presents the multiple regression results of this study. The findings of this study revealed significant relationship between all variables; self-efficacy, personal interests, and social influences and the intention of accounting graduates to opt for a career path. Both the R and R^2 values reflect the proportion of independent factors that effectively explain variations in the dependent variable. The R-value stands at 0.887, while the R^2 value is 0.787 and the adjusted R^2 is 0.784. These values signify that a substantial 78.7% of the variation in the intention to pursue a career path can be attributed to the interplay of self-efficacy, personal interests, and social influences.

The outcomes of the multiple regression analysis provide substantial validation for the hypotheses posited in this study. Initially, the results indicate a noteworthy correlation between self-efficacy and the intention to select a career path, characterized by a coefficient of 0.341, a t-value of 6.962, and a corresponding p-value of 0.001. This lends robust support to H1. Furthermore, the examination of the connection between personal interest and the intention to pursue a career path unveils a discernible relationship, evidenced by a coefficient of 0.205, a t-value of 2.905, and

a p-value of 0.004. Thus, H2 is similarly affirmed and upheld. The results also spotlight the affirmative impact of social influences on the intention to embark on a career path, manifesting a coefficient of 0.527, a t-value of 7.895, and a p-value of 0.001. H3 receives comparable substantiation and validation.

5. Conclusion

This research contributes empirical insights into the relationship between the intention of accounting graduates to opt for the accounting field as a career path and the factors of self-efficacy, personal interest, and social influences. Statistical analysis was conducted on a sample of 194 respondents, scrutinizing a set of hypotheses formulated in Chapter 2. The primary objective of this study is to analyze the impact of self-efficacy, personal interest, and social influences on the decision-making process of accounting graduates in selecting the accounting field as their career path, particularly within the context of Universiti Teknologi MARA Kelantan Branch (UiTMCK). Drawing from the framework of the "Social Cognitive Career Theory," three hypotheses were developed to guide this study.

The first finding regarding Hypothesis 1 revealed that the intention of UiTMCK accounting students to choose the accounting field as their career path is significantly influenced by their self-efficacy. This encompasses the confidence students possess in their own abilities and how this confidence directly shapes their decision to pursue a professional accounting degree. This determination hinges upon whether students believe they possess the necessary expertise, experience, mental resilience, and self-assurance to excel as professional accountants. This aligns with studies such as those by G.S. Ahinful (2019), where the relationship between self-efficacy and students' aspirations to become successful accountants was explored within the framework of the SCCT model.

The second finding on Hypothesis 2 indicated that personal interest plays a substantial role in influencing the intention of UiTMCK accounting students to choose the accounting field as their career path. Respondents predominantly associate personal interest with the sense of gratification derived from their chosen profession or status. This satisfaction can stem from factors such as independence, creativity, a dynamic and intellectually stimulating environment, and autonomy. Intrinsic interest, as distinct from extrinsic interest, was highlighted by Ahmad et al. (2015), emphasizing the influence of personal fulfillment beyond mere financial gains.

The third finding on Hypothesis 3 revealed that the social influence factor significantly affects the intention of UiTMCK accounting students to select the accounting field as their career path. Students' decision-making in favor of the accounting field can often be driven by the perceived salary potential relative to other career options. Additionally, familial ties emerge as a noteworthy influence, as students with family members in the accounting profession are more inclined to pursue careers in the same field. This connection could be attributed to the exposure and insights gained through interactions with family members, thereby shaping students' perceptions of the profession.

This study significantly contributes to the body of previous research by shedding light on the pivotal determinants that influence the career decisions of accounting students. Consequently, the findings of this study hold the potential to provide valuable insights for professional accounting institutions in gauging the level of interest accounting students harbor in pursuing careers within the accounting realm. It is widely acknowledged that the number of accounting students opting for careers in the field has witnessed a decline, owing to the emergence of more alluring employment alternatives. Moreover, this study can serve as a guiding beacon for educational institutions, empowering them to enhance and refine their accounting programs to captivate and cultivate students' enthusiasm for the accounting domain. Furthermore, the outcomes of this study offer a catalyst for companies to formulate strategic blueprints aimed at attracting exceptional accounting students and effectively accomplishing their organizational objectives. In effect, these endeavors align with the overarching goal of contributing to economic growth and bolstering the stability of the economy. The swift evolution of companies, propelled by this approach, intertwines with governmental aspirations to foster economic expansion and sustainability.

This study comes with certain limitations. The primary limitation lies in the study's target population, which comprises accountancy students exclusively from Universiti Teknologi MARA Kelantan Branch (UiTMCK). As a result, accounting students from other institutions are not included in this research. The findings of this study could potentially be enhanced by encompassing a broader spectrum of accounting students, as different institutions may expose students to distinct factors influencing their career choices.

To address these limitations, future research endeavors may consider diversifying the pool of respondents by including students from various faculties and academic levels across different universities. This approach would allow for broader comparisons when investigating the variables impacting accounting graduates' decisions to pursue careers in the industry. Such collaborative and comprehensive studies can contribute to a deeper understanding of these factors and potentially foster economic growth in Malaysia through informed decision-making."

Acknowledgment

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Malaysian Political Turmoil and Stock Market Volatility: Evidence from the GARCH Models

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Abstract

Risks are the enemy of all investors, and one risk that could have an impact on investors' profits is political risk. A significant loss in investment could result from instability, such as changes in government, policymakers, or war. Currently, Malaysia is going through political turmoil, and there is an increase in stock price volatility. Most investors find it difficult to make investment decisions during this significant, uncertain political event. Furthermore, political risks have not affected Malaysia's stock market in decades, so little is known about how the FTSE Bursa Malaysia reacts to political events. Therefore, the purpose of this study is to evaluate how the political turmoil affected the Malaysian stock market throughout the sample period. In order to understand the volatility of the stock market amid political events, we included the daily stock price from May 2016 to May 2023 and then identified a reliable model using both the Autoregressive Moving Average (ARMA) and Autoregressive Integrated Moving Average (ARIMA). As heteroscedasticity was present in the sample, the Generalized Autoregressive Conditional Heteroscedasticity (GARCH) models needed to be applied, and the results found that ARIMA (3,1,3) – GARCH (1,1) is the best fitted model for the data. Additionally, this research also confirmed the existence of a leverage effect using Exponential GARCH (EGARCH), and a positive risk premium was detected using Symmetric Mean GARCH (GARCH-M). As a recommendation, future research should concentrate on assessing the behaviour of the stock market following any election, whether a general election or a state election.

Keywords
Political turmoil, stock market, volatility, GARCH models, Malaysia

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1. Introduction
The stock market, or stock exchange, is an organised market that focuses on the selling and acquisition of assets such as shares, stocks, and bonds. This platform plays an important role in the various countries financial systems as it provides opportunities for various investors to increase the long-term capital of their organisations (Khan et al., 2018). The stock market is widely regarded as a risky financial instrument as its price is unpredictable and highly volatile. However, this makes stock trading more appealing, as increased risk typically means a higher return in the eyes of aggressive and risk-taking investors. The price fluctuations specifically attract investors for long-term investments. Traditionally, stock market investors have tended to spread their money over a variety of portfolios over a longer time frame. The reason for this is that a broad portfolio might lower future risks and losses for investors. Investors were also known for having a high level of sensitivity and responsiveness to any negative events that could impact their investment. For instance, investors would increase their investment when they perceived a management decision that would result in higher future earnings and raise the stock price. On the other hand, if they identify a company's issue early on, investors will sell all their shares in that company (Gwartney, 2003).

Undoubtedly, risks are the enemy of all investors. In finance, risk refers to the degree of uncertainty and/or potential financial loss inherent in an investment decision. Generally, as investment risks rise, investors seek higher returns to compensate themselves for taking such risks. Political events are one of the uncertainties that greatly affect the stock market in every country. If the political system is uncertain, then investors will pull their investments from the country out of fear of losing their wealth. Apparently, investors prefer to invest in a politically stable country. Li and Born (2006) stated that there is a significant correlation between elections and the financial markets. Asteriou

(2016) found that political instability has a negative impact on stocks, and Lehkonen and Heimonen (2015) demonstrated that a reduction in political risk can result in higher portfolio and stock returns.

Malaysia's political turmoil was first started by the unexpected result of the general election (GE14) in 2018, where the ruling party Barisan Nasional (BN) was ousted from power after over six decades of authoritarian rule. However, the new government, Pakatan Harapan (PH), was only able to govern for 22 months until another political coalition formed in February 2020, which led to the formation of another government. Malaysia's eighth Prime Minister has faced huge challenges as instead of dealing with the political coalition since 2018, he has needed to improve a worsening economy and contain the spread of the disease caused by the SARS-CoV-2 virus, COVID-19. As the credibility of his administration was questioned and the political pressure increased, Malaysia received another prime minister on August 21, 2021, 17 months after the previous prime minister was in power. Recently, Malaysia conducted another general election (GE15) and has now formed another government with a new Prime Minister.

Typically, the impact of political events on the stock market has been an increase in stock price volatility. Most investors find it challenging to make investment decisions during major political events, which is largely to blame for the uncertainty that surrounds such events. Even though the impact of political events on stock markets in industrialised nations has been extensively studied, developing market research has received less attention. Furthermore, Malaysia's stock market has not experienced political threats in decades, so little research has been done on how the FTSE Bursa Malaysia responds to political events. Thus, this study was carried out to evaluate how political events affected the Malaysian stock market from May 2016 to May 2023.

2. Literature Review
2.1 Political Turmoil and Stock Market Volatility
For decades, financial economists have been fascinated by the implications of political instability (caused by terrorism, elections, wars, and civil upheavals) on stock market performance. Alexakis and Petrakis (1991) have examined the stock market's behavioural trends in the Greek market and found that the behaviour of the stock market index is highly related to the current sociopolitical issues. Similarly, Chan and Wei (1996) used the Red-Chip Index and the Hang Seng Index to examine how political news affected the volatility of the Hong Kong stock market. They have concluded that political news does in fact raise the stock volatility of both indices using the GARCH in mean (GARCH-M) model. Their research has demonstrated that unfavourable political news is typically correlated with a negative return. Using the ARCH models as well, Brooks et al. (1997) emphasized how political instability—in this case, President De Klerk's historic announcement—had an impact on South Africa's stock market volatility.

The association between return volatility and salient news has been shown to be too weak by Chan et al. (2001). In contrast, the analysis showed a persistently substantial relationship between important news and price volatility. According to Mei and Guo (2004), a panel of 22 emerging markets was used to assess the impact of political risk on financial crises while researching political election cycles. Using a combination of probit and switching regression models, they discovered an increase in market volatility during political elections and transition times, as well as a substantial link between political uncertainty and financial crises. Biakowski et al. (2008) aimed to evaluate whether national elections spawn significant stock market volatility among the 27 OECD nations in their investigation of the relationship between politics and finance. They have discovered a high prevalence of volatility during elections. They have notably observed that during the week preceding the elections, volatility might easily reach a twofold level. Abdelbaki (2013) investigated the influence of political and economic insecurity caused by the Egyptian Revolution on stock market performance. Using time series data cointegration techniques and the Vector Error Correction Model, the results show that political instability has a significant impact on stock market values. Furthermore, Chau et al. (2014) investigated the influence of political instability caused by the "Arab Spring" on the volatility of the MENA region's major stock markets. Within the GARCH models, they used a four-step empirical methodology. As a result, political instability has significantly contributed to increased MENA stock market volatility.

Previous research has investigated how the stock market reacts to news of political occurrences. Amihud and Wohl (2004), for example, explored how the market reacts to news of Saddam Hussein's demise. Cheng (2005) demonstrated that enterprises associated with George W. Bush Jr. had positive stock performance during the 2004 US presidential election. Kapar and Buigut (2020) find that Qatar's stock market volatility was significantly impacted by the diplomatic and economic blockades. Additionally, Buigut and Kapar (2020) show that the Qatari boycott had a significant effect on stock markets in Gulf Cooperation Council nations, while Bash and Alsaifi (2019) demonstrate that the disappearance of Jamal Khashoggi has had a significantly unfavourable impact on the stock returns of the Saudi Stock Exchange. Besides that, Yusoff et al. (2015) investigate Taib Mahmud's (a veteran Malaysian politician) retirement rumour, real retirement, and nomination for the parliamentary seat. In Malaysia, political involvement is very strong in businesses, and the two are frequently intertwined. As a result, surprises in political news may influence

investment activity. Furthermore, the analysis of Bilson et al. (2002) demonstrates that political considerations can explain some of the variability in emerging market returns.

2.2 Malaysia Political Turmoil

In the case of Malaysia, the political instability started during the 14th Malaysian general election in 2018. Before that, the political environment in Malaysia was known as one of the most stable governments in the world (Wong and Hooy, 2021), as the ruling party had governed for six decades. From its independence in 1957 until 2018, there was only one ruling party in Malaysia, and the position was not interrupted by any opposition party. However, throughout the six decades, Malaysia has also faced several historical incidents that threatened its political stability. For instance, a racial clash that happened in 1969 that caused the deaths of many people has pushed the government to implement New Economic Policy that provide a more inclusive way of wealth distribution in the country (Shamsul, 2010). Instead of that, Malaysia also faced a constitutional crisis in 1990 due to the discontentment of the people. In 1999, the government went through another set of challenges due to the Asian Financial Crisis (AFC), which happened in 1997 and 1998. As time passed, the political environment in Malaysia further transformed as the existence of a stronger opposition party weakened the ruling party's power. Moreover, numerous internal infightings within the members of the ruling party have also been the talk of the town.

Historically, political stability in Malaysia has not been a big concern for investors in the country as the situation was controllable (Haudi et al.,2020). Prior to 2004, the result of a general election in Malaysia was always considered predictable, with the ruling government expected to continue its dominance. However, after the Prime Minister of 22 years left the office, the elections after that were considered unpredictable to investors due to the uncertainties of how the people would react to the appointment of a new Prime Minister. In 2008, the ruling party lost the supermajority holding of two-thirds of the parliamentary seats, which could limit their authority. Then, the general election of 2013 was one of the most fiercely contested elections in Malaysia's history (Ng et al., 2015), and prior to the GE, the market was very cautious in investing, and investors delayed their transactions until there was more certainty (Chandran, 2013).

One of the significant drawbacks of the previous study was that none of them included more than one general election and a frequent change of prime minister in a few years. Therefore, like Wong and Hooy (2021) recommended, this paper analysed a more extended sample period that considered a few changes in the country's leadership and two general elections. Then, we developed a fitted and reliable ARIMA-GARCH model to find out what is happening in the Malaysian stock market.

3. Methods

This study examines data from the FTSE Bursa Malaysia stock price from May 2016 to May 2023 to assess a few Malaysian political events. We downloaded the daily stock price from the Datastream database in accordance with a study by Yong et al., (2021). The daily return was then evaluated using the natural log difference approach (Duttilo et al., 2021). Furthermore, no political events from a decade ago are included in the considered timeline to highlight the current political uncertainty. The five processes used in the investigation were data collection, trend analysis, differencing, model identification, and model evaluation. Based on previous research, a simple model selection was established for this experiment. Numerous studies (Gherghina et al., 2021; Duttilo et al., 2021) have demonstrated that these models can capture the dynamic aspects of stock index returns.

3.1 Autoregressive Moving-Average (ARMA)

The ARMA model was created by Box and Jenkins as a random time-sequence model. The Autoregressive Moving Average (ARMA), Moving Average (MA), and Autoregressive (AR) models are the three fundamental types of ARMA models that make up this one. The ARMA model's equation is expressed as follows:

$$Y_t - \varphi_1 Y_{t-1} - \ldots - \varphi_p Y_{t-p} = \alpha_t - \theta_1 \alpha_{t-1} - \ldots - \theta_q \alpha_{t-q}$$

3.2 Generalized Autoregressive Conditional Heteroscedasticity (GARCH)

One typical finding about the unpredictability of asset returns is that substantial shocks tend to be followed by larger shocks, and minor shocks by smaller changes in either direction. In other words, it appears that there is a serial correlation between the volatility of asset returns. This characteristic is known in economics as autoregressive conditional heteroscedasticity (ARCH), which implies that the variance of time-series relies on previous realisations. Engle (1982) first presented the conventional ARCH model, which was later generalized (GARCH) by Engle and

Bollerslev (1986). Engle refers to conditional variance in his model as a deterministic function of lagged squared residuals. The conditional variance in the ARCH (p) model is provided by:

$$\sigma_t^2 = \omega + \alpha \in_{t-1}^2$$

where ω and α non-negative constants (in order for σ_t^2 to be non-negative).

The equation above gives the ARCH model formulation to depict volatility as the clustering of large shocks to the dependent variable. The conditional variance equation was further expanded by Bollerslev by including lagged conditional variances. The most basic GARCH (1,1) specification is used frequently in the GARCH model and is as follows:

$$\sigma_t^2 = \omega + \alpha \in_{t-1}^2 + \beta \sigma_{t-1}^2$$

where ω is a constant

$\in_{t-1}^2$ is the ARCH term

σ_{t-1}^2 is the GARCH term

3.3 Exponential Generalized Autoregressive Conditional Heteroscedasticity (EGARCH)

EGARCH is used to model excess conditional kurtosis in stock return indices based on a generalized exponential distribution (Nelson, 1991). Nelson's extension assumes that when measuring volatility, downward swings are more important. As a result, the conditional variance specification for the EGARCH model is as follows:

$$\log\left(\sigma_t^2\right) = \omega + \sum_{j=1}^{q}\beta_j \log\left(\sigma_{t-j}^2\right) + \sum_{i=1}^{p}\alpha_i \left|\frac{\in_{t-i}}{\sigma_{t-i}}\right| + \sum_{k=1}^{r}\gamma_k \frac{\in_{t-k}}{\sigma_{t-k}}$$

The conditional variance's log is on the side on the left. This implies that forecasts of the conditional variance are assured to be nonnegative and that the leverage impact is exponential rather than quadratic. The presence of leverage effects can be tested by the hypothesis that $\gamma_i < 0$ and the impact is asymmetric if $\gamma_i \neq 0$.

3.4 Symmetric Mean Generalized Autoregressive Conditional Heteroscedasticity (GARCH-M)

The symmetric mean GARCH (GARCH-M) model was created by Engle et al. (1987) with the following equations:

$$\gamma_t = c + \lambda \sigma_t^2 + u_t$$
$$\sigma_t^2 = \alpha + \theta_1 \sigma_{t-1}^2 + b_1 u_{t-1}^2$$

The variance $\left(\sigma_t^2\right)$ is included in the mean equation because it acts as a stand-in for risk. Risk aversion among investors is reflected in the parameter. As a result, if they receive a risk premium for doing so, investors are willing to increase their holdings in a risky asset. The residual has the same relationship to the random noise or $\varepsilon_t = \sigma_t z_t$.

4. Results and Discussion

4.1 Trend Analysis

The graph in Figure 1 demonstrates that during the political unrest from the sample period of May 2016 to May 2023, the stock price displayed several deterministic trends. Due to the unexpected outcome of Malaysia's 14th general election, which resulted in the demise of the six-decade-old ruling party, the first decline in the stock price began in May 2018. When the Prime Minister abruptly resigned in February 2020, another political incident occurred, and the FTSE Bursa Malaysia index continued to decline. As stated by Bora and Basistha (2021), negative effects have a greater impact on volatility; thus, the abrupt announcement by the prime minister has caused a sharp decline in the stock price. The "Sheraton Move" caused Pakatan Harapan (PH) to lose power, and a new Prime Minister has been chosen. The new government was using a variety of methods to manage the COVID-19 outbreak from 2020 to 2021 and was able to keep the stock price stable. A series of COVID-19 outbreaks hit the nation's healthcare system, and Malaysia replaced its prime minister once more, but the government managed to prevent a sharp decline in the stock market. The 15th general election in Malaysia, however, caused another decline in the stock price near the end of the

data set. In total, there were two general elections throughout the sample period, and four different prime ministers were appointed. The sample data is clearly non-stationary as a result of graph analysis.

Figure 1: Time Series Plot for FTSE Bursa Malaysia KLCI from May 2016 to May 2023
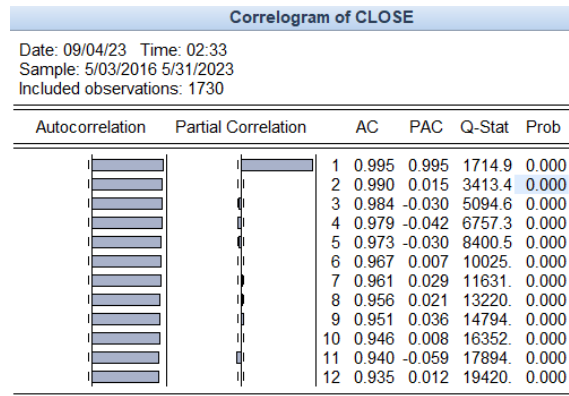
Figure 2: ACF and PACF of FTSE Bursa Malaysia KLCI

Figure 2 illustrates that the ACF tails off very slowly across the lags with reference to the movement shown in the graph. Supporting the initial idea that the data is non-stationary. Following that, differencing was carried out, and we discovered that the stationary data obtained after the first differencing.
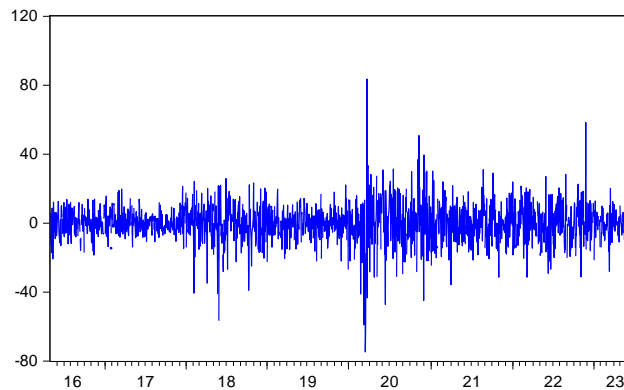

Figure 3: Time Series Plot of FTSE Bursa Malaysia KLCI after first differencing

According to Figure 3, the stock price data varied to varying degrees, showing that volatility changes over time, particularly during the 14th general election, the resignation of the prime minister, and the 15th general election. The surprise resignation announcement in 2020 revealed a strikingly significant spike. These variations show that the data, which includes information about political events, is stationary in mean. As a result, we assume that heteroscedasticity existed over the sample period.

4.2 Model Identification

The simplest models, AR (1), MA (1), and ARMA (1, 1), were used to begin the model identification process. Results showed that the AR (1) and MA (1) coefficients were not significant, whereas the ARMA (1,1) coefficient was significant but did not meet the white noise assumption. Furthermore, the patterns revealed by both ACF and PACF have substantial values, indicating that autocorrelation exists among the residuals and that a higher model is predicted to fit the data set. Overfitting was used, and the finding demonstrates that ARMA (1, 2) and ARMA (2, 2) met the requirements for a significant coefficient, whereas the Ljung-Box test returned an insignificant value, indicating that the residual distribution was independent. This assertion is consistent with the preceding premise that a higher-level model is necessary. Table 1 also demonstrates that ARMA (2, 2) has a little lower Akaike Info Criterion (AIC) and Schwarz Criterion value, making it a superior model than ARMA (1, 2). Overfitting was performed again to obtain ARMA (2, 3) and ARMA (3, 2), but neither model was fitted for this sample period. The ARCH-LM test is then used to evaluate heteroscedasticity in the variance of the observed sample data. The significant p-value at the 5% level indicated that the null hypothesis was rejected, implying that heteroscedasticity exists within the data set, according to the results in Table 2. As a result, Generalized Autoregressive Conditional Heteroscedasticity (GARCH) shall be used to model volatility in stock prices.

Table 1: Outputs for ARMA (2, 2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.148967	0.285726	-0.521361	0.6022
AR(1)	1.030042	0.133835	7.696354	0.0000
AR(2)	-0.648462	0.129418	-5.010617	0.0000
MA(1)	-1.053362	0.122744	-8.581758	0.0000
MA(2)	0.716235	0.117844	6.077806	0.0000

R-squared	0.008865	Mean dependent var	-0.149375
Adjusted R-squared	0.006563	S.D. dependent var	11.11520
S.E. of regression	11.07867	Akaike info criterion	7.650811
Sum squared resid	211352.8	Schwarz criterion	7.666601
Log likelihood	-6601.475	Hannan-Quinn criter.	7.656652
F-statistic	3.850662	Durbin-Watson stat	1.987960
Prob(F-statistic)	0.004040		

Table 2: ARCH-LM Test
Heteroskedasticity Test: ARCH

F-statistic	32.50046	Prob. F(12,1702)	0.0000
Obs*R-squared	319.7216	Prob. Chi-Square(12)	0.0000

4.3 Model Evaluation

Fitting GARCH (1, 1) to ARMA (2, 2) reveals that the coefficient is not significant, indicating that ARIMA (2, 1, 2) is not a credible model. It was suggested, however, to fit GARCH (1, 1) with a higher-order model and obtain a fitting model. The final model obtained after numerous overfittings was ARIMA (3, 1, 3) – GARCH (1,1), and the output of the created model is shown in Table 3.

Table 3: Outputs of ARIMA (3, 1, 3) – GARCH (1, 1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.264121	0.078235	-3.376001	0.0007
AR(1)	-0.288881	0.020346	-14.19839	0.0000
AR(2)	0.311766	0.017279	18.04326	0.0000
AR(3)	0.947680	0.018810	50.38197	0.0000
MA(1)	0.293161	0.014145	20.72482	0.0000
MA(2)	-0.312845	0.011951	-26.17737	0.0000
MA(3)	-0.974961	0.013530	-72.05925	0.0000
	Variance Equation			
C	0.855573	0.322097	2.656264	0.0079
RESID(-1)^2	0.064519	0.006778	9.519171	0.0000
GARCH(-1)	0.930407	0.007160	129.9458	0.0000
R-squared	0.008152	Mean dependent var		-0.151935
Adjusted R-squared	0.004690	S.D. dependent var		11.11791
S.E. of regression	11.09181	Akaike info criterion		7.447851
Sum squared resid	211485.5	Schwarz criterion		7.479447
Log likelihood	-6417.495	Hannan-Quinn criter.		7.459539
Durbin-Watson stat	2.032642			

According to the published outputs, both coefficients are significant at the 5% level and satisfy the stationarity and invertibility assumptions. As a result, the GARCH (1,1) model is appropriate for simulating the time-varying conditional variance in the data set.

Table 4: Outputs of ARIMA (3, 1, 3) – EGARCH (1, 1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.348724	0.239659	-1.455084	0.1456
AR(1)	1.933361	0.445964	4.335240	0.0000
AR(2)	-1.851301	0.492183	-3.761405	0.0002
AR(3)	0.774029	0.413593	1.871472	0.0613
MA(1)	-1.931789	0.455656	-4.239575	0.0000
MA(2)	1.883786	0.507280	3.713501	0.0002
MA(3)	-0.794551	0.441549	-1.799462	0.0719
	Variance Equation			
C(8)	-0.054911	0.017546	-3.129472	0.0018
C(9)	0.140115	0.013161	10.64646	0.0000
C(10)	-0.042691	0.009161	-4.660235	0.0000
C(11)	0.988925	0.003505	282.1552	0.0000
R-squared	0.008068	Mean dependent var		-0.151935
Adjusted R-squared	0.004605	S.D. dependent var		11.11791
S.E. of regression	11.09228	Akaike info criterion		7.442558
Sum squared resid	211503.5	Schwarz criterion		7.477314
Log likelihood	-6411.927	Hannan-Quinn criter.		7.455415
Durbin-Watson stat	2.033543			

Table 5: Outputs of ARIMA (3, 1, 3) – GARCH-M (1, 1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
@SQRT(GARCH)	0.087194	0.085111	1.024472	0.3056
C	-0.922569	0.773678	-1.192445	0.2331
AR(1)	-1.026488	0.028199	-36.40171	0.0000
AR(2)	0.326659	0.081423	4.011887	0.0001
AR(3)	0.395842	0.024596	16.09370	0.0000
MA(1)	1.026864	0.017943	57.22827	0.0000
MA(2)	-0.285253	0.075139	-3.796352	0.0001
MA(3)	-0.352585	0.001086	-324.7221	0.0000

Variance Equation				
C	0.939679	0.339414	2.768537	0.0056
RESID(-1)^2	0.065788	0.006957	9.456806	0.0000
GARCH(-1)	0.928132	0.007413	125.2028	0.0000

R-squared	0.003993	Mean dependent var	-0.151935
Adjusted R-squared	-0.000066	S.D. dependent var	11.11791
S.E. of regression	11.11828	Akaike info criterion	7.454544
Sum squared resid	212372.5	Schwarz criterion	7.489300
Log likelihood	-6422.271	Hannan-Quinn criter.	7.467401
Durbin-Watson stat	2.027513		

The model is then fitted with an EGARCH and a GARCH-M, and after overfitting and underfitting, the study concludes that ARMA (3, 3) is still the best model for both. As a result, the fitted models for EGARCH and GARCH-M are ARIMA (3,1,3) – EGARCH (1,1) and ARIMA (3,1,3) – GARCH-M (1,1). The EGARCH method was used to identify the leverage effect on stock prices during political events. In contrast, the Capital Asset Pricing Model (CAPM) is utilised to investigate the notion. According to the results in Table 4, the C (10) coefficient is negative and significant at the 5% level. This finding revealed that bad news will have a greater impact on stock price changes than good news (Goudarzi and Ramanarayanan, 2011; Omar et al., 2021; Bora and Basistha, 2021). It was demonstrated by the fact that there has been a declining tendency over the last five years and by the inconsistent fluctuations in the preliminary study shown in Figure 1. Instead, the GARCH-M result in Table 5 displays a positive CAPM coefficient (0.087194) that supports CAPM but is not statistically significant. According to this study, holding the questioned assets might not be too dangerous.

5. Conclusion

Political instability can have a significant impact on stock prices, and this impact can vary depending on the nature and severity of the instability, the country or region in question, and the specific circumstances surrounding the political events. Economists find that political events are a serious disease that harms economic performance. This statement was supported by Akadiri et al. (2020) that find geopolitical risk has negative impact on economic growth both in the short and long-run. Most of them are interested in the political instability that has plagued many nations over time, as well as how it has had a detrimental impact on those nations' economic performance. Investors typically face uncertainty about the danger posed by this occurrence, and the financial market frequently experiences significant ups and downs in both developed and emerging markets. Political risk has been recognised as a factor affecting the changes in the Malaysian stock market since the 14th general election. It is challenging for the Malaysian stock market to sustain its volatility given the changes in the ruling party and the president of the nation. Wilson (2020) reported that the Malaysian ringgit fell to a six-month low due to the resignation of Malaysia's Prime Minister in February 2020, and the stock market index fell to its lowest level in eight years. Therefore, to analyse stock price movement amid political turmoil in Malaysia, the ARIMA-GARCH model was applied to a daily data set from May 2016 to May 2023.

This study discovers a deterministic trend in stock prices following the general election defeat of the long-reigning party. Heteroscedasticity was discovered during the analysis of the daily data set, which prompted the

application of Generalised Autoregressive Conditional Heteroscedasticity (GARCH). It was also noted that when the sample period was analysed, the model's dependability decreased when it was fitted into GARCH family models. The best-fitted model for the GARCH, EGARCH, and GARCH-M was determined by comparing overfit and underfit. Finally, we discovered that the ideal model for this data set is ARIMA (3, 1, 3) – GARCH (1, 1). Furthermore, during political events, the EGARCH model detects a leverage effect on market prices. The negative coefficient indicates that political instability eventually leads to a decline in stock prices, as stated by Irshad (2017). While the positive coefficient from GARCH-M indicating the asset maybe not be risky to hold and it is for those investors who willing to take higher risk (Yong et al., 2021).

The relationship between stock prices and political instability has become the focus of this paper. It shows that the changes in the ruling party have changed the characteristics of the GARCH process and its underlying distribution. For further research, it is recommended for researchers to focus on assessing the behaviour of the stock market following any election, whether a general election or a state election, as both are very important for the people. A more extensive analysis might be carried out by including additional variables such as foreign investment, interest rates, and exchange rates.

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Tax Knowledge Among Higher Learning Institution Students

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Abstract

This paper examines the persistent issue of tax knowledge in Malaysia. Despite the government having implemented a system of voluntary tax assessment, the rate of compliance among taxpayers is still unsatisfactory. This is evident from the high tax and penalty rates levied on taxpayers. Among the contributing factors to this low compliance rate are lack of understanding and awareness of the tax system. As a result, the purpose of this paper is to investigate this issue by examining the level of tax knowledge among potential future tax papers, i.e., students at higher learning institutions. Among the current tax knowledge issues are a lack of awareness about tax matters and the limitations of formal tax education. This has resulted in several consequences among this generation, including negative attitudes towards the importance of tax compliance, a failure to consider tax efficiency in personal financial planning, and a struggle to decide on better personal financing. This paper makes a few recommendations for the government or regulatory to consider raising tax awareness among students, including making tax a required course at higher education institutions and expanding the regulatory tax programme in Malaysia. It is hoped that by implementing necessary tax education initiatives to help more people understand their tax obligations, the government will be able to maximise revenues, allowing it to fund more government projects.

Keywords (12 font)
Taxation, Tax Knowledge, Higher Learning Institution Students

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1. Introduction
The term "taxation" refers to the process through which a taxing authority, typically a government, levies or imposes a monetary obligation on its people or citizens (Kagan, 2022). Since ancient times, paying taxes to governments or officials has been a fundamental aspect of civilization. Taxation is one of the ways the government works to increase justice in the nation. The community will charge for this effort based on the money they make each year. Taxation plays a fundamental role in sustaining a nation's economic growth and development. The taxation process is important because it is how a government raises money from citizens and companies to pay for public expenses and deliver basic services. It involves the imposition of mandatory charges, known as taxes, on various sources of income or wealth, such as wages, profits, property, and consumption. The collected taxes are used to support infrastructure projects, national defence, public education, healthcare, social welfare programs, and other governmental activities.

In Malaysia, the government collects revenue through various taxation policies to finance public goods, services, and infrastructure. The act and regulation have been amended consistently due to Malaysia's rapidly evolving tax structure. The government has taken the initiative and implemented many reforms to continue improving its revenue management and to reduce the possibility of tax leakages. One of these initiatives is introducing the Self-Assessment System (SAS). Various taxpayer categories gradually adopted the SAS system. The implementation of SAS is expected to help accelerate tax collection, lowering tax collection costs, and increase voluntary tax compliance among individual and corporate taxpayers (Abu Hassan et al., 2022). As they are responsible for disclosing taxable income and determining tax liability, taxpayers must also be familiar with the laws and provisions for the system to achieve its goals.

Despite having a voluntary tax assessment system, the compliance rate among taxpayers is still questionable. A study by Abdul Ghani et al. (2020) highlighted a report of several audited cases and tax imposed by IRB from 2013 to 2017. The author discovered that self-employed taxpayers face high tax and penalty charges, which indirectly

suggested low compliance with the tax laws. High penalties are incurred for a variety of reasons, including failure to support claims for expenses, incorrect returns, failure to declare income, and failure to pay taxes as required. This implies that, even though tax knowledge and its supporting system have been in place for some time, Malaysian citizens still fail to understand and adhere to it.

The lack of understanding and awareness among the general population on tax has become mainstream. A study by Abd Hamid et al. (2022) on 140 respondent taxpayers revealed that the majority of them found that paying tax is burdensome since it indirectly reduces their income. They also found that most of those taxpayers are less informed about tax management and services provided by the authorities. This lack of knowledge is critical, especially for low-income individuals who may not have access to professional tax advice. Governments and organizations must prioritize tax education initiatives to empower individuals to understand their tax obligations, maximize their refunds, and avoid unnecessary financial burdens. There are numerous potential prospects of people whom the government could start educating about taxes. Students at higher learning institutions (HLI) are one of those.

Hence, this paper is designed to achieve the following goals:

1. to explore the causes of HLI students' limited tax knowledge.
2. to comprehend the effects of HLI students' lack of tax knowledge

As a result, this paper is organised as follows. The following section explores the environment of taxation in Malaysia. The third section will explore the causes of limited tax knowledge among HLI students. The next section will try to comprehend the consequences of having limited tax knowledge. The fifth section will recommend several ways to overcome the issue of lack of tax knowledge. This will end with a conclusion.

2. Taxation in Malaysia

Taxation in Malaysia is governed by the Inland Revenue Board of Malaysia (IRBM). The country has a progressive tax system, where individuals and businesses are taxed on a graduated scale based on their income. For individuals, the tax rates range from 0 per cent to 30 per cent. For businesses, the corporate tax rate is a flat 24 per cent for both resident and non-resident companies (Lembaga Hasil Dalam Negeri Malaysia, 2023). However, there are certain incentives and deductions available for certain industries and activities. Other taxes in Malaysia, include the Goods and Services Tax (GST), which was implemented in 2015 but repealed in 2018. It has been replaced by the Sales and Service Tax (SST), which is a value-added tax imposed on the supply of goods and services in Malaysia. There are also various types of indirect taxes in Malaysia, such as import duties, excise duties, and stamp duties, which are imposed on specific goods, services, or financial transactions. IRBM is responsible for administering and enforcing the tax laws in Malaysia. It conducts audits, investigates tax evasion and non-compliance, and collects taxes on behalf of the government.

Tax in Malaysia is crucial, even with the limited knowledge regarding it among the public, particularly among students. Taxes serve as a primary source of revenue for the government, which helps fund various public services such as healthcare, education, and infrastructure development. Without taxes, the government would struggle to provide essential services and meet the needs of its citizens. Additionally, taxes also play a significant role in reducing income inequality by redistributing wealth from the higher-income groups to the lower-income ones. Understanding tax obligations and their impact on the economy is essential for HLI students as it helps them become responsible taxpayers and informed citizens, thus contributing to the overall well-being of the country.

3. Causes of HLI Students' Limited Tax Knowledge

3.1 Low Awareness of Tax Knowledge

HLI students may be required to pay taxes because they will probably start working right after graduation. They ought to have more in-depth knowledge of the tax system given their high level of education. They need to capture this knowledge once they enter the workforce. In any nation, tax literacy and education among taxpayers are essential and crucial. Lack of education and expertise would reduce tax revenue that would have gone towards the country's economic and social planning. Hence, tax awareness education has become a necessary tool for social and economic progress. Lower levels of tax understanding will eventually have an impact on how taxes are collected.

According to a study by Sanusi et al. (2021), there is a correlation between tax knowledge and tax awareness among Malaysian HLI students. The research uses responses from 232 students in Malaysia to examine their beliefs regarding the level of tax knowledge they should possess. This study has important consequences for tax law, social policy, and education. The results of this study expand our knowledge of tax awareness among students in higher education institutions from an educational perspective, as awareness at a young age is essential before these children become taxpayers in the future.

The level of knowledge that each student possesses may vary since not all higher education students are fully exposed to taxation. Accounting students are more likely than non-accounting students to be knowledgeable about taxes. This is because taxation is frequently one of the required subjects for accounting students pursuing higher education. The requirement to be proficient in this field holds a higher percentage than other knowledge for accounting students (Amin et al., 2022). Furthermore, non-accounting students may only be exposed to basic tax knowledge. They tend to rely more on individuals who are more knowledgeable about taxes to handle their income tax preparation. As a result, they continually become less knowledgeable and understandable when it comes to Malaysia's evolving tax system, such as the revised new public ruling.

3.2 Limitations of Formal Tax Education

The second problem that become a crucial issue is the limitation of formal tax education in Malaysia, either from schoolchildren or higher education institutions. The study by Mahat & Lai (1996) revealed that tax education has been viewed as significant and relevant in conveying tax knowledge. This statement has been proved by the study taken from the respondents. More than 90 per cent of accounting and non-accounting faculty respondents agreed that formal tax education should be implemented at the undergraduate level in all fields. The content and depth of tax-related topics in the educational curriculum significantly impact students' tax awareness. The knowledge of tax education is very helpful in determining the computation of tax liability for them in the future.

The problem also arises when formal tax education is seen as insufficient focus. Tax-related disciplines are not emphasized and receive less attention than other essential subjects at many academic institutions. As a result, students may lack the incentive to investigate tax issues further. The study conducted by Mahat & Lai (1996) also stated that about 55 per cent of respondents from the accounting faculty believed that tax education should be made compulsory for all undergraduates while the majority 63 per cent of respondents from non-accounting faculties thought that tax education should only be introduced as an elective course. The lack of integration on this matter makes the tax topics subjects frequently discussed in isolation and without reference to practical applications. Thus, the students have difficulties understanding the usefulness of tax topics to students. This can be improved by integrating them into larger economic and financial settings.

When delivering the ideas and knowledge of tax, presentation of it needs to be done in a simple way for the students, especially for non-accounting students. Most of the students see that tax knowledge is a very complex presentation, difficult to understand, and can be intricate. If not presented understandably, students may find them intimidating. Thus, it is hard for students to learn more about taxes. Tax issues can be made more comprehensible by simplifying them and utilizing relatable examples. By highlighting concerns that frequently occur and providing examples of a public ruling. Mohd Hanefah (1996), who studied taxpayers' perceptions of the self-assessment system, suggested the presence of tax complexity in Malaysia, particularly in terms of record keeping, excessive detail in tax law, and ambiguity. The study also stated that the majority of the issues that arise in understanding tax make it difficult and complex. These issues include ambiguity, calculation, frequent changes in law, detail, forms, and record-keeping.

4. Consequences of HLI Students' Lack of Tax Knowledge

4.1 Negative Attitudes Towards the Need for Tax Compliance

If the students see taxes as a burden rather than a civic responsibility, they may find themselves less aware of educating themselves in this subject. This is because, at this young age, they do not see the direct impact of taxes on their lives. Due to the lack of personal connection to tax payments and benefits, it diminishes the sense of responsibility toward tax compliance. Thus, when tax knowledge is not applied from a younger age, more negative influences will impact them in the future. For example, the student may witness instances of tax evasion or non-compliance among family members or public figures. So, they believe all the negative actions of non-compliance are acceptable and everyone engaging in such practices has been normalised. According to Berita Harian Online, 180,216 individuals are subject to sanctions, with one of them having the highest tax arrears of RM1.884 billion. The number of people subject to travel restrictions and tax arrears has decreased since 2022, when 197,190 people, including company directors, were subject to travel restrictions and owed RM12.41 billion in taxes (Ali, 2023). The data demonstrate that a significant amount of revenue for the nation was lost owing to noncompliance with tax laws.

In the absence of proper education and awareness, students may fall victim to misinformation or misconceptions about tax compliance. False or misleading information circulating through social media or word-of-mouth can perpetuate negative attitudes toward tax responsibilities. Tax knowledge cannot be obtained solely through social media or any other website. and some people learned about it from the IRBM's public ruling. Understanding the concepts of how computation has been practiced requires formal education in taxation. Many students view tax planning as a concern only for working professionals or business owners. They fail to recognise that even part-time

jobs, scholarships, and internships can have tax implications. Educating students about how taxes apply to various financial activities can make tax planning more relevant and accessible to them. The perception of taxation is a killing subject, and rather it is not applied at the tertiary level of education could lead to a higher likelihood of tax evasion or non-compliance in the future, causing legal and financial troubles.

4.2 Fail to Consider Tax Efficiency in Personal Financial Planning

Effective tax planning is closely tied to long-term financial goal planning. This lack of foresight can hinder the ability of students to save and invest optimally for important milestones, such as buying a home, starting a business, or planning for retirement. This problem always happens due to students tend to focus more on immediate financial needs and goals, such as paying for tuition fees, buying textbooks, or covering living expenses. In such situations, they may not consider the long-term tax implications of their current financial decisions. This short-term focus can lead to missed opportunities for tax savings and efficient tax planning.

Without considering the potential tax implications of their income and expenses, students may find themselves unprepared for unexpected financial emergencies. Adequate emergency funds are crucial for financial stability, and tax planning can help optimize the use of available funds during such situations. According to Nga & Yien (2013), many Malaysians are unprepared for retirement. Many Malaysians put their money in low-interest-paying bank accounts, which is insufficient to cover the rising cost of living due to inflation. As a result, more active financial planning is required. Failure to make sound financial decisions may jeopardise social welfare and Malaysia's goal of becoming a high-income country by 2020.

4.3 Struggle to Decide on Better Personal Financing

Tax planning is a fundamental aspect of financial literacy. If students do not correctly capture tax planning knowledge, it will affect how they organize their finances. This lack of financial literacy could lead to a reliance on others for financial guidance, increasing vulnerability to financial scams or poor financial advice. They also will face huge costs when depending on the tax agent if there are many issues arising during the engagement. By not learning about tax subjects and related financial matters, individuals will miss out on the opportunity to build their financial literacy and make better-informed decisions in the future.

Depending solely on a tax agent may lead to a loss of control over one's financial matters. Individuals may become passive participants in their tax planning, resulting in missed opportunities for tax savings and financial growth. Gumbo et al. (2022) state that the stage of financial planning, which includes budgeting and tax planning, is critical and has become fundamental in personal financing. Thus, relying solely on a tax agent can lead to a lack of understanding of one's tax situation. Individuals may not comprehend the reasons behind specific tax decisions, making it difficult for them to make informed financial choices.

5. Recommendations to Reduce Poor Tax Knowledge Among HLI Students
5.1 Introduce Tax as A Compulsory Paper at Higher Learning Institutions

According to issues that arise relating to tax awareness among students, higher education must play a vital role in implementing new movements to cater to the issue. By introducing the tax subject in the syllabus for all students and not only focusing on accounting students, the content and depth of tax-related topics in the educational curriculum significantly impact students' tax awareness. If tax concepts are inadequately covered or not given due attention, students may not fully comprehend the importance of tax knowledge. A study by Mohd Yusof et al. (2022) from University Technology MARA found that 37.2 per cent of respondents strongly agreed with their opinion that tax topics should be included in the non-accounting curriculum.

Many students perceive tax-related concepts as complex and difficult to understand. This perception can lead to avoidance or reluctance in learning about taxes, especially among non-accounting students. Educators should focus on breaking down complex tax topics into digestible parts, gradually building students' understanding and confidence. So that the student easily understands and finds that the tax subject is not as difficult as they imagine. Relating tax principles to real-life scenarios can help students grasp their relevance and application. Changing the significant method teaching style will eventually help the students more. The teaching style employed by instructors plays a vital role in engaging students with tax topics. A dynamic and interactive approach can stimulate interest, while a monotonous or challenging method may alienate students. Traditional lecture-based teaching may not effectively engage students in tax-related subjects. Incorporating active learning techniques, group discussions, and case studies can enhance students' interest and retention. In this technological era, many methods are used to ease the computation of tax. Incorporating technology, such as simulations, tax software, and online resources, can make learning about taxes more interactive and enjoyable.

5.2 More Exposure Tax Program by Regulatory

Formal and informal tax education also plays a key role in influencing tax awareness among the young generations. Previous research, according to an Organisation for Economic Co-Operation and Development (OECD) (OECD, 2023), stated that taxpayer education may lead to tax awareness since it lessens people's lack of tax knowledge, which is one of the barriers to tax compliance. Tax awareness is also influenced by participation in tax education programs (Mohamad et al., 2023). This shows that the tax authorities are the main key party in implementing the effort to expose the current issues concerning the tax to the community and students by introducing various programs.

This tax program is not just geared toward undergraduate students; to create a generation of tax-educated leaders, the information needs to be spread throughout society from a younger age. Integrating financial literacy and tax education into school curricula at an early age will provide students with a solid foundation of knowledge about taxes and their role in society. The study's positive and substantial associations also imply that secondary school students in Malaysia generally have a high degree of knowledge and awareness regarding taxes and taxation. This result is consistent with the research by Mohd Faizal et al. (2021), which found that secondary school students had a high level of tax awareness and understanding because of their exposure to tax-related issues and the value of tax revenue to the nation.

6. Conclusion

In conclusion, tax knowledge among HLI students is critical today because taxation plays a critical role in a nation's economic and social well-being. The lack of awareness about tax planning among students, both accounting and non-accounting, poses significant challenges to overall tax compliance and revenue collection in Malaysia. Two main issues need to be addressed in this context: the factors affecting the lower levels of tax awareness among students and the perception of the importance of tax planning among them.

One of the key problems is the level of tax knowledge possessed by students, with accounting students generally having a better understanding of tax planning than non-accounting students. The limitation of formal tax education in Malaysia also contributes to the lack of tax awareness among students. To address these issues, higher education institutions should introduce tax subjects in their curriculum for all students, making the content easily understandable and relevant to their lives. Moreover, the government, through the Inland Revenue Board of Malaysia (IRBM), should conduct various tax education programs, including webinars and public awareness campaigns, to expose students and the community to the importance of tax compliance and planning.

The consequences of low awareness of tax planning among students are far-reaching. It may lead to negative attitudes toward tax compliance, missed tax-saving opportunities, and a lack of consideration for tax efficiency in financial decision-making. By addressing these issues through effective tax education and awareness programs, the Malaysian government can foster a generation of tax-literate individuals who understand the significance of taxes in nation-building and make informed financial decisions for their future.

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Gender Differences in Financial Literacy and Saving Habits Among Malaysian Youth

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Abstract

Financial literacy and saving habits are crucial components of an individual's financial well-being and future prosperity. This study examines the financial literacy levels and saving habits of Malaysian youth aged 30 and below, with a specific focus on gender differences. A total of 332 respondents participated in the study, responding to a questionnaire distributed online. The results revealed significant gender disparities in financial literacy, with male youth perceiving themselves as more financially literate overall. However, this gender difference was particularly pronounced in specific areas, such as investment decision-making, money management, and budgeting. In contrast, the study found no statistically significant gender differences in most saving habits, indicating that, regardless of gender, Malaysian youth generally exhibit similar saving behaviors. Notably, both male and female respondents scored high on items related to saving for goals, comparing prices before making purchases, and considering the necessity of expenses to achieve savings. These findings highlight the need for targeted financial education and support to address gender disparities in financial literacy, especially in areas where female youth may require additional assistance. Moreover, the study emphasizes the importance of gender-neutral approaches when promoting saving habits among Malaysian youth. In conclusion, while gender differences exist in financial literacy perceptions, there is no significant gender gap in saving habits among Malaysian youth. Future research and policy initiatives should focus on bridging the gender divide in financial literacy to ensure that all young individuals have the knowledge and skills necessary for sound financial decision-making and secure financial futures.

Keywords

Financial literacy, Saving habits, Youth, Financial Management, Gender

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1. Introduction

Managing money is a milestone that every person experiences when they reach adulthood. Financial literacy and saving habits among the youth in Malaysia are essential components of their financial well-being and future prosperity (Sabri et al., 2021). As Malaysia continues to advance economically and technologically, the capability of Malaysia's youth to manage their finances responsibly becomes increasingly crucial. However, many youths in Malaysia may lack exposure to these critical financial ideas, which can result in poor financial decisions, including poor debt management and inadequate savings for the future. According to the Securities Commission Malaysia (SC Malaysia), young people in Malaysia experience anxiety because of the fact that the majority of their income is spent on food, housing, and loan repayment, leaving little money left over for investments or savings as a result of having a low level of financial literacy. Furthermore, the Malaysian Department of Insolvency reports that 6448 bankruptcy cases involving individuals aged 34 or younger have been announced from 2019 to April 2023.

Financial literacy is influenced by a several factors, including their saving habits. Malaysian financial services website RinggitPlus discovered through their survey that 70% of Malaysians either did not save at all or saved less than RM500 per month in 2022. Additionally, 41% of people who believe their EPF savings won't be adequate for retirement have not even begun their financial planning. Hence, equipping young individuals with a strong

foundation in financial literacy and fostering responsible saving habits is crucial for their personal development and the nation's economic stability.

2. Literature Review

Financial literacy encompasses a wide range of knowledge and skills related to financial management. It entails comprehending basic ideas like budgeting, saving, investing, and debt management (Andarsari & Ningtyas, 2019). Having a basic understanding of finances can improve someone's confidence and financial health while also assisting them in making responsible financial decisions (Norman, 2010). In terms of the definition of financial literacy, knowledge (or understanding) serves as the most frequent foundation, but there is also a definition that focuses on the use of judgment and decision-making (Hung et al., 2009).

As would be expected from the diversity of conceptual definitions, the methods used to measure financial literacy also vary quite substantially. In earlier research, financial literacy was assessed through performance tests and self-report methods (Hung et al., 2009). Performance tests are basically to test knowledge on financial matters, while self-reports measure perceived knowledge or confidence in knowledge, for example, how much a person believes they know on subject matters. Other content domains, including saving, investment, and debt, are also used to measure financial literacy. This study used self-report methods to determine the level of financial literacy among youth in Malaysia, as the questionnaire asked the respondent to rate themselves on their knowledge or confidence in items related to financial literacy and saving habits.

A study by Garg & Singh (2018) and Lusardi & Mitchell (2011) on financial literacy levels among youth around the world found low levels of financial literacy, which is cause for concern. Similar trends are seen in Malaysia, as findings on the socioeconomic status of youth in Malaysia reveal that most respondents seem to have some basic financial knowledge, but they don't seem to be familiar with advanced financial concepts like inflation or investment products (Kimiyaghalam & Yap, 2017; Sabri & Afiqah, 2016).

A key component of financial literacy is having effective saving habits (Mpaata, 2021). People who adopt these behaviors are better prepared to deal with any financial emergencies, seize investment opportunities, and strive towards strategic financial objectives, including buying a house and planning for retirement. Savings are described as a portion of one's income after deducting expenses (Chavali, 2020; Hashim et al., 2017) that is kept aside for future needs (Warneryd, 1999). Perceptions of future requirements, decisions about saving money, and actions taken to save money are all components of saving behavior. Discipline, goal setting, and the capacity to differentiate between requirements and wants are necessary for developing these behaviors.

According to earlier research (Thung et al., 2012; Delafrooz et al., 2011; Hilgert et al., 2003), individuals with higher levels of financial literacy are more likely to save. Meanwhile, the opportunity to pursue financial goals, such as property ownership, as well as their sense of financial security and their own willingness, are some of the factors that inspire Hungarian college students to save money (Horváthné & Bálint, 2013).

According to earlier studies, men and women manage their finances differently. This could be induced by the fact that most men have better skills in financial management than women, as they are more confident and less afraid to take risks (Chen and Volpe, 2002). Falahati & Paim (2012) found that male students perceived they had more financial knowledge and skills than female students. This result is in line with other research showing that men have a higher level of financial literacy than women (Rizal et al., 2023; Okamoto & Komamura, 2021; Parcia & Estimo, 2017; Mustapha & Jeyaram, 2015; Danes & Haberman, 2007; Peng et al., 2007; Manton et al., 2006). However, several studies (Kimiyaghalam & Yap, 2017; Ibrahim et al., 2009) did not find a significant difference in the degree of financial literacy between men and women. Meanwhile, Sereetrakul et al. (2013) show that female respondents have a more positive attitude towards saving compared to male respondents. Though, Karaaslan (2022) discovered households led by females were less likely to save than households led by males. However, other studies (Choden et al., 2021; Delafrooz & Paim, 2011), found no significant difference between the genders of the respondents in their saving behavior.

It is crucial to study the level of financial literacy among youth, as those who possess a high level of financial literacy would be able to contribute more to the state economy (Caplinska & Ohotina, 2019). Thus, the objectives of this study are: (i) to determine the level of financial literacy of Malaysia's youth; (ii) to examine their saving habits; and (iii) to see whether there are gender differences in their financial literacy and saving habits. Understanding the current level of their financial literacy and their saving habits is essential to imparting pertinent financial literacy skills to the youth and teaching them how to instill better saving habits. Additionally, this research may help youths become more competent in handling their funds and prevent them from committing money management mistakes.

3. Methods

To determine the level of financial literacy and savings habits of Malaysia's youth, an online questionnaire was distributed using the Google Form application to respondents aged 30 and below. The Youth Societies and Youth Development (YSYD) Act of 2007 designated Malaysia's youth as anyone between the ages of 15 and 40, but Parliament made a modification to that law, lowering the maximum age from 40 to 30 (Yunus & Landau, 2019). Youth represent 30.5% of Malaysia's total population, or 9.9 million. The researcher utilized convenience sampling, or nonprobability sampling, in which participants voluntarily chose to take part in the study (Stratton, 2021; Etikan et al., 2016). In all, 332 respondents took part in this study, which was conducted from June to August 2023. According to Israel (1992), a population of more than 100,000 people require a minimum of 204 samples to obtain a precision level of 7% with a 95% confidence level and a P value of .5, hence this sample is sufficient. No respondent was removed from the survey because all questions were required to be answered.

A questionnaire consisting of 19 questions was partitioned into three sections. The demographic information is presented in Section A (4 questions), while the five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree items in Sections B (7 questions) and C (8 questions) are used to gauge responses on financial literacy and saving behavior. The study made use of a questionnaire that was adapted from a prior study by Thung et al. (2012). The data gathered were tallied and analyzed using a weighted mean and independent t-test, and set into tables for interpretation and analysis.

4. Results and Discussion
4.1 Sample Profile

Table 1. Socio-Demographic Information of Respondents

Respondent's Information		Frequency	Percent
Gender	Male	100	30.1
	Female	232	69.9
	Total	**332**	**100.0**
Age	≤ 20 years	302	91.0
	21-30	30	9.0
	Total	**332**	**100.0**
Attend financial talk	Yes	239	72.0
	No	93	28.0
	Total	**332**	**100.0**

The information gathered from respondents was analyzed, and it was discovered that women made up 69.9% of the respondents to this study. 91% of the responses are from young adults, aged 18 to 20. 72% of the respondents who were questioned about their exposure to financial management reported having gone to financial talks, seminars, or courses in the previous six months. Table 1 displays a detailed analysis of the information.

4.2 Financial Literacy and Saving Habits

To determine the youth's level of financial literacy and their saving habits, the mean and standard deviation (SD) were used. The data were analyzed using the following scales, which were adapted from Parcia & Estimo (2017).

Table 2. Scale for the mean interpretation

Mean	Financial Literacy	Saving Habits
4.20-5.0	Very High	Excellent
3.40-4.19	High	Very Satisfactory
2.60-3.39	Moderate	Fair
1.80-2.59	Low	Poor
1.00-1.79	Very Low	Very Poor

Table 3. Financial Literacy Level

Indicators	Mean	SD	Interpretation	Rank
I am capable of investing my money	3.22	0.92	Moderate	6
I know how to manage my income to pay for my expenses	3.68	0.76	High	2
I am aware of my financial needs when I am retired	3.87	0.88	High	1
I am capable of maintaining financial records of my income and expenses	3.39	0.86	Moderate	4
I am confident in managing my money without any problems.	3.28	0.88	Moderate	5
I have knowledge about financial instruments such as stocks, bonds, T-bills, futures contracts, and options.	2.95	0.94	Moderate	7
I am capable of creating my weekly or monthly budgets	3.49	0.93	High	3
Overall Mean	**3.41**		**High**	

Table 3 displays the verbal interpretation and weighted mean of the respondents' financial literacy. The overall mean obtained was 3.41, indicating respondents have a high level of financial literacy. This could be due to the fact that the majority of the respondents have exposure to financial management from attending seminars, talks, or courses related to this area. According to the data, most of respondents place the highest value—a mean of 3.87—on their knowledge of their financial needs for retirement, followed by their understanding of how to manage their income to pay for bills and their capacity to create budgets. On the contrary, they place the least value on their understanding of financial instruments, including equities, bonds, T-bills, futures contracts, and options. This finding is in line with Yong et al. (2018), who later suggested that youth must be exposed to financial products related to savings and future investment through financial education.

Table 4. Saving Habits

Indicators	Mean	SD	Interpretation	Rank
I regularly put money aside for the future	3.64	0.89	Very Satisfactory	6
I often compare prices before I make a purchase in order to make savings	3.97	0.82	Very Satisfactory	2
I constantly consider whether this purchase is actually necessary in order to make savings	3.95	0.80	Very Satisfactory	3
I always stick to my monthly or weekly budget in order to make savings	3.49	0.92	Very Satisfactory	8
In case of an emergency, I always have money on hand	3.77	0.88	Very Satisfactory	5
I plan to reduce my expenditures in order to make savings	3.94	0.80	Very Satisfactory	4
I save money to achieve certain goals	4.06	0.77	Very Satisfactory	1
I save money until the end of my month/semester	3.62	0.95	Very Satisfactory	7
Overall Mean	**3.80**		**Very Satisfactory**	

Table 4 shows the mean and the interpretation of the level of saving habits among respondents. The respondents rated themselves highest on the following items: *I save money to achieve certain goals, I often compare prices before I make a purchase in order to make savings*, and *I constantly consider whether this purchase is actually necessary in order to make savings*. On the other hand, they scored themselves lowest on *I always stick to my monthly or weekly budget in order to make savings,* and *I save money until the end of my month/ or semester*. The respondents rated themselves as having very satisfactory saving habits, as indicated by the total weighted mean of 3.80. The high level of financial knowledge among the respondents may have contributed to this, since Mahdzan & Tabiani (2013) noted that financial literacy had a favorable effect on saving intentions.

4.2 Financial Literacy and Saving Habits Based on Gender

To determine if there is a substantial difference in mean financial literacy and saving habits between men and women, the data was analyzed using an independent t-test. Table 5 summarizes the results for financial literacy, while Table 6 summarizes the mean difference for saving habits.

Table 5. Difference in the Level of Financial Literacy Based on Gender

Scale	Mean		Levene's Test for Equality of Variances		t-test for equality of means		
	Male	Female	f	Sig	t	Sig (two-tailed)	Interpretation
I am capable of investing my money	3.51	3.09	.881	.349	3.845	.000	Significant
I know how to manage my income to pay for my expenses	3.71	3.67	.097	.756	.412	.680	Not
I am aware of my financial needs when I am retired	3.99	3.82	1.648	.200	1.638	.102	Not
I am capable of maintaining financial records of my income and expenses	3.40	3.39	.695	.405	.075	.940	Not
I am confident in managing my money without any problems.	3.50	3.18	4.474	.035*	3.002	.003	Significant
I have knowledge about financial instruments such as stocks, bonds, T-bills, futures contracts, and options.	3.05	2.91	2.511	.114	1.249	.213	Not
I am capable of creating my weekly or monthly budgets	3.68	3.41	1.700	.193	2.505	.013	Significant

*Decision Rule for Levene's Test: If $p \leq 0.05$, the variances are significantly different. Thus, the result of t is interpreted based on the "Equal variances not assumed" row

According to Table 5, the mean male scores for all financial literacy scales are higher than the mean female scores. This suggests that male youth perceive themselves as more financially literate. This conclusion is consistent with earlier research (Falahati & Paim, 2012; Parcia & Estimo, 2017; Mustapha & Jeyaram, 2015; Danes & Haberman, 2007; Peng et al., 2007; Manton et al., 2006). However, only on the *item I am capable of investing my money, I am confident in managing my money without any problems,* and *I am capable of creating my weekly or monthly budgets*; gender means are statistically significantly different as the value in the "Sig. (2-tailed)" p<0.05. This indicates that female youth have a lower level of financial literacy in terms of investment decisions, managing money, and preparing budgets.

Table 6. Difference in the Saving Habits Based on Gender

Scale	Mean		Levene's Test for Equality of Variances		t-test for equality of means		
	Male	Female	f	Sig	t	Sig (two-tailed)	Interpretation
I regularly put money aside for the future	3.76	3.59	2.649	.105	1.561	.119	Not
I often compare prices before I make a purchase in order to make savings	3.98	3.97	2.756	.098	.104	.917	Not
I constantly consider whether this purchase is actually necessary in order to make savings	3.91	3.97	2.055	.153	-.628	.530	Not

I always stick to my monthly or weekly budget in order to make savings	3.97	3.37	1.913	.168	3.733	.000	Significant
In case of an emergency, I always have money on hand	3.86	3.73	2.002	.158	1.204	.229	Not
I plan to reduce my expenditures in order to make savings	4.01	3.91	9.498	.002*	1.139	.256	Not
I save money to achieve certain goals	4.11	4.04	0.079	.778	.731	.466	Not
I save money until the end of my month/semester	3.71	3.59	4.205	.041	1.091	.276	Not

*Decision Rule for Levene's Test: If p≤0.05, the variances are significantly different. Thus, the result of t is interpreted based on the "Equal variances not assumed" row

Overall, men score more favorably than women when it comes to their saving habits, except for items for which *I constantly consider whether this purchase is actually necessary in order to make savings*. Table 6 demonstrates that, except for the discipline to stick to a budget for savings, there is no statistically significant mean difference in respondents' saving habits by gender. In conclusion, gender does not make a big difference statistically when it comes to saving habits, which is consistent with the findings by Choden et al. (2021) and Delafrooz & Paim (2011).

5. Conclusion

In conclusion, this research highlights the crucial challenges of financial literacy and saving habits among Malaysian youth, especially those under the age of 30. Despite the fact that youth as a whole have high levels of financial literacy, it is evident that a substantial portion of this demographic faces' challenges related to financial literacy, with male respondents generally perceiving themselves as more financially literate than their female counterparts. Notably, there were significant gender variations in a few areas, including money management and investment decision-making, which suggests that targeted financial education programs should take these differences into account to promote financial equality. Ashaari & Md. Yusof (2019) stated financial education able to increase the financial literacy among working women, thus government should facilitate continuous financial education targeted to female youth via media, internet and schools/universities.

The study does, however, point out the benefit of gender equality in terms of saving habits. Regardless of gender, Malaysian youth exhibit similar saving behaviors, emphasizing their prudence in saving for goals and practicing cost-consciousness. This implies that efforts to encourage responsible saving habits among the youth in Malaysia can be designed with a gender-neutral approach. However, it remains crucial to address the broader issue of financial literacy and bridge the gender gap to ensure that all young individuals possess the knowledge and skills necessary for sound financial decision-making and financial security. To promote the financial well-being of Malaysia's youth, future research and policy activities should concentrate on comprehensive solutions that address both financial literacy and saving habits. Based on survey by SC Malaysia, it would also be interesting to examine the connections between financial literacy, saving habits and the mental well-being of youth in Malaysia in the future.

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Fight Against Corruption in Malaysia: Is It a Successful Story?

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Abstract

Malaysia has waged a concerted anti-corruption campaign in recent years, particularly following significant political reform. The country's commitment to fighting corruption has resulted in the establishment of dedicated anti-corruption agencies such as the Malaysian Anti-Corruption Commission (MACC), the amendment of Section 17A of the MACC Act, and the launch of a comprehensive 5-years national anti-corruption plan (NACP). This study delves into Malaysia's multifaceted anti-corruption efforts, examining the evolution of its anti-corruption policies, institutional mechanisms put in place, and challenges encountered. It examines the impact of these efforts on reducing corruption in government, business, and society. This conceptual paper provides insightful information regarding the success of institutional and regulatory reforms implemented by the new coalition government. It also highlights the reasons why, despite numerous anti-corruption campaigns, corruption still exists as a practice and a culture in Malaysian society.

Keywords
MACC, private corruption, corporate liability, NACP

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1. Introduction
Corruption has significant negative social, economic, and political repercussions because it erodes confidence in governmental and societal institutions like courts and regulatory bodies, challenges the rule of law, distorts the distribution of public funds, results in budget deficits, diverts funds from infrastructure projects, food assistance programmes, and other programmes aimed at reducing poverty, and indirectly slows economic growth (Peltier-Rivest, 2018; Sartor & Beamish, 2019). Therefore, it's critical to find ways to combat corruption in order to prevent its negative effects on a nation's economy, social structure, and political system. The fight against corruption in Malaysia has taken on a renewed and vigorous stance under the governance of the new ruling coalition. With the country's rich history of grappling with issues related to corruption, this new government has made it a priority to tackle this deeply ingrained problem head-on. The 1MDB scandal, which involved the misappropriation of billions of dollars from a state investment fund, played a significant role in eroding public trust in Najib Razak's leadership. Numerous Malaysians were incensed by the negative press that followed the revelation of the 1MDB scandal, and it played a part in Najib's government's defeat in the country's general election in May 2018.

The newly elected Pakatan Harapan (PH) administration, headed by Prime Minister Mahathir Mohamad, promises institutional reforms, anti-corruption initiatives, and better governance. With a strong desire to reduce corruption in Malaysia, these promises spoke to the nation's citizens who were seeking a new leadership style and higher standards of accountability. To fulfill the promise, the PH government has launched National Anti-Corruption Plan (NACP) in 2019. The NACP is a comprehensive five-year plan that was developed through numerous consultations between the government, enforcement agencies, experts and members of civil society (GIACC, 2019). On top of that, the government amended Section 17A of the Malaysian Anti-Corruption Commission Act 2009 (MACC Act), which took effect on June 1, 2020, bringing about a highly anticipated change to the anti-corruption environment. The goals of Section 17A are to promote ethical business conduct and foster good corporate governance practices.

Thus, the purpose of this study is to assess the success of various anti-corruption initiatives in Malaysia. The discussion of several corruption cases that had a significant impact on Malaysia's anti-corruption landscape will be presented in the following section, which will also explain recent changes to the country's anti-corruption initiatives and examine their efficacy. The topic is summarised in the final section.

2. Corruption cases in Malaysia that bring major changes to the anti-corruption landscape
2.1 SRC International Berhad
SRC was founded on January 2011 as a private company limited by shares, and the company involved in projects associated with the exploration, extraction, processing, logistics and trading of conventional and renewable energy resources, natural resources and minerals including all other activities related thereto. The Ministry of Finance (MOF) Incorporated took over SRC International from 1MDB in February 2012. At the time, the former Prime Minister, Dato Seri Najib Razak (DSNR) was the Finance Minister. In 2018, DSNR has gone to court to face seven charges over the misappropriation of RM42 million from SRC International, where three counts of criminal breach of trust and three counts of money laundering of RM42 millions of SRC funds between Dec 26, 2014 and Feb 10, 2015. He was also convicted of abusing his power with regards to the RM4 billion Retirement Fund Inc (KWAP) loan which the Cabinet approved via a government guarantee in two meetings that he chaired in August 2011 and March 2012. Finally, in July 2020, DSNR was sentenced to 12 years in prison and a total fine of RM210 million in default of five years in prison by the High Court after he was found guilty of seven charges in the first of a series of cases involving the SCR International, a 1MDB subsidiary (Dettman & Gomez, 2020; Siddiquee & Zafarullah, 2022; Yatim, 2020).

2.2 1Malaysia Development Berhad (1MDB)
The most controversial scandal of corruption that hit head news around the world was the 1MDB scandal. It was a scandal that broke the 61-year-old Government of Malaysia. 1MDB was involved in several high-profile projects such as Tun Razak Exchanges, which is set to be a financial hub and the Bandar Malaysia project, a project to turn Sungai Besi Airport into entertainment, education, and workplace sites. 1MDB claims that it received an initial investment of RM1 million from the government upon inception. The company generates its own income through international projects as well as raising capital on local and international debt markets. In the financial year ended March 2014, 1MDB reported a loss of RM665.3 million due to the high finance costs used to grow its assets base. In 2015, allegations were made in several newspapers, including The Wall Street Journal, that the company had been used to siphon state funds into the accounts of Malaysian former Prime Minister Datuk Seri Najib Razak (DSNR) and people associated with him. For years, the company has gotten wide publicly across the globe, and some major financial centres, including Switzerland, Singapore, Great Britain, and the United States of America, demanded an investigation regarding the accusation of a missing fund of approximately USD4 billion from this company. The 1MDB case is still undergoing trial as of August 2023. (Dettman & Gomez, 2020; Jones, 2020)

2.3 Felda Global Ventures Holdings Berhad,
Felda Global Ventures Holdings Berhad, or currently known as FGV Holdings is an affiliate of the Federal Land Development Authority (FELDA). FGV produces oil palm and rubber products, oleochemicals and sugar products, with materials sourced from FELDA colonies throughout the country. The crisis of FGV, the world's third largest oil palm plantation operator started after its Chief executives Officer and three other top management were forced to take immediate leave of absence in June 2017, pending an investigation of certain transactions by FGV's subsidiary, Delima Oil products Sdn Bhd with Afghan company Safitex (Lokman, 2017). Months later, the CEO resigned, and being called by MACC to assist with the investigation over the alleged improprieties in FGV. Soons after that, MACC starts a new probe into the FELDA following a new lead the commission has received. Tan Sri Mohd Isa Abdul Samad, the chairman was arrested on Aug 15, the same year to assist investigations on Felda Investment Corporation's (FIC) questionable purchases of the two luxury hotels. MACC's probe into FGV had unravelled evidence of possible corruption and power abuse on FIC hotel purchases in London and Sarawak. Finally, in February 2021, former Federal Land Development Authority chairman Mohd Isa, who was found guilty on nine charges of corruption involving RM3 million and was sentenced to six years' jail and a fine of RM15.45 million, was granted a stay of execution of his sentence, pending appeal. Mohd Isa was charged with nine counts of dishonestly receiving gratification for himself in cash totalling RM3,090,000 from Ikhwan Zaidel, who is a board member of Gegasan Abadi Properties Sdn Bhd, through his former special political officer Muhammad Zahid Md Arip, for helping approve the purchase of a hotel (Chin, 2021)

3. New anti-corruption initiative under new government
After the 14th general election in 2018, the Pakatan Harapan government launched National Anti-Corruption Plan (NACP) to achieve the aspiration of 'Malaysia to be known for her integrity and not corruption'. The five-year plan was developed with six priority areas identified as high risk for corruption, namely, i. political governance, ii. Public sector administration, iii. Public procurement, iv. Legal and judicial, v. law enforcement and vi. Corporate governance. The strategies accomplished 17 strategic objectives, which resulted in 115 initiatives to be launched between 2019

and 2023, 22 of which have been identified as priority initiatives based on the severity of the causes (GIACC, 2019). According to the MACC Chief Commissioner, As of December 31, 2022, 62 of the 111 NACP initiatives being watched had been accomplished, with the completion rate being at the output level, or about 55%. MACC is currently keeping an eye on the remaining 49 initiatives.

Besides, the government has also mandated the National Centre for Governance, Integrity and Anti-Corruption (GIACC) to monitor and evaluate the implementation of initiatives by lead agencies (NACP,2019-2023). The GIACC was established in 2018 to oversee all anti-corruption, governance, integrity, and human rights matters. It is guided by the Special Cabinet Committee on Anti-Corruption, which reports directly to the Prime Minister (GIACC, 2019). In line with NACP, government also established National Anti-Financial Crime Centre (NFCC), and to chart the immediate direction of the NFCC, the National Anti-Financial Crime Strategic Plan 2020-2024 was developed with a mission to reduce the threats of high-impact financial crime through a whole-of-government approach (C4 Center, 2022). Further, the new government has passed section 17A of the Malaysian Anti-Corruption Commission (Amendment) Act 2009 (MACCA, 2009), as drafted in GTP 3.0 on corporate liability provisions that took effect on June 1, 2020. This provision imposes liability on the corporate entity for any corrupt activity by any associated person done for the benefit of the company. Before the amendment of the act, the penalties were only applicable to the individual, which included fines and the dissolution of officials' businesses. The implementation of Section 17A, the corporate company under which such persons operate would now be held responsible for not avoiding the occurrence of corrupt actions.

4. Has Malaysia's fight against corruption been successful?

Despite having numerous institutions, laws, and policies in place, Malaysia's anti-corruption campaign has yet to have the desired impact in terms of eradicating corruption, particularly political and grand corruption. The NACP, which began five years ago but has not significantly reduced Malaysia's level of corruption, has now come to an end. The worst is that Malaysia's CPI Index performance has declined since 2019 and that for 2022, it only managed 47 out of a possible 100 points, which is its worst performance in ten years as shown in Table 1. It proves that reform in institutions and regulations are not sufficient to guarantee the effectiveness of anti-corruption programmes.

Table 1: Malaysia's Corruption Perception Index, 2014-2022
Source: Transparency International, Various Issues

Year	CPI score (out of 10)	Overall rank	No of the countries assessed
2014	5.20	50	175
2015	5.00	54	168
2016	4.90	55	176
2017	4.70	62	180
2018	4.70	61	180
2019	5.30	51	180
2020	5.10	57	180
2021	4.80	62	180
2022	4.70	61	180

The last five years have seen numerous political shake-ups, resulting in Malaysia being led by four different prime ministers, each with their own anti-corruption agendas. Soon after the NACP was launched, a coalition of small parties known as Perikatan Nasional took over the government from Pakatan Harapan. Following that, Covid 19 pandemic struck, shifting the government's attention away from anti-corruption efforts to managing the pandemic. The third Prime Minister appointed after the launch of NACP, Ismail Sabri Yaakob then introducing MyGovernance, a new plan to institutionalise good governance principles and practices in government agencies, and this made NACP implementation sideline. After the general election in November 2022, the current prime minister, Anwar Ibrahim, emphasised that he would keep implementing the NACP and would vehemently combat corruption. He then went back on his word and appointed a deputy prime minister who is under investigation for numerous corruption-related offences. It appears that the NACP has been a victim of these political changes and instability (c4centre, 2022). However, the overall pattern of MACC arrests for corruption offences has decreased since 2019. Despite the downward trend, from 2019 to 2022, there were more arrests for corruption in the private sector (see Table 2), demonstrating that anti-corruption efforts have not been successful in reducing corruption in the private sector.

Table 2: Arrest Statistics Corruption Offenders In Malaysia
Source: Malaysian Anti-Corruption Commission

Year	2018	2019	2020	2021	2022
Public Officials	418	525	467	411	323
Private Sector	186	257	243	240	386
General public and others	290	319	288	200	200
Total number of arrested	**894**	**1101**	**998**	**851**	**909**

5. Discussion and conclusion

This study investigates the success of institutional and regulatory reforms implemented by the new coalition government in mitigating corruption in Malaysia. Ironically, it appears that none of the government's campaigns have succeeded in lessening Malaysia's widespread corruption. According to Jones (2022) and Quah (2020) Malaysia has a comprehensive anti-corruption framework in place, however, there is still a lot of corruption in society, and despite numerous recent campaigns and strategies, it doesn't seem like it has been much of an improvement. Perhaps there are concerns about the effectiveness of the anti-corruption organisations. While these organizations possess the capacity to uphold legal regulations, they encounter challenges in executing their duties, especially when influential figures in the realms of politics and business are implicated (Siddiquee & Zafarullah, 2022). An example of this is the MACC, which lacks genuine autonomy and is significantly hindered by political meddling. This interference has a direct impact on their investigative outcomes in prominent corruption cases, especially when involves political leaders. (Quah, 2020).

Additionally, Kapeli and Mohamed (2019) argued that the failure of anti-corruption initiatives is due to duplication problems. In Malaysia, it has become a tradition for every newly appointed leader to introduce new plans to prevent corruption, resulting in several duplications. This circumstance produces ambiguity among implementers, frontline staff, and others within the organisational hierarchy about which strategy to implement, who is accountable for implementation, how to adopt, the knowledge transfer process, and what outcomes to measure or monitor (Durairaja et al., 2019). Therefore, the people of Malaysia should take the election of leaders more seriously and should shun political parties with a history of egregious acts of corruption. Additionally, the educational system should harness and support young people's capacity to be changemakers. The youth will be given the tools they need to identify corruption, behave honourably, and demand accountability from authorities and decision-makers.

This study is not without limitations. Only the anti-corruption initiative's performance over the previous five years is examined. Future studies might compare the efficacy of various government coalition anti-corruption initiatives. Future studies could also concentrate on the government's subsequent initiatives to reduce corruption after Malaysia implemented the NACP.

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Loopholes in Tax Legislation: A Possible Opportunity for Tax Evasion and Tax Avoidance

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Abstract

Tax collection serves as an income to any government in order to promote social harmony and to support economic development. On the other hand, tax evasion and tax avoidance are seen as threats to these objectives. Past research found numerous factors for tax evasion and tax avoidance from various perspectives. However, this article only focuses from the perspective of loopholes in tax legislations performed by corporate taxpayers. They are ambiguity and complexity in tax regulations; mismatch of anti-provisions; abused and inefficient incentives; offshore tax haven and secrecy jurisdiction; and finally influence and lobbying of special interest. It is believed that tax authorities in all countries globally are continuously making efforts to minimize the adverse effects of tax loopholes in their tax legislations.

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1. Introduction

Tax collection is one of the sources of income for many countries globally. Different countries rely on different types of tax depending on their major economic activities. The objective of tax collection is mainly to promote fair distribution of wealth among the public and hence enhance social harmony by means of reducing the poverty gap. Another notable purpose of tax collection is to provide funds in providing facilities for the public such as free medical treatments in hospitals and basic education (Choong, 2022, pp.10).

It is fair to mention that tax legislations are vital in order to guarantee the above objectives being achieved. However, loopholes may exist in tax legislations since its process of preparation is complex. Tax legislations need to be comprehensive and thus will be able to collect an optimum amount of tax. However, tax legislations also need to be lenient in order to attract foreign investments. Additionally, tax legislations must also be able to be understood by taxpayers in minimizing compliance cost. As a result, tax leakages in form of tax evasion and tax avoidance may occur due to contradict or vague clauses in the tax legislations. This is considered a threat because tax leakage may compromise the objectives of tax collection (Choong, 2021, pp.220).

2. Literature Review

Tax collection is one the sources of income for governments. It is used to develop the country, support public welfare and minimize the poverty gap among the public. Through these, social harmony and stability can be achieved. Different countries rely on different types of tax as their major source of income. As for Singapore ("IRAS Annual report," 2022) and Malaysia ("IRBM Annual report," 2022), corporation tax is the major contributor of national income. On the other hand, Indonesia ("DJP Annual report, 2022) and the Philippines ("BIR Annual report," 2022) rely mostly on value-added tax and personal income tax respectively.

As tax collection contributes many benefits to the public, any leakage in tax collection may cause social disharmony and poor economic development in a country. The causes of tax leakage are tax evasion and tax avoidance. Many studies have been conducted which focus on the prevalence of these tax strategies. Among the prevalence are taxpayers' demographic, taxpayers' perceived tax fairness and taxpayers' attitudes towards tax (McGee, 2023).

Nevertheless, this article will only focus on the loopholes in tax legislation itself that make it possible for tax avoidance and tax evasion to occur.

2.1 Tax Evasion and Tax Avoidance

Tax evasion and tax avoidance are two aggressive tax strategies in which they are normally adopted by companies. However, the line that separates these two strategies is so thin that one may be unable to differentiate them. Below are the distinctive features between these two aggressive strategies:

Table 1: Differences in between Tax Evasion and Tax Avoidance
Source: Choong (2021)

Parameter	Tax Evasion	Tax Avoidance
Definitions	A fraudulent and unlawful approach to reducing or eliminating tax liability	The legal strategy used to reduce tax liability without violating any law.
Commonly used for	Tax concealment	Tax hedging
Attributes	Unlawful and objectionable, both in terms of morals and script	Immoral attribute, which includes exploiting the loopholes of the law without breaking it.
Concept	Intentional account manipulations leading to a fraudulent activity	Making the most out of the loopholes in the tax laws
Implications	Use of approaches prohibited and punishable by the law	Use of lawful and justified means
When Does It Happen	After the occurrence of tax liability	Before the occurrence of tax liability
Act	Criminal/punishable offense	Legal and legitimate
Repercussions	Imprisonment or penalty fee	Deferment/evasion of tax liability

2.2 Tax Loopholes in Tax Legislation

There are several factors that cause tax loopholes to occur in tax legislation. They are discussed below.

2.2.1 Ambiguity and Complexity in Tax Legislation

The first factor that may cause tax evasion and tax avoidance to occur is the ambiguity and complexity of tax legislation (Isa, 2014 and Borrego et al., 2016). In order to maintain a fair and operative tax system in collecting sufficient revenue requires compromise for tax laws to be effective. As a result, tax legislation is normally complex and thus, taxpayers may have difficulties to comply. Isa (2014) and Borrego et al (2016) discovered that corporate taxpayers had the tendency to manipulate ambiguity and complexity in tax legislation to pay less tax. Borrego et al. (2016) found that "tax laws are frequently changed" and "too many exceptions on rules" are strongly identified as reasons why people failed to comply. Since complex tax legislation is inevitable, the Inland Revenue Board of Malaysia (IRBM) has taken several steps to increase taxpayers' knowledge on tax matters. Many seminars are held for the public in order to educate them with the objectives of increasing their tax knowledge and hence tax compliance. Additionally, the IRBM also has issued public rulings to clarify certain issues and make it accessible to the public as they are available in the IRBM website.

2.2.2 Mismatch of Anti-Avoidance Provision

As mentioned in a report by Organisation for Economic Co-operation and Development (n.d), the purpose of anti-avoidance provision is to avoid profiteering through strategic transactions. However, not all countries enforce the same anti-avoidance rules in which some countries may have stricter provisions while others are more lenient. Due

to mismatch of anti-avoidance provisions, corporate taxpayers tend to exploit the gaps. They artificially move profits to low- or no-tax countries where there is little or no economic activity. Alternatively, the corporate taxpayers may degrade tax bases through deductible payments such as interest or royalties (Organisation for Economic Co-operation and Development, n.d.).

On the other hand, Tanasić and Petrović (2020) discussed transfer pricing used by multinational companies (MNCs) to run from tax liability. MNCs have a wide variety of tax planning choices, i.e., the flexibility of legally permitted choice in terms of various factors such as - the site of the company's main headquarters, carrying out sales, business expenditure calculation, worker employment, tax benefits claims, and so forth. This flexibility allows MNCs to allocate costs and revenues subjectively, providing some discretion in product/service and location allocation which then help them to design complex structures using tax havens, diverting profits to avoid corporate taxes and secure more cash flows.

2.2.3 Abused and Inefficient Incentives

Among the objectives of providing tax incentives is to attract foreign investments and to encourage technology transfer to less developed countries, zones or areas (Choong, 2021). Additionally, tax incentives are also to reduce operational costs, increase exports and to create employment opportunities (Choong, 2021). However, providing tax incentives also means that the governments need to forgo part of their tax revenues (Padilla et al, 2020). Therefore, the policy of incentives must be carefully planned and executed in order to ensure tax benefits obtained are more than the tax revenues foregone or to other non-monetary side-effects as well.

Padilla et al discussed three cases of abused and inefficient incentives. The first case was in Kenya in which tax incentives were abused. Export processing zones (EPZ) were created for a period of 2012 and 2016 in order to increase exports. Yet, the level of exports remained constant within the same time frame. The adverse effect was due to abuse of tax loopholes in the Kenyan tax regime. The Kenyan Cabinet Secretary was empowered to grant any other exemptions other than stipulated incentives including EPZ. As a result, this incentive was abused via lobbying and rent seeking.

As for inefficient incentives, it happened in Brazil and the Philippines. The second case was in Brazil which provides incentives for extractive companies. However, these economic activities had caused violence and degradation of the environment and of the local people. The Brazilian government lacks resources in providing basic needs for its people. In order to make up the loss, tax is imposed on salaried individuals that represents 53% of the total tax collection. In the Philippines, there were too many incentives provided in order to attract investments. However, the incentives were excessive and purely unnecessary because investments would still have occurred regardless of whether those incentives were provided or not.

2.2.4 Offshore Tax Havens and Secrecy Jurisdiction

The existence of tax havens also leads to tax evasion and tax avoidance due to secrecy of asset ownership in shell companies. Tax havens, also known as secrecy jurisdictions, are nations or territories that provide appealing tax and financial secrecy regulations, attracting individuals and organizations looking to minimize taxes while maintaining financial privacy (Fitzgibbon and Hallman, 2022). As a result, tax optimization, asset protection, financial privacy, investment opportunities and helping the financial services industry are some of the functions they perform. Overall, some activities are legal as for tax avoidance while others are not such as tax evasion. Either one, the tax leakage will still exist. For instance, a study by Omar and Zolkaflil (2015) reported that multinational companies with subsidiaries in tax haven report lesser profit and hence pay lesser tax. This happens because these companies are involved in tax shifting.

2.2.5 Influence and Lobbying of Special Interests

Companies and industries may influence governments via political donations. As good rapports are established between these two entities, there is a higher probability that tax legislations would be formed in the favour of the donors. This situation was reported to take place in the USA (Minnick and Noga, 2017 and Padilla et al, 2020) as well as Malaysia (Chwee et al, 2022). The donations can be in forms of donations for think tanks or lobbying on a specific tax issue. Examples of the outcomes are tax rates are maintained or reduced for the industry of the donating companies (Minnick and Noga, 2017) as well as special tax incentives are being introduced and tax concessions are granted for the industry that provide political donations (Padilla et al, 2020 and Chwee et al, 2022).

There are several similar findings from Minnick and Noga (2017) and Chwee et al (2022) but due to different reasons. Firstly, Minnick and Noga reported that donating companies will enjoy lower tax rates than non-donating companies of the same industry. However, the non-donating companies will still enjoy similar tax benefits but at a smaller amount. This is known as the spill-over benefits which results from similar tax policies implemented for all

players in the same industry. Chwee et al (2022) also reported lower effective tax rates but the reason is not due to political donations. Yet, it is due to the status of the company as government-link companies and politically connected firms. These companies are able to enjoy tax benefits as among the CEOs are institutional investors or individuals with political connections.

Secondly, both studies found that political donations need to be consistent over a long period of time in order to maintain tax benefits for the donating companies. Minnick and Noga (2017) found that companies that act as lobbyists enjoy more tax benefits as compared to sporadic donors. Similarly, Chwee et al (2022) reported that older politically related companies are associated with higher tax avoidance. Therefore, it can be concluded that donating companies or CEOs who are politically connected individuals have the ability to influence upon the tax legislations.

3. Conclusion

Many nations around the world rely on tax revenue as one of their main economic sources. Depending on their primary economic activities, different countries rely on various tax structures. The fundamental goal of tax collecting is to encourage equitable wealth distribution among the populace and thereby worsen societal unrest by minimizing the poverty gap. The funding of public services like free hospital care and elementary education is a noteworthy additional reason for tax collection. In tax matters, tax officials adhere to and execute tax laws. Tax laws should be thorough in order to obtain a maximum quantity of tax revenue. To cut the cost of tax compliance, tax policy must, however, also be understandable by taxpayers. In order to encourage foreign investment, tax laws should also have an element of attraction. Overall, because all these significant elements must be taken into account, creating tax policy is a difficult task. As a result, tax laws have loopholes, which cause tax leakages through tax evasion and avoidance. Tax leakage could undermine the goals of tax collections hence this is viewed as a threat. Therefore, tax authorities need to address this issue continuously in order to minimize tax evasion and tax avoidance.

In the future, it is possible to carry out studies on the possible existence of tax loopholes in tax legislations for a specific issue such as goods and services tax or any other issues related to corporate taxpayers. This is because corporate taxpayers have more opportunities to perform tax aggressive strategies.

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Impact of Changes in Revenue on Financial Sustainability of Malaysian Public Universities During COVID-19 Pandemic

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Abstract

Financial sustainability had become the main issue among public universities globally due to declining in the government's budget and the unceasing increase in higher education costs. Malaysian public universities' revenue is highly dependence on student enrolment, research grants, and government budget therefore they are prone to the economic challenges particularly by the COVID-19 pandemic. To date, studies that focused on the impact of changes in revenue on the financial sustainability of Malaysian Higher Education Institutions during the COVID-19 pandemic is still limited. Thus, this study aimed at examining changes in revenue during the pandemic that give an impact on the financial sustainability of Malaysian Public Universities. This study adopts a quantitative research method and employs secondary data. Three (3) years of financial data were collected from twenty (20) public universities' annual reports. Revenue is measured by student enrolment, research grants, and government budget. Meanwhile, financial sustainability is measured using Return on Assets (ROA). The empirical findings show that revenue (student enrolment and research grants) does have a significant influence on the financial sustainability of Malaysian Public Universities during the COVID-19 pandemic. The results have implications for policymakers and the body of knowledge, who shall consider the importance of sufficient revenue to sustain the universities' finances.

Keywords
Financial Sustainability, Government Budget, Public Universities, Malaysia, Pandemic.

1. Introduction

The global outbreak of the COVID-19 pandemic has expanded worldwide, hitting practically all countries and territories. The outbreak was initially reported in December 2019 in Wuhan, China, and spread to other countries worldwide quickly. One of the industries that are badly affected by the pandemic COVID-19 is the educational industry (Schleicher, 2020). COVID-19 pandemic is expected to impact the global economy significantly, and universities are more vulnerable to the impacts than any other institution (Alharbi, 2020). Higher education institutions (HEIs) are typically hit hard during economic downturns due to lack of strategies to face the situation. The government's spending on higher education has been reduced for the past decades amid growing budget challenges (Blakenberger, 2020; Deming & Walters, 2017; Archibald & Feldman, 2006; Kane et al., 2005). Due to the pandemic, government has cutting of funding, particularly to HEIs. This shows a declining trend in government educational funding and a surge in higher education costs. Thus, this situation affects the financial sustainability of HEIs and has become a primary concern among public universities worldwide.

Financial sustainability is defined as the function of higher education institutions in response to changes in the internal and external environments while maintaining an acceptable risk level range (Maruna et al., 2018). The pandemic caused financial constraints to HEIs, particularly reduction in the revenue such as funds received from the government, tuition fees and limitation on research grants that impacted the amount of expenditure allocated that may affect HEIs' financial sustainability (Alshubiri, 2021). HEIs faced immediate financial concerns, such as funding uncertainties, due to closures and the continued spread of COVID-19 (Muftahu, 2020). The closure of educational institutions because of the pandemic has had an unprecedented impact on education and financial survival of HEIs due to decrease in postgraduate enrolment and course fees and the reduction in revenue from residential colleges because students are away from the campus (Kapasia et al., 2020; Osman et al., 2021).

Malaysia's tertiary sector is also affected by the COVID-19 pandemic due to the reduction in the amount of funding they received from the government and thus, exposing universities to additional financial risks and financial pressure. As a result, the COVID-19 pandemic devastated the revenue of public and private universities in Malaysia, as most of these institutions rely on student tuition fees, government funds and research grants to stay afloat. Aside from the health risk, the looming economic collapse due to the pandemic put students in tight spots that led them to quit their studies, which greatly affected the universities' revenue. Besides that, foreign student enrolment declined drastically due to government restrictions and policies on international students during the pandemic. Thus, affecting the HEI's cash flow (Friedman et al., 2020). Furthermore, during the unprecedented COVID-19 pandemic, academicians faced difficulties obtaining the internal research or conference grants, whereby research grants are one of the essential sources of income for the universities. During the pandemic most government funding for research and conference grants is limited. HEIs are looking for alternative funding sources and started to collaborate with corporations to secure grants from the industries. It is crucial for universities and academicians to successfully secure grants from the government or the industries to sustain the university's source of income.

Financial sustainability has become a primary concern among public universities worldwide because of declining government funding and the unending rise in higher education costs particularly during the pandemic. As a result, public universities are being forced to seek alternative revenue streams (Jaafar et al., 2021). Following the Resource Dependency Theory (RDT), universities should think about alternative funding sources through revenue diversification in order to reduce the level of dependency (Hodge and Piccolo 2005). Therefore, revenue diversification is viewed as a revenue-generating tactic that can reduce the volatility of revenue portfolios (Chang and Tuckman 1994; Froelich 1999). The non-profit sector has widely adopted revenue diversification as a financial tactic to improve organisation's sustainability and financial health (Chang and Tuckman 1994; Yan 2011).

Prior studies on financial sustainability in higher education have focused on the pandemic's impact on students' behaviours and adapting to the changes in the mode of studies (i.e., Aristovnik et al., 2020; Asselmann et al., 2020). However, limited studies focus on assessing the impact of changes in revenue during the pandemic on the financial sustainability of the universities. Thus, the current study aims to fill the knowledge gap in this area of research. This study aims to examine the impact of changes in revenue of Malaysian HEIs during the COVID-19 pandemic to the financial sustainability of the universities. The primary objective of this study is to investigate the impact of changes in universities' revenue which is proxied by (i) student enrolment, (ii) research grants, and (iii) government budget, on the financial sustainability of Malaysian public universities during COVID-19 pandemic.

2. Literature Review
2.1 Financial Sustainability
Financial sustainability is a crucial aspect of managing governmental organisations around the world. Although non-profit organization does not prioritise profitability, it is necessary to have a reasonable surplus in order for an organisation to have enough money to finance its long-term capital investments (Cohen, 2008; Barreca, 2010). Financial sustainability is defined differently depending on whether the organisation is profit-oriented or non-profit oriented. Financial sustainability is defined as a condition in which an economy's structures for pricing, allocating, and managing financial risks (i.e., credit, liquidity, counterparty, market) function well enough to contribute to the economy's performance (Kapustian et al. 2021). In the context of HEIs, Ahmad et al., (2019) suggested that the ability of HEIs to generate sustainable income while running their operational activities without relying on external funders such as government and other stakeholders would determine their financial sustainability. In addition, Di Carlo et al. (2019) emphasised that the financial sustainability of public universities includes cost containment, income diversification and sustainable public funding with appropriate accountability mechanisms.

Public universities are considered public institutions because the government funds them (Jaafar et al., 2021; Ahmad et al., 2013). The current trend shows that in most countries, public HEIs, particularly universities, are experiencing a decline in public funding, posing a financial sustainability challenge (Alshubiri 2020; Jacob & Gokbel 2018; Mohd Amir et al. 2016). According to Kapustian et al. (2021), one of the most critical problems faced by the university is to guarantee its financial sustainability is intact in the short and medium-term, particularly during the pandemic, by taking into consideration the amount of funding received from the government and forecasting the impact of the pandemic to the universities' financial health. Furthermore, the unexpected budget cut appeared to be a significant catalyst, prompting universities to develop more financial sustainability initiatives such as diversification of revenue while maintaining the universities' primary academic mission (Mamat et al., 2021). A diversified revenue structure refers to an organisation's various income sources (Yan, 2011). Public universities, which rely heavily on government grants, and private universities, which rely heavily on tuition fees, have less diverse revenue streams (Huang 2018). UniTP Purple Book identifies seven primary sources of income for Malaysian higher education institutions that are; (i) academic and research programs; (ii) asset monetization, retailing, and services; (iii) financial

management activities and investment; (iv) corporate alliances for business ventures; (v) endowment; (vi) Waqf; and (vii) fundraising (MOHE, 2016).

Past studies conducted in Malaysia focusing on examining the benefits of revenue diversification initiatives in public universities discovered that to remain financially viable, HEIs must generate more alternative sources of income through a consistent diversification strategy (Afriyie, 2015; Akeel et al., 2019; Di Carlo et al., 2019; Jacob et al., 2018; Nik Ahmad et al., 2018). However, the relationship between the source of revenue and its impact on the financial sustainability of public universities during the COVID-19 pandemic has yet to be examined.

2.2 Sources of Revenue of Public HEIs in Malaysia

Malaysian HEIs revenue consists of diverse sources of income that are public funding, tuition fees, grants, and other sources. Public HEIs in Malaysia have received substantial government funding. As of 2007, the HEIs received 90% of their total operating budget from the government, which required them to bear only 10% of their total operating costs. However, government funding has gradually declined since 2007 (Nik Ahmad et al., 2018). In many countries, increasing higher education costs and declining government funding have impacted public universities' governance, decision-making, and operations (Jacob & Gokbel, 2018). As a result, public universities must devise the best strategy and methods to increase the efficiency and effectiveness of their operations. This could lead to greater financial independence while reducing financial difficulties (Jacob & Gokbel 2018; Lim et al. 2016; Nik Ahmad et al. 2019). Due to the financial struggle faced by HEIs during the COVID-19 pandemic, the challenges Malaysian universities face caused by the pandemic have larger consequences beyond those related to the education industry's financial health; therefore, universities need to take proactive actions to mitigate the effects of pandemic COVID-19 on their financial sustainability.

2.2.1 Student Enrolment

The transition to financial independence of public HEIs necessitates a major reliance on tuition fees as the primary source of funding rather than federal budget allocations. As a result, universities began with a marketisation approach to capitalise on academic education, resulting in competitive student fees. A study by Berger and Kostal (2002) stated that increasing tuition fees may decrease student enrolment. The challenges caused by the COVID-19 pandemic for public HEIs to secure student enrolment is numerous. Among the challenges is to secure international students' enrolment. COVID-19 pandemic has had a great impact on international education enrolment. It affects the universities' revenue yield from tuition fees from international students (Jacob et al., 2020). To halt the spread of the COVID-19, most governments around the world have temporarily closed educational institutions (Pragholapati, 2020). This national closure has impacted more than 91 per cent of the world's student population. In Malaysia, the ban was imposed on 25th March 2020, and all foreigners are not allowed to enter Malaysia. The ban had caused many international students to be unable to fly in to further their studies. The COVID-19 pandemic has revealed the dependency of Malaysian universities on the international students' fees which affected the universities' future revenue due to the travel ban.

2.2.2 Research Grant

Johnstone (2002) defines a research grant as a contract or sponsored research with an appropriate 'overhead' charge that can fund additional faculty salaries and new equipment and contribute to general institutional and administrative costs. Research grants refer to grants other than the government's operating and development expenditures. Public universities must devise innovative strategies to secure grants from various sources. As a result, the research grant is an essential factor that can increase public universities' income (Kadir & Cotter 2019). Universities received research grants as means of diversifying their revenue stream. One of the universities' main financial resources come from grants for teaching and research. Therefore, the decline in funding may impact the study, which may benefit the public (Postiglione, 2011). Moreover, universities are under pressure to seek alternative funding sources, optimise resource utilisation, compete for research grants, and become less reliant on government funding (Mamat et al., 2021; Johnson & Hirt, 2011). The global economic impact of the COVID-19 pandemic affects the research funding badly. Marshman and Larkins (2020) claimed that universities in Australia will collectively face a shortfall in discretionary income available to support research over the next five years to 2024.

2.2.3 Government Budget

Public HEIs around the globe are currently facing a decline in public funding, posing a financial sustainability challenge (Alshubiri, 2020; Jacob & Gokbel, 2018). In Malaysia, all public universities have received substantial government funding. As of 2007, public universities received 90 per cent of their total operating budget from the government, requiring them to bear only 10 per cent of their total operating costs (Ahmad et al., 2018). However,

significant budget cuts in two consecutive years from 2016 to 2017 forced public universities to generate up to 30 per cent of total operating costs on their own, while the government budget covered the remaining 70 per cent (Abdullah, 2017). These budget cuts occurred in tandem with the release of the Malaysian Education Blueprint 2015-2025 (Higher Education), which includes financial sustainability as one of ten practice and policy shifts required to transform Malaysian public higher education institutions (Ministry of Higher Education Malaysia, 2015). As a result of this reform, public universities must generate funding to supplement the federal government's limited and inadequate funding (Ahmad et al., 2012). Budget cuts have become a critical issue in Malaysian higher education, particularly for public universities. As a result, it is timely for Malaysian public universities to be creative in diversifying their revenue streams and finding ways to mitigate the impact of government funding cuts (Huang, 2018; Jacob & Gokbel, 2018).

2.3 Conceptual Framework

The conceptual framework of this study is developed based on the Resource Dependency Theory (RDT). A fundamental notion of RDT states that the dependence on critical resources influences the actions and decisions organisations to make. These actions can be explained depending on the particular dependency situation (Pfeffer & Salancik, 1978). In addition, Pfeffer and Salancik (1978, p39) explained that "… organisational behaviours will respond to demand made by external organisations on whose resources they are heavily dependent". Resource Dependency Theory (RDT) believes long-term organisational success and sustainability depend on resource availability. In contrast, control and access to those resources are the foundation of power (Zehir et al., 2019). This results in the dependence and interdependence of organisations or individuals to whom resources are transferred (Hillman, Withers & Collins, 2009). As presented in Figure 1, this study examined the relationship between independent variable that is universities' revenue proxied by student enrolment, research grants, and the government budget and the dependent variable, financial sustainability of Malaysian public universities during the COVID-19 pandemic.
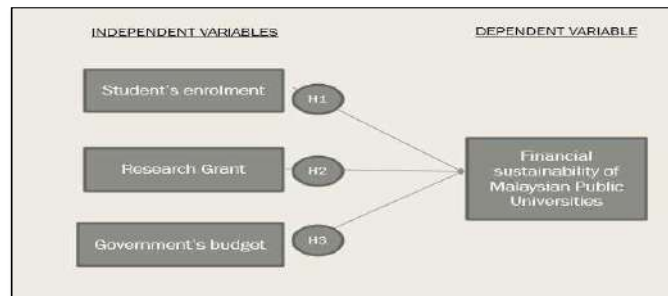

Figure 1 Conceptual Framework

Based on the above conceptual framework three hypotheses were developed that are;
H1: There is a positive relationship between changes in revenue of student enrolment and the financial sustainability of Malaysian public universities during the COVID-19 pandemic.
H2: There is a positive relationship between changes in revenue of the research grant and the financial sustainability of Malaysian public universities during the COVID-19 pandemic.
H3: There is a positive relationship between changes in revenue of the government budget and the financial sustainability of Malaysian public universities during the COVID-19 pandemic.

3. Methodology
3.1 Sampling and Data Collection
This study adopted the quantitative method in identifying and investigating the influence of independent variables on the dependent variable. The independent variables selected for this study are public universities' sources of revenue, and the dependent variable is the financial sustainability of the Malaysian public universities. The study gathered data through secondary sources to operationalise the dependent variable (financial sustainability) and independent variables. The dependent variable (financial sustainability) was measured by Return of Asset (ROA). Meanwhile, the independent variable (universities' revenue) proxied by student enrolment, research grants, and government budget. The unit analysis of this study is the public universities in Malaysia. Public HEIs are considered public institutions since the government funds them (Ahmad et al., 2013). These institutions were established as non-profit organisations and were heavily reliant on the government for funding (Caruana et al., 2018; Lim et al., 2016; Ahmad et al., 2013).

In year 2021, there are 20 public universities in Malaysia. Due to the limited number of public universities, the total population is selected as the sample. Thus, all 20 public universities were selected as sampling for this study.

This study intends to examine the impact of changes in revenue of public universities during the COVID-19 pandemic on universities' financial sustainability. Thus, the data collected focused on the years 2018 and 2019 (before the pandemic) and the years 2020 and 2021 (during the COVID-19 pandemic). The data required were extracted from the twenty (20) public universities' annual reports from 2018 until 2020. However, data for the year 2021 is yet to be published publicly at the time of data collection was conducted. Table 1 below depicted the measurement of dependent and independent variables of the study.

Table 1: Measurement of Variables

Variables	Measurement	Citation
Independent Variable:		
Return on Asset (ROA)	Net Income / Total Assets	Bowman (2011), De Andres Alonso et. al., (2016)
Dependent Variables:		
Student Enrolment (SE)	Tuition fees by student	Nik Ahmad et al., (2018), Almagtome et al. (2019),
Research Grant (RG)	Grant funding	Findler et al. (2018), Nik Ahmad et. al., (2018), Jaafar et. al., (2021)
Government Budget (GB)	Allocation from government	Almagtome et al. (2019), Jaafar et al. (2021)

4. Results and Discussion

4.1 Descriptive Analysis

Table 2 shows the descriptive statistics result of the dependent variable, which is the financial sustainability, measured by Return of Asset (ROA). The independent variables consisted of student enrolment, research grants, and government budget. The elements of the descriptive statistics were calculated based on the financial data collected from 20 public universities in Malaysia for the year 2018 to 2020.

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
ROA	60	-.0848	0.2280	0.0157	0.0480	0.002
SE	60	10,498	301,413	69,917	61,175	374,243,278
RG	60	1,674	96,885	20,557	17,139	293,741,390
GB	60	97,649	1,769,124	460,434	363,609	1.322E+11

ROA = Return of Asset; SE = Student Enrolment (RM'000); RG = Research Grant (RM'000); GB = Government Budget (RM'000)

From the analysis, the mean value explains the average number of each variable calculated from 20 public universities in three years. The main objective of this study is to assess the impact of change in revenue (student enrolment, research grant and government budget) on the financial sustainability of public universities, measured by the ROA. The findings show that the mean value of financial sustainability measured by ROA is 1.57%. The ROA means that the value is ranged from -8.5% (min value) to 22.8% (max value), and the deviation from the mean is 4.80% (standard deviation). This result shows that universities experienced negative ROA during the studied period. Furthermore, the finding shows that the average mean for student enrolment is RM 69,917,000 which ranged from RM 10,498,000 (min value) to RM 301,413,000 (max value). In addition, the average mean for research grant is RM 20,557,000 which the minimum value is RM 1,674,000 and the maximum value is RM 96,886,000, for government budget, the average mean is RM 460,434,000 which ranged from RM 97,649,000 (min value) to RM 1,769,124,000 (max value).

4.2 Regression Analysis

The result of the regression analysis is shown in Table 3. Table 4 shows the adjusted R^2 is 0.316, which indicates that 31.6% of the dependent variable (financial sustainability) which is proxied by ROA, could be described by the student enrolment, research grants, and government budget. In addition, the Durbin Watson value for ROA is 1.453 which is below 2, indicating non-problematic correlations of the residual, especially multicollinearity problem.

Table 3: Multiple Regression

	Standard Coefficients	t-stat	p-value
DV: ROA			
(Constant)		1.763	0.083
SE	0.243	2.215	0.031*
RG	0.515	4.724	<.001**
GB	-0.294	-2.667	0.010

$*p < 0.10$, $**p<0.05$

Predictors: (Constant), Student Enrolment (SE), Research Grant (RG), Government Budget (GB)

Table 4: Model Summary

R	R^2	Adjusted R^2	p-value	Durbin-Watson
0.602[a]	0.363	0.316	<0.001	1.453

The hypothesis, H1, indicated a positive relationship between changes in revenue of student enrolment and financial sustainability, implying that tuition fees will influence the financial sustainability of public universities during pandemic COVID-19. The regression analysis result shown in Table 4.2 indicates that student enrolment has a significant positive relationship with financial sustainability when the coefficient for Student Enrolment is 0.243, t = 2.215, p = 0.031. As a result, H1 is accepted. This finding shows that student enrolment significantly affects public universities' financial sustainability. Student enrolment signifies the amount of revenue received from the tuition fees, and this variable significantly influences the financial sustainability of Malaysian public universities during the COVID-19 pandemic. The current finding supported a study conducted by Thatcher et al. (2020) among universities in Australia that shows a declining number of student enrolment results to decreasing in universities' revenue with a loss of $17,359,452,714 between 2018 and the year 2020. In addition, a survey by Kim et al., (2020) shows that almost half of the students are no longer planning to enroll in a bachelor's degree due to the COVID-19 pandemic, thus will affect the universities' revenue. The findings of this study confirm the negative effect of the COVID-19 pandemic on student enrolment globally. Thus, the result of the current study reflects a significant change in revenue of student enrolment during the COVID-19 pandemic influences the universities' financial sustainability.

H2 proposed that changes in revenue of the research grants have a positive relationship with financial sustainability of Malaysian Public Universities during the COVID-19 pandemic, implying that research grants have influenced the financial sustainability of Malaysian public universities. The result shows that the research grants have a significant positive relationship with financial sustainability since the coefficient value is 0.515, t = 4.724, p = <.001. Therefore, H2 is supported. In the year 2020 during the pandemic, research grants are hard to obtain from the government and private organisations due to unable to foresee the unexpected circumstances that cause the economy. Besides, many private organisations may find it hard to fund universities' research as they focus on sustaining their organisation. Among factors that cause a reduction in the number of research grants received by universities during the pandemic, as stated by the Minister of Higher Education, Datuk Seri Dr Noraini, is that the government is currently focusing on research grants to develop the COVID-19 vaccine. Hence much funding is focused on vaccine research. Most research grants may take more than one year, with the COVID-19 pandemic still ongoing, many firms are not taking the risk of giving universities research grants as they cannot predict how long the pandemic will last and how long it will take. Hence, reducing research grants for public universities influences the financial sustainability during the COVID-19 pandemic.

H3 proposed that changes in revenue of the government budget positively influences the financial sustainability of Malaysian public universities during COVID-19 pandemic. The findings of this study show a significant negative influence of the government budget on the financial sustainability of Malaysian public universities. The coefficient is -0.294, t = -2.667, p = 0.010. Thus, H3 is not supported. Every year budget allocation for public universities were announced in the year before hence during this time the government does not foresee COVID-19 as a situation that requires special attention. Hence, the government budget does not have any significant changes during the COVID-19 pandemic due to unexpected events, and the budget for the year 2020 does not considered this circumstance. Table 5 display summary of hypotheses' results.

Table 5: Summary of Hypotheses Results

Research Hypotheses	Prediction	Result
H1: There is a positive relationship between student enrolment and the financial sustainability of Malaysian public universities during COVID-19 pandemic.	Positive	Supported
H2: There is a positive relationship between research grants and the financial sustainability of Malaysian public universities during COVID-19 pandemic.	Positive	Supported
H3: There is a positive relationship between the government budget and the financial sustainability of Malaysian public universities during COVID-19 pandemic.	Positive	Not Supported

5. Conclusion

The current study has three main objectives that are; to investigate the impact of changes in universities' revenue which is proxied by (i) student enrolment, (ii) research grants, and (iii) government budget, on the financial sustainability of Malaysian public universities during COVID-19 pandemic. Data analyses conducted yield result that evidenced the significant relationships between student enrolment and government grants on the financial sustainability of Malaysian public universities during the COVID-19 pandemic. This study empirically proves a significant change in universities' revenue that are student enrolment and research grants during the COVID-19 pandemic have an impact on its financial sustainability. Declining funding for research grants and from the government and decreasing number of student enrolment may affect the financial sustainability of Malaysian public universities in the long term. The impact of the pandemic on the financial sustainability of Malaysian HEIs is crucial, which may cause long-term losses to the universities.

Financial sustainability is vital to ensure that universities can and will survive their operations in the difficult situation particularly during the unprecedented period of the COVID-19 pandemic. Jaafar et al., (2021) suggest that there should be an extensive effort among Malaysian public universities striving to generate non-governmental sources of income besides tuition fees through revenue diversification that should become a prudent strategy to be implemented in overcoming the financial sustainability issue. This circumstance seems to be consistent with the RDT, which advises organisations to think about alternative revenue sources to reduce their level of dependence during uncertain external environments (Bingham and Walters 2013). Additionally, Malaysian public universities have recently been strongly urged to develop more alternative revenue sources in order to maintain their financial sustainability (Ministry of Higher Education Malaysia, 2016). As a result, in the coming years, Malaysian public universities making greater efforts to find non-governmental revenue streams in addition to tuition fees. Therefore, in order to sustain and survive in the current financial environment, they must change their locus of reliance (Jaafar et al. 2021; Bingham and Walters 2013).

In an unprecedented environment such as a pandemic, public HEIs need to be ready for change by diversifying revenue sources and becoming less reliant on traditional funding sources, such as government funds and tuition fees (Nik Ahmad et al. 2018). A study by Nomura and Abe (2010) found that factors such as the global market, funding cuts, social demand, and the current decrease in students put pressure on Japanese Higher education. As a result, HEIs must seek alternative funding sources to fill the funding gap (Ahmad, Naido Farley, 2012; Teixeira and Koryakina, 2011). The decrease in government support caused a funding gap expected to be a major contributor to the HEIs crisis that may affect universities' financial sustainability. Therefore, public universities should develop the best strategy and methods to improve the efficiency and effectiveness of their operations. This development could lead to greater financial independence while reducing financial challenges and ensuring financial sustainability of HEIs (Nik Ahmad et al., 2019; Jacob and Gokbel, 2018; Lim et al., 2016).

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Pasca Pandemic Crisis: Student Preferences for Learning Styles

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Abstract

The main objective of this study is to determine the preferred learning style, particularly among accounting students during pasca pandemic crisis. Learning styles are explained by how people learn based on their abilities, preferences, motivation, and learning environment. Fleming and Mills suggested four different learning modalities in 1992 to describe and comprehend different learning styles. These modalities include visual, auditory, read/write and kinesthetics which was also known as the VARK model. The data were collected from 122 respondents via online surveys, which comprised accounting students in the UiTM Perak branch, Tapah campus. The analysis of the findings shows that the visual learning style was found as the most preferred learning style during the pasca pandemic crisis. Therefore, it is likely to aid educators in choosing the optimal teaching style that would suit students' learning preferences, which is believed to play a role in their strong academic achievement.

Keywords

Learning Styles, VARK Model, Accounting Student, Teaching Styles, Pasca Pandemic.
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1. Introduction

When COVID-19 was declared endemic on 1 April 2022, Malaysia announced that schools would reopen in stages by the phases of the states under the National Recovery Plan (NRP). As a result, after three years of online and hybrid learning, students will need to switch to full-fledged face-to-face classes. In addition to this, the education minister also unveiled the Post-Pandemic Digital Education Policy, which had as its goal the development of a generation that was technologically knowledgeable through the cultivation of talent. Students are faced with higher obstacles in this situation because they need to develop more motivational learning strategies, particularly in IT education.

Learning styles are explained by how people learn based on their abilities, preferences, motivation, and learning environment. Fleming and Mills suggested four different learning modalities in 1992 to describe and comprehend different learning styles. These modalities include visual, auditory, read/write and kinesthetics, also known as the VARK model. For visual learners, they absorb information primarily by seeing it or by visualising it mentally. As for auditory learners, they absorb information primarily by hearing it, for read/write learners, they absorb information primarily by reading/writing the text and for kinesthetic learners, they absorb information primarily through movement in a physical way. The VARK model has been widely used in many studies to identify the preferred learning styles and their learning outcomes (Khanal et al., 2014, Li and Alduais, 2018, Alduais, 2018 & Rasdi and Rusli, 2023).
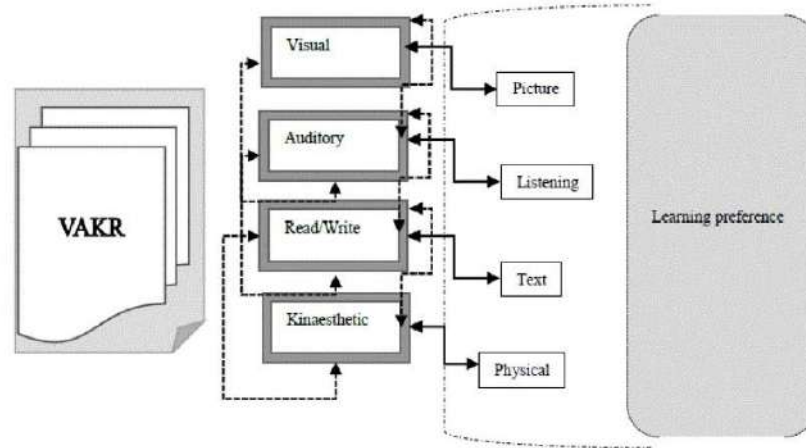
Figure 1: VARK learning style proposed model.

It is important to note that various studies have been conducted in different countries, including Thailand (Maprapho et. al, 2023), Indonesia (Sulistyanto et. al, 2023) and India (Minhas et. al, 2022), using the VARK learning styles model. In Malaysia, the study by Rasdi and Rusli (2023) particularly focuses on the preferred learning styles during Open and Distance Learning (ODL), which was one of the alternative modes of education during the pandemic. This research sheds light on how students adapt their learning preferences in response to changing educational environments. Extending the previous study, then, this study aims to conclude the preferred learning styles during the post-pandemic period when face-to-face classes have resumed. This is a valuable contribution, as it provides insights into how students' learning style preferences may have evolved or remained consistent as they transition from online learning back to traditional classroom settings.

Based on the above problem and theory, we come out with this research paper to identify the preferred learning style, particularly among accounting students during the pasca pandemic crisis. Our focus is to encourage accounting students to have a better learning environment. By adopting a range of instructional techniques, it can meet the requirements of accounting students and expose them to both familiar and novel learning environments, providing them with many opportunities to succeed.

This paper is structured as follows: Section 2 provides previous literature on VARK learning styles and how it relates with choices of teaching method. Section 3 describes the research methodology and includes the data of participants, materials, and data analysis. Section 4 represents the descriptive analysis and discussion of findings, and lastly, section 5 provides a summary and conclusion of the study.

2. Literature Review
2.1 Learning Styles – VARK Model
The VARK model inventory has been used in many previous research. Khanal et al. (2014) observed that in medical education, kinesthetic learning is most desired along with visual, whereas auditory and read/write are less favoured. In addition, they concluded that while there were some variances with age, there was no clear association between age factors and learning styles. Li and Alduais (2018) in their research about the university students in Glasgow, UK suggested that kinesthetic learning style was males' learning style preference while females preferred using visual learning style. Additionally, international students preferred using the visual learning style whereas the kinesthetic learning style was British students' preference with learning style. Rasdi and Rusli (2023) studied the learning style preferences among Malaysian university students in ODL and they claimed that students preferred visual learning styles. The same finding in terms of gender, which they found that both male and female students also preferred the visual learning style the most.

2.2 Learning Styles Theory, VARK Model and Teaching Method
Learning Styles Theory encompasses a variety of models and hypotheses that argue that individuals have distinct ways of processing and acquiring information and adjusting teaching approaches to align with these styles can enhance learning outcomes. It is crucial to highlight, however, that the validity and efficacy of this technique have been the subject of discussion and skepticism within the educational and research communities.

The diversity of learning styles among students has long been recognized as a challenge for educators seeking to optimize teaching strategies. The VARK model proposes that individuals who exhibit varying inclinations can guide educators in designing instructional approaches tailored to their students' preferences.

Numerous studies have investigated the relationship between learning styles identified by the VARK model and instructional outcomes. Some research suggests that aligning teaching methods with students' learning preferences can enhance engagement and comprehension. However, conflicting findings and critiques have emerged, challenging the model's validity, and questioning the extent to which tailoring teaching methods to learning styles truly improves learning outcomes.

A study conducted by Riener and Willingham (2010) critically analysed the learning styles paradigm, including the VARK model. They concluded that there is little empirical evidence for the idea that matching the teaching approaches to learning styles leads to better educational outcomes. This is also supported by Newton and Miah (2017) in which they added that while adapting teaching methods to learning styles might enhance student engagement, a more comprehensive focus on evidence-based teaching practices that have been shown to be effective across a wide spectrum of learners could be a stronger factor for an improved educational performance.

On the contrary, some studies have reported positive effects when gauging the preferred learning styles to the appropriate pedagogical decisions. Fleming and Baume (2006) found that using a variety of teaching methods, including those that correspond to students' learning preferences, could result in greater academic performance. However, they acknowledged that factors such as the nature of the subject, the teacher's skills, and the student's motivation might also influence the learning outcomes. Other than that, Cook and Artino Jr (2016) suggested that suitable teaching methods may have an indirect impact on academic output. Learner engagement and motivation can play a crucial role. Adapting teaching methods to students' learning preferences may boost engagement, thereby potentially enhancing learning outcomes.

3. Methods

The research method employed in this study involved the distribution of questionnaires to gather data. The measures in the questionnaires were adapted from the VARK learning styles (Fleming and Bonwell, 2019). There are five sections involved. The first section asked about the basic demographic profile of the students. Sections two through four concerns about each learning style separately, with five questions each, rated on a 5 Likert scale ranging from (1) Strongly Disagree; (2) Disagree; (3) Neutral; (4) Agree; (5) Strongly Agree.

The primary objective of the questionnaires was to ascertain the learning styles preferred by the students, either visual, auditory, read/write or kinesthetics. The findings are likely to aid educators in choosing the optimal teaching style that would suit students' learning preferences, which is believed to play a role in their strong academic achievement. The targeted respondents were students enrolled in the Faculty of Accountancy at UiTM Tapah, Perak. A total of 122 responses were received from the participants. The descriptive statistics was used to summarize the data. The data analysis then was conducted and presented in the fourth section of the paper.

4. Results and Discussion
4.1 Demographic Information

Table 1: Demographic Profile of the Respondent			
Variable	**Level**	**Frequency**	**Percentage (%)**
Gender	Male	34	27.9
	Female	88	72.1
Program	AC110	93	76.2
	AC120	29	23.8
Age	18 - 20	111	91
	21 - 25	10	8.2
	26 and above	1	0.8

A demographic profile has been collected from the participants. The profiles included the gender, program and age of the students. Based on Table 1, shows that most of the students are female (72.1%) while the male (27.9%). According

to the Program, students from a Diploma in Accountancy (AC110) are dominant by 76.2% while the remaining are from a Diploma in Accounting Information System (AC120). The majority of the respondents were aged between 18 to 20 years old (91.0%) followed by those aged between 21 to 25 years old (8.2%) and 26 years old and above (0.8%).
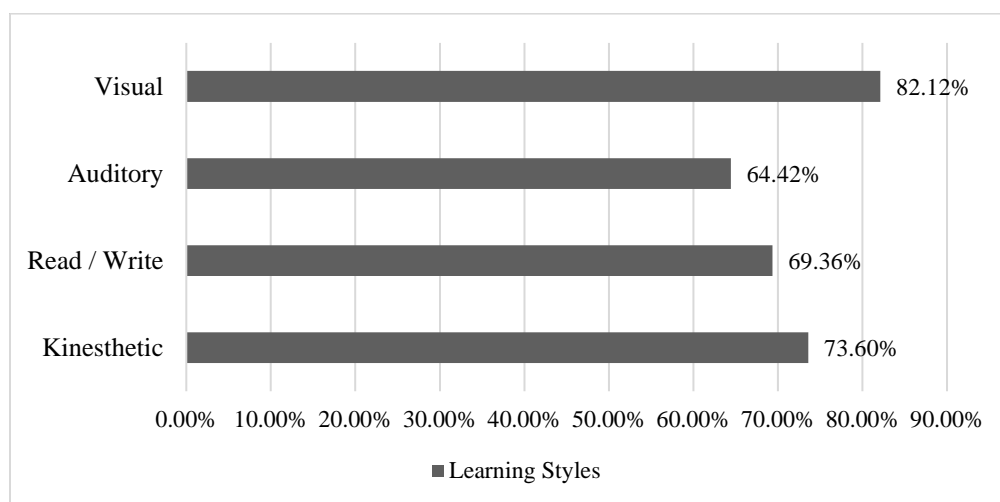
4.2 VARK Learning Styles

Figure 2: Student Preferences in Learning Styles

Figure 2 illustrates the feedback obtained from students regarding their preferred learning styles. Visual learning style was found as the most rated (82.12%) and considered the most preferred learning style during the pasca pandemic crisis. Next, 73.60% of respondents preferred the kinesthetic learning style. The third learning style preferred by students is the read or write learning style (69.36%) and the least preferred learning style is auditory (64.42%).

For further discussion, Table 2 will present the details of questions utilized in this study to measure each of the learning styles within the VARK learning styles model.

Table 2: Measurement of each the Learning Styles	
Question	**Mean**
1. Visual Learning Style	
I understand better when I can see patterns in things when I am learning.	4.39
I am motivated when I see colourful notes.	4.27
I like interesting designs and features when I am learning.	4.33
I prefer the lecturer to use diagrams, charts, maps, or graphs when teaching.	4.02
I would like the lecturer to give me feedback using graphs showing what I achieved.	4.04
2. Auditory Learning Style	
I understand better when I talk things through by myself or with other people.	4.10
I would like the lecturer to give me feedback by talking it through with me.	4.08
I like to listen to audio channels where I can listen to podcasts or interviews when learning.	3.25

I prefer the lecturer to use question and answer, talk, or group discussion when teaching.	3.97
I do not like quiet environments and need to hear sounds such as songs.	3.60
3. Read/ Write Learning Style	
I understand better when I read notes and write it again on my own.	4.21
I prefer the lecturer to use interesting written descriptions, list, and explanations when teaching	4.34
I would like the lecturer to give me feedback using a written description of my result.	3.90
I like to read books, articles, and handouts when learning.	3.41
I like to do a lot of readings and written exercises.	3.80
4. Kinesthetic Learning Style	
I understand better when I use examples and applications when I learn.	4.40
I prefer the lecturer to do demonstrations, models, or practical sessions when teaching.	4.39
I would like the lecturer to give me feedback using examples from what I have done.	4.21
I want to engage and participate in an activity such as doing a presentation.	3.46
I like to watch videos when learning.	3.72

The analysis presented in Table 2 indicates that during the pasca-pandemic crisis period, the most preferred learning style exhibited by students is the visual learning style. The study conducted by Rasdi and Rusli (2023), further confirms the previous findings regarding the preference for visual learning styles among students during the Open and Distance Learning (ODL) setting. The current study then adds weight to the idea that visual learning styles have become highly favored not only during the pandemic but also in the post-pandemic period. The finding shows that the visual learning styles became the most preferred during the pasca pandemic period was evident from their responses to five questions. Most students agreed that they learn more effectively when they can visually perceive patterns in the information they are studying (Mean 4.39). This suggests that visual aids and materials are beneficial for their learning process. Then, they also indicated a preference for learning materials and environments that incorporate interesting designs and features (Mean 4.33). This makes the learning experience more engaging and appealing to them. Next, they are motivated to learn when presented with colorful notes (Mean 4.27). The use of color in educational materials may enhance their motivation and engagement with the content. Finally, students also showed a positive attitude toward the use of graphs for lecturers to provide feedback (Mean 4.04) and the incorporation of diagrams, charts, and maps as part of their learning materials (Mean 4.02). This suggests that graphical representations of data or information are effective in conveying feedback to students and visual aids contribute to their understanding and retention of information.

In summary, the analysis suggests that during the pasca pandemic, students tend to favor visual learning styles and find interactive videos, colorful visuals, and graphical representations to be effective tools for enhancing their learning experiences. These findings can inform educators and institutions in designing and delivering more engaging and effective teaching methods and materials tailored to students' preferences and needs. Furthermore, interactive video was highlighted as an effective approach to enhance the student learning experience. Noetel et al. (2021) found support for this method, emphasizing the benefits of integrating interactive video with existing teaching approaches. This approach allows students to interact with video content, such as pausing, replaying, reversing, or altering the playback speed to match their learning pace. Such interactivity is believed to lead to more efficient and effective learning.

In addition, the second most preferred learning style among students is kinesthetic learning. Kinesthetic learners typically learn best through physical activities, hands-on experiences, and real-world applications. According to Table 2 above, many students agreed that they comprehend and learn more effectively when they are provided with

real-life examples and practical applications (Mean 4.40). Then, they also expressed a strong preference for learning through demonstrations, models, and practical sessions (Mean 4.39). This aligns with the kinesthetic learning style, which emphasizes hands-on experiences and active participation in learning. Students also indicated a preference for receiving feedback using examples (Mean 4.21) and watching videos (Mean 3.72) as part of their learning experience and some students showed a preference for actively participating in activities such as giving presentations (Mean 3.46). This active involvement aligns with kinesthetic learning, as it involves physical engagement and the practical application of knowledge. In summary, the study's results suggest that kinesthetic learning styles are the second most preferred among students. They benefit from hands-on experiences, real-life examples, practical sessions, and feedback provided through concrete examples. Educators can use this information to design instructional materials and activities that cater to kinesthetic learners, making the learning process more engaging and effective for this group of students.

Table 2 also provides detailed measurements for the read or write learning style, which is the third preferred learning style among students. Read or write learners tend to learn best through written materials and activities. Many students indicated a preference for instructors who use interesting written descriptions, lists, and explanations during teaching (Mean 4.34). Next, students also reported that they understand better when they can write down their notes after reading books or other learning materials (Mean 4.21). This active engagement with written content appears to enhance their comprehension. When it comes to feedback from instructors, students in this group prefer receiving written descriptions as feedback (Mean 3.90). Students also preferred written exercises as part of their learning process after reading books, articles, or handouts (Mean 3.80). These exercises reinforce their understanding of the material. Lastly, students prefer to read books, articles and handouts as this suggests that traditional written materials remain valuable to them. In summary, the study's results suggest that the read or write learning style is the third most preferred among students. These learners benefit from well-structured written content, writing their notes, and receiving feedback in written form. Educators can design their teaching methods and materials to accommodate these preferences, making the learning experience more effective and engaging for read or write learners.

Lastly, the auditory learning style, which is the least preferred learning style among students during the post-pandemic crisis is shown in Table 2 above. Auditory learners tend to learn best through listening and verbal communication. Most students in this group reported that they understand better when they talk things through by themselves and engage in discussions with others (Mean 4.10). They also expressed a preference for receiving feedback through verbal communication (Mean 4.08). This suggests that they value spoken feedback from instructors. During class sessions, students in this group prefer instructional methods that involve question and answer sessions, discussions, and verbal communication (Mean 3.97). Furthermore, students in this category reported a preference for learning in environments with ambient sounds rather than quiet settings (Mean 3.60). Background noise may help them concentrate and learn more effectively. While not as highly rated as some other preferences, some students in this group expressed an interest in listening to audio channels such as podcasts and interviews as part of their learning experience (Mean 3.25). In summary, the study's results suggest that auditory learning styles are the least preferred among students during the post-pandemic crisis. These learners tend to benefit from talking things through, engaging in discussions, receiving verbal feedback, and participating in interactive class sessions. While this learning style is less favored in this context, educators can still consider incorporating verbal and interactive elements into their teaching methods to accommodate the needs of auditory learners.

This study not only identifies the most favored learning styles among accounting students but also offers valuable insights for educators seeking teaching approaches aligned with student preferences. Furthermore, the study recognizes that students within the same program exhibit diverse learning preferences. This diversity means that in a single class, students may have varying ways of absorbing information, demanding educators' consideration to engage all students effectively during the teaching and learning process. In essence, all students can derive benefits from the teaching styles employed by educators. In line with Ridwan et al.'s findings in 2019, on the importance of understanding and accommodating the learning styles of students to enhance the teaching and learning process. It encourages educators to be flexible in their teaching approaches and students to be aware of their learning preferences for more effective learning outcomes.

5. Conclusion

This study determines the preferred learning style, particularly among accounting students during the pasca pandemic crisis. It uses a total of 122 responses received from the participants. It was found that the visual learning style was the most preferred learning style during pasca pandemic crisis. This implies that in the post-pandemic period, students have shown a preference for visual learning styles, finding interactive videos, vibrant visuals, and graphical representations to be valuable tools for enhancing their educational experiences. In addition, by comparing this finding from a previous study (Rasdi & Rusli, 2023), this study also indicates that students have a consistent preference for

visual learning styles in various educational contexts, including during and after the pandemic. This information is valuable for educators and institutions as it highlights the importance of incorporating visual elements, interactive video, colorful materials, and graphical representations into their teaching methods and materials to cater to students' preferences and promote effective learning outcomes.

The second learning style preferred by students during the pasca pandemic crisis is kinesthetic. They benefited from hands-on experiences, real-life examples, practical sessions, and feedback provided through concrete examples. Educators can utilize this information to create instructional materials and activities tailored to kinesthetic learners, enhancing the learning process and promoting greater engagement and effectiveness for this student group. The third learning style preferred is the read or write style. These learners benefit from well-structured written content, writing their notes, and receiving feedback in written form. Educators can adapt their teaching methods and materials to align with these preferences, thereby enhancing the learning experience and increasing engagement for read or write learners. Lastly, the auditory learning style has become the least preferred among students during pasca pandemic. These learners tend to benefit from talking things through, engaging in discussions, receiving verbal feedback, and participating in interactive class sessions. Even though this particular learning style is not the top choice in this scenario, educators should nevertheless consider incorporating verbal and interactive components into their teaching approaches to accommodate the auditory learners' requirements.

Based on the findings of this study, which highlight the most preferred learning styles among students, it is advisable for educational institutions and policymakers to strive for a more comprehensive understanding of students' learning style preferences. This understanding can serve as a foundation for adapting and refining teaching methods and materials to foster more effective and engaging learning experiences.

In addition, this study highlights that even within the same accounting program, students demonstrate diverse learning preferences. It is important to recognize that students' preferences may vary, and a flexible approach that accommodates multiple learning styles can be beneficial in catering to the diverse needs of learners. As a result, educators should adopt a creative and inclusive approach, considering various learning modalities. By incorporating multimodal teaching strategies in their classrooms, teachers can better address the individualized learning needs of all students.

However, this study has several limitations, which must be addressed. First, it examines the sample without considering the variety of genders and ages that could have different characteristics and influence the choice of preferred learning styles. Second, the data only demonstrates a descriptive analysis but not a cause-and-effect link. Therefore, additional theoretical and empirical research is needed to better understand the relationship between learning styles and teaching styles. Finally, further study may be conducted by including samples from other universities to compare the trend in the choice of preferred learning styles made which would give more insights into the results.

Acknowledgement

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Capital Structure and Covid-19 Pandemic: A Review of Literature

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Abstract

This paper presents a literature review on the impact of the COVID-19 pandemic on firms' capital structures. We conducted a search on the Scopus Database for articles and conference papers published between 2020 and 2023 that contained keywords related to the pandemic and capital structure. We found a total of 27 articles, of which only 16 were eligible for inclusion in the review. The review examines various dimensions of capital structure adjustments undertaken by companies in response to the pandemic. We found that the pandemic has had a significant impact on firms' capital structures, with many companies facing liquidity and solvency issues. We identified several factors that have influenced firms' capital allocation decisions during the pandemic, including government interventions, financial stimulus packages, and changes in investor sentiment. We also found that the literature on the topic is still in its early stages, with only a small number of studies available. We suggest that future research should focus on the long-term effects of the pandemic on firms' capital structures and the role of government policies in shaping these outcomes. Overall, this review provides a useful overview of the current state of research on capital structure topic.

Keywords

Literature Review, Capital Structure, COVID-19, Pandemic

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1. Introduction

The advent of COVID-19 in Malaysia caused a string of lockdowns and mobility restrictions, which had a detrimental effect on companies of all sizes and in all industries. Businesses in the tourism and hospitality industries, as well as those in manufacturing and retail, saw their sales fall and their cash flows disturbed. In response, the Malaysian government continually supported homes, companies, the healthcare system, and education throughout the COVID-19 pandemic to make sure that the needs of the populace were met. The Malaysian government introduced a few fiscal stimulus packages totalling billions of Malaysian Ringgit for a variety of purposes, including health spending, cash transfers for households in the middle- and low-income categories, incentives for employers and employees, grants to businesses, and many more. In addition, Bank Negara Malaysia (BNM) responded to the pandemic-related financial crisis by reducing the overnight policy rate (OPR), the statutory reserve requirement (SRR), and temporarily relaxing regulatory and supervisory compliance requirements for banks in order to support loan deferral and loan restructuring. BNM initially declared a six-month automatic moratorium on all bank loans, excluding credit card balances, on March 24, 2020. On July 29, 2020, BNM announced an extra three-month embargo for those individuals and businesses affected by the epidemic.

The impact of the COVID-19 pandemic on firms' capital structure and performance is a well-researched area (Edberg & Kjellander, 2022; El-Chaarani et al., 2022; Purnamasari & Fauziah, 2022; Turkki, 2021). As businesses faced the prospect of revenue shortfalls and increased financial vulnerabilities, the composition of their capital structure became a critical consideration. Reduced borrowing costs are often the result of lower OPRs, which encourage businesses to use more debt in their capital structures to finance growth or investment initiatives. In contrast, a higher OPR increases borrowing rates, causing businesses to view equity financing as a more desirable choice and changing the makeup of their capital structure. Firms heavily reliant on debt financing found themselves grappling with the burden of interest payments amid dwindling revenues, while those with healthier equity positions had comparatively more resilience to weather the financial storm. This dynamic prompted a re-evaluation of capital structure strategies as companies sought to strike a balance between immediate financial stability and long-term sustainability.

The connection between capital structure decisions and COVID-19 can be seen through the OPRs and financial stimulus packages provided by the government and Bank Negara Malaysia. As far as we know, there has not yet been

a review of such topics, and we aim to fill in the gap. The research questions of this paper are: What are the areas studied in the capital structure and COVID-19 literature review? What are the variables used by the literature in relation to the capital structure and COVID-19? What are the conclusions derived from the literature? Therefore, this paper has three main objectives: 1) to discuss the areas of studies; 2) to review the variables used in the capital structure and COVID-19 studies using the Scopus Database as the source of literature; and 3) to summarise the conclusions derived from the literature. The next section discusses the methodology of this study, followed by results and discussion, and then we provide the conclusion.

2. Methodology

To conduct the literature review, we referred to the Scopus Database and selected the time frame from 2020 until the most recent literature in 2023. The time frame was chosen because the COVID-19 pandemic started in 2020, and thus, we expected the literature to begin around that year as well. The date of the search is on 25 May 2023 and the search is filtered to only include the article and conference as well as being published in the Business, Management, and Accounting category according to the Scopus database. We begin our initial search by using the selected keywords in the search bar. The first keyword is related to the pandemic itself, so the terms "COVID-19," "coronavirus," and "pandemic" are considered. The second keyword relates to the capital structure, so the term "capital structure" is included. We only include those articles that contain keywords in their article abstract, title, or keywords. In the first phase of searching, the number of articles the Scopus database offers us is 27. Next, we filter the articles based on the availability of the full text in softcopy form and their relevance to the pandemic and capital structure. The breakdown summary of the sample is shown in Table 1.

Table 1: Summary of Sample

	2020	2021	2022	2023
Number of Articles	1	3	15	9
Less: Unavailable Full Texts	-	-	(4)	-
Less: Ineligible Text				
-Not Pandemic Related	(1)	-		(3)
-Not Capital Structure Related	-	-	(3)	(1)
Final Number of Articles	0	3	8	5

From Table 1, we can see that there is no article related to COVID-19 and capital structure in 2020, whereas in 2021, there are only 3 articles found in the database that fulfil our criteria. In 2022, the number of articles increased to 10, which was the height of the pandemic period, and the data started to be made available. The year 2023 shows interest in capital structure, and COVID-19 has not dwindled as of June 30, 2023. There are five relevant articles. The small number of articles shows that there are ample research gaps for future research to fill. In Table 2, we show the list of the articles that are available.

Table 2: List of Articles Available

Year	Authors	Title	Journal	Objectives
2021	Huang, H. and Ye, Y.	Rethinking capital structure decision and corporate social responsibility in response to COVID-19	Accounting and Finance	Analyse the impact of risk, capital structure, and investment valuation on the investment rate of public housing projects in Indonesia
2021	Yu, D.	Divergence of aviation finance markets: Lulls before the storm or growth?	Journal of Structured Finance	Analyse the impact of COVID-19 on the financing of aircraft lessors and airlines, as well as the challenges and opportunities faced by different airlines
2021	Varghese, R. and Haque, S.	The COVID-19 Impact on Corporate Leverage and Financial Fragility	IMF Working Papers, 2021	To explore the impact of debt rollover risk on firms' capital structure during Covid-19 pandemic and central bank intervention on leverage and default risk.
2022	Alghifari, E.	Corporate Financial	Journal of Risk	To analyze the focus of financial

	S., Hermawan, A., Gunardi, A., Rahayu, A., and Wibowo, L. A.	Strategy in an Emerging Market: Evidence from Indonesia	and Financial Management	strategy on determining capital structure in an effort to increase firm value moderated by the COVID-19 pandemic in emerging markets
2022	Arianpoor, A., and Tajdar, S. S. N.	The relationship between firm risk, capital structure, cost of equity capital, and social and environmental sustainability during the COVID-19 pandemic	Journal of Facilities Management	To explore the relationship between firm risk, capital structure, cost of equity capital and social and environmental sustainability during the COVID-19 pandemic for companies listed on Tehran Stock Exchange
2022	Bai, M., and Ho, L.	Corporate social performance and firm debt levels: Impacts of the covid-19 pandemic and institutional environments	Finance Research Letters	To examines the relation between corporate social performance (CSP) and firm debt levels and explores the channels between them by focusing on the ongoing health crisis, the COVID-19 pandemic
2022	Hupka, Y.	Leverage and the global supply chain	Finance Research Letters	To examine the effects of global supply chain pressures on firm leverage ratios.
2022	Prakash, N., Maheshwari, A., and Hawaldar, A.	The impact of Covid-19 on the capital structure in emerging economies: evidence from India	Asian Journal of Accounting Research	To examine the impact of the Covid-19 pandemic on the capital structure of companies in India, with a focus on the changes in leverage ratios.
2022	Syriopoulos, T., Tsatsaronis, M., and Gorila, M.	The global cruise industry: Financial performance evaluation	Research in Transportation Business & Management	To evaluate the financial performance of the global cruise business
2022	Vo, T. A., Mazur, M., and Thai, A.	The impact of COVID-19 economic crisis on the speed of adjustment toward target leverage ratio: An international analysis	Finance Research Letters	To analyse the impact of the COVID-19 economic crisis on the speed of adjustment toward target leverage ratio for an international sample of publicly listed firms.
2022	Yang, S.	Are private equity and venture capital helping small and medium-sized enterprises during the COVID-19 pandemic Evidence from China	Economic Analysis and Policy	To explore the role of PE/VC in the management of enterprise financial risk during the COVID-19 pandemic
2023	Gao, C. and Tsusaka, T. W.	Economic Uncertainty and Firms' Capital Structure: Evidence from China.	Risks	Aims to analyse the impact of economic crises, such as the 2008 Great Recession, the US-China Trade War, and the COVID-19 pandemic, on the debt ratios of Chinese-listed firms
2023	Gurdgiev, C. and Ni, Q.	Board diversity: Moderating effects of CEO overconfidence on firm financing decisions	Journal of Behavioral and Experimental Finance	Investigate the effect of board diversity on the relationship between CEO overconfidence and firm-level financial decisions.
2023	Thi Mai Nguyen, L.,	The role of capital structure management in	International Journal of	To explore how capital structure management plays a crucial role in

	Le, D., Vu, K. T., and Tran, T. K.	maintaining the financial stability of hotel firms during the pandemic—A global investigation.	Hospitality Management	maintaining financial stability and resilience capacities of hotel firms.
2023	Nguyen Kim, Q. T.	Does COVID-19 affect small and medium enterprises' capital structure in Vietnam?	Cogent Economics and Finance	To study the effect of COVID-19 on listed small and medium enterprises' capital structures in Vietnam
2023	Yao, Y. and Luo, P.	Optimal capital structure and credit spreads under pandemic shocks.	Economics Letters	To explore the implications of pandemic shocks on the valuation of a firm's securities, optimal capital structure, and credit spreads

The review of the literature will be structured as follows: the discussion of the areas of study, the selection of variables, and the conclusion derived from each piece of literature.

3. Results and Discussion

3.1 Areas of studies

The literature shows a diversity of areas chosen in the studies of capital structure and COVID-19. Yu (2021) narrowed the sample selection only to the aviation industry, where they analyse the impact of COVID-19 on the financing of aircraft lessors and airlines, as well as the challenges and opportunities faced by different airlines. Using readily available data, they observe that airlines need to increase their cash and credit positions due to the intense bankruptcy risk coming from the largest exogenous demand shock perpetrated by the COVID-19 lockdowns. They also observe that smaller airlines without access to capital markets performed worse than larger or state-supported airlines, whereas domestically focused airlines fared better in terms of recovery compared to internationally and transit-focused airlines, especially in the Asian region, where they recover faster than the European region. Syriopoulos, Tsatsaronis, and Gorila (2022) conducted a case study of three major cruise players, namely Carnival, Royal Caribbean, and Norwegian cruise lines to evaluate the financial performance of the global cruise business. During the COVID-19 pandemic, the share prices of these companies dramatically declined by 70 to 80 percent due to the defensive measures taken in response to the spread of the coronavirus. The suspension of voyages and cancellations of cruises have resulted in substantial financial losses for cruise companies, including costs associated with substantial refunds for cancellations, docking ships at ports where ships were quarantined, and maintenance costs. The defensive reaction to the coronavirus spread has also had far-reaching implications for many cruise-linked companies and destinations, as many small island nations and other local economies rely heavily on the jobs, income cashflows, and value chain effects generated by cruise ships and related businesses. The industry is estimated to experience a 35% reduction in revenues for 2020 compared to 2019. Thi Mai Nguyen et al. (2023) focused on the hotel industry, where they explored how capital structure management plays a crucial role in maintaining the financial stability and resilience capacities of hotel firms. They argued that the COVID-19 pandemic has negative impacts on the financial stability of hotels, and hotels with low debt are more stable as compared to highly leveraged hotels. The effect of low debts is stronger in long-term debts, where it allows hotels to stay financially stronger during COVID-19. Low leverage also allows hotel firms to mitigate the adverse impact caused by COVID-19, and this is more prominent among hotels with low growth and high diversification.

Aside from studies conducted in the different sectors, there are also studies done on small and medium enterprises. Nguyen Kim (2023) studied the effect of COVID-19 on the listed SMEs' capital structures in Vietnam, where they looked into how the SMEs' characteristics react to COVID-19. They found that COVID-19 has a statistically significant adverse effect on the capital structure of SMEs, and firms with high financial distress have a higher reliance on debt financing during COVID-19. Furthermore, the SMEs' capital structure in Vietnam is positively related to tangible assets, tax, and firm age, but it is negatively driven by profitability and revenue growth.

There are also studies that focus on specific countries. Gao and Tsusaka (2023) relate different types of economic recession to the capital structure and the COVID-19 pandemic amongst Chinese firms. In their studies, they aim to analyse the impact of three types of economic crises, which are the 2008 Great Recession, the US-China Trade War, and the COVID-19 pandemic, on the debt ratios of Chinese-listed firms. In their findings, the total debt ratios of Chinese firms decreased on average during the Great Recession and during the Trade War period. However, total leverage and short-term leverage increased during COVID-19. COVID-19 had a positive association with DTA and SDTA, which suggested that firms increased their debt levels during the COVID-19 crisis. Using 50 non-financial

firms listed on the Indonesia Stock Exchange (IDX) from 2015 to 2019, Alghifari et al. (2022) find that the capital structure has a significant positive effect on firm value, supporting the trade-off theory. The study also finds that the COVID-19 pandemic has a significant negative moderating effect on the relationship between capital structure and firm value, supporting the pecking order theory, and that the effect is more significant in debt-dominant firms than in on the equity-dominant firms. The study suggests that firms in emerging markets, such as Indonesia, should carefully consider their capital structure decisions, especially during times of economic uncertainty such as the COVID-19 pandemic. Arianpoor and Tajdar (2022) studied 190 firms listed on the Tehran Stock Exchange during 2014–2020 and found that the COVID-19 pandemic has increased the risk of bankruptcy for overleveraged firms. Interestingly, the study also discovered that social and environmental sustainability can help mitigate the risk of overleveraged firms during the COVID-19 pandemic. Prakash, Maheshwari & Hawaldar (2022) examined the impact of the COVID-19 pandemic on the capital structure of companies in India, with a focus on the changes in leverage ratios. They found that the COVID-19 pandemic significantly affected the long-term leverage ratio of non-financial firms in India, while it had an insignificant influence on the short-term leverage ratio and total leverage ratio. In culturally risk-averse India, companies reduced long-term debt to safeguard against uncertainty. Notably, firm-specific attributes like growth, tangibility, size, profitability, and liquidity played a vital role in shaping the leverage ratio of these firms, moderating COVID-19's impact.

3.2 Theoretical selection and variables
3.2.1 Theories employed

According to Myers and Majluf (1984), the pecking order theory states that the decision to borrow or use equity is based on the information asymmetry that exists in the market. Since the information obtained by the management differs from the information possessed by the stakeholders, the cost of borrowing is more expensive than utilising the available retained earnings, and the cost of issuing new equity is the most expensive. Therefore, the authors argue that there is a hierarchy of financing options where a company will fully utilise the cheapest source of financing (retained earnings) before opting for the second cheapest (borrowing, then external equity). Gao and Tsusaka (2023) used the pecking order theory to explain how economic instability negatively impacts Chinese listed firms' leverage. This is because the stability of the operating environment affects corporate strategies and investment and thereby further affects corporate borrowing, leading to the adjustment of the debt and equity proportions. The increasing volatility of expected returns would expose capital providers to higher risk, especially in countries with high bankruptcy and monitoring costs.

Another theory employed is the static trade-off theory. Modigliani and Miller (1958) argue that a firm increases its leverage to capture the benefit of tax savings from interest paid until the cost of borrowings, which increases the bankruptcy cost, outweighs the tax savings benefit. It creates a static or fixed capital structure, known as an "optimal capital structure," where the total cost of capital is at its lowest and leads to the maximum firm value. Once a firm has identified its optimal capital structure, any financing decision that it undertakes will take the static capital structure into consideration; that is, the amount of debt and equity financing will adhere to the optimal capital structure. This theory was used by Thi Mai Nguyen et al. (2023), who argued that firms in general and hotels in particular often opt for debt to serve their capital-intensive expansion when they do not have sufficient internal funds. Haque and Varghese (2023) also used the static trade-off theories to explain their hypotheses. They suggested that the pandemic may have altered the relative costs (both bankruptcy and adjustment costs) and benefits of leverage and incentivized firms to adjust their capital structure because, following the static trade-off theory, in a frictionless world, firms would always maintain their target leverage. Their results are consistent with the static trade-off theory. Huang and Ye (2021) found that during the pandemic, higher firm risk is concentrated in overleveraged firms, while for firms in the underleveraged subsample, excess leverage results in lower firm risk. This is in accordance with static trade-off theory because as a firm's capital structure exceeds its optimal level, the bankruptcy cost arising from debt outweighs the interest tax benefit of using debt, and the effect is more pronounced during a crisis.

Market signalling theory is a continuation of information asymmetry theory. Information asymmetry occurs when managers use inside information to issue risky securities when they are overpriced. Upon hearing the announcement, rational investors realise that they are at a disadvantage because they don't have the same information as the manager and thus assume that the securities are sold because they are overpriced. Therefore, the investors protect themselves by pricing the securities at a discount due to the assumption. If this continues, Akerlof (1970) argued that the size of the market would be zero as no price of goods could be determined. However, the price of goods can still be determined by the signals provided by the sellers with regards to their quality and usefulness. For example, increased dividend payouts give a positive signal to shareholders and thus reduce the information asymmetry (Del Brio & de Miguel, 2010). Nguyen Kim (2023) states that COVID-19 negatively affects leverage in small and medium enterprises because, based on the information asymmetry theory, the debt holders, who are outsiders, would be

reluctant to lend their money, whereas companies' insiders want to use outside resources to fund their activities. As a result, the cost of asymmetric information between insiders and outsiders rises. This is made worse during COVID-19 as it gives an adverse signal and prompts the firms to avoid debt.

3.2.2 Capital structure

It is interesting to see how the articles study the capital structure in relation to the COVID-19 scenario. Some publications used capital structure as an independent variable, while others used it as a dependent variable.

Table 3: Summary of Capital Structure Measurements

Variables	Measurements	Authors
Debt ratio	Total debts / Total assets	Hupka (2022), Prakash et al. (2022), Yang (2022), Nguyen Kim (2023), Gao & Tsusaka (2023), Thi Mai Nguyen et al. (2023)
	Dummy variable; 1 = Debt ratio > Median debt ratio 0 = Debt ratio < Median debt ratio	Thi Mai Nguyen et al. (2023)
Market leverage	Book value of total debt to sum of market value of equity and book value of total debt	Varghese & Haque (2021), Bai & Ho (2022)
Gearing ratio	Total debt / Equity	Alghifari et al. (2022)
Long-term debt	Long-term debts / Total assets	Hupka (2022), Prakash et al. (2022), Gao & Tsusaka (2023)
Short-term debt	Short-term debts / Total assets	Hupka (2022), Prakash et al. (2022), Gao & Tsusaka (2023)
Excess leverage	The deviation from the optimal financial leverage	Arianpoor & Tajdar (2022), Vo, Mazur, & Thai (2022), Huang & Ye (2021)
	The deviation from the industry peer's median leverage	Varghese & Haque (2021)

Gao and Tsusaka (2023), for example, studied the impact of different types of economic recession on capital structure. The authors used the proxies of total debts, long-term debts, and short-term debts to measure capital structure. Similarly, Nguyen Kim (2023) used debt ratios to measure the capital structure as a dependent variable, using a sample of small and medium enterprises in Vietnam. Other types of proxies used as capital structure measurements are seen in Varghese and Haque (2021), where they examined the impact of rollover risk and economic shocks on capital structure. Instead of debt ratios, the study used the proxies of total debt over total debt plus market equity and excess leverage, which is defined as the difference between a firm's leverage ratio and the median leverage ratio of its industry peers. There are also articles that use capital structure as an independent variable. Thi Mai Nguyen et al. (2023) used total debts to total assets as a proxy for capital structure as well as a dummy variable, where one is for firms with low-level debts and zero for high-level debts. Firms with a debt-to-assets ratio consistently lower than or equal to the median value in all sampling quarters are considered to have low-level debt, and vice versa.

3.2.2 Independent Variables

One of the independent variables used is debt rollover risk. Varghese and Haque (2021) studied the impact of debt rollover risk on firms' capital structure during COVID-19 pandemic and central bank intervention on leverage and default risk. The term "rollover risk" describes the possibility that a borrower won't be able to refinance its loan when it's due, causing it to default or accept less favourable terms. When it comes to corporate finance, rollover risk is frequently linked to businesses that depend heavily on short-term debt to fund their operations because they might have trouble rolling over their debt if market conditions change or if lenders stop lending to them. Varghese and Haque (2021) found that firms that are highly exposed to both debt rollover risk and severe profitability shocks that arise from COVID-19 have higher leverage relative to firms that have low exposure to both risks. The effect is amplified when regulators provide liquidity support to debt markets. The increase in leverage is consistent with standard trade-off theory, suggesting that equity holders tolerate a lower distance to default as long as cash flows received in continuation exceed those received in bankruptcy. Unlike Varghese and Haque (2021), Gao and Tsusaka (2023) used the World Uncertainty Index (WUI) as the measurement of risk. The number of times the word "uncertain" (or a version of it) appears in country reports from the Economist Intelligence Unit is counted, and then the figure is scaled by a factor of one million to determine the WUI. The WUI calculates economic uncertainty at the global, regional,

and national levels. The version particular to China is the WUI for China. Thi Mai Nguyen et al. (2023), on the other hand, used the z-score as their measurement of risk.

Another study by Huang and Ye (2021) focused on the corporate social responsibility (CSR) area. In their study, they explored the relationship between capital structure decisions, CSR, and firm risk during the COVID-19 pandemic. Using the unbalanced panel data (fixed effect) method from January 2019 to May 2020 of US-listed firms, they discovered that too much debt can increase the firm's risk during a pandemic, and the effect is more prevalent in firms with poor CSR. They also argue that CSR practises can mitigate the decline in firm value from the pandemic and reduce the risk of exposure to the crisis. Instead of CSR, Bai and Ho (2022) examined the relation between corporate social performance (CSP) and firm debt levels of 31 countries for a period from 2002 until 2020. The study found that the firms that prioritise corporate social performance (CSP) experience reduced individual and credit risks. CSP has a favourable influence on a firm's debt levels amid the COVID-19 pandemic, with a more pronounced effect observed in nations with superior institutional frameworks. They also discovered that the managerial agency issues linked to CSP during the COVID-19 crisis can be alleviated by the involvement of institutional investors.

3.2.3 Others
A unique study by Yao and Luo (2023) explored the implications of pandemic shocks on the valuation of a firm's securities, optimal capital structure, and credit spreads. They developed a capital structure model under pandemic shocks and shows that when the infected population is small, the equity value is concave, which means the largely infected population leads to the firm's increased bankruptcy risk. Furthermore, their capital structure model shows that an increase in the uncertainty of infected population leads the firm to issue more debt because it reduces the basis reproduction number, thereby mitigating the negative impact of the pandemic shock on cash flows.

4. Conclusion
This literature review offers a comprehensive perspective on the intersection of various industries, regions, and theories in the context of capital structure during the COVID-19 crisis. It illuminates the intricate dynamics of financing decisions amidst economic uncertainty. Our research utilised the Scopus Database to identify articles and conference papers published from 2020 to 2023, using keywords related to the pandemic and capital structure. Our findings reveal a significant impact of the pandemic on firms' capital structures, leading to liquidity and solvency challenges. Many companies have adjusted their financial strategies and capital allocation choices in response to the pandemic, focusing on aspects such as liquidity management, debt ratios, equity issuance, and government interventions. Empirical studies provide mixed results; some indicate increased leverage for short-term liquidity, while others highlight a shift towards equity financing to mitigate financial risk. The influence of industry type, firm size, and pre-pandemic financial health emerge as crucial factors in shaping these decisions. The role of government stimulus packages underscores the evolving relationship between public policy and corporate finance. Notably, the literature on this topic is still in its early stages, with limited studies available. These findings emphasise the need for future research to explore the long-term effects of the pandemic on firms' capital structures and the influence of government policies on these outcomes.

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An Examination of Artificial Intelligence's Impact: A Review of Applications

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Abstract

Artificial Intelligence (AI) offers numerous advantages across various fields and industries, transforming the way tasks are performed and problems are solved. While AI offers numerous advantages, it's important to consider ethical and societal implications, potential biases and the need for proper regulation to ensure responsible and equitable deployment. Education, healthcare, politics, social issues and the economy have all been touched by artificial intelligence (AI), which can have both beneficial and harmful side effects. Accenture's study of the effects of AI in 12 developed nations concluded that by 2035, AI has the ability to quadruple yearly economic growth. Another study by PricewaterhouseCoopers (PwC) asserted that AI might increase global GDP by up to 14% in 2030. Since AI is so prevalent in our daily lives, it is necessary to periodically update the knowledge of this technology. Therefore, the purpose of this paper is to review some of the applications of AI that give greater impact to the public. This study serves to provide some insights and value added in shaping the interest and knowledge towards AI technology.

Keywords

Artificial Intelligence, Impact, Technology, Applications, Knowledge

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1. Introduction

Today's Fourth Industrial Revolution (4IR)-related technologies, including artificial intelligence (AI), the Internet of Things (IoT), cyber security and unmanned aerial vehicles (UAV), have the potential to revolutionize the way people conduct their daily work (Raska, 2019). According to Silfverskiöld et al. (2017), IoT technology is the primary enabler of the development of Big Data and AI technologies. A wide range of industries, including banking and financial markets, education, supply chains, manufacturing, retail and e-commerce and healthcare, have benefited from the development and advancement of artificial intelligence (AI) to varied degrees and in different forms. Basu et al. (2020) mentioned that AI has been a key facilitator for numerous innovative commercial breakthroughs in the technology sector. These include web search (for instance, Google), content and product suggestions (for instance, Netflix), targeted advertising (for instance, Facebook), and driverless vehicles (for instance, Tesla).

While individuals struggle to stay with current technology, it is crucial that everyone is aware of AI and its potential impact. For instance, Leitner-Hanetseder et al. (2021) in their survey in Delphi discovered that blockchain and cloud computing are key factors in technologically empowered accounting. Their findings showed that AI-based technology such as smart robots, automated feature tools and business intelligence (BI) tools will have the power to replace humans as an actor and change processes in accounting. Meanwhile, Frey and Osborne (2017) reported that hotel desk clerks face high risk of being replaced by robots. Two examples of hotels which are Henn-na Hotel in Japan and Alibaba Future Hotel in China are staffed by robots (Northfield, 2015).

Despite its many benefits, AI also comes with several disadvantages and challenges. Based on the survey done by Anderson and Smith (2014), out of 1,896 participants half of them predicted that AI would displace a significant number of jobs by 2025. This situation may lead to unemployment issues and social order disruptions. In addition, Vinichenko et al. (2021) highlighted that AI contributes to the exacerbation of ethno-social conflicts whereby there is a tendency of a more extensive introduction of AI will lead to increasingly stable dependence of people on AI and can seize the initiative that eventually begin to control the natural intelligence in people. AI also can cause inconvenience in personal life with the personal data that can be stored in various databases and be used by various

unauthorized structures. Moreover, the interference of AI in personal life negatively can affect the human psyche which can lead to mental disorder (Vinichenko et al., 2021).

By considering the positive and negative impact of AI, thus the purpose of this conceptual paper is to highlight some of the AI applications that have been widely used in various field such as business, accounting, auditing, taxation, education, healthcare and defense industry. The literature review provided in this study can be added to the current knowledge about AI and eventually become a basis for the next research study.

2. Literature Review
2.1 Definition of Artificial Intelligence
According to founder of discipline of AI in 1956, John McCarthy, he described it as the science and engineering of making intelligent machines. Smith (2020) mentioned that artificial intelligence is either a computer program or suite of programs that can either augment or eventually replace the need for human engagement and oversight in entire processes or at least portions of processes. He also classified AI into different types which are (1) computational AI, (2) linguistic AI, (3) spatial AI, (4) reactive computing, (5) limited memory, (6) theory of mind and (7) self-awareness. Example of artificial intelligence technology include face detection and recognition, text editor, social media, chatbot, recommendation algorithm, search algorithm and others. IA applications are operated in various fields like manufacturing units, business entities, medical sciences, defense security, transportation and in the field of law and technology.

2.2 AI Innovation Ecosystem (AI-IE) Model in Malaysia based on Quadruple Helix Approach
For AI to be successful, it must be supported by a healthy, purpose-driven, open-data ecosystem. For that purpose, the Malaysian Government together with the National Tech Association of Malaysia (PIKOM) and Microsoft Malaysia have bring initiative to develop the AI Innovation Ecosystem (AI-IE) model based on quadruple helix approach in encouraging participation and collaboration. The primary factor to consider is Malaysia's socio-economic drivers. These applications of AI show how they might generate demand and profit from improvements in AI solutions in industries and services that will benefit the entire community. All industries can benefit from AI; thus, it is up to organizational leaders on how to implement it in their own way. Another factor to be considered is industry, looking at who can supply AI technology and expertise. While there are many well-known companies operating in the AI field offering top-notch services to support companies using cutting-edge AI technologies, it is equally crucial to work with startups. Startups are a hub for innovation and have a significant impact on how economies are changed (Dzaharuddin, 2021).

The third component of the quadruple helix model is academia, representing the need for education and skilling among Malaysians to produce a workforce that is future-ready and capable of utilizing AI to its fullest potential. To unleash the next generation of AI advancement, AI and data science skills will be crucial in both supply and demand, hence it will be important to educate future generations of workers while upskilling the current workforce. The last component of the model for the AI Innovation Ecosystem is the government. Government will oversee coordinating major initiatives to launch and develop the ecosystem, unlock its potential through enabling regulations and guarantee that key ethical and trust values are scrupulously upheld. The government must set the course for the future, encouraging broad change, and launching crucial initiatives intended to promote each component of the quadruple helix model with a focus on public and private partnerships.
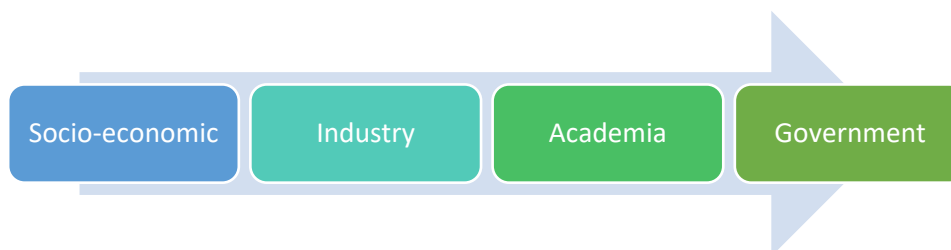

Figure 1: Components for AI Innovation Ecosystem (AI-1E) model

3. Applications of AI

3.1 Application in Business, Accounting and Auditing Process

According to Neely and Cook (2011), the new technologies especially related to AI will have a major impact on the overall structure and processes in accounting. It is also able to transform existing professional occupations and task profiles shortly. Soon, software robots able take in charge in fraud detection and liquidity planning that will improve the effectiveness of accounting organisations in addition to the current technologies used such as in enterprise resource planning and accounting information system. In terms of auditing field, AI able to replace traditional accounting audit with those electronic and digital transactions that led to the emergence of E-Accounting Audit (Zakaria, 2021) which very helpful in auditing process such as recording, tabulating, posting, summarizing and reporting. In addition, Hasan (2022) examined the Big 4 accounting firms' use of AI technologies and came out with distinct tendencies (1) the accounting profession is steadily investing in AI and integrating it into key business processes, (2) the Big 4 claim that the success of future accounting will be significantly influenced by AI. Recent research by Czarnitzki et al. (2023) claimed that AI can be regarded as an intangible capital asset for the firms through several AI applications such as autonomous vehicles, voice-recognition, speech/text generating systems, predictive maintenance or trained neural networks to optimize business energy consumption. They also found that by employing AI technologies, it has a positive and significant impact on firm productivity.

3.2 Application in Taxation

The use of AI technologies in the field of taxation has been applied by many countries. For example, the Federal Tax Service of the Russian Federation has introduced the automated information system "Tax-3" (AIS "Nalog-3") that provides an electronic form of interaction between the taxpayers and the tax authority (Zhurenkov et al., 2021). The system also enables users to identify all the tracks of cash flows of tax entities and detect any criminal transactions. Additionally, Germany and Japan have effectively incorporated the use of AI as a tool for consumer contact such as the use of chatbot as well as for discovering violations by tax residents including detecting tax fraud and tax evasion (Zhurenkov et al., 2021). Faúndez-Ugalde et al. (2020) have analyzed the artificial intelligence systems applied by the tax administrations concerning techniques for the characterization of taxpayer risk and in the robotization of tax audit actions in Latin American countries. Their study also highlighted the AI tools such as the Risk Analysis and Applied Artificial Intelligence (HARPIA) project that has been developed in Brazil to detect outliers in foreign trade operations. In addition, AI also has been applied in tax control processes in Mexico while in Finland the tax administration had introduced Robotic Process Automation (RPA) technology that allows the configuration of computer software to capture and interpret existing applications to process a transaction, manipulate data, trigger responses and communicate with other digital system.

3.3 Application in Higher Education Sector

AI and robotics bring potential innovative solutions to change how education itself works, altering the current learning process, redesign the role of teachers and researchers as well as change how universities work as institutions (Cox, 2021). Examples of AI tools in education such as intelligent tutoring systems (ITM) which have been introduced to teach course content step by step and automatic writing evaluation (AWE) which are tools to assess and offer feedback on writing style such as Grammarly, QuillBot and Turnitin's Revision Assistant. According to Winkler and Sollner (2018), the use of conversational agents that also known as Chatbots or virtual assistants which are AI tools that useful in short-term or long-term interaction and could act as tutors, engage in language practice, answer questions, promote reflection or act as co-learners will give big impact on the education field especially in transforming the role of educators when delivering information to the public.

3.4 Application in Healthcare Sector

Machine learning that uses AI technology plays an important role in diagnosis and treatment planning (Lee et al., 2018) as well as can increase the effectiveness of diagnosis (Dawes et al., 2017). AI is useful in nursing and palliative care of cancer patients (Schmidt-Erfurth et al., 2018) that need constant and regular monitoring. This is supported by Ashwin and Muralidharan (2015) mentioned that AI has the potential to ease diagnosis, treatment and care of patients. Samyuktha et al. (2020) claimed that there was a positive response from the medical and healthcare professionals whereby 92% of them believed that AI is the future of medicine. Basu et al. (2020) also highlighted some of major companies that use AI in medical sciences such as Insitro in San Francisco that use advanced machine learning with computational genomics to reduce the time and cost associated with drug discovery and AiCure in New York City that uses video, audio and behavioral data to better understand the connection between patients, disease and treatment.

3.5 Application in Defence Industry

One of the AI applications is Unmanned Aerial Vehicle (UAV) which also popular with the name drone, is being the focal point of technologies for civilian dan military use lately for monitoring and surveillance purposes because of its attributes of quick deployment, adaptive elevation, and versatility (Barbosa et al., 2020). UAV offers high-resolution video or picture, flexibility of autonomous flight, and real-time data collection streaming that enables further exploitation for diverse use. The proliferation of uses for UAVs in commercial and military offers a good value proposition for the local defence industry to invest in. In 2019, the UAV business industry in the worldwide market was worth US$127.3 billion, according to a report by PricewaterhouseCoopers (Rozaidee, 2019). Moreover, the important future direction of UAV as a mobile communication terminal can bring a potential multipurpose application to be explored that is reliable and cost-effective for domestic and military use (Mozaffari et al., 2019).

4. Discussion, Implementation and Way Forward

Based on previous literature and the above-mentioned applications, it can be said that AI is a tool created and controlled by humans. It is designed to assist, augment and automate certain tasks, including decision-making processes. However, it lacks consciousness, self-awareness, and the ability to understand context and morality in the same way humans do (Losbichler & Lehner, 2021). It operates based on algorithms and data. At the end of the day, humans (for instance manager, businessman, accountant, auditors, doctor, lecturer, government) are responsible for the actions and decisions made using AI. This includes how AI systems are trained, the quality of data used and the ethical considerations taken into account during development. If an AI system makes a biased or harmful decision, it is ultimately the responsibility of the humans who designed, trained, and deployed it. Despite its growing capabilities, AI cannot and should not be considered a substitute for human decision-makers, nor can it be absolved of the responsibility it bears when assisting humans in making decisions.

When an AI system is used in areas such as healthcare, finance, business or criminal justice, the organizations and individuals deploying AI must adhere to laws, regulations and ethical guidelines that establish their obligations, duties and rights (Faúndez-Ugalde et al., 2020). If these guidelines are violated or if an AI system causes harm, the responsibility falls on those who implemented it. Therefore, human judgment is essential for complex decision-making that requires moral reasoning, empathy and a deep understanding of human values. AI can provide data-driven insights and assist in decision-making, but the final decisions should be made by humans who can consider the broader ethical implications. AI systems have limitations, including biases, data limitations and inability to consider broader social and ethical contexts (Losbichler & Lehner, 2021). They may not fully understand the consequences of their decisions or the nuances of human emotions and values. Thus, human oversight is necessary to continuously monitor AI systems and address issues as they arise. This includes retraining AI models, updating algorithms and refining decision-making processes to ensure that AI aligns with human goals and values.

In addition, AI systems must be used within human control to maximize their benefits and minimize their implementation cost. AI has the potential to enhance productivity, automate repetitive tasks, provide data-driven insights and improve decision-making. With proper human oversight, we can harness these benefits effectively. Nonetheless, implementing AI systems can be costly in terms of resources, time and potential risks. To achieve effective human control over AI, it is essential to develop the necessary skills and knowledge early in the development process. Individuals involved in AI development and implementation should receive training in AI ethics, bias detection and mitigation, data governance and responsible AI practices. Besides that, AI development teams should include a mix of experts from different domains, including ethics, law, social sciences and technology to ensure a comprehensive approach to AI design and implementation (Dzaharuddin, 2021). Since AI technology is rapidly evolving, it is crucial for professionals to engage in continuous learning and stay updated on best practices, regulations and ethical considerations.

Here, the role of academia is important to educate the future generations on using AI technology while upskilling the current workforce (Dzaharuddin, 2021). As have been highlighted under the AI-IE model, the three components (industry, academia and government) must work together and play their roles in instilling the innovation of AI among the public. The collaboration among industry, academia and government creates synergy, allowing for the efficient transfer of knowledge, technology and resources that can foster AI innovation. This collaborative effort contributes to building a strong and sustainable AI ecosystem that meets the needs of society as a whole and ensures the benefits of AI are available to all while minimizing risks and ethical concerns.

5. Conclusion

In summary, AI plays an important role in society and thus, has attracted vast interest among the public, industry, academia and government in the last few years (Cox, 2021). While AI can be a valuable tool to aid decision-making

processes, it cannot replace the role of humans as ultimate decision-makers. Humans must remain accountable for the design, deployment and outcomes of AI systems. Recognizing and managing the limitations of AI, as well as upholding ethical and legal responsibilities are critical to ensuring that AI serves human interests and values without compromising human agency and accountability. The responsible and effective use of AI systems hinges on maintaining human control throughout the AI lifecycle. This control allows us to maximize the benefits of AI while minimizing potential costs and risks. To achieve this, investing in skills and knowledge development, as well as fostering interdisciplinary collaboration, is essential in the early stages of AI development. With this proactive approach, AI technology is ensured to be a useful tool that supports human values and aims.

This study offers fresh perspective on how AI application is used in numerous fields such as business, accounting, auditing, taxation, education, healthcare and defence industry. Thus, it provides some insights and value added in shaping the interest and knowledge towards AI technology. This research is considered as a new leap in AI technology study, where extensive research and knowledge about AI and its scope must be further explored for future reference.

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The Artificial Intelligence, Automation, And Accounting Profession: A Review of Literature

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Abstract

This paper provides a review of the impact of artificial intelligence and automation on the accounting profession. This paper emphasises the importance of integrating cutting-edge technology into accounting curricula to equip students with the skills needed to excel in a digitalized profession. The paper advocates for a holistic approach to accounting education, encompassing professional expertise, management proficiency, analytical capabilities, and critical thinking. This paper also argues that by embracing technological change and developing new skills, accountants can secure their relevance within an increasingly automated landscape. This paper also discusses key challenges facing the accounting profession, including the need to balance automation with human expertise, ethical considerations, auditing and verification, advisory and specialized roles, regulatory and compliance oversight, and the limitations of technology. The authors encourage accountants to transcend their traditional roles and evolve into trusted advisors and pivotal decision-makers for clients. The paper concludes by championing a paradigm shift in the accounting profession, encouraging the harnessing of AI and automation as catalysts for positive change. This paper posits that the accounting profession has an opportunity to redefine its role and significance in an era marked by technological disruption.

Keywords
Artificial intelligence, AI, automation, accounting, accounting profession
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1. Introduction
The ongoing development of technology has significantly improved the lives of individuals by making daily tasks more convenient. Technology led to digitalisation which improves an existing business process. Not only that, but digitalisation has also left an indelible mark on various professions worldwide (ICAEW, 2019), including the accounting profession. The accounting professions has undergone substantial transformations, especially since the emergence of information technology (IT) (Imene & Imhanzenobe, 2020). One of the latest technological advancements that has had a profound impact on the accounting profession is the integration of current IT technologies into accounting reporting processes. This technological shift has evolved the traditional paper-based accounting system, which was time-consuming, into a modern IT-based model that enhances efficiency, effectiveness, and timeliness (Imene & Imhanzenobe, 2020).

The use of technology was heightened during the COVID-19 pandemic when the governments enforced lockdowns and social distancing measures, pushing activities across diverse sectors to migrate to online platforms. The pandemic has significantly altered how people work, with many transitioning to remote work arrangements. This shift underscores the necessity for individuals to adapt to new technologies to maintain productivity. This is particularly pertinent for accountants who must transition from traditional manual bookkeeping methods to automated systems, reducing the need for manual data entry. The accounting profession is evolving with technology, and accountants must adapt to keep up with the changes. Accountants must embrace the trend of technology and be equipped with the right tools and knowledge to succeed in the modern era (Imene & Imhanzenobe, 2020).

In addition to the need for an accountant to adapt with the trend of technology, the emergence of Artificial Intelligence (AI) is concerning to the accounting profession. A decade ago, The Economist (2014) implied that there is a 94% likelihood that AI will cause job losses in the accountancy profession over the next two decades. AI

encompasses the ability of both hardware and software to perform intricate, decision-based tasks akin to human cognitive functions, including learning, reasoning, adapting, analysing, and decision-making. AI can continually improve its capabilities as it operates. In the realm of accounting, AI has already automated numerous tasks such as payroll processing, taxation, banking operations, and audits, marking a significant transformation in the accounting sector. Automation involves configuring software robots to manipulate data, execute transactions, and communicate with systems, all with minimal human intervention. Automation can be seen as the deployment of machines programmed to execute routine tasks based on preset rules and instructions. These two technologies, AI and automation, are not mutually exclusive; they can be employed independently or in tandem, complementing each other. Automation has had a more pronounced impact on certain accounting tasks that are primarily based on algorithmic processing of numerical data, such as bookkeeping, payroll management, and invoicing. These manual processes have now been computerized, nearly replacing the need for human involvement (Wilson & Sangster, 1992). Robotic process automation (RPA) can be applied together with other automation technologies and is an evolutionary solution that can complement existing accounting processes and systems. RPA can have various impacts on accounting and accountants, including increased efficiency, reduced errors, and improved data quality (Jędrzejka, 2019). AI and automation, are among many other technologies, are considered as disruptive technologies because they are having a significant impact on the accounting profession and changing the skills required of accountants (McConville, 2023).

The utilization of automation and AI has grown significantly, suggesting that regardless of the pandemic's trajectory, the workforce in various sectors must adapt to this new way of working. To ensure survival and success, the accounting sector must remain agile and embrace the changes wrought by automation and AI. Automated accounting software has effectively supplanted traditional paper records, allowing for the comprehensive tracking and recording of financial transactions within a single integrated accounting system (Ghasemi et al., 2011; Güney, 2014). It has become a pivotal asset in modern businesses. Consequently, the accounting industry has initiated various automation endeavours, potentially altering the relevance of accountants in the contemporary landscape. Some argue that technology may ultimately replace accountants, or that individuals without formal accounting backgrounds can fulfil the accounting roles.

Numerous studies have underscored the importance of these technologies in the accounting industry, with considerable attention devoted to how they benefit working accountants. However, there has been extensive discourse regarding how these technologies have transformed the accounting profession and the subsequent impact on practicing accountants. The advent of accounting software and the more recent introduction of AI have led to a complete overhaul of the accounting industry. Traditional accounting methods are now less prevalent, and automation has introduced numerous alterations. However, these questions arise: 1) are these changes advantageous for the accounting profession? 2) will accountants still be indispensable in the future? and 3) how will they adapt to this evolving landscape?

The next section reviews the literature related to the issues of automation and AI in accounting sector, followed by the discussion, and finally the conclusion.

2. Literature Review

There has been growing concern that AI and automation, which have seen rapid adoption during the pandemic, might eventually outpace human capabilities and lead to widespread job displacement. The fear is that as machines and intelligent systems, including AI, continue to advance, they could eventually leave no roles for human workers, replacing them with robots. Consequently, many businesses are exploring the use of machines and AI systems, not only to save time but also to reduce costs, as fewer workers are required to perform tasks that can be efficiently handled by machines and robots. This paper reviews the relevant literature to answers the questions raised in the introduction section.

2.1 Are automation and AI advantageous for the accounting profession?

AI and automation are swiftly reshaping the accounting profession. While concerns about their impact on jobs exist, previous studies highlight several significant advantages for accountants.

Robots are anticipated to take over repetitive and data-intensive tasks in accounting, such as data entry, reconciliation, financial statement preparation, compliance reporting, audits, tax filing, and more (Jędrzejka, 2019). AI and automation enhance efficiency and precision (Mitevska, 2021; Fernandez & Aman, 2022; Yu, 2023), processing vast data with reduced errors. AI tools can identify and rectify financial data errors (Yu, 2023), allowing accountants to focus on strategic, value-added tasks like financial analysis, client advising, and risk management (Gulin et al., 2019; Mitevska, 2021; Yu, 2023). These technologies also enhance the timeliness and quality of accounting information (Gulin et al., 2019).

Fernandez and Aman (2022) note that automation, especially RPA, enhances firms' competitiveness by cutting costs through reduced manual labor. This makes accounting services more accessible and affordable.

AI's ability to analyze vast financial data uncovers valuable insights, aiding businesses in making informed decisions. Data analytics tools reveal trends and patterns, helping accountants improve client businesses (Yu, 2023). Big data analytics enables swift and accurate data analysis (McConville, 2023).

Kommunuri (2022) explores AI's potential in accounting, creating new opportunities for system development, real-time financial insights, specialized services, and remote collaboration. Automation and AI systems also support continuous learning, keeping accountants updated on regulations and standards (Fernandez & Aman, 2022).

AI and automation empower accountants by streamlining tasks, improving efficiency, reducing errors, and enhancing their analytical and collaborative abilities. While job roles evolve, these technologies offer significant benefits to the accounting profession.

2.2 Will accountants still be indispensable in the future?

Automation and AI present considerable advantages, yet they come with their share of challenges. These technologies necessitate substantial initial investments in both software and training (Mitevska, 2021). Moreover, they raise concerns about potential job displacement within the industry (Kommunuri, 2022). To fully harness the benefits of automation and AI, accountants must adapt their skill sets and view technology as a complementary tool in their profession, rather than a replacement.

Mitevska (2021) underscores that automation and AI are indeed powerful tools significantly impacting processes within the accounting and auditing sectors. They excel in verifying direct, task-relevant information and making decisions based on historical data or repetitive patterns. However, they struggle with nuanced, complex scenarios where human judgment, emotions, and the ability to consider information with both direct and indirect impacts on decisions come into play. The relationship between an accountant and a client, characterized by conversations and understanding of the client's business, remains a uniquely human element. Thus, irrespective of how sophisticated AI becomes, humans will always be needed to evaluate and provide final judgments or decisions, thereby limiting the capabilities of automation and intelligent systems.

AI systems often process vast amounts of personal data, which raises concerns about individual privacy. The collection, storage, and utilization of data by AI systems must adhere to stringent privacy regulations and ethical standards. Consequently, accounting professionals must ensure the ethical application of AI to uphold responsible practices within the accounting profession (Mitevska, 2021; Yu, 2023; Kommunuri, 2022).

Furthermore, as highlighted by Yu (2023), while the adoption of technology may lead to a reduction in the number of people employed in the accounting industry, it is unlikely to entirely replace human professionals. Despite their user-friendliness, AI and automation systems inherently exhibit rigidity. Accountants continue to play a vital role in overseeing procedures, particularly in areas where technology struggles to keep pace, such as detecting financial fraud. These responsibilities present challenges for technology to effectively handle. While the accounting profession may undergo transformation, the demands on accountants are likely to become more rigorous. Hence, accountants must acquire proficiency in utilizing new technologies to enhance their skills and confront future challenges.

Sun and Lu (2017) argue that computers, despite rapid technological advancements, cannot fully replicate the analytical abilities required for complex tasks, not limited to routine ones. The evolving technological landscape will undoubtedly continue to influence the accounting profession, necessitating that accountants stay updated with evolving competencies to address future challenges (Bhimani & Willcocks, 2014). Accountants must remain current in their skill sets to adapt to the changing landscape. Shaffer et al. (2020) also suggest that accountants will adapt to the deployment of automation, with their roles evolving into more specialized positions, focused on advisory services and assisting clients in integrating automation into their processes, rather than primarily performing data analysis.

According to MICPA (2022), an independent assessment by an accountant will always be essential to ensure that financial affairs are conducted and reported accurately, as long as stakeholders in enterprises, regulatory bodies, lawmakers, and interest groups rely on audits. Auditors must express their judgment on the fairness and accuracy of a company's financial statements while maintaining a skeptical and analytical mindset. Automation and AI can expedite the processing of large datasets with precision and efficiency, but judgments regarding truth and fairness ultimately fall within the purview of humans. AI and automation systems are tools employed by accountants in their auditing duties.

Yigitbasioglu et al. (2023) contend that accountants continue to be indispensable for evaluating and ensuring the reliability of emerging technologies. Accountants, equipped with digital skills, can also engage in the analysis of extensive datasets and potentially contribute to AI training to accurately identify, prioritize, and resolve issues.

Additionally, as business operations and frameworks become increasingly reliant on data, accountants may need to supervise data management to guarantee compliance with legal and ethical standards.

Automation and AI, though beneficial, require careful integration. Accountants must adapt, emphasizing ethical AI use. Human judgment and expertise remain vital, as these technologies complement rather than replace professionals. The future of accounting entails a harmonious blend of human and technological capabilities.

2.3 How will accountants adapt to this evolving landscape of accounting profession?

To prepare for the evolving accounting landscape, including the integration of AI and automation, accountants should familiarize themselves with technological trends early in their accounting education.

Cai and Zhang (2022) proposed using AI to enhance the training of innovative accounting students, conducting an experiment to assess its effectiveness. They employed an AI-based scheduling algorithm to manage students' tasks, increasing task completion within set deadlines. This innovative model promises to produce graduates equipped to meet modern workforce demands.

McConville (2023) provides practical suggestions for accounting educators to bridge the gap between education and professional practice. These include integrating disruptive technologies like big data, analytics, robotic process automation, AI, and blockchain into curricula, emphasizing critical thinking, problem-solving, data analysis, collaboration, and effective communication. Practical experience through internships and case studies is also crucial.

The future is bright for accountants who embrace change and develop the skills needed in the digital age. This includes proficiency in data analytics, critical thinking, and effective communication (Yu, 2023), as well as training on AI usage (Mitevska, 2021; Kommunuri, 2022). Staying informed about evolving regulations, accounting standards, and tax laws is essential (French et al., 2021).

According to Dwaase et al. (2020), accountants must expand their skill set to include professional, management, analytical, and decision-making skills. Adaptability and flexibility are vital as technology evolves. Management skills become invaluable for positions involving leadership and direction. Strong analytical skills are necessary for evaluating financial statements. Critical and creative thinking allows for accurate predictions about economic prospects through thorough analysis.

Gulin et al. (2019) suggest that accountants will need to develop new skills and competencies due to digitalization. These include critical thinking, problem-solving, AI usage, accounting engineering, interpersonal communication, adaptability, flexibility, written and oral communication, decision-making, financial analysis, and professional judgment.

Therefore, accountants must proactively embrace technological trends early in their education. AI-enhanced training methods, practical skills development, and adaptability are keys to success in the evolving accounting landscape. A versatile skill set, including critical thinking and AI competence, is essential for professionals in this digital era.

3. Discussion and conclusion

The introduction and literature review sections have shed light on the profound impact of automation and AI on the accounting profession. These technologies have led to significant transformations, raising questions about their advantages, the indispensability of accountants in the future, and how accountants should adapt to this evolving landscape. This section aims to delve deeper into these issues and provide insights into the implications of automation and AI for the accounting profession.

As discussed in the literature review, automation and AI offer several advantages for accountants. They streamline routine and data-intensive tasks, enhancing efficiency and reducing errors. This allows accountants to focus on higher-value activities, such as financial analysis and client advising, which can ultimately benefit clients and organizations. The timeliness and quality of accounting information have also improved significantly due to these technologies.

Furthermore, automation and AI cut costs, making accounting services more accessible and affordable for businesses of all sizes. They enable the analysis of vast financial data, uncovering valuable insights that can aid in informed decision-making. These technologies also support continuous learning, ensuring that accountants stay updated on regulations and standards.

Despite the rise of automation and ai in the accounting profession, accountants are unlikely to become obsolete. Several factors contribute to the continued indispensability of accountants: 1) human judgment and complex scenarios; 2) the relationship between accountants and clients, characterized by understanding and communication, remains uniquely human; 3) ethical considerations; 4) auditing and verification; 5) advisory and specialized roles; 6) regulatory and compliance oversight; and 7) limitations of technology.

However, to adapt to the changing landscape of the accounting profession, accountants must take proactive steps. Early exposure to technological trends and AI-enhanced training methods during accounting education is crucial. Curricula should integrate disruptive technologies and emphasize critical thinking, problem-solving, data analysis, and effective communication. Accountants should develop versatile skill sets, including proficiency in data analytics, critical thinking, and AI competence. They should also stay informed about evolving regulations, accounting standards, and tax laws. As technology evolves, accountants must remain adaptable and flexible. Developing management skills, analytical skills, and a strong ability to make decisions will be essential for success in leadership roles. Embracing technology as a complementary tool rather than a replacement requires ongoing learning and keeping up with emerging trends in the industry.

In a nutshell, the accounting profession has witnessed significant transformations driven by automation and AI. These technologies have brought about numerous advantages, such as enhanced efficiency, reduced errors, and improved data quality. However, they have also raised questions about the future role of accountants and how they should adapt to this evolving landscape. Despite the rise of automation and AI, accountants are unlikely to become obsolete. Their expertise in human judgment, complex scenarios, ethical considerations, auditing, advisory roles, and regulatory oversight remains invaluable. While technology can handle routine tasks, accountants are needed for tasks that require creativity, empathy, and nuanced decision-making. To successfully navigate the evolving accounting landscape, accountants must proactively embrace change. This includes early exposure to technological trends during education, skill development in areas such as data analytics and critical thinking, adaptability, and continuous learning. By doing so, accountants can continue to provide essential services while leveraging automation and AI as complementary tools. The future of the accounting profession is a harmonious blend of human expertise and technological capabilities. As the industry evolves, accountants who embrace change and acquire the necessary skills will remain indispensable contributors to businesses and organizations worldwide.

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Impact of Blended Learning on Learning Achievement:
A Bibliometric Analysis

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Abstract

This bibliometric analysis offers a comprehensive look at the evolution of research on the impact of blended learning on learning achievement over a 17-year period, spanning from 2005 to 2022. The study encompasses a dataset of 297 papers sourced from the SCOPUS database and employs a diverse range of bibliometric metrics, including author-based, country-based, and organization-based citations. The results indicate a variable growth in the number of publications in this research domain over the past three decades, with a particularly significant surge observed between 2019 and 2021. The descriptive analysis identify the most prolific countries and document types within the realm of blended learning's impact on learning achievement. In parallel, the citation analysis identifies the most influential papers, authors, and countries shaping this field of study.In summary, this bibliometric analysis provides an overview of the extensive body of academic literature, unveils emerging trends, charts the course of research development, and deepens comprehension of the scholarly discourse surrounding blended learning and its impact on learning outcomes. These findings are valuable not only for researchers but also for practitioners and policymakers seeking insights into this area of study.

Keywords
Blended learning, hybrid learning, learning achievement, bibliometric analysis
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1. Introduction
In the ever-evolving landscape of education, the quest for effective and innovative teaching methods continues to captivate the attention of educators, researchers and policymakers alike. As the digital age transforms the way how the information being acquire, process and disseminate, the traditional paradigms of education are undergoing a profound shift. It is also a fact that prolongation of COVID-19 pandemic has had a profound impact on education worldwide. The struggle of the pandemic has made the education process more dynamic with accelerating adoption of technologies and applications in online learning environments.

Blended learning, a pedagogical approach that combines traditional face-to-face instruction with digital tools and online resources (Hrastinski, 2019) has emerged as a transformative force in education, to meet the diverse and dynamic learning needs of the 21st century.In an era marked by the omnipresence of smartphones, tablet and high-speed internet, the potential of blended learning to bridge educational gaps, accommodate diverse learning styles and create flexible, learner-centered pathways to success cannot be overlook.

According to Graham et al. (2005), blended learning has not only expanded the horizons of instructional possibilities but has also redefined the pathways to learning achievement. This mode of learning is favored for its ability to offer learners diverse educational experiences across different settings and its constructive impact on learner performance and accomplishments (Argyriou et al, 2022; Duong et al., 2022; Ceylan & Elitok, 2017). Besides than that, Boelens et al. (2018) finds that the need for flexibility of students in higher education and the effort of teaching staff to use teaching methods appropriate to the diversity of learners are among the reasons why blended learning models are used.

In light of the growing interest in the subject, this study undertakes a bibliometric analysis to examine the trend of publications on blended learning's impact on learning achievement. The study aims to find the answer to the following research questions:

1.   What is the distribution of publications on blended learning's impact on learning achievement by year, document type, publication language, and country?
2.   What are the most influential (most-cited) studies, countries, and researches in the field of blended learning?

Through the application of bibliometric analysis to the literature, this study enhances the existing body of knowledge by offering a comprehensive overview of the historical progression of research on blended learning and its impact on learning achievements. This contribution facilitates researchers' comprehension of the evolutionary path within this research domain and the future study.

2. Literature Review

The adoption of the term "blended learning" is relatively new. In the past, the term "hybrid learning" was frequently employed. Presently, it is common to use the terms "blended learning" and "hybrid learning" interchangeably. Graham (2006) defines blended learning as an educational approach that merges traditional face-to-face instruction with computer-mediated instruction. Garrison and Kanuka (2004) provide their definition by describing blended learning as "the deliberate integration of in-person classroom learning experiences with online learning experiences". In the work of Allen and Seaman (2010), a blended learning course is described as a course that combines both online and face-to-face delivery methods. In such courses, a significant portion of the course content is presented through online discussions, and there is usually a decrease in the number of face-to-face meetings. They emphasize that a substantial portion of the course material should be presented online. According to their paper, they also recommend that the proportion of content delivered online falls within the range of 30% to 79% for it to be considered a blended learning approach.

Since there is ambiguity regarding the precise meaning of blended learning, Hrastinski (2019) discusses the different definitions, models and conceptualizations of blended learning and their implications. He concludes that essentially all types of education that include some aspect of face-to-face learning and online learning is described as blended learning. Blended learning has become an umbrella term that describes the use of technology in education. This approach seeks to leverage the strengths of both in-person and digital learning to create a more flexible and effective learning environment.

Blended learning has been applied using diverse designs and has demonstrated a significant beneficial impact on the learning process. Graham et al. (2005) provides an overview of blended learning environments and outlines the most common benefits and challenges identified in the research literature. Blended learning provides flexibility in terms of when and where students can engage with educational content, allows for personalized learning pathways, catering to individual student needs and subsequently enhances student engagement and motivation. However, access to technology and digital literacy can be barriers for some students. Ensuring equitable access is a challenge for educators and institutions. Since blended learning requires a shift in pedagogical approaches, designing assessments that align with blended learning can be challenging. Educators need training and support to design and deliver blended courses effectively while maintaining academic integrity in the online assessments.

Many studies indicate that blended learning can lead to equivalent or better student performance compared to traditional instruction. Korkmaz and Karakuz (2009) conducted research to examine how a blended learning model impacts student attitudes toward a Geography course and their development of critical thinking dispositions and skills. Their study employed an experimental design with pretest-posttest control groups. In this design, the experimental group experienced a hybrid learning approach through the Geography web page, while the control group followed the traditional learning model. The findings of the study suggest that the blended learning model had a more significant influence on students' critical thinking dispositions and proficiency when compared to the traditional learning model. Additionally, the study identified a positive correlation between students' attitudes toward the Geography course and their critical thinking dispositions and abilities.

Similarly, the study by Tong et al. (2022) affirmed that the blended learning approach had a positive impact on the academic achievement of students in the experimental group when compared to those in the control group in the investigation into the efficacy of the flex model of blended learning for teaching the mathematics subtopic of coordinates on a plane. Additionally, both observations and responses from the student opinion survey indicated that blended learning increased student engagement with teachers and enhanced their academic performance, self-study capabilities, and learning attitudes.

Vo et al. (2017) use meta-analysis to perform a statistical synthesis of studies contrasting student performance in blended learning conditions with traditional classroom instruction in higher level education. The finding confirms that blended learning is significantly associated with greater learning performance of STEM-disciplined students than with traditional classroom practice. Other empirical studies by Argyriou et al (2022) and Ceylan & Elitok (2017) also show positive results in the support of using blended learning in learning achievement.

3. Methods

This study used bibliometric analysis method to examine the trend of publications on blended learning towards learning achievement. Bibliometric analysis entails the quantitative and descriptive statistical examination of academic publications. By conducting searches in the Web of Science or Scopus databases based on criteria such as topic, author, journal, and time frame, one can retrieve bibliographic data. This scientific inquiry enables researchers to navigate the vast sea of academic literature, identify trends, assess research trajectories and gain a deeper understanding of the scholarly conversation surrounding a particular subject (Donthu et al., 2020).

The data of this study was obtained from the Scopus scientific literature database. It is renowned as one of the world's largest and most authoritative indexing databases, encompasses nearly 14,000 influential academic journals across various domains, including social science and boasting an impressive collection of 27 million citations (Burnham, 2006)

The data collection process was carried out through the advance document search tab on Scopus with the precise keywords. Through meticulous consideration of specific keywords and restriction regarding the year, this study employed the following final query: TITLE-ABS-KEY ("blended learning") OR ("hybrid learning") AND ("learning achievement") OR ("learning outcomes") AND PUBYEAR > 2004 AND PUBYEAR < 2023 AND (LIMIT-TO (EXACTKEYWORD , "Learning Outcome") OR LIMIT-TO (EXACTKEYWORD , "Academic Performance") OR LIMIT-TO (EXACTKEYWORD , "Student Performance") OR LIMIT-TO (EXACTKEYWORD , "Academic Achievement") OR LIMIT-TO (EXACTKEYWORD , "Student Learning Outcomes"))

This query yielded 297 relevant publications addressing this matter, covering a data range of 17 years from 2005 to 2022. As a result of the query, certain bibliographic information from these publications was acquired.

4. Results and Discussion

4.1 Descriptive analysis

Distribution of Publications by Year

In this study, the initial step involved an analysis of the distribution of studies published in the Scopus database over the years. The results obtained are displayed in Figure 1.
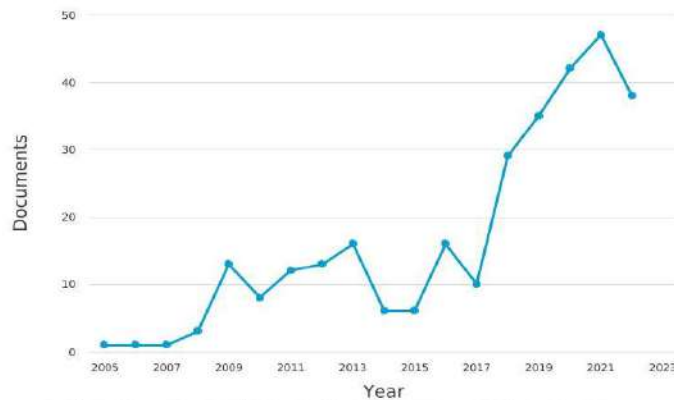
Figure 1: Distribution of Publications by Year

Figure 1 illustrates the progression of academic research in this particular field. The yearly publications reveal that the first paper addressing blended learning's impact on learning achievement emerged in 2005. By 2009, the annual publication count had surpassed 10, and from there, it experienced a variable rate of growth until 2017. Subsequently, there was a notable surge in global attention to this research subject, leading to a rapidly increasing and somewhat unpredictable trend, indicative of exponential growth. In 2021, the annual publication count reached a peak of 47. However, the record for 2022 reflects a slight decline. The growth in cumulative publications from 2005 to 2022 highlights a rising interest in this topic among researchers. In general, the number of studies in this area tend to increase in number.

Distribution of Publications by Document Type and Language

Table 1 provides an overview of the distribution of publications examined within the research, categorized by document type.

Table 1: Distribution of Publications by Document Type

Document Type	f	%
Conference paper	150	50.5
Article	137	46.1
Review article	8	2.7
Book chapter	2	0.7

A total of 297 bibliometric records spanning from 2005 to 2022 were collected. Table 1 highlights the diversity in document types for the studies found in the Scopus database on this subject. The sample data comprises four main types of literature: 150 proceedings papers, 137 articles, 8 review articles, and 3 book chapters. It is worth noting that the majority of the studies, accounting for approximately 97%, fall within the categories of articles and full-text papers from the years 2005 to 2022. This observation underscores the vibrancy and productivity of academic journals and conferences dedicated to this research topic during this period.
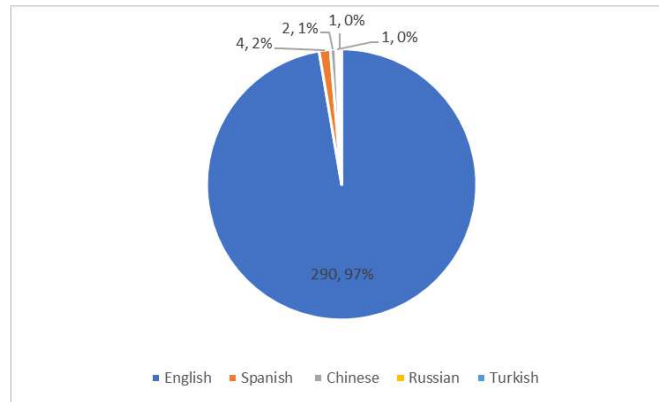
Figure 2: Distribution of Publications by Language

The distribution of publications by language is shown in Figure 2. When assessing the studies based on their written language, it becomes evident that English (n=290; 97%) takes the lead, followed by Spanish (n=4; 2%), Chinese (n=2;1%), and various other languages.

Distribution of Publications by Country

An analysis of the distribution of publications related to the research topic was conducted, encompassing all countries with a minimum of one publication. Figure 3 illustrates the top 10 countries with the highest number of publications.
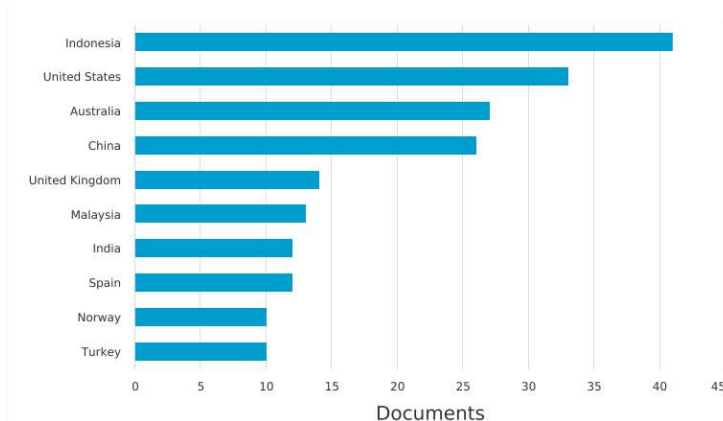
Figure 3: Distribution of Publications by Country

The breakdown of publications according to countries reveals that Indonesia leads the way with 41 publications, followed by the United States with 33 publications, and Australia with 27 publications. Besides, China (n=26), United Kingdom (n=14), Malaysia (n=13), India (n=12), Spain (n=12), Norway (n=10) and Turkey (n=10).

4.2 Citation Analysis

Citation analysis allows us to unveil the most frequently cited works, authors, countries, or sources. Within this analytical approach, citations serve as a metric for measuring impact (Zupic & Cater, 2015).

Distribution of Most Cited Studies and Authors

Within the scope of the research, the 10 most cited studies and authors in the literature and their details are shown in Table 2.

Table 2: Top 10 Most Cited Studies and Authors

Title	Source of Journal	Author(s)	Year	Number of citations
A framework for institutional adoption and implementation of blended learning in higher education	Internet and Higher Education	Graham et al.	2013	418
A literature review of the factors influencing e-learning and blended learning in relation to learning outcome, student satisfaction and engagement	Electronic Journal of E-learning	Nortvig et al.	2018	239
Research in online and blended learning in the business disciplines: Key findings and possible future directions	Internet and Higher Education	Arbaugh et al.	2009	209
The effect of blended learning on student performance at course-level in higher education: A meta-analysi	Studies in Educational Evaluation	Vo et al.	2017	176
Investigating the impact of Flipped Classroom on students' learning experiences: A Self-Determination Theory approach	Computers in Human Behaviour	Sergis et al.	2018	138
Covid-19 and rapid adoption and improvisation of online teaching: curating resources for extensive versus intensive online learning experiences	Journal of Geography in Higher Education	Bryson, J. R & Andres, L.	2020	117
The positive relationship between flipped and blended learning and student engagement, performance and satisfaction	Active Learning in Higher Education	Fisher et al.	2021	94
Understanding the ways in which design features of educational websites impact upon student learning outcomes in blended learning environments	Computers and Education	Kember et al.	2010	88
University students' self-control and self-regulated learning in a blended course	Internet and Higher Education	Zhu et al.	2016	80
Effects of a blended learning approach on student outcomes in a graduate-level public health course	BMC Medical Education	Kiviniemi, M. T	2014	79

As many as 295 authors have contributed to the research on this subject. Table 2 provides details about the authors of the studies that have received the highest number of citations in the Scopus database. It includes information such as the journal source, the publication year and the citation count. In this context, the study with the highest number of citations is Graham et al. (2013), which has garnered 418 citations. Following closely are Nortvig et al. (2018) with 239 citations, Arbaugh et al. (2019) with 209 citations, Vo et al. (2017) with 176 citations, and Sergis et al. (2018) with 138 citations.

Distribution of Most Cited Countries and Institutions
The results of the citation analysis regarding the country of the researchers (mininum of 2 documents of a country) who published the publications are shown in Table 3.

Table 3: Top 10 Most Cited Countries

Country	Number of Publications	Number of citation	Citation per publication
United States	33	1010	30.61
Australia	27	744	27.56
United Kingdom	14	270	19.29
Belgium	5	243	48.6
Vietnam	5	231	46.2
Greece	6	207	34.5
Turkey	10	202	20.2
Hong Kong	9	198	22
China	26	140	5.38
Indonesia	41	119	2.9

Table 3 reveals a significant disparity in the number of citations by country, with the United States leading by a substantial score with 1,010 citations. Following closely are Australia with 744 citations, the United Kingdom with 270 citations, Belgium with 243 citations, and Vietnam ranking fifth with 231 citations. Interestingly, when considering citations per publication, Belgium (n=48.6) and Vietnam (n=46.2) emerge as leaders in this regard. In addition, the results of the citation analysis regarding the institutions of the researchers who published the publications are shown in Table 4.

Table 4: Top 10 Most Cited Institutions

Institution	Country	Number of citation
Bringham Young University	United States	418
University College Absalon	Denmark	239
University of Wisconsin Oshkosh	United States	209
Universitiet Brussel	Belgium	176
Can Tho University	Vietnam	176
University of Piraeus	Greece	138
Curtin University	Australia	138
University of Birmingham	United Kingdom	117
University College London	United Kingdom	117
Swinburne University of Technology	Australia	94

Table 4 shows that "Brigham Young University" (n=418) is far ahead in terms of the number of citations. This institution is followed by "University College Absalon" (n=239), "University of Wisconsin Oshkosh" (n=209), and "Universitiet Brussel" and "Can Tho University" sharing the same citation score (n=176) respectively. Interestingly, although Denmark does not rank among the top 10 most cited countries in this research field, the sole paper published by the University College of Absalon, Denmark, has earned a place among the top 10 most cited institutions.

5. Conclusion

Blended learning has emerged as a promising educational model that combines the best of face-to-face and online learning to create flexible, engaging, and effective educational experiences. This paper systematically reviewed 297 publications related to blended learning's impact on learning achievement by bibliometric methods.

Through the analysis of publication trends, important indicators and citations, this study finds that this research topics are evolving and has increased significantly in recent years, especially in 2019 - 2021. The most contributors of this research area from the Indonesia and United States and the most influential authors are Graham et al., from Bringham Young University, United States.

In conclusion, the bibliometric analysis of the blended learning impacts on learning achievement has revealed intriguing patterns and discoveries. However, this paper does have certain limitations, which can offer opportunities for recommendations. First, this study only collected articles from the Scopus database. The use of multiple database sources always gives a higher coverage to the primary information of the study. Therefore, more databases such as WoS should be considered in the future. Second, this study only focuses on descriptive analysis by examining the trend of publications and citation analysis that limited to the most cited authors, studies and countries. Future studies may examine other perspectives of analysis such as co-authorship analysis and co-citation analysis to provide more understanding on the trends of the research area.

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Islamic Social Finance and It's Relevance for Impact Investing: An Insight into Malaysian Perspective

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Abstract

In line with the impact investing and SDG agenda, new approaches have emerged in managing finance for achieving positive social impact known as social finance. As opposed to mainstream finance, Islamic social finance works within the framework of Maqasid al-Shari'ah and aiming to contribute towards Maslahah. Effective implementation of Islamic social finance aligned with SDGs, VBI and Maqasid Shari'ah requires concerted effort from various group of stakeholders. Despite the significant growth of Islamic social finance, the potential of Islamic social finance remain unrealized with research in this area is fragmented. The application of Islamic social finance instruments especially zakat, waqf, and sadaqah can be managed efficiently and effectively to support the global agenda while bringing blended value, which seeking both the economic and social value. However, little is known on the applicability of these instruments to tackle socio-economic issues in the society in emerging countries such as Malaysia. Thus, the objective of this paper is to investigate the implementation of Islamic social finance in Malaysia and propose the issues need to be address to ensure the relevance of Islamic social finance.

Keywords

Impact Investing, Islamic Social Finance, Sustainability Development Goal, Maqasid al-Shari'ah, Value Based Intermediation

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1. Introduction

The adoption of social and sustainable considerations in investments has matured continuously in the past decade. Lehner (2016) referred this kind of investment approach as Social and Sustainable Finance. The concept of social and sustainable finance evolved from Sustainable and Responsible Investment, SRI to impact investing that seek creation of long-term value of business and society. Impact investing is being defined within the spectrum of social outcome and impact (Reisman et al., 2018), social investment (Nicholls, 2010), social finance (Daniel & Jonathan, 2020) and blended value (Emerson, 2003). Impact investing is primarily targeted social sector due to their primary mission to address socio-economic problems (Islam, 2021) such as poverty, unemployment, education and healthcare. The social sector's initiatives can take the form of social entrepreneurship which range from voluntary activism to Corporate Social Responsibility, CSR (Nicholls, 2006). According to Global Impact Investment Network (GIIN), impact investing is defined as investment made into companies, organizations, and funds with the intention to generate social and environmental impact alongside a financial return. Global organization such as the Organization for Economic Cooperation and Development (OECD) views impact investing as investing money with positive social impact. This heightened the accountability requirements among social sectors organizations such as social enterprises, benefit corporations, non-profit organizations, charities, cooperatives and community interest companies to measure their social impact and performance (Yang & Northcott, 2019,; Benjamin et al., 2023; Ebrahim & Rangan, 2014).With a growing complexity of social and environmental challenges, government needs support from social sectors to enhance their capability and impact in tackling socio-economic issues. Due to their resource dependency on external funding and public support (Moulton & Eckerd, 2012) and the legitimacy for public trust (Lee & Nowell, 2014; Leroux &

Wright, 2010), it gives mounting pressure for social sectors to scale their social impact (van Lunenburg et al., 2020) and demonstrate the use of funds wisely and responsibly (Lee, 2019).

Furthermore, conducting social initiatives with greater social impact need mobilization of sufficient financial resources aligned with a relevant strategic vision and coordination among multiple stakeholders (Tahiri Jouti, 2019) including government, businesses, financial institutions, civil society and non-profit (Ahmed, 2015). The shortage of financial resources is one of the challenges to achieve SDGs. The UN Global Compact (2022) reported that around USD5-7 trillion are required annually to support sustainability development. In European countries, the EU Sustainable Finance Disclosure Regulation (SFDR) 2019/2088 became effective on 10 March 2021. This regulation emphasis on social and environmental compliance disclosure and reporting obligations for financial services such as asset managers and investment funds to define their strategic positioning with respect to sustainability (Bengo et al., 2022). Indeed, impact investing has a great potential to contribute to SDGs through financing the growth of social organizations because impact investors primarily aim to invest in tackling global issues closely related to SDGs (Islam, 2021).

In line with the impact investing and SDG agenda, new approaches have emerged in managing finance for achieving positive social impact. These new approaches of financing take a new form that involve social entrepreneurship, entrepreneurial philanthropy, socially responsible investments and investments that pursue social and environmental impact. Further, the profound societal challenges require social sector to find a new approach to fully mobilize resources in the search of effective and long-term solutions. Social finance refers to the deployment of financial resources primarily for social and environmental returns, as well as in some cases, a financial return (Moore et al., 2012). Social finance becomes an alternative to the mainstream conventional finance which have been criticized for a market failure. Market failure refers to the inability of the market institutions to allocate resources such as financial or otherwise, efficiently and effectively (Tamanni et al., 2022). Thus, the mechanism of commercial finance does not adequately incorporate the positive and negative externalities of a transaction (Andrikopoulos, 2020) and therefore, cannot efficiently allocate resources that maximize welfare (Nicholls, Paton & Emerson, 2015). Social finance has been discussed in the past literatures as one of the needed tools to support the social initiatives and the strategic use of social finance in achieving Sustainability Development Goals (SDGs). Social finance defines the set of alternative lending and investment approaches for financing projects and ventures, requiring to generate both positive impacts on society, the environment, or sustainable development, along with financial returns(Nicholls, 2021, Weber & Remer, 2012, Nicholls, 2010). Additionally, achieving SDGs require engagement of different stakeholders including government, businesses, financial institutions, civil society and non-profit.

The new forms of capital and financial support are urgently needed due to the complex challenges resulted in social sectors competing for the same sources of funding (Moore et al., 2013). Islamic social finance has a common purpose with social finance concept in Western perspective as both are based the same religious doctrine where financial objectives are aligned with religious belief (Bennett & Iqbal, 2013; Syed Azman & Engku Ali, 2019a). Social finance provides an alternative for funding social sectors (Biancone & Radwan, 2018) and aligning with SDGs (Rosman et al., 2022). the Islamic social financial instruments can be considered in line with the same objectives and requirements of social impact investments that generate social and economic benefits. The instruments of Islamic social finance such as zakat (compulsory alms), waqf (Islamic endowment), sadaqah (donation) and qard hassan (benevolent loan) and others have long been utilized for the purpose of meeting the social needs in the community. However, the potential of Islamic social finance is often overlooked (Ahmed, 2015) and remain unrealized(Biancone & Radwan, 2018; Kuanova et al., 2021; Syed Azman & Engku Ali, 2019).Albeit great contribution to fulfil the social needs, the literatures of Islamic social finance is still limited. Public nowadays are more concerned on the extent of Islamic social finance contributing impact and value to the socio-economic development. This research aims to highlight the importance of Islamic social finance as sustainable finance in enabling the achievement of value-based and impactful initiatives in Malaysia. The next section will review the concept of social finance and Islamic social finance, followed with the examples of initiatives in Malaysia context and the importance of social impact measurement for Islamic social finance in Malaysia. Hence, the integration of Islamic social finance pave ways for the creation of social value and financial return to the organizations.

2. Literature Review
2.1 Social finance
Over the past decade, social finance has experienced consistent growth and has begun to garner attention from a diverse range of stakeholders, including government agencies, mainstream financial markets, and the broader society (OECD, 2015). Social finance refers to the allocation of capital primarily for social and environmental returns, as well as in some cases, financial return (Nicholls, 2010). Social finance has also been referred as blended value investing

because the application of social finance focus on total blended social and financial outcomes across more than one interested party or stakeholder group (Nicholls, Paton & Emerson (2015). Blended value offers a new way to integrate our activities around the recognition that organization do not seek either wealth or social justice, but seek both (Bugg-Levine & Emerson, 2011). Moreover, social finance is used as social impact investment that intentionally pursue social impact at the same time economic sustainability and financial return(Daniel & Jonathan, 2020). Following the economic crisis of 2008, numerous organizations and institutions have exhibited increased interest and apprehension regarding the incorporation of social objectives into their operations and business practices. This interest is particularly pronounced within banking and financial institutions, which often serve as intermediaries in delivering social impact.

According to Nicholls, Paton & Emerson (2015), the emergence of the social finance market has been driven by several factors consist of supply and demand side. On the supply side, the social finance market evolved in response to the increasing capital requirements of social impact organizations. Capital providers are displaying a growing interest in social impact investments as a. means to diversify their portfolios and pursue both financial and social objectives. Simultaneously, on the demand side, social sector organizations like social enterprises are expanding, yet encountering challenges in securing funding. Financial intermediaries and banking institutions play a pivotal role in bridging the gap between the supply and demand sides of the market while also nurturing the broader ecosystem. Figure 1 show the social investment market ecosystem.
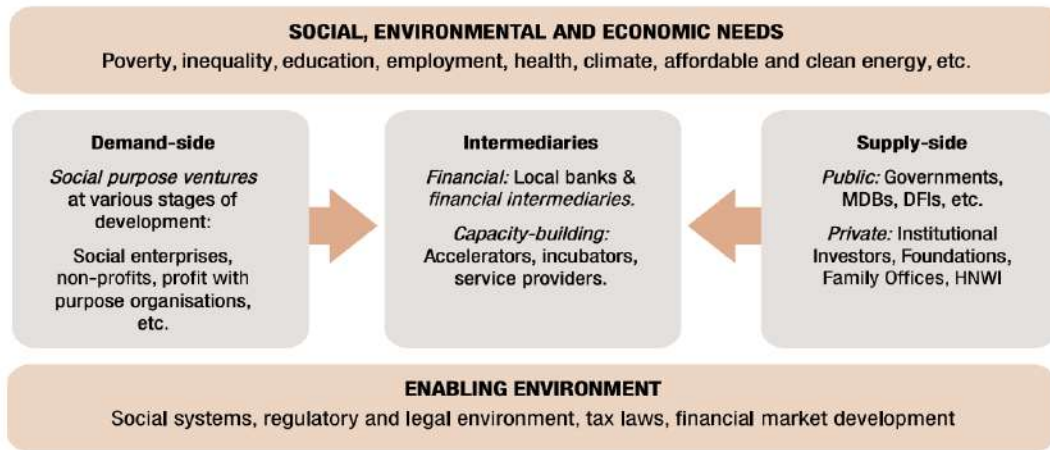

Figure 1: Social Investment Market Ecosystem, Adopted from Social Impact Investing, Building the Evidence Base, OECD, 2015

Throughout history, social entrepreneurs have primarily relied on government contracts and grants from government agencies or foundations to secure financial support. However, the availability of government funding become limited, resulting in growing number of social entrepreneurs competing for the same funding sources. Given the multitude of social issues that these entrepreneurs seek to address, securing adequate funding has become an imperative factor for their growth and scalability (Moore et al., 2012). Consequently, there is a heightened demand for alternative source of funding, driving the interest in social finance as a viable option. Furthermore, mainstream often fails to account for the negative externalities associated with certain investments. The concept of socially responsible investing (SRI) has emerged, which necessitates the exclusion of unethical sectors such as tobacco, alcohol and gambling, while still aiming for competitive market-rate returns. SRI also emphasize the adoption of environmental, social and governance practices to enhance value or mitigate practices that could erode value (OECD, 2019). Apart from criticism on mainstream finance, the development of social entrepreneurships, entrepreneurship philanthropy, SRI and investment that pursue social and environmental impact has increased a demand on social finance as a source of financing (Andrikopoulos, 2020).

Initially, social finance encountered numerous obstacles in its quest to serve as an alternative to mainstream finance. Many mainstream investors initially rejected the notion that they could consider the social impact of their investments, contending that such considerations fell within the purview of government and charitable organizations. However, as the concept of impact investing evolved, which involve deploying capital to maximize overall integrated value across multiple performance dimension (Bugg-Levine & Emerson, 2011),   social finance expanded to encompass a wide array of capital sources. These sources include financing programs that provide subsidized loans to socially beneficial organizations and forms of philanthropic venture capital (Lyon & Owen, 2019). Furthermore, with

the global trend toward impact investment, investors have turned to social finance to generate blended value returns. In this approach, impact investors seek to achieve positive impact while also generating financial returns and effectively managing and measuring the blended value they create (Manetti, 2014). An analysis conducted by Big Society Capital, the leading social impact investor in the UK, revealed a substantial growth in the social finance market in the UK, with figures increasing from £830 million in 2011 to £5.1 billion in 2019 with £1.21 billion was committed to 1,192 charities and social enterprises (http://bigscoeitycapital/.com/). Social finance institutions continually undergo transformation in response to shifts in the social issues that the socio-ecosystem seeks to address. Today, social finance takes various forms, including microfinance institutions, venture philanthropy, social impact bonds, crowdfunding platforms, socially responsible investments, cooperative financial institutions and Islamic social finance (Andrikopoulos, 2020).

2.2. Islamic social finance

A number of literatures written by Islamic finance scholars on the integration of Islamic social finance with SDGs (Ahmed, 2015; Gundogdu, 2018; Ismail & Shaikh, 2017) and impact investing (Biancone & Radwan, 2018; Kappen et al., 2019; Mohamad & Borhan, 2017; Syed Azman & Engku Ali, 2019). Some argued the concept of SDGs and impact investing are aligned with the philosophy of Islamic finance, hence it can becomes financing alternatives to achieve SDG 2030 (Abduh, 2019). Islamic social finance is a social finance which follow Shariah rules and principles. Until now, there is no clear definition of Islamic social finance due to no clear distinction between Islamic social finance and social finance (Rosman et al., 2022).

Moreover, Mohd Zain & Engku Ali (2017) delineate the parameters of Islamic social finance within the framework of Maqasid al-Shari'ah. Maqasid al-Shari'ah is guided by six pivotal objectives essential for human well-being and the need for safeguarding and preserving them. These objectives encompass the protection of deen (religion), nafs (life), nasl (progeny), 'aql (intellect), maal (property) and ard' (honor). The preservation and protection of Maqasid al-Shari'ah hold paramount importance in securing interests (maslahah) and averting harms (mafsadah). In alignment with Maqasid al-Shari'ah for the sake of maslahah, Islamic finance promotes the concept of sharing economy through principles of risk-sharing, fostering more equitable wealth distribution, and upholding fairness and justice in all transactions (Syed Azman & Engku Ali, 2019).

Furthermore, Islamic finance encourages entrepreneurship, advances genuine economic development and champions the principle of long-term sustainability which in line with the concept of impact investing (Kappen et al., 2019).The global Sustainable Development Goals (SDGs) agenda has spurred the development of Islamic social finance (Abduh, 2019; Rosman et al., 2022), leading to a resurgence of Islamic social finance instruments implemented through collaborative and strategic deployment of capital (Mahomed, 2017). Islamic social finance shares a similar approach to conventional social finance, with its value-based principle rooted in Shari'ah, emphasizing ethics and humanity (Rosman et al., 2022).

2.3 Islamic social finance instruments

Islamic social finance consists of three main types of social finance instruments; (1) the traditional philanthropy-based instruments such as zakat, waqf and sadaqah; (2) cooperatives based foundation and (3) modern form of Islamic financial services. This paper will only focus on the traditional philanthropy-based instruments for a further elaboration. The traditional Islamic social finance instruments have a long history contributing to the development of Islamic nation. Zakat It is one of the five compulsory pillars in Islam. It is obligatory for all the Muslims who fulfil certain requirements. Muslim individual eligible to pay zakat is Muzakki. Muzakki is a wealthy Muslim individual who hold zakatable items at certain amount for a certain time. The zakat amount depends on what zakatable items he possesses and the possessing time is one year. Normally, zakat is collected by religious authorities by the states. In many Muslim countries, the collection of zakat and distribution to the needy in the society subjected to the procedures of the religious authorities.

Besides, there is no standardization of zakat collection and distribution among the states (Mohd Zain & Engku Ali, 2017). Zakat is distributed to the seven types of asnaf as mentioned in the Qur'an, Chapter at-Taubah, verse 60. At present, zakat is collected from several areas as explained in the Qur'an, the tradition of the Prophet Muḥammad and the ijtihad of Islamic scholars. This verse mentions that there are eight kinds of people who receive zakat: (i) the poor (al-fuqara') or the low income, (ii) the needy (al-masakin) or someone in difficulty, (iii) zakat administrators, (iv) those whose hearts are to be reconciled or new Muslims and friends of Muslim community, (v) slaves and captives, (vi) the debt-ridden, (vii) in the cause of God, and (viii) the wayfarer or those who are stranded or travelling with few resources. At present, zakat is collected from several areas as explained in the Qur'an, the tradition of the Prophet Muḥammad P.B.U.H and the ijtihad of Islamic scholars (Abduh, 2019). Many literatures in various countries have revealed on contribution and impact of zakat to the SDGs such as poverty alleviation, inequality, illiteracy and

malnutrition (Ahmed, 2015; Hoque, 2022; Ismail & Shaikh, 2017; Hamzah & Razak, 2020; Hassan et al., 2021) . In a modern economy, zakat is particularly aimed at pursuing the well-being of the poor, needy, underprivileged and marginalized people which eventually lead to pursuing SDGs.

Waqf is one amongst the various potential Islamic social finance instruments which can stimulate the socio-economic for the society. Waqf means devoting something for the cause of Allah (Md Kamdari et al., 2017). Waqf refers to the assets or investments which are given by their owners based on the concept of trust where the proceeds are meant to be utilized for sake of public at large or the owners can also specify the suitable beneficiaries (Mohd Zain & Engku Ali, 2017). Waqf is also known as a perpetual endowment created in the form of property, money or other itemsfor charitable or religious purposes and the sufruct (benefit) is confined to the society asa whole or for a specific segment of society in need (Hassan & Shahid, 2010). In practice, waqf have been used to mainly contribute to social, health, environmental, education and infrastructure. These are not only applicable to needy but also to the public atlarge. However, despite its successful story and achievements during the golden era of Islam, Muslims today are lacking the knowledge and practice of waqf globally which may be among the causes of poverty and unbalanced income distribution among them now ((Abduh, 2019).

Additionally, Sadaqah is the charitable amount which can be paid out voluntarily in a form of donation. In this modern context, ṣadaqah means voluntarily helping or giving something to someone else. Different from zakat, there is no specific calculation provided in determining the charitable amount. As such, the proceeds generated are fully utilised in assisting the less privileged people such as the poor, widow, and orphan whether in a one-off assistance or by providing resources for their economic activities (Rosman et al., 2022). In practice, there is no limitation provided in terms of eligibility of the donors and can be given directly to the people in needs. Normally, sadaqah is collected for specific disasters or conflicts, then it is channelled to the non-profit organizations or humanitarian bodies for the purpose of management and distribution of sadaqah fund. Without a proper monitoring mechanism, sadaqah fund could lead to misappropriation. Although traditional Islamic social finance instruments have been developed classically from divine revelation and practices of Sunnah, these instruments of Islamic social finance consistent with impact investing to ensure the application bringing value and impact to the society. Apparently, Islamic social finance remain relevant for achieving Maqasid al-Shari'ah, and can be utilized for SDGs.

2.4 Islamic social finance in Malaysia
Islamic social finance is envisioned to play a greater role in Malaysia's financial landscape. Islamic social finance can complement the public sector finance and commercially driven financial solutions to promote greater social resilience. In Malaysia, financial institutions have been leading the Islamic social finance agenda in line with SDGs. These institutions have been exploring different ways to deliver social finance ranging from integrated Islamic social finance as part of CSR initiatives, some of these institutions are developing social finance as a viable business proposition. There is also greater collaboration among the diverse stakeholders and implementation partners. These alliance can optimise and utilize the Islamic socio-ecosystem and thus, improving the efficiency and outreach.

In Malaysia, the former Prime Minister, Tun Dr. Mahathir Mohamad has launched Shared Prosperity Vision 2030 on 5th October 2019. Shared Prosperity Vision 2030 is a commitment to make Malaysia a nation that achieves sustainable growth, across income groups, ethnicities, regions and supply chains. The aims of this vision is to achieve a decent standard of living for all Malaysian by 2030. Shared Prosperity Vision encompasses all aspects of physical achievements including infrastructure, the economic and administrative system as well as social aspects such as environmental, societal value and education. Thus, the vision emphasises on an outcome-based approach in formulating its policies and strategies. The implementation of this vision is continued periodically in the Twelfth Malaysia Plan (12MP) and Thirteenth Malaysia Plan (13MP).

The Twelfth Malaysia Plan 2021-2025 (12MP) aims to address current issues and at the same time to restart and rejuvenate Malaysia's socioeconomic development for long-term sustainability and prosperity. The objective is 'A Prosperous, Inclusive, Sustainable Malaysia', encompasses the first half of the Shared Vision 2030. The five year plan consists of six Strategic Thrusts: (1) Enhancing inclusiveness towards an equitable society; (2) Improving wellbeing for all; (3) Accelerating human capital development for an advanced nation; (4) Pursuing green growth for sustainability and resilience; (5) Strengthening infrastructure to support economic expansion; and (6) Re-engineering economic growth for greater prosperity. Additionally, the vision urged the integration of Islamic social finance such as zakat, waqf and sadaqah to further unlock and more effectively mobilise resources towards privision of financing and financial protection to low income communities. The application of Islamic social finance is viable in the Malaysian agenda for eradicating poverty, financial inclusion and literacy, upgrading the quality of life for urban poor and better access to education and healthcare.

Accordingly, the Central Bank of Malaysia launched the third Financial Sector Blueprint 2022-2026 on 24 January 2022. This blueprint serves as a guide to drive the Malaysia's financial sector in supporting economic recovery especially the post COVID-19 pandemic effects as well as drive Malaysia's aspiration to be a dynamic, inclusive and sustainable nation. Under Financial Sector Blueprint 2022-2026, there are Five Strategic Thrusts: (1) Fund Malaysia's economic transformation, (2) Elevate the financial well-being of households and businesses, (3) Advance digitalization, (4) Facilitate an orderly transition to a greener economy and (5) Advance value-based finance through Islamic finance leadership. In an effort to promote value-based Islamic finance, the Central Bank of Malaysia issued a Strategy Paper titled Value-Based Intermediation (VBI): Strengthening the Roles and Impact of Islamic Finance in July 2017. The Strategy Paper provides an overall strategy to facilitate Islamic Banking Institutions adopt relevant practices, offerings and conduct that generate positive and sustainable impact to the economy, community and environment, without compromising the financial returns to shareholders. According to (Arshad et al., 2018), the intended outcomes expected from the implementation of VBI are similar with several well established concepts such as Environmental, Social and Corporate Governance (ESG), Ethical Finance and Sustainable, Responsible, Impact Investing (SRI).

2.5 Islamic social finance initiatives in Malaysia

Few examples of notable Islamic social finance initiatives are:
1.   iTEKAD

iTEKAD was launched in 2020 as a social finance and investment initiative program in addressing the financial needs of underserved communities specifically for entrepreneurs from B40 under Asnaf Fisabilillah category and Asnaf who are affected by the COVID-19 pandemic. This initiative aims to assist micro-entrepreneurs with a diverse implementation partners to support training, business mentorship, and impact monitoring. The mechanism of iTEKAD combine philanthropic funds such as grant, sadaqah and zakat with low-cost or benevolent microfinance, supplemented with structured financial and business training. This program requires close collaboration between appointed banking institutions such as Bank Islam, Bank Muamalat and CIMB Islamic with diverse range of partners and stakeholders such as government agencies, State Islamic Religious Councils, fintech companies, NGOs, social enterprises and foundations.

2.   Waqf An-Nur Corporation Berhad

Waqf An-Nur Corporation Berhad (WANCorp) is considered an innovative Islamic social finance instruments on the utilization of share waqf or corporate waqf. WANCorp is a limited company established to guarantee proper management of Johor Corporation and its group of companies share and asset under endowment. A memorandum of understanding was made between JCorp and State Islamic Religious Council of Johor (SIRCJ) on 4th December 2009 where SIRCJ agreed to appoint WANCorp to act as a special mutawalli or trustee in managing all JCorp's properties by following the Waqf Procedure 1983 under the Enactment of Islamic Administration State of Johor 2003 (Khairi et al., 2014). WANCorp is also responsible on behalf of Johor Corporation's CSR initiatives to manage Waqf An-Nur Hospital and chain of clinic, Waqf Dana Niaga and Waqf Brigade and contributing to the public through fisabilillah benefit distribution. This program has managed to benefit patient's welfare, livelier mosque, entrepreneurial and educational programmes (Md Kamdari et. al. 2017). WANCorp also made contribution internationally through Somalia Humanitarian Aid and GAZA Humanitarian Fund.

3.   Sadaqah House

In 2018, Bank Islam launched a social finance initiative called Sadaqa House, a hybrid between technology and Shari'ah solutions. It is a charity crowdfunding platform which acts as a meeting point between donors and change-makers as well as beneficiaries oversighted by Bank Islam. Bank Islam performs due diligence on behalf of donors towards change-makers and beneficiaries of the fund who are of diverse backgrounds, races and religions. Through this platform, the donors or contributors allow to track the progress of the project that enhance the transparency and social impacts of the initiative undertaken. There are four types of funds managed in Sadaqah House platform: (1) perpetual fund where the principal remain in perpetuity and invested, only returns generated will be distributed for charitable causes; (2) general fund, where donors do

not specify any specific charitable projects and it is based on Bank's Islam discretion to distribute accordingly to the suitable charitable projects, (3) direct fund where donors choose to donate directly to charitable projects under Sadaqa House and (4) wakalah zakat fund where a portion of Bank Islam's zakat refunded by the State Islamic Religious Council for Bank Islam's self-distribution.

2.6 Challenges of Islamic Social Finance

Effective implementation of Islamic social finance aligned with SDGs, VBI and Maqasid Shari'ah requires concerted effort from various group of stakeholders. Islamic social finance has great potential, but it remains unrealized. The potential of Islamic social finance can be unleashed with a few challenges need to be addressed to foster development of Islamic social finance.

1.   Collaborative approach in addressing socio-economic issues

      Malaysian government is now promoting a collaborative approach between the government, private organisations and social organizations in enhancing socio-economic development. Under the National Blue Ocean Strategy, this approach is known as Social Private and Public Partnership. Through collaborative approach, it can optimize the strengths of government, private sector and social sector organizations in addressing socio-economic issues in the society (Arshad et al., 2018; Zeimers et al., 2019) especially on the effective use of Islamic social finance fund. Further, all these three sectors play key role in unlocking innovation and provide opportunities to apply new approaches and mechanism of Islamic social finance instruments.

2.   Data driven to enhance transparency and accountability

      Nowadays, philanthropic activities need to be grounded in evidence-based or data-driven philanthropy. There are growing awareness among philanthropists, charity leaders and policy makers that the process of giving resources need to be grounded in high-quality evidence (Greenhalgh & Montgomery, 2020). Being transparent on the use of social funds will give philanthropists confidence that they are funding effective initiatives and interventions that will ultimately lead to changes they seek. In Islamic social finance context, the use of zakat, waqf and sadaqah fund needs to assure donors regarding their management practices, especially in collecting, managing and distributing funds. Further, in discharging accountability, the donors should be informed on the details of the transactions in avoiding prohibited economic activities such as riba'(interest), gharar (uncertainty), maysir (gambling) and dealing with prohibited goods such as liquor and pork(Kamaruddin & Auzair, 2019).

3.   Impact assessment for Islamic social finance
      As Islamic social finance is used for financing SDGs, embedding an impact imperative into Islamic social finance investment is crucial. In impact investing, social impact organizations (such as NPOs and social enterprises) are committed to estimate the impact of the potential investment. This will help the bank or social impact investors (such as foundation and private philanthropists) in making decisions to prioritize its resources to create the intended impact. The investment need to be properly planned, measured and analysed to ensure the performance and alignment with the mission of the investment (Arshad et al., 2018). Reporting of financial and non-financial impact is also a form of engagement with stakeholders which can help improve stakeholder relationships as well as communicate the values of the organization (Syed Azman & Engku Ali, 2019).

3.0 Conclusion

Islamic social finance has been growing significantly for the past decade. The traditional philanthropy based Islamic social finance have been used in Muslim countries including South East Asia countries as a fund to meet the resources gap in poverty alleviation and solving the social disparities in the society. With the growth of social enterprises and impact investing, the social finance is invested based on blended approach focusing on creation of both economic and social value. The strong support by all actors in Islamic social finance ecosystem is necessary to untapped the potential of Islamic social finance. The strong support of government and regulators in Malaysia can be translated in the Shared Value Vision 2030, Twelfth Malaysia Plan (12MP) and also Financial Sector Blueprint 2021- 2025. Islamic social finance will remain relevant and extending its impact over the entire landscape of economic development. It is

envisaged that future application of Islamic social finance instruments will face challenges in addressing complex social economic issues. The collaborative approach can be implemented to ensure effectiveness of the delivery of Islamic social finance initiatives. Further, the social impact assessment is important to enhance transparency and accountability on the usage of Islamic social finance fund for impactful initiatives. As such, it is hoped Islamic social finance will significantly contribute towards a more holistic approach in mitigating the social disparity in the society.

Acknowledgement

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Feeling the Academic Heat: A Bibliometric Dive into University Student Burnout

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Abstract

This paper conducts an in-depth examination of global research on burnout among university students. It underscores the factors contributing to burnout and its repercussions on students' mental well-being, academic performance, and overall quality of life. For this aim, the study scrutinized a dataset comprising 214 articles published between 2005 and 2023, sourced from the Scopus database, utilizing bibliometric and network analysis methods. The findings, analysed using VOSViewer and MS Excel, indicate that the literature on student burnout experienced a notable upswing from 2016 to 2019, particularly from 2020 to 2022, owing to the global impact of the COVID-19 pandemic. The United States emerged as the primary source of publications, with the University of Oxford in the UK ranking as the most prolific institution. Additionally, the paper identifies leading contributors in terms of authors, articles, journals, and keywords, presenting analyses of co-citation, co-occurrence, and co-authorship networks. This paper furnishes a comprehensive overview of the current landscape in university student burnout literature, serving as a valuable resource for future scholars seeking to comprehend the evolution of this academic discourse and its intellectual framework.

Keywords
Bibliometric, University Students, Undergraduate, Burnout, Well-Being
_____

1. Introduction
The university represents a pivotal phase in personal growth, marked by escalating expectations to gain knowledge and develop skills (Liu et al., 2023). In completing their learning journey in university, students may face several challenges leading to burnout. One crucial factor to consider is the transition students undergo when moving from secondary to tertiary education, necessitating adjustments to varying lifestyles and social settings (Elias et al., 2011). It is not uncommon for many students to experience a culture shock when entering university, as they must independently manage their time, finances, and studies while simultaneously undergoing psychological growth.
Burnout can have detrimental consequences on students' enthusiasm and commitment to meeting academic demands (Liu et al., 2023), poor academic performance (VIzoso et al., 2019), and mental health issues such as depression and anxiety (Norez, 2017). Overall, academic burnout has a profound influence on students' overall quality of life, and neglecting this issue may lead some students to resort to substance abuse (Sugara et al., 2020; Erschens et al., 2018), or, in the worst-case scenario, it could even result in suicidal thoughts or actions (Cao et al., 2021). Therefore, Salgado and Au-Yong-Oliveira (2021) proposed that factors like academic involvement, intrinsic motivation, social support, and resilience can serve as protective factors against burnout among students. Additionally, universities should take proactive steps to educate students about effective coping strategies to manage their emotions, enhance flexibility, and express their feelings appropriately, all of which are essential in combating the challenges posed by academic burnout.

The focus on the burnout of university students has experienced a significant surge over the past few decades. Thus, this paper seeks to conduct a comprehensive bibliometric analysis of publications on burnout among university students to include mapping and visually examining the scholarly literature in this area, highlighting important keywords, assessing research trends, and pinpointing potential avenues for future investigation. Additionally, this bibliometric investigation aims to uncover the publication patterns and intellectual underpinnings within this academic domain. For this aim, we came out with eight research questions (RQs): (RQ1): *What is the pattern of annual publication trends?* (RQ2): *Who are the major contributing authors?* (RQ3): *Which articles have the highest citation*

count? (RQ4): *Which countries are the most productive?* (RQ5): *Which affiliations are the most productive?* (RQ6): *Which are the top trending scientific journals?* (RQ7): *What is the most frequently used author keyword?* (RQ8): *What is the pattern of co-citation and collaboration trends?*

Previous researchers have primarily concentrated their bibliometric analyses on mental health and well-being among various student populations, including graduate students (Okoro et al., 2022), international students (Cao et al., 2021), and university students in the Arab region (Sweileh, 2021). Although Hernández-Torrano et al. (2020) conducted a bibliometric analysis of mental health and well-being among university students, it's worth noting that they utilized the Web of Science database for their article search. The present study aims to replicate Hernández-Torrano's research but with a different approach. Specifically, we will use Scopus as our primary data source, focus on the keyword "burnout," which covers recent publications from 2022 and 2023, and center our analysis on undergraduate university students. This focus on undergraduates is particularly relevant due to their transitional phase from high school to tertiary education, and it will enable us to assess developments in the field and address our research questions.

The rest of this paper is organized as follows: The next section explores the literature on university student burnout. Subsequently, we delve into the research methodologies employed for this investigation. Following that, we present the analysis and findings and then proceed to discuss and conclude the study.

2. Literature Review

In 1974, Herbert Freudenberger was the pioneer in defining burnout (Heinemann & Heinemann, 2017). Since then, researchers have devoted considerable attention to investigating the factors that trigger this syndrome, its consequences, and strategies for managing it. Yang (2004) defined student burnout as a state of emotional exhaustion, depersonalization, and reduced personal accomplishment experienced by students during their learning journey, often due to factors like academic stress, course workload, and psychological pressures. More recently, Liu et al. (2023) characterized academic burnout as emotional exhaustion, cynicism, and diminished personal accomplishment resulting from academic pressure, heavy coursework, or personal psychological factors during the educational process. Students face a multitude of demands on their time, including coursework, relationships, exams, part-time jobs, financial pressures related to higher education, internships, parental and educator expectations, and practical/ward work for medical students (Kaggwa et al., 2021; Salgado & Au-Yong-Oliveira, 2021). Failing to meet these demands put many students at risk of burnout, leaving them torn between a desire to learn and a temptation to give up entirely (Liu et al., 2023). The shift to online and remote learning amidst the COVID-19 pandemic led to a rise in student burnout, as prolonged screen time on tablets and smart devices became the norm (Mheidly, Fares & Fares, 2020). the pandemic's restrictions, such as curfews, quarantines, and limitations on social interactions, restricted students' access to physical spaces, thus put the situation worsen (Andrade et al., 2023). However, students possessing elevated emotional intelligence tend to experience reduced burnout levels, primarily because they can effectively handle the demands and stresses of their environment (Cazan & Nastaza, 2015). Similarly, Rahmati (2015) emphasized that students with low self-efficacy are particularly susceptible to burnout and struggle to adapt when faced with challenging academic tasks and exhausting subjects. Moreover, Marôco et al. (2020) found that students who effectively manage their burnout levels are better equipped to avoid dropping out.

Previous research has documented the potential for burnout among undergraduate students, with higher levels of burnout can lead to increased absenteeism, reduced motivation to complete coursework, a greater likelihood of dropping out, and ultimately, negative impacts on overall academic performance and student satisfaction (Sugara et al., 2020; Norez, 2017; Yang, 2004). Burnout manifests as feelings of strain, overwhelm, and exhaustion in students. Previous studies have also shown that burnout is associated with issues such as disrupted sleep patterns, a heightened risk of severe mental illness or substance use disorders, an increased likelihood of cardiovascular disease and metabolic syndrome, changes in appetite, fatigue, weakened immunity, headaches, gastrointestinal distress, and neglect of both physical and mental health (Kaggwa et al., 2021; Norez, 2017). Regarding demographic factors, Yang (2004) discovered that male students experience higher levels of burnout than their female counterparts. This aligns with previous research suggesting that men often hold stronger achievement expectations, possess a more intense competitive drive, and engage in more rigorous self-evaluation of their accomplishments (Liu et al., 2023). Consequently, when men's achievement expectations are not met, they tend to display more negative emotions, avoidant behaviors, and a diminished sense of accomplishment. However, in contrast to earlier studies, recent research by Abuaddousa et al. (2021) and Salgado & Au-Yong-Oliveira (2021) did not yield statistically significant results regarding the relationship between age, gender, gross monthly income, and levels of burnout among undergraduate students.

Social support plays a vital role in mitigating academic burnout by enhancing motivation, engagement, and overall satisfaction among students. It fosters effective coping strategies, promoting resilience and goal achievement, reducing susceptibility to stress, and thus preventing academic burnout (Andrade et al., 2023). In combating burnout, interventions should focus on enhancing social support for undergraduate students. Families should maintain stability and financial security, while peers, counselors, educators, and others should build meaningful connections with students to provide emotional and material support. Additionally, improving learning conditions and aligning resources with students' needs can create a more supportive environment (Liu et al., 2023).

3. Methods

Bibliometric analysis is a quantitative research approach that entails the exploration and evaluation of bibliographic information, including publications, citations, and associated metadata, to extract valuable insights regarding the attributes, patterns, and developments within a particular corpus of literature (Khatib et al., 2022). One of the advantages of bibliometric lies in its ability to furnish information about the research impact of institutions, researchers, and various sectors, including geographical areas, and their influence within the realm of science (Okoro et al., 2022). Besides, it also aids researchers in delving into the intricacies of a field's evolutionary past while shedding light on the recently uncovered aspects of the research area (Donthu et al., 2021).

The search was conducted using the Scopus database on September 14, 2021. The selection of the Scopus database was based on its reputation as one of the most comprehensive databases for documenting scholarly papersb(Kushairi & Ahmi, 2021). The quality of our data collection greatly depends on selecting the correct keywords, as this choice significantly influences the quantity of results obtained. The following query was used to find a wide range of literature regarding university students: TITLE-ABS-KEY ("student burnout") AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (EXACTKEYWORD , "Student Burnout") OR LIMIT-TO (EXACTKEYWORD , "University") OR LIMIT-TO (EXACTKEYWORD , "Undergraduate Student")) AND (LIMIT-TO (LANGUAGE , "English")). After applying inclusion and exclusion criteria, we gathered a total of 214 publications for our study. These publications, restricted to articles, span the years 2005 to 2023. Our selection criteria focused on publications written in English, which were subsequently exported to the VOSviewer software for further analysis. The VOSViewer application can conduct computations for various centrality measures, including weighted degree centrality, degree centrality, Eigenvector analysis, PageRank, and betweenness centrality in the context of this research. This tool also can be used to analyze citations, co-citations, literature categorization, co-authorship relationships, keyword co-occurrence, and phrase co-occurrence (Mohamad et al., 2023).

4. Results and Discussion
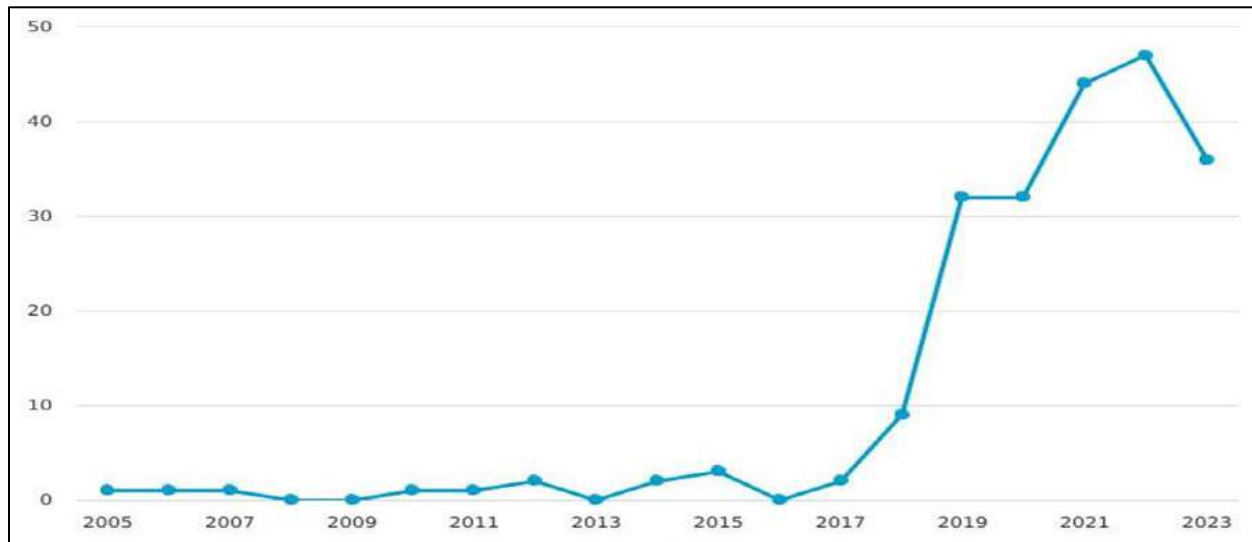### 4.1 Annual Publication Trends

Figure 1: Total Yearly Publications.

Examining the quantity of published literature over time allows for a better interpretation and comprehension of the current state of research and future trends in a specific field (Okoro et al., 2022). The graph in Figure 1 illustrates the evolution of publications concerning student burnout in response to RQ1, starting from 2005. There has been a noticeable surge in the volume of literature dedicated to this subject from 2016 to 2019, and this trend has become even more pronounced from 2020 to 2022. This upswing can be attributed to the COVID-19 pandemic, which necessitated the closure of educational institutions and the introduction of online distance learning to ensure the continuity of learning. It is believed that the researchers had begun to realize the impact of undergraduate students on their health, academic achievement, and overall well-being.

4.2 Most Productive Authors

Table 1 displays the leading contributors in addressing RQ2, comprising 160 authors who contributed to research on topics related to undergraduate university students. As shown in Table 1, Farrell, S.M. from the University of Oxford Medical Sciences Division is among the most active authors, with 6 publications, an h-index of 12, and a total citation number of 111. Following closely behind is Molodynski, A., who also published 6 papers and received the highest number of citations of 130.

Table 1: Most Productive Authors

No	Author	Affiliation	Country	TP	*h*-index	PYS	TC
1	Farrell, S.M.	University of Oxford Medical Sciences Division	UK	6	12	2019	111
2	Molodynski, A.	Oxford Health NHS Foundation Trust	UK	6	18	2019	130
3	Fiorilli, C.	Libera Università Maria Ss. Assunta	Italy	5	22	2020	112
4	Kadhum, M.	University of Oxford Medical Sciences Division	UK	5	12	2019	88
5	Lewis, T.	Tees Esk and Wear Valleys NHS Foundation Trust	UK	4	8	2019	89
6	Romano, L.	European University of Rome	Italy	4	10	2020	97
7	Salmela-Aro, K.	Helsingin Yliopisto	Finland	4	62	2020	83
8	Tomaszek, K.	University of Rzeszów	Poland	4	5	2019	32
9	Ventriglio, A.	Università degli Studi di Foggia	Italy	4	27	2019	105
10	Abeywardena, G.S.	The National Hospital Kandy	Sri Lanka	3	5	2018	47

Notes: TP = total publications; h = h-index; TC = total citations; PYS = publication year start

4.3 Most Cited Articles

To explore RQ 3, our research presents a list of extensively cited research papers related to the topic under examination, as illustrated in Table 2. The article titled "Relationships between social support and student burnout: A meta-analytic approach" authored by Kim et al. in 2018 stands out as the most frequently cited, with 98 citations in the Stress and Health Journal. Next was the paper by Stoeber et al. (2011) titled "Passion and motivation for studying: Predicting academic engagement and burnout in university students," which garnered 91 citations.

Table 2: Top Ten Cited Articles

No	Authors	Title	Journal	Citations
1	Kim *et al.* (2018)	Relationships between social support and student burnout: A meta-analytic approach	Stress and Health	98
2	Stoeber *et al.* (2011)	Passion and motivation for studying: Predicting academic engagement and burnout in university students	Educational Psychology	91
3	Peper *et al.* (2021)	Avoid zoom fatigue, be present and learn	Neuro Regulation	86

4	Pawlak *et al.* (2020)	Impact of COVID-19 on endoscopy trainees: an international survey	Gastrointestinal Endoscopy	74
5	Gan *et al.* (2007)	Coping flexibility and locus of control as predictors of burnout among Chinese college students	Social Behavior and Personality	67
6	Yang and Farn (2005)	An investigation the factors affecting MIS student burnout in technical-vocational college	Computers in Human Behavior	65
7	Paloș *et al.* (2019)	Relations between academic performance, student engagement and student burnout: A cross-lagged analysis of a two-wave study	Studies in Educational Evaluation	54
8	Pokhrel *et al.* (2020)	Depression, anxiety, and burnout among medical students and residents of a medical school in Nepal: A cross-sectional study	BMC Psychiatry	49
9	Portoghese *et al.* (2018)	Measuring burnout among university students: Factorial validity, invariance, and latent profiles of the Italian Version of the Maslach Burnout Inventory Student Survey (MBI-SS)	Frontiers in Psychology	47
10	Maroco and Campos (2012)	Defining the student burnout construct: A structural analysis from three burnout inventories	Psychological Reports	47

The data was analyzed by VOSViewer software, with the minimum requirement for document citations being set at 1. Consequently, 173 out of 214 articles satisfied this criterion. Figure 2 illustrates an overlay visualization of document citations. The publication entitled "Relationships between social support and student burnout: A meta-analytic approach," authored by Kim et al. in 2018, was marked by the largest circle on the network visualization map. This indicates that it holds the highest number of citations among the publications related to the subject of the study.
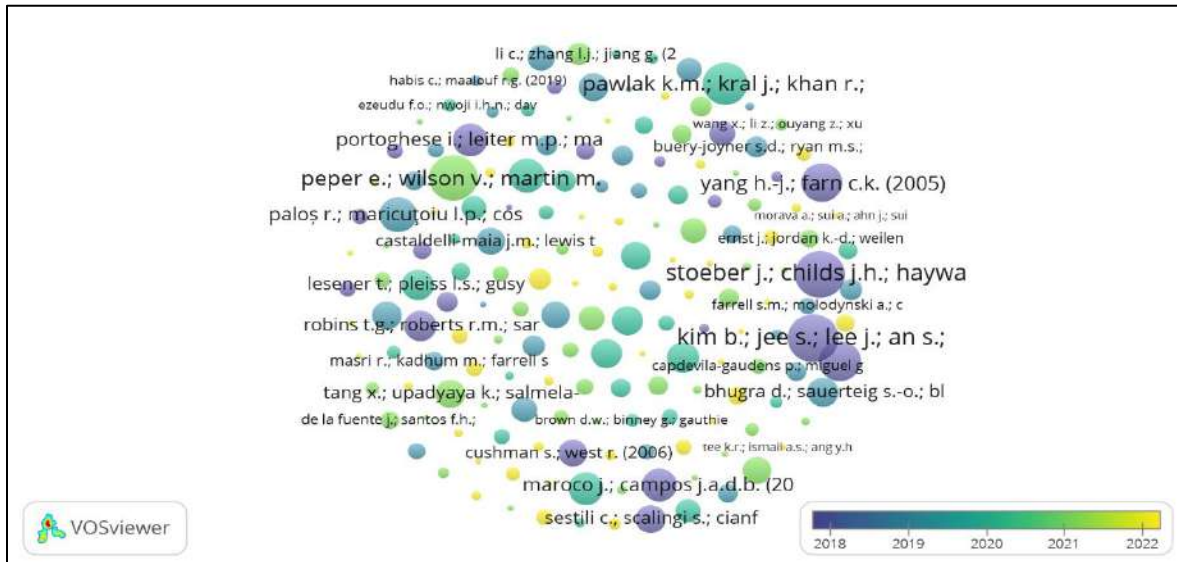
Figure 2: Overlay Visualization Map of Citations by Documents

4.4 Most Productive Countries

Figure 3, presented below, addresses RQ4 by illustrating the top ten countries actively contributing to publications related to the research topic. Sixty-six (66) countries support the research on university student burnout. Notably, the United States of America ranked the highest number of articles on student burnout (56), followed by China with 29 publications, and the United Kingdom with 22. These findings underscore the global significance of governments' commitment to addressing the mental health and overall well-being of undergraduate students, recognizing their potential as future leaders who will shape our world. Consequently, these findings are likely to exert an influence on future studies within this field.

Figure 3: Top Ten Countries That Contributed to The Publications

4.5 Most Productive Institutions

The answer to RQ5 lies in Table 3, which presents the top ten prolific organizations that published student burnout articles. Data show that 160 organizations were involved in publications concerning the study topic. In order to answer the RQ, MS Excel was used to calculate the frequencies and the list of the most influential institutions. The University of Oxford is the most significant contributor to the research field, with 9 (5.63%) publications, followed by the University of Oxford Medical Sciences Division (7:4.38%) and the John Radcliffe Hospital (6:3.75%), also located in United Kingdom.
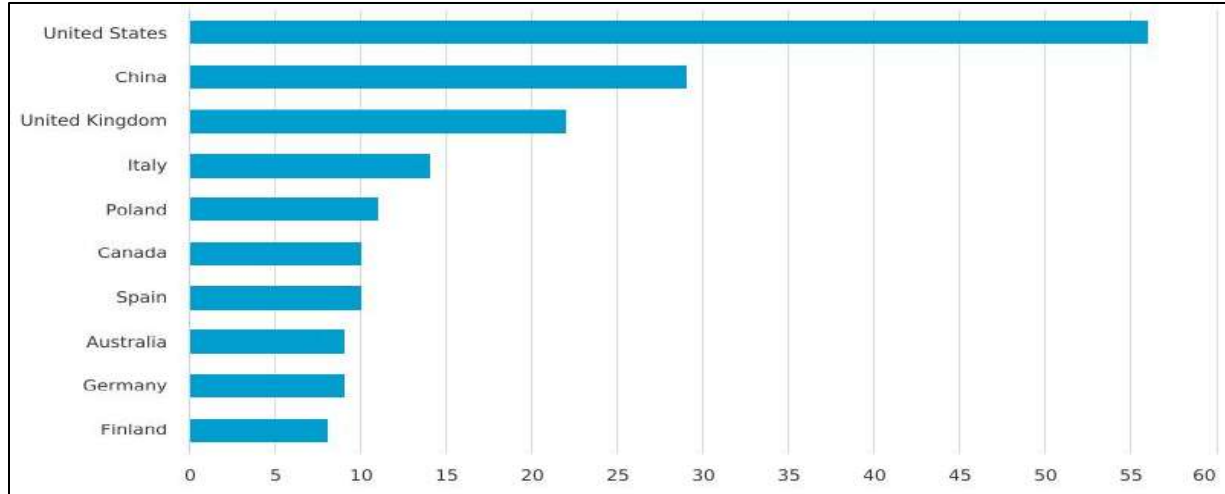
Table 3: Top 10 Productive Institutions

No	Institutions	Publications	% (n=160)	Countries
1	University of Oxford	9	5.63	UK
2	University of Oxford Medical Sciences Division	7	4.38	UK
3	John Radcliffe Hospital	6	3.75	UK
4	Uniwersytet Pedagogiczny im. Komisji Edukacji Narodowej	6	3.75	Poland
5	Helsingin Yliopisto	5	3.13	Finland
6	Libera Università Maria Ss. Assunta	5	3.13	Italy
7	Oxford Health NHS Foundation Trust	5	3.13	UK
8	Johns Hopkins School of Medicine	4	2.50	US
9	Harvard Medical School	4	2.50	US
10	Mayo Clinic	4	2.50	US

4.6 Most Productive Journals

Moving on to RQ6, Table 4 lists the most frequent journals that published articles under analysis. The 214 articles gathered from the Scopus database were published in 123 publications. Following Mohamad et al. (2023), an assessment of each journal was conducted using three key metrics: SCImago Journal Rank (SJR), Source Normalized Impact per Paper (SNIP), and CiteScore. SJR evaluates the citations a journal receives, considering both the subject area and the prestige of the citing sources. SNIP, on the other hand, gauges the actual citations received by a journal in comparison to the expected citations for its specific field. Lastly, CiteScore indicates the average number of citations garnered by each document published within the journal. According to the frequency statistics, the International Journal of Environmental Research and Public Health was the most active in publishing the articles, publishing 36 (16.82%) articles between 2004 and 2023. The journal has a Cite Score of 5.40, an SJR of 0.828, and a SNIP of 1.280. Far behind, Plos One has published 13 (6.07%) articles, and the International Review of Psychiatry has 8 (3.74%) publications.

<div align="center">

Table 4: Top 10 Productive Journals

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No	Journal	Total Publications	% (n=214)	Publisher	Cite Score	SJR 2022	SNIP 2022
1	International Journal of Environmental Research and Public Health	36	16.82	Multidisciplinary Digital Publishing Institute (MDPI)	5.40	0.828	1.280
2	Plos One	13	6.07	Public Library of Science	6.00	0.885	1.253
3	International Review of Psychiatry	8	3.74	Taylor & Francis	5.00	1.040	1.402
4	BMC Medical Education	5	2.34	Springer Nature	4.50	0.914	1.792
5	Frontiers in Psychiatry	5	2.34	Frontiers Media S.A.	5.40	1.222	1.265
6	BMC Psychology	4	1.87	Springer Nature	3.60	0.906	1.391
7	BMJ Open	4	1.87	BMJ Publishing Group	4.40	1.059	1.168
8	Frontiers in Psychology	4	1.87	Frontiers Media S.A.	4.50	0.891	1.422
9	Journal of Adolescence	4	1.87	Wiley-Blackwell	6.10	1.293	1.561
10	Frontiers in Public Health	3	1.40	Frontiers Media S.A.	3.80	1.125	1.374

4.7 Most Frequent Keywords

<div align="center">

Figure 4: Network Visualization Map for Co-Occurrence of Keywords

</div>

RQ7 is about the most frequent keywords used in the university student burnout literature. For this aim, the study employed keyword co-occurrence analysis through VOSViewer software, resulting in the creation of a network visualization map. Fractional counting was implemented, with a minimum threshold of two occurrences per publication. Out of a total of 540 keywords, 99 satisfied this criterion, but only 88 were found to be relevant. Figure 4 depicts a network visualization map for the co-occurrence of the author's keywords. Among these, the most frequently employed term was "burnout" appearing 68 times in the context of research publications on this topic. Additional prominent keywords included "student burnout" (49 times), "medical students" (27 appearances), and "mental health" (22 occurrences). Across the discipline, Kuehn et al. (2023) identified that the medical school

curriculum and learning environment played pivotal roles as contributing factors to medical student burnout, resulting in adverse consequences such as negative health outcomes for students, financial difficulties for educational institutions, and a decline in patient care quality as students transitioned into professional practice.

4.8 Network Analysis

In order to answer RQ 8, this study conducted a co-citation analysis. This analysis delved into instances where two references were co-listed in the references section of a single document (Fayad et al., 2023). The frequent appearance of two publications in the reference lists of articles indicates potential similarities in empirical discipline, methodology, theory, and subject matter. Furthermore, this analysis provided valuable insights by examining frequently cited references, shedding light on their direction, structure, and progression (Liu et al., 2015; Ho, 2012). Fractional counting was used to examine the co-citation network among the authors cited, and a requirement of 10 citations from other authors was set as a minimum. As illustrated in Figure 5, out of the 11,719 authors who submitted their papers, 250 met the specified criteria, and 245 of them were interconnected. The network visualization map reveals the presence of five distinct clusters. Authors within the same cluster are presumed to have referenced each other in their publications. Each cluster generally represents a different facet of the discussion surrounding university student burnout.
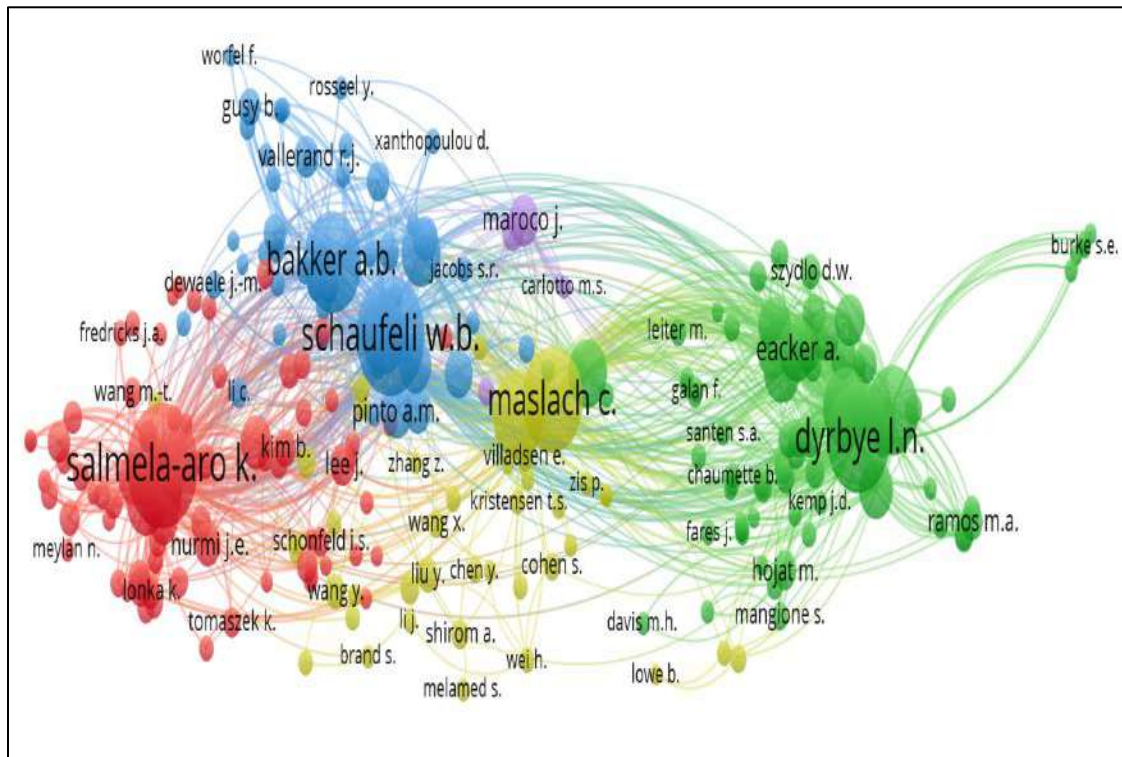

Figure 5: Network Visualization Map of Co-Citation of Cited Authors

Additionally, this study produced a network visualization map based on country co-authorship. To be included in the analysis, a country had to have at least two documents and citations, and out of the 66 nations involved in university student burnout publications, only 41 met this criterion. Figure 6 illustrates the co-authorship network visualization map, which reveals six distinct clusters. This analysis offers valuable insights into the leading nations and their collaborative patterns within this field. Notably, the largest circle in the network visualization map highlights the United Kingdom as a significant contributor, indicating a substantial research output and collaboration with other countries. Following closely are the United States of America, China, and Italy. Collaborative efforts between the United Kingdom and Italy suggest a strong partnership in producing research publications on student burnout.
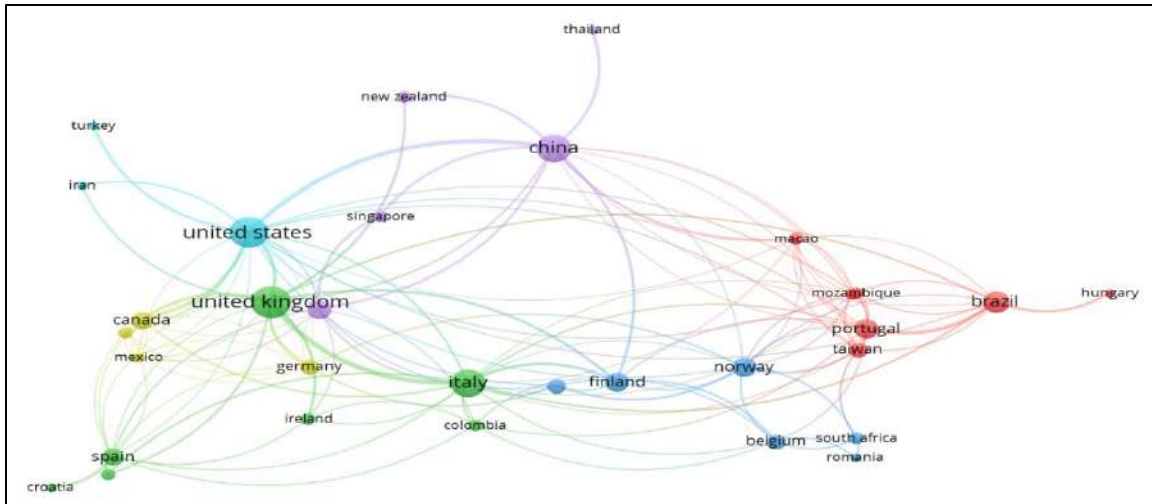
Figure 6: Network Visualization Map of Co-Authorship by Countries

5. Conclusion

The study offers a comprehensive review of the published literature concerning burnout among university students, focusing on undergraduates. A total of 241 articles sourced from journals indexed in the Scopus database between 2005 and 2023 were subject to analysis employing various methodologies, including keyword co-occurrence analysis, co-authorship analysis, citation analysis, and co-citation analysis. Subsequently, the data was mapped using VOSViewer to illustrate the findings and the interconnected network of relevant terms derived from scholarly publications. The results reveal a significant surge in the body of literature addressing student burnout, notably between 2016 and 2019, and even more so from 2020 to 2022, due to the global repercussions of the COVID-19 pandemic. The most productive country producing articles on university student burnout is the United States, with the University of Oxford in the United Kingdom emerging as the most prolific institution in terms of research output. The United Kingdom stands out as a significant contributor to this body of research, engaging in substantial collaborative efforts with other nations, followed by the United States, China, and Italy. The cooperative endeavors between the United Kingdom and Italy indicate a robust research partnership in the ambit of student burnout publications.

This study has contributed to knowledge by presenting the current trend of research on university student burnout. It also catalyzes future investigations and potential policy changes. By addressing the urgent issue of student burnout extensively, academia can create a more conducive and productive learning environment, benefiting both students and educational institutions. Additionally, the study's findings will be invaluable for researchers seeking to collaborate on advanced research projects and identify suitable institutions for collaboration. The study successfully identified the keywords used in the collected data and generated a network visualization of recent research, which provides a roadmap for future researchers to focus their studies within the field of undergraduate student burnout.

This study has its limitations. All the articles used in this research were sourced from a single scholarly database, which implies that it may not encompass the full range of literature currently available on the topic (Fayad et al., 2023). Future researchers could consider exploring literature from alternative sources such as Web of Science, PubMed, Dimensions, or Google Scholar. They should also consider including various types of documents like conference papers and book chapters. Additionally, future investigations should take diverse approaches (e.g., using other software such as ScientoPi, Gaphi, R-package), employ different methodologies and analytical tools (e.g., social network analysis), and conduct various types of assessments (e.g., content analysis, meta-analysis, systematic literature review) to provide unique insights into the evolution of the literature and enhance its overall contribution to valuable outcomes.

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Green Intellectual Capital in Developing Countries: Challenges and Implementation Strategies

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Abstract

The transition to a knowledge-based economy has sparked interest in managing Green Intellectual Capital (GIC) to address environmental challenges and maintain competitiveness and sustainability. However, some companies in developing nations struggle to leverage GIC efficiently. This paper explores these challenges and proposes improvements. GIC's importance in sustainability is recognized, but standardized measures are lacking, hindering effective communication of its value. Cultural, mindset, and system changes are obstacles, particularly in environmentally disinterested organizations. Regulatory support is essential, and resource allocation for GIC may conflict with short-term profit priorities. Overcoming these challenges involves strategic planning, employee training, innovation, cross-functional teams, collaboration, and stringent regulations, ultimately aligning with sustainability goals. Government support is crucial for securing Green Human Capital (GHC) assets, yielding long-term benefits for organizations, including improved financial performance and competitiveness.

Keywords

Green Intellectual Capital, Challenges, Strategies, Competitive Advantages
_____

1. Introduction

The transition towards knowledge-based economy has triggered management interest to address the environmental challenge by efficient management of green intellectual capital (GIC) to maintain competitiveness and sustainability (Baharum & Pitt, 2009; Chang & Chen, 2012; Claver-Cortés et al., 2007; Mohd Yusoff et al., 2019; Ni et al., 2023; Yong et al., 2019). This is due to the notion that the contribution of intellectual capital to add values is more than physical assets and financial assets that cannot be easily duplicated by other compettitors (Boiral, 2002). GIC refers to the intangible assets, knowledge, skills, capabilities, and innovation that individuals and organizations possess to promote environmental sustainability and foster green innovation(Chen, 2008; D. Liu et al., 2022; Ullah et al., 2022.; Yusoff et al., 2019) .Researchers have explored the concept of Green Intellectual Capital (GIC) from various angles, resulting in diverse perspectives on this valuable asset. However, a common framework has emerged, with GIC being generally categorized into three dimensions. These dimensions are green human capital (GHC), green structural capital (GSC) and green relational capital (GRC)(Chen, 2008; Huang & Kung, 2011; Mohd Yusoff et al., 2019; Yong et al., 2019).The GHC pertains to the knowledge, skills, and capabilities of individuals within an organization to contribute to environmentally sustainable practices. GSC dimension encompasses the organizational structures, systems, and processes that facilitate the efficient utilization of resources for environmental sustainability. GRC focuses on the network of relationships and partnerships that organizations form to enhance their environmental sustainability efforts. These connections can involve stakeholders, suppliers, or other external parties.

The forms of GIC help researchers and organizations alike better understand and manage GIC, providing a comprehensive framework to address environmental challenges and drive sustainability initiatives(Chaudhry & Amir, 2022; Rundengan & Tjahjadi, 2023). These categories are interlinked and reinforce each other. Leveraging them strategically can help organizations gain a competitive edge in sustainability-focused markets while simultaneously promoting corporate sustainability (Rundengan & Tjahjadi, 2023). The GHC contribute to competitive advantage by

improving efficiency, reducing waste, and attracting eco-conscious customers and partners. For instance, well-trained employees can enhance sustainability by implementing eco-friendly processes and innovations (Yusoff et al., 2019). The GSC contributes to competitive advantage by protecting proprietary green technologies and processes, ensuring a unique market position. It also supports corporate sustainability by facilitating innovation and reducing environmental impact (Cahyono & Hakim, 2020). In utilizing its GRC, collaborations with green partners and positive relations with communities and regulators can lead to resource-sharing and favorable regulatory treatment. This fosters sustainability and strengthens competitive advantage by opening new markets and reducing risks(Gharib et al., 2023). However, some companies in developing countries are not concentrating on leveraging the GIC efficiently. This paper discusses the factors of this complicated issue and proposed how to possibly improve this situation.

2. Literature Review
Despite the pivotal role of GIC in driving the transition towards corporate sustainability and competitive advantage, integration challenges, ineffective environmental regulations, lack of standardized measures and long-term realization benefits are the major challenges facing developing countries in leveraging GIC effectively.

2.1 Challenges of implementing Green Intellectual Capital in Developing Countries
While the importance of GIC in promoting sustainable practices is recognized, the lack of standardized measures for assessing and managing GIC, especially in developing countries remains a significant challenge. These efforts aim to enhance awareness, facilitate benchmarking, and enable organizations to make informed decisions regarding their environmental sustainability strategies. The absence of universally accepted measurement frameworks and metrics hinders the ability to communicate the value of GIC effectively and pose a challenge by limiting awareness of its potential benefits (Asiaei et al., 2022; Gharib et al., 2023; Rundengan & Tjahjadi, 2023b; Tran et al., 2023).Several studies (Bombiak, 2022; Gharib et al., 2023; Jirakraisiri et al., 2021; Yadiati et al., 2019) have been conducted to address the challenge of measuring GIC and discuss how it can enhance an organization's sustainability efforts. However, the development of standardized measures for GIC is still a work in progress, reflecting the complexity of assessing intangible assets related to environmental sustainability.

Practicing GIC and other green initiateves often encounter significant challenges related to integrated changes in culture, mindset, systems, and processes. In developing countries, many organizations have a low interest in environmental issues and may not fully understand the concept of GIC, leading to hesitancy in its implementation (Can Saglam, 2023; Yusoff et al., 2019). Embracing sustainability requires a cultural shift within organizations, where environmental consciousness becomes ingrained in the corporate DNA. This necessitates a change in the mindset of employees, from top leadership to frontline workers, to prioritize eco-friendly practices. Moreover, implementing green initiatives often requires an overhaul of existing systems and processes, from supply chain management to production methods, to align with sustainability goals. These changes can be complex and resource-intensive, making it challenging for companies to transition smoothly towards greener practices (Bombiak, 2022; Hermundsdottir & Aspelund, 2021; Rundengan & Tjahjadi, 2023b)

The absence or inadequacy of environmental regulatory measures presents significant challenges in the adoption of GIC practices and green initiatives. Regulatory support is crucial for the successful integration of GIC practices at the organizational level (Wei, 2023), Roles of green intellectual capital are closely linked to environmental concerns, and the absence of effective regulations can limit their application, impacting environmental sustainability (Gharib et al., 2023). The insufficiency of regulatory frameworks can pose challenges in leveraging all elements of green intellectual capital for environmental benefits (Yusoff et al., 2019).The implications is that it allows for activities that harm the environment, such as pollution, deforestation, and habitat destruction. This can have adverse impacts on ecosystems, biodiversity, and public health (Zhao, 2019). Developing countries often depend on natural resources for their economic development. The First Global Report (2019) revealed that without effective monitoring, overexploitation of these resources can occur, leading to depletion and long-term sustainability challenges.

Allocating resources for the development of GIC practices, such as green innovation and sustainable practices, might require significant investments (Chen, 2008). Furthermore, GIC practices often yield long-term benefits, which may conflict with short-term profit-focused priorities. As reported in the Productivity Report (2017/2018), the level of R&D and innovation capability in Malaysia, is far lower than that of developed countries due to long term realization benefits. The report also highlighted that the spending on innovation, technology and human development is perceived as cost rather than investment by many firms. Malaysian firms are motivated to address the environmental challenge if the benefit of such moves is apparent and offset its cost. Lack of evidence in terms of direct cost savings and other competitive benefits discourages some of manufacturers in Malaysia from pursuing their effort in related environmental practices (Ho et al., 2016).

2.2 Strategies to Enhance Implementation

While there are many impediments and challenges toward the implementation of GIC, these can be overcome by suitable planning and policy execution on GHC, GSC and GRC. Companies should cultivate a workforce aligned with the company's green objectives. This can be done by prioritizing recruitment of individuals with a deep comprehension of environmental concerns and a genuine dedication to sustainability. Appropriate training initiatives should be designed and implemented to bolster the employees proficiency in eco-friendly practices and innovative approaches(Khan et al., 2023).Moreover, to foster a culture of innovation and collaboration focused on sustainability, companies may encourage employees to generate green ideas and participate in green innovation initiatives. Additionally, establish cross-functional teams to collaboratively work on sustainability projects across different departments, ultimately enhancing the company's capacity to develop and implement green intellectual capital (Khan et al., 2023).To promote open innovation and collaboration with external stakeholders, consider forming partnerships with suppliers, customers, and relevant partners to jointly develop sustainable solutions. Small and medium-sized enterprises (SMEs) can leverage this approach to access additional intellectual resources and enhance their innovation capabilities, fostering sustainable growth and development(Khan et al., 2023)

Stringent regulations are essential to harness the full potential impact of Green Human Capital (GHC) competencies. This is because GHC incentivizes employees to embrace eco-friendly initiatives, mandating waste containment and endorsing the recovery, reclamation, remanufacturing, or recycling of materials (Can Saglam, 2023; Kumar & Putnam, 2008)To foster greater competitiveness and environmental responsibility among supply chain members, policymakers should formulate environmental protection policies. These policies should encourage organizations to enhance their competency in Reinforcement Learning (RL). By doing so, businesses gain a deeper understanding of their environmental impact. This knowledge, in turn, stimulates increased competition within the supply chain, compelling companies to produce top-quality products while ensuring strict adherence to environmental regulations (Can Saglam, 2023; Kumar & Putnam, 2008)(Kumar and Putnam, 2008) To secure Green Human Capital (GHC) assets for organizations, governments should bolster environmental efforts by enacting and enforcing laws, implementing robust procedures, imposing sanctions, and conducting thorough audits. These measures not only encourage organizations to engage in environmentally responsible practices but also create a framework for the acquisition of valuable GHC assets, enhancing sustainability and competitiveness (Can Saglam, 2023)

While initial investments in sustainable practices and intellectual capital development might be substantial, these investments tend to pay off over time by reducing environmental costs and attracting environmentally conscious customers and investors(Cahyono & Hakim, 2020b; Nr & Yurniwati, 2018). Liu et al. (2021)suggests that intellectual capital investments, in general, have the potential to improve financial performance. This implies that GIC investments are part of a broader strategy to enhance an organization's intellectual assets. while there are upfront costs associated with GIC investment, the long-term benefits, including improved financial performance, innovation, and competitiveness, make it a strategic choice for many organizations looking to align with environmental sustainability goals.

3. Discussion and Conclusion

The importance of Green Intellectual Capital (GIC) in promoting sustainability is recognized, but challenges persist. Standardized measures for assessing and managing GIC are lacking, particularly in developing countries. Efforts aim to enhance awareness, facilitate benchmarking, and enable informed decisions on environmental sustainability strategies. However, a lack of universally accepted measurement frameworks and metrics hampers effective communication of GIC's value. Studies address this challenge, but developing standardized GIC measures remains a work in progress due to the complexity of assessing intangible assets related to environmental sustainability. Practicing GIC often encounters hurdles like cultural changes, mindset shifts, and system overhauls, especially in developing countries where organizations may lack environmental interest. Regulatory support is crucial, and insufficiency can lead to environmental harm. Allocating resources for GIC practices may require significant investments, often conflicting with short-term profit priorities. Malaysian firms, for instance, perceive spending on innovation as a cost rather than an investment, hindering environmental efforts. Consequently, companies face challenges transitioning towards greener practices.

Organizations can overcome impediments to Green Intellectual Capital (GIC) implementation by strategic planning and policy execution. This includes recruiting environmentally conscious individuals and providing eco-friendly training. Fostering a culture of innovation through employee involvement and cross-functional teams enhances GIC. Collaboration with external stakeholders for sustainable solutions is crucial. Stringent regulations incentivize eco-friendly practices. Policymakers should promote environmental protection policies to stimulate

competition within supply chains. Government support is essential for securing Green Human Capital (GHC) assets. Initial investments in GIC yield long-term benefits, including financial performance improvement and competitiveness, aligning with sustainability goals.

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Mapping the Landscape: A Bibliometric Analysis of Small Medium Enterprises (SMEs)' Capabilities Research

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Abstract

This paper conducts a comprehensive bibliometric analysis of the Scopus database to examine trends in Small and Medium-sized Enterprise (SME)'s capabilities research. Utilizing various bibliometric indicators, we explore annual publication patterns, prominent authors, frequently referenced journals, and prevalent keywords. Our findings reveal a dynamic increase in SME capabilities literature since its initial inclusion in Scopus in 1984, continuing through 2023. This analysis offers emerging scholars valuable insights into the evolving landscape of SMEs' capabilities research worldwide, facilitating their identification of current trends across countries and authors. Furthermore, the study underscores the growing significance of SMEs' capabilities in both academia and practice, providing a foundation for informed decision-making and future research directions in this field.

Keywords

Bibliometric analysis, SME capabilities, small-medium enterprises, capabilities, Scopus database
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1. Introduction

Small and Medium-sized Enterprises (SMEs) constitute a vital and dynamic segment of the global business landscape. Their contribution to economic growth and job creation is substantial (Ayyagari et al., 2007; Beckmann et al., 2023). These enterprises span various industries, playing a critical role in both developed and emerging economies, accounting for 90% of all firms and 50% of global employment (World Bank, 2023). Despite their significance, the term "SME" lacks a globally standardized definition, primarily relying on financial measures such as annual turnover and/or number of employees as the most common classification criteria (Costa Melo et al., 2023). This lack of a consistent, globally accepted definition can lead to variations in how SMEs are identified and categorized in different regions or contexts. However, it is essential to note that the focus of this paper is not on the issue of SME classification. Instead, it is dedicated to examining the trend in research for the topic of SMEs' capabilities.

In recent years, SMEs have gained substantial attention from researchers, policymakers, and practitioners. This heightened focus is attributed to their pivotal roles in fostering innovation, promoting entrepreneurial activities, and contributing to regional development (Fernández-Serrano & Romero, 2013; Jiang et al., 2023; Somwethee et al., 2023). Furthermore, the enduring impact of the COVID-19 crisis (Kraus et al., 2020; Al-Hyari, 2020; Ozanne et al., 2022; Mai et al., 2023) amplifies the need for a more profound understanding of SME capabilities. These capabilities form the bedrock of SMEs' capacity to navigate challenges, seize opportunities, and sustain their competitiveness (Tehseen et al., 2019; Ng et al., 2020)

In light of the extensive interest in SME capabilities research on a global scale, there is a noticeable scarcity of bibliometric analysis in this field. A search on Google Scholar has produced only two studies that specifically explore bibliometrics in the context of SME capabilities. The first study, conducted by Bueno and Zarelli (2013) and published in Portuguese language, was associated with a research conference in Brazil. The second is authored by Lezcano-Calderón (2023) which exclusively concentrates on family-owned SMEs. The search also found an SLR (Systematic Literature Review) paper authored by Deyassa (2023), who conducted a content analysis of 40 articles on SMEs' capabilities. This analysis utilized the JSTOR database, encompassing the years from 2011 to 2020.

Bibliometric analysis, a quantitative research approach applied to academic literature (Pritchard, 1969; Purnomo et al., 2020; Donthu, et al., 2021), offers numerous scholarly advantages. It serves as a systematic means to elucidate the intricate interconnections between various research domains (Bordons et al., 2004; Chain et al., 2019), facilitating

the identification of prevailing research trends over time (Sweileh et al., 2017), fostering a profound comprehension of current developments and research gaps within the academic landscape (Choijil et al., 2022; Fayad et al., 2023). Furthermore, bibliometrics provides a discerning lens through which to examine the geographic origins and institutional affiliations of authors (Ahmi & Mohamad, 2019) thereby enriching our appreciation of global scholarly contributions. Notably, it aids researchers in discerning the most appropriate journals for publication and in identifying potential collaborative partners (Fayad et al., 2023). In essence, bibliometrics emerges as an indispensable instrument for academics, enhancing their capacity to explore intricate scholarly connections and elevating the rigor of their research pursuits.

Considering these rationales, we endevour to visually map and analyze research trends in SMEs' capabilities, with the ultimate aim of enhancing our understanding of this field. As a result, we have established the following research objectives (ROs):
RO1: To determine the pattern of annual publication trends in SMEs' capabilities research.
RO2: To identify the prominent subject area in this domain.
RO3: To assess the most productive authors.
RO4: To identify the most active and trending source title/scientific journals in this field.
RO5: To uncover the most frequently used author's keywords.
RO6: To map the publication themes in the area of SMEs' capabilities.

This research article is organized into several sections, namely: the first section is an introduction that discusses the background of the research and research objectives, the second section is a literature review in relation to SMEs' capabilities, the third section is the research method that explains the approach used in the study, the fourth section is the results and discussion that explains the research findings, and the fifth section, which is the conclusion, provides a concise summary of the study's key findings and their implications.

2. Literature Review

The capabilities of SMEs encompass a broad spectrum of skills, resources, and competencies that enable them to efficiently and effectively perform various functions (Yang, 2023). These capabilities serve as the driving forces behind SME growth, sustainability, and resilience. Examining and analyzing these capabilities is crucial due to the profound impact SMEs have on the economy, innovation, competitiveness, policy formulation, and the entrepreneurial ecosystem. Given that SMEs face unique challenges and opportunities, understanding the nuances of their capabilities, which span areas such as managerial skills, innovation, financial resources, and adaptability, is essential.

SME capabilities can be broadly categorized into core and dynamic capabilities (Teece, 2007; Eisenhardt & Martin, 2000). Core capabilities are the foundational pillars that underpin SME competitiveness, encompassing factors such as efficient operations, human capital, and customer relationships. Prahalad and Hamel (1990) argue that these core capabilities form the bedrock of sustainable competitive advantage for SMEs. Complementing core capabilities are dynamic capabilities, a concept elucidated by Teece (2007). Dynamic capabilities involve SMEs' ability to adapt, innovate, and respond swiftly to evolving market conditions. In today's rapidly changing business landscape, dynamic capabilities are instrumental for SMEs' long-term viability and resilience (Jia et al., 2023).

The development of SME capabilities can be hindered by resource constraints (Deyassa, 2023). Overcoming these constraints remains a significant challenge, but strategic resource allocation and external support mechanisms can facilitate capability development (Hitt and Ireland, 2005). SMEs must allocate resources judiciously, invest in employee training, and explore avenues for external support, such as partnerships or government initiatives, to enhance their capabilities (Helfat & Peteraf, 2009; Jantunen et al., 2022; Al Dhaheri et al., 2023).

The significance of bibliometric studies in elucidating recent developments in research cannot be overstated. It is essential to underscore that the findings derived from such analyses hold great potential in guiding and influencing future research endeavors (Sweileh et al., 2017; Choijil et al., 2022; Fayad et al., 2023). As these studies uncover trends, key contributors, and knowledge gaps within a specific domain, they offer invaluable insights that can serve as a solid basis for shaping and prioritizing research agendas, especially in areas like SMEs' capabilities. Moreover, as we examine similar studies listed in Table 1 that have utilized bibliometric analysis in exploring SMEs' capabilities, it becomes evident that each paper carries its own set of limitations, including variations in scope, sources, coverage, and research protocols. Recognizing these limitations, our study endeavors to bridge these gaps and provide a deeper understanding of the most recent developments in SMEs' capabilities research.

Table 1: Summary of Previous Studies Used Bibliometric Analyses on SMEs' Capabilities
Source: Developed by authors

Author (s)	Domain/ search strategy	Data source and scope	TDE*	Attributes examined
Bueno and Zarelli (2013)	dynamic capabilit*, small medium enterprise*, SME*, key* success, success factor*It is success factor* key*	Web of Science ScienceDirect Scopus (1994 to 2013)	165	Number of publications, most active source titles/journals, authors, keywords,
Lezcano-Calderón (2023)	"famil* SME*" AND "resources" OR "capability"	Scopus (2013 and 2022)	30	Number of publications, most active journals, authors, citations affiliations, countries, documents, keywords and co-authorship network
Deyassa (2023)	"the role of dynamic Capabilities and Innovation in SME"	JSTOR	40	SLR and bibliometric

*TDE = total documents examined

3. Methods

For this study, we conducted a comprehensive bibliometric analysis of SMEs' capabilities research up to September 2023, taking into account the impact of the Covid-19 pandemic. Our initial search on Scopus, a well-established academic database (Sweileh et al., 2017; Falagas et al., 2008), yielded 960 articles. After rigorous screening to eliminate duplicates and irrelevant documents, our dataset consisted of 926 publications. Our search process aligned with the search strategy flow outlined by Mansour (2022), as shown in Figure 1 below:-
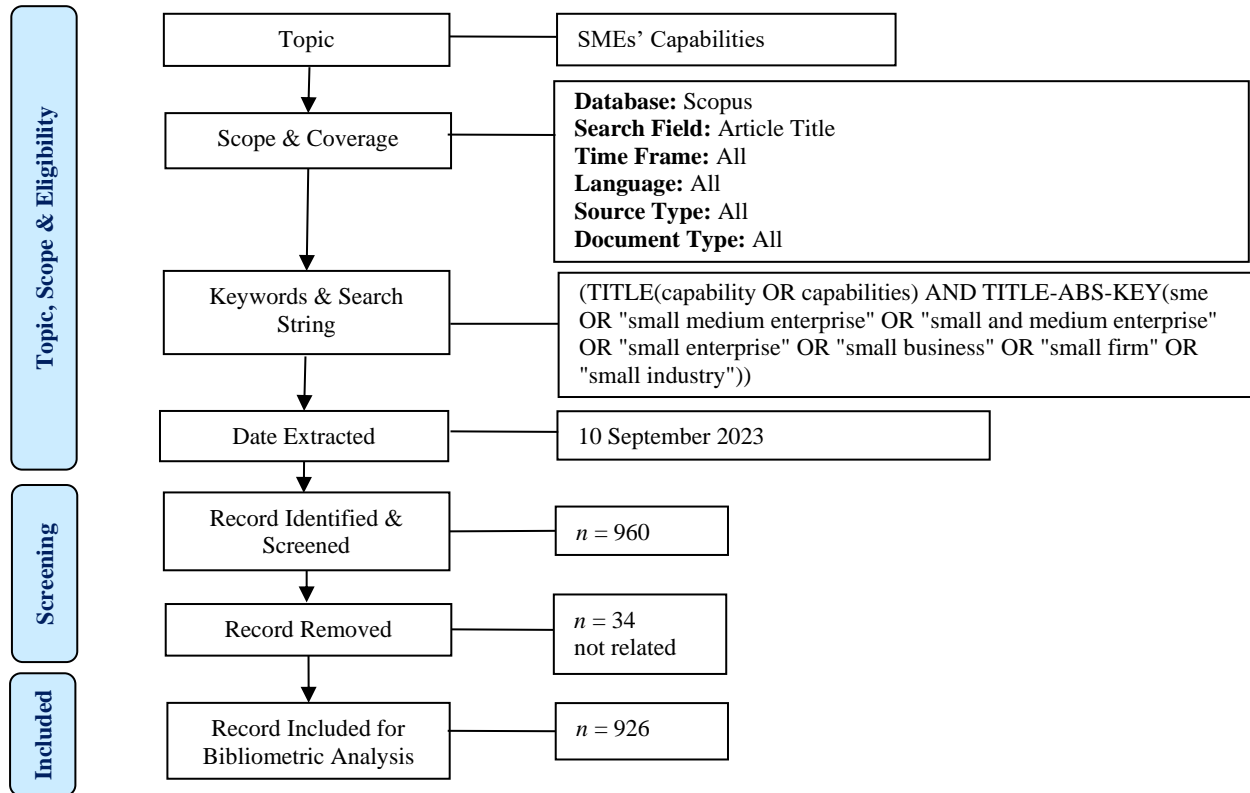

Figure 1: Flow Diagram of The Search Strategy
Source: Mansour (2022)

In addition to the number of publications, we assessed various other bibliometric aspects, including journal productivity and impact, utilizing Scopus metrics such as Cite Score, SJR, and SNIP. We conducted a scientometric analysis using VOSviewer, focusing on co-occurrence patterns in keywords to reveal the knowledge structure and emerging research themes. Data extraction was carried out using CSV, MS Excel, and VOSviewer software to facilitate co-occurrence analysis which allowed us to visualize bibliometric networks effectively.

4. Results and Discussion

This section encompasses the presentation and discussion of our search results and data processing, encompassing aspects such as annual publications, individual researchers, subject areas, and publication theme maps within SMEs' Capabilities research. Our dataset spans from 1984, marking the inception of SMEs' Capabilities publications in the Scopus database, up to the present date of September 2023.

4.1 Document Profile

The obtained data is initially categorized based on document type and source type. Document type pertains to the document's original nature, whether it's a conference paper, article, or book chapter. On the other hand, source type refers to the category of the document's source, such as journal, conference proceedings, book series, book, or trade publication. It's important to note that a document's classification under document type may differ from its classification under source type (Sweileh et al., 2017). For example, a paper presented at a conference would be categorized as a conference paper under document type, but its source type classification may vary, possibly being labeled as a full journal article, conference proceeding, or book chapter depending on its publication status.

As summarized in Table 2, publications on SMEs' capabilities encompass a range of 8 document types. Notably, most of the total publications are in the form of articles (79.70%), followed by conference papers (14.25%). Other document types collectively constitute less than 6% of the total publications

Table 2: Document Type

Document Type	Total Publication (TP)	Percentage (%)
Article	738	79.70
Conference Paper	132	14.25
Book Chapter	31	3.35
Review	19	2.05
Book	3	0.32
Data Paper	1	0.11
Erratum	1	0.11
Report	1	0.11
Total	**926**	**100.00**

Meanwhile, as presented in Table 3, the documents are classified into six different source types. Journals stand out as the most prominent source, comprising 764 documents (82.51%). Following closely are conference proceedings, accounting for 101 documents, which constitute 10.91% of the total publications. However, book series and other source types make a comparatively modest contribution, amounting to 61 documents, or 6.59% of the overall publication count.

Table 3: Source Type

Source Type	Total Publication (TP)	Percentage (%)
Journal	764	82.51
Conference Proceeding	101	10.91
Book Series	33	3.56
Book	25	2.70
Trade Journal	2	0.22

Report	1	0.11
Total	**926**	**100.00**

4.2 Annual Publication Trends

Table 4 summarizes the annual publications related to SMEs' capabilities, spanning from 1984 to September 2023, covering a 40-year period. In the early years, especially during the first quarter, the growth of publications was exceptionally slow. However, starting in 1997, interest in this topic began to steadily increase, leading to consistent annual growth. Remarkably, 2022 marked a peak with 128 documents, constituting 13.82% of the total publications. This surge can be attributed to the heightened interest in studying the post-pandemic effects of Covid-19 on SMEs' capabilities, which has made research in this area increasingly compelling. With the ongoing upward trend in annual publications, it is anticipated that by the end of 2023, the rate will surpass that of 2022. Figure 2 further presents the graph of the annual publication trends.

Table 4: Publication Year and Annual Growth

| Year	Total Publication (TP)	Percentage (%)	Year	Total Publication (TP)	Percentage (%)
1984	2	0.22	**2004**	4	0.43
1985	0	0.00	**2005**	5	0.54
1986	1	0.11	**2006**	8	0.86
1987	1	0.11	**2007**	8	0.86
1988	0	0.00	**2008**	15	1.62
1989	0	0.00	**2009**	24	2.59
1990	0	0.00	**2010**	24	2.59
1991	0	0.00	**2011**	27	2.92
1992	0	0.00	**2012**	30	3.24
1993	0	0.00	**2013**	35	3.78
1994	1	0.11	**2014**	32	3.46
1995	2	0.22	**2015**	28	3.02
1996	1	0.11	**2016**	40	4.32
1997	6	0.65	**2017**	56	6.05
1998	2	0.22	**2018**	69	7.45
1999	3	0.32	**2019**	69	7.45
2000	1	0.11	**2020**	87	9.40
2001	5	0.54	**2021**	96	10.37
2002	4	0.43	**2022**	128	13.82
2003	6	0.65	**2023**	106	11.45
			Total	**926**	**100.00**
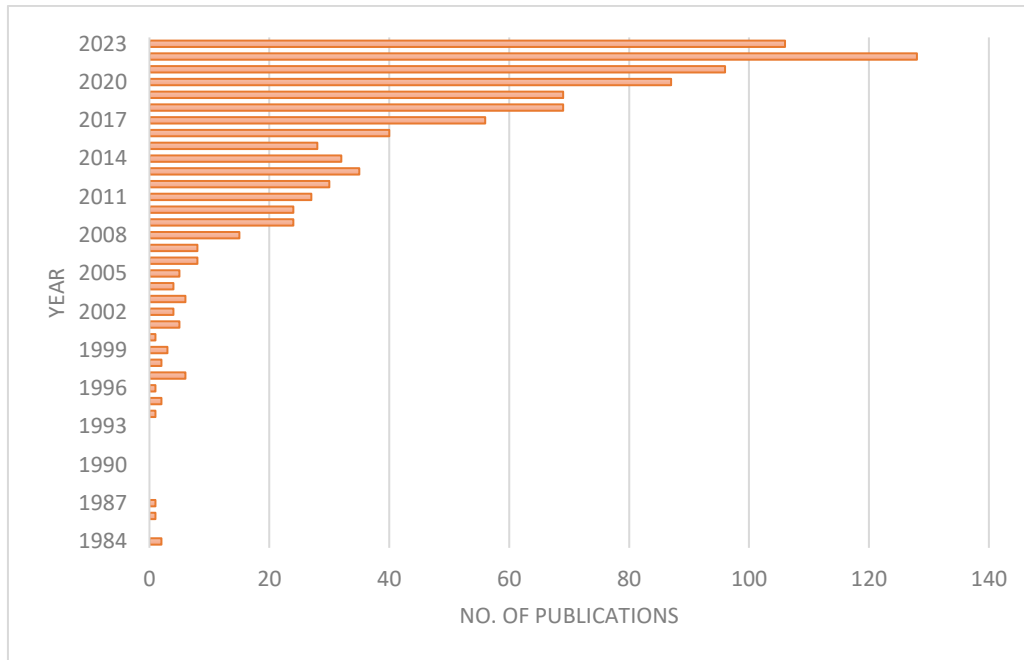
Figure 2: Number of Publication by Year

4.3 Prominent Subject Area for SMEs' Capabilities studies

The study then classifies the published documents according to their subject area, as summarized in Table 5. In general, this distribution reveals that research on SMEs' Capabilities extends across various subject areas. The most prominent subject area is Business, Management, and Accounting, which accounts for 654 publications (70.63%). Following closely is Computer Science, with 189 publications (20.41%), and Social Sciences, with 182 publications (19.65%), ranking as the third largest category. Economics, Econometrics, and Finance come in fourth, comprising 179 publications (19.33%), while Engineering takes the fifth spot with 152 publications (16.41%). Decision Sciences follow closely behind, with 127 publications (13.71%). These major subject areas significantly contribute to the study of SMEs' capabilities. While research on SMEs' capabilities also extends to other subject areas, their distinctive impact is comparatively less pronounced when compared to the dynamic landscape presented by the six aforementioned subjects.

Table 5: Subject Area

Subject Area	Total Publication (TP)	Percentage (%)
Business, Management and Accounting	654	70.63
Computer Science	189	20.41
Social Sciences	182	19.65
Economics, Econometrics and Finance	179	19.33
Engineering	152	16.41
Decision Sciences	127	13.71
Environmental Science	63	6.80
Energy	51	5.51
Mathematics	23	2.48
Arts and Humanities	21	2.27
Psychology	11	1.19
Multidisciplinary	10	1.08
Earth and Planetary Sciences	7	0.76

Agricultural and Biological Sciences	5	0.54
Materials Science	5	0.54
Chemical Engineering	4	0.43
Medicine	4	0.43
Pharmacology, Toxicology and Pharmaceutics	4	0.43
Physics and Astronomy	4	0.43
Biochemistry, Genetics and Molecular Biology	2	0.22

4.4 Most Productive Authors

Figure 3 showcases the most productive authors in SMEs' capabilities studies who have contributed five or more publications. Leading the list is Raymond, L. from Université du Québec à Trois-Rivières, Canada, with an impressive total of 13 published documents. This is followed by St-Pierre, J. from the same university, who has produced 9 publication documents. The third position is Saunila, M. from LUT University, Finland, with a notable 8 published documents. Additionally, notable contributors include Ramayah, T. (Universiti Sains Malaysia), Parida, V. (Lule University of Technology, Sweden), Neirotti, P. (Politecnico di Torino, Italy), and Camargo, M. (Université de Lorraine, France), each contributing 7 documents. Uwizeyemungu, S. (Université du Québec à Trois-Rivières, Canada), Twinomurinzi, H. (University of Johannesburg, South Africa), Raguseo, E. (Centre d'Etudes et de Recherche en Gestion d'Aix-Marseille, France), Enjolras, M. (ERPI, France), and Bergeron, F. (Université TÉLUQ, Canada) are also noteworthy contributors, with 6 documents to their name.
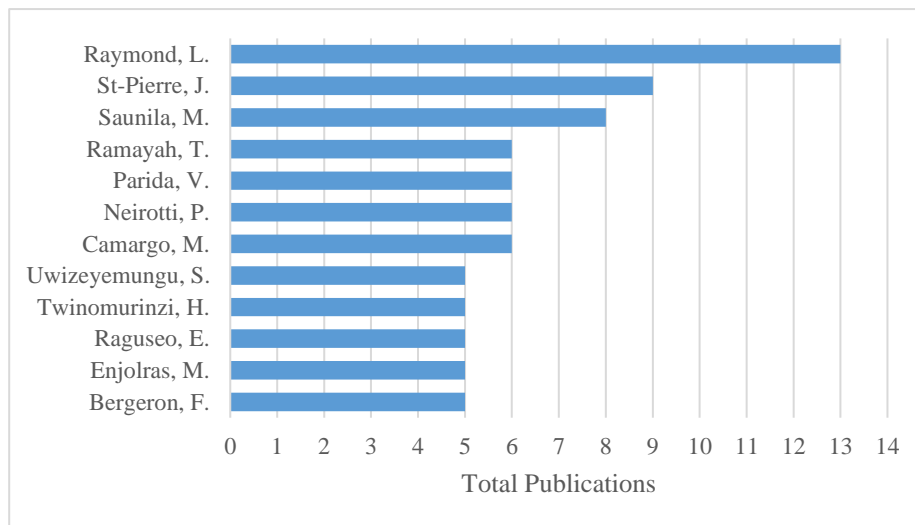

Figure 3: The Most Productive Authors

4.5 Most Active Source Title

This paper identifies the journals that have published six or more articles in the field of SMEs' capabilities, presenting them as the 'Most Contributing Sources' (MCS) based on Total Publications (TP). Table 6 not only furnishes important data on productivity of the source titles but also delves into their impact, incorporating metrics like Cite Score, SJR, and SNIP for the year 2022, obtained from Elsevier's Scopus Database.

Table 6: Most Contributing Sources (MCS)

No.	Source Title	TP	%	Cite Score	SJR 2022	SNIP 2022
1.	Sustainability Switzerland	28	3.02%	5.8	0.664	1.198
2.	Journal Of Small Business Management	21	2.27%	11.5	1.556	2.064

3.	Journal Of Business Research	16	1.73%	16	2.895	3.238
4.	Journal Of Small Business And Enterprise Development	15	1.62%	5.9	0.695	1.324
5.	Small Business Economics	10	1.08%	12.8	2.732	2.908
6.	International Small Business Journal Researching Entrepreneurship	9	0.97%	10.8	2.257	2.391
7.	International Journal Of Innovation Management	8	0.86%	3.2	0.488	0.688
8.	International Journal Of Entrepreneurship And Small Business	7	0.76%	1.7	0.331	0.422
9.	Lecture Notes In Networks And Systems	7	0.76%	0.7	0.151	0.19
10.	Industrial Marketing Management	6	0.65%	13.8	2.658	2.422
11.	International Journal Of Productivity And Performance Management	6	0.65%	6.3	0.732	1.709
12.	International Marketing Review	6	0.65%	8.5	1.309	1.373
13.	Journal Of Business And Industrial Marketing	6	0.65%	5.8	0.851	1.102
14.	Journal Of World Business	6	0.65%	12.9	3.245	2.883
15.	Review Of International Business And Strategy	6	0.65%	4.8	0.604	1.087
16.	Technology Analysis And Strategic Management	6	0.65%	7.1	0.774	1.229

Notes: TP=total number of publications; CiteScore = average citations received per document published in the source title; SJR = SCImago Journal Rank measures weighted citations received by the source title; SNIP = source normalised impact per paper measures actual citations received relative to citations expected for the source title's subject field.

Based on results shown in Table 6, the highest number of articles on SMEs' Capabilities was recorded in the Sustainability Switzerland, with 28 articles.When it comes to CiteScore, the Journal of Business Research stands out with an impressive score of 16. CiteScore reflects the average number of citations garnered by articles within a journal, typically over the past three years. High citation indicates growing research in a particular field, as well as the trusted quality of the journal. For SJR, Journal Of World Business recorded the highest score of 3.245. SJR is a prestige metric that assesses the influence of a journal based on both the number of citations received and the prestige of the citing journals, with citations from higher SJR journals carrying more weight than those from lower SJR journals (Ma et al., 2012). It provides a comprehensive measure of a journal's impact within its scholarly community. For SNIP, the Journal of Business Research achieved the highest score at 3.238. This signifies that, when considering contextual citation impact by weighting citations based on the total number of citations in the field of SMEs' Capabilities using Scopus data, this journal has recorded the highest contextual citation within the Scopus database. Despite the variations in citation-based metrics, these findings collectively indicate that the field of SMEs' Capabilities is dynamically gaining prominence among researchers.

4.6 Map of Publication Theme based on Authors' Keywords

As shown in Table 7, keywords such as Dynamic Capabilities, Innovation, SME Performance, Competitive Advantage, Knowledge Management, and Entrepreneurial Orientation were among the most encountered author's keywords after exclusion of the core keywords related to a search query (Capabilities; SMEs).

Table 7: Top 10 author's keywords

No.	Author Keywords	Total Publication (TP)	Percentage (%)
1.	SMEs	526	56.80
2.	Dynamic Capabilities	166	17.93
3.	Innovation	118	12.74

4.	SME Performance	115	12.42
5.	Innovation Capability	77	8.32
6.	Capabilities	54	5.83
7.	Competitive Advantage	45	4.86
8.	Competition	43	4.64
9.	Knowledge Management	43	4.64
10.	Entrepreneurial Orientation	42	4.54

Note: Several keywords, which share similarities, have been combined to enhance data harmonization for more accurate keyword analysis.

VOSviewer, a specialized software tool for constructing and visually depicting bibliometric networks, was utilised in this paper to map the thematic landscape of publications in SMEs' Capabilities studies. Figure 4 provides a visual network representation of the author's keywords generated by VOSviewer. In this graphical representation, various attributes including color, circle size, font size, and line thickness serve as indicators of the strength of relationships among the keywords.
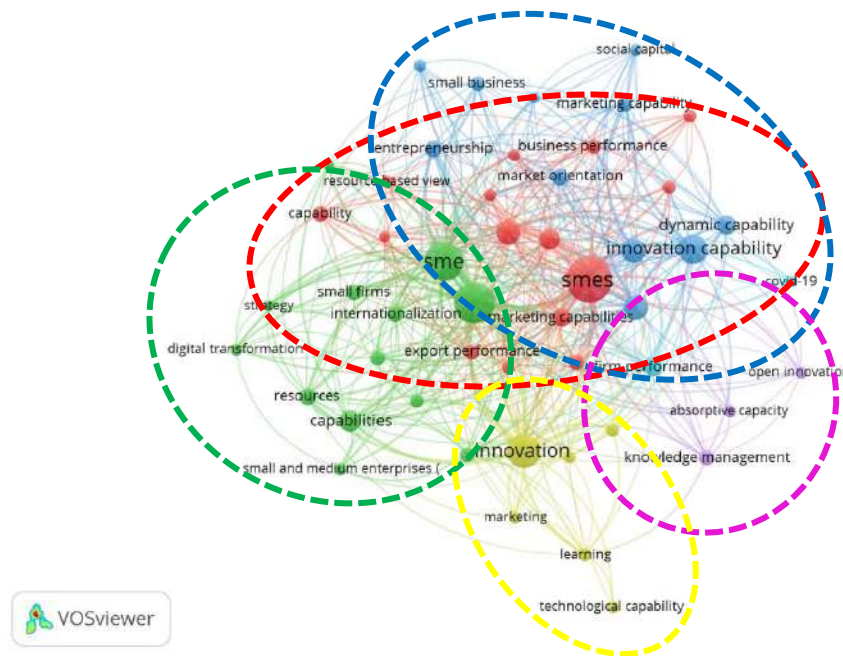
Figure 4: Research Theme Map of SMEs' Capabilities Research

There are five major groups of publication themes generated from the VosViewer (see Figure 4) based on research keywords related to SMEs' capabilities publication, abbreviated as DISKI themes:
1. Dynamic Capabilities theme (blue cluster).
   This cluster dominated by the keywords dynamic capability, innovation capability, marketing capability, social network, market orientation, entrepreneurship, small business, and social capital. These keywords represent critical aspects and interrelated factors relevant to the study of how SMEs adapt, innovate, and thrive in dynamic environments.
2. Internationalization capabilities (green cluster). Within this cluster, the keywords internationalization, export performance, digital transformation, capabilities, resources, and strategy occupy prominent roles. They collectively encompass critical aspects and dimensions pertinent to the investigation of how SMEs develop and utilize capabilities to effectively expand and compete in international markets, offering valuable insights into the dynamics of international business success.
3. SME Performance theme (red cluster). This cluster prominently features the keywords business performance, competitive advantage, sustainability, and capability. This theme encompasses essential dimensions relevant to

the exploration of how SMEs enhance their business performance, gain competitive edges, and ensure sustainability through the development and utilization of their capabilities.

4. Knowledge Management theme (purple cluster). This cluster is defined by the keywords knowledge management, absorptive capacity, and open innovation. The keywords represent key components and concepts crucial to understanding how organizations manage and leverage knowledge.Open innovation often relies on knowledge management practices to tap into both internal and external knowledge sources for fostering innovation.

5. Innovative Capabilities theme (yellow cluster). This cluster was primarily characterized by keywords such as innovation, technological capability, learning, and marketing, all of which play crucial roles in promoting innovation and adaptability within organizations.

5. Conclusion

This study contributes to the SMEs' capabilities literature by providing a comprehensive overview of the field's historical development and current research trends. As we uncover the trends, major contributors, and knowledge gaps in this domain, we believe that these insights should serve as the foundation for crafting and prioritizing future research agendas. To further enhance the comprehensiveness of bibliometric analyses in this field, future studies could consider expanding the search to other databases, such as Web of Science, ScienceDirect, or other relevant repositories, to capture a more comprehensive overview of SMEs' capabilities research. Additionally, there is potential to explore other bibliometric areas not covered in our study, such as co-authorship networks, citation patterns, or international collaborations among researchers in this field. By broadening the scope and depth of bibliometric research in SMEs' capabilities, we can continue to advance our understanding and contribute to both academic knowledge and practical applications in SME management and administration.

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Assessing the Impact of COVID-19 on Diverse Industries in Malaysia: An Overview of Service Sector

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Abstract

This paper presents an assessment of the impact of the COVID-19 pandemic on a range of industries in Malaysia, with a primary focus on the service sector. The service sector plays a pivotal role in Malaysia's economy, contributing significantly to GDP and employment. It encompasses a diverse array of industries, including transportation, tourism, hospitality, finance, and healthcare, which have been exposed to distinct challenges during the pandemic. This overview delves into the multifaceted repercussions experienced by these service-oriented industries. It explores the pandemic's effects on business operations, consumer behaviour, employment dynamics, and regulatory responses. Through the analysis of prior research findings, this study offers valuable insights into how the service sector in Malaysia has navigated the unprecedented disruptions wrought by COVID-19. Our findings reveal distinct patterns and disparities between industries, shedding light on which sectors were more resilient and which were particularly vulnerable during the crisis. We identify the strategies and factors that contributed to the stability and growth of certain industries, offering valuable insights for businesses, investors, policymakers, and stakeholders. Moreover, our study highlights the unique role of Malaysia in managing the economic challenges posed by the pandemic, as well as the country's efforts to support its key service sector.

Keywords
Impact, COVID-19, Service Sector, Malaysia.
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1. Introduction

The COVID-19 pandemic, stemming from the novel coronavirus SARS-CoV-2, stands as one of the most profoundly disruptive events in recent history, impacting nearly every facet of global existence. The pandemic set off a seismic shift in societal norms, with lockdowns, social distancing, and mask mandates becoming commonplace, fundamentally altering interpersonal interactions and business operations. It laid bare the vulnerabilities in global healthcare systems, catalysing unprecedented vaccine development efforts and renewing focus on public health. Economically, it wrought havoc, causing mass layoffs, business closures, and supply chain disruptions, resulting in economic contractions and job losses on an unprecedented scale. Even after governments responded with substantial stimulus packages, banks' delays and rejections in securing loans resulted in companies' surging debt levels and thus prompting a re-evaluation of the fragility of globalization and supply chain interdependence (Lim, Phua, Teh, & Lok, 2021).

Furthermore, the pandemic triggered significant changes in education and work, with remote learning exposing the digital divide and remote work, e-commerce, and telemedicine accelerating digital transformations. This necessitated rapid adaptation by companies. The pandemic also took a toll on mental health, leading to increased anxiety, depression, and isolation, underscoring the importance of mental health awareness, and prompting organizations to prioritize employee well-being (Morgan, 2023). On an environmental front, lockdowns temporarily reduced carbon emissions and pollution, offering insights into the potential for sustainable practices.

In addition to the multifaceted repercussions mentioned earlier, this paper places a specific emphasis on elucidating the extensive and profound ramifications that the pandemic has had on businesses as they found themselves among the hardest-hit sectors. Their performance underwent significant challenges, including widespread revenue losses driven by diminished consumer demand, halted travel, and the closure of retail spaces (Donthu & Gustafsson, 2020). Operational hurdles emerged as supply chains faltered, workforce issues arose, and logistical challenges hindered production and service delivery. However, companies with a digital edge fared better, utilizing e-commerce and remote services to sustain revenue streams (Gao, et al., 2023). The pandemic further delineated the financial resilience of companies, highlighting the importance of robust financial planning and risk management. While many firms relied on government aid packages to survive, these lifelines introduced

complexities and heightened indebtedness (Ebeke, et al., 2021). Consequently, companies are now engaged in a process of long-term adaptation, reevaluating business models, adopting flexible work arrangements, and investing in technology to thrive in the evolving post-pandemic landscape.

1.1 Service Sector in Malaysia

The choice to emphasize the service sector stems from its significance in Malaysia's economic landscape. During the 2000s, which is prior to the pandemic hit, the service sector played a predominant role in several countries, with notable contributions from Hong Kong, China (107.3%), Singapore (69.1%), India (65.7%), the Philippines (62.8%), Indonesia (56.4%), Pakistan (55.3%), and including Malaysia (67.0%). This trend underscores the significance of the service sector in these economies (Park & Shin, 2012).

Typically, more advanced economies tend to have a larger share of their GDP attributed to the service sector. This is often a result of economic growth, as the service sector expands alongside it. Consequently, the overall economic growth of a country increasingly relies on the performance and vitality of the service sector as it becomes a more substantial component of the economy.

For a more recent data, immediately before COVID-19, the total value added across all economic sectors in Malaysia in 2019 was RM1,262.8 billion, marking a growth of 4.4 percent compared to the RM1,209.2 billion recorded in 2018. The services sector emerged as the primary contributor to this value added, accounting for RM693.8 billion, equivalent to a substantial 54.9 percent share. Following closely was the manufacturing sector, which contributed RM319.2 billion (25.3%), and the mining and quarrying sector, which added RM129.1 billion (10.2%) (Department of Statistics Malaysia, 2020). This is depicted in **Exhibit 1** provided herein.
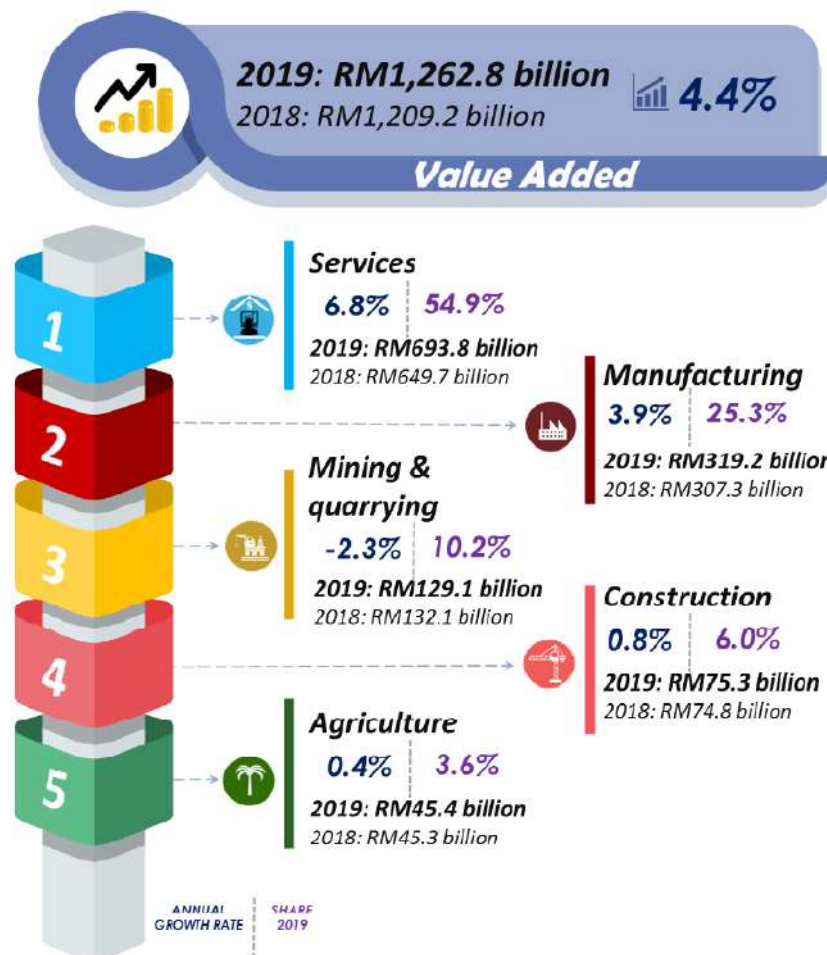

Figure 1: Performance of Value Added by Sector, 2018 and 2019

This study thus narrows its focus to assessing the impact of the COVID-19 pandemic on a range of industries in Malaysia, with a primary focus on the service sector during this uniquely challenging period. This research undertakes an analysis of the findings derived from prior studies, allowing us to delve deeply into multifaceted repercussions experienced by these service-oriented industries. It explores the pandemic's effects on, but not

limited to, business operations, consumer behaviour, employment dynamics, and regulatory responses. Our study contributed to offering valuable insights for businesses, investors, policymakers, and stakeholders into the specific challenges and opportunities that have arisen as a result of the pandemic's disruption, shedding light on the varying degrees of resilience and adaptability exhibited by different service sectors in the Malaysian economy.

The subsequent section of the paper explores the literature reviews conducted in prior research, while the final section serves as the paper's conclusion.

2. Literature Review

The COVID-19 pandemic had a significant impact on Malaysia, as with many other countries, leading to lockdown measures that caused a widespread drop in demand and disruptions across various industries, particularly in service sector.

The pandemic has reverberated through the maritime industry, causing disruptions in key sectors such as shipping, oil and gas, and fisheries, each grappling with unique challenges and consequences. It exposed vulnerabilities in Malaysia's transportation networks, including the maritime, port and shipping, rail, air, and trucking industries, resulting in interruptions, delays, and cargo accumulation. This disruption in the supply chain affected essential goods like food and medical supplies. The shortage of workers in the shipping industry contributed to interruptions in transit, further affecting supply chains (Loske, 2020). Malaysia's exports saw a sharp decline, decreasing by 25.5% year-on-year in May 2020, and imports also dropped by 30.4% year-on-year. These declines were attributed to lockdowns and the resulting decrease in global demand (BERNAMA, 2020). The pandemic also had a severe impact on Malaysia's oil and gas sector, with demand dropping by over 30% in April 2020, leading to a plunge in oil prices (Menhat, et al., 2021). The lockdown measures reduced the use of automobiles, industrial activities, and transportation, further affecting the sector. The fisheries sector, heavily reliant on global trade, suffered from restrictions imposed by various countries, resulting in lower earnings from exports and disruptions in supply chains. Small-scale fishermen were particularly affected, experiencing a 50% decline in income during the early phase of the MCO (Jomitol, Payne, Sakirun, & Bural, 2020).

The tourism industry, initially hopeful with the Visit Malaysia 2020 campaign, faced significant losses due to the drop in foreign tourists, mainly from Singapore and China. The industry has been severely impacted by this outbreak, as countries have sealed their borders and implemented restrictions on foreign travellers, resulting in a substantial decrease in the number of flights (Beh & Lin, 2021). Hotel bookings were cancelled, leading to wage cuts, unpaid leave, and layoffs among hotel staff (Foo, Chin, Tan, & Phuah, 2021). However, there was a positive sign in domestic tourism, with people traveling within the country as international borders remained closed. This surge in domestic tourism provided a glimmer of hope for the sector (Inus, 2020). Small enterprises, including souvenir stores, economy lodgings, and eateries, which traditionally depend on income generated by international visitors, ought to explore the possibility of attracting locals as potential patrons (Brouder et al., 2020). Over time, viewing the situation optimistically, the pandemic will heighten the awareness of both business proprietors and travellers concerning nearby attractions. Consequently, this could lead to heightened patronage and support for local small-scale enterprises.

In a study by Bakar & Rosbi (2021), they examined the stock prices of three major banks in Malaysia: CIMB Bank Berhad, Malayan Banking Berhad, and Public Bank Berhad, to understand how they were affected by the COVID-19 outbreak. Their findings indicate that the COVID-19 outbreak had a significant and negative impact on the stock prices of all three banks in their study. The magnitude of the impact varied, with CIMB Bank Berhad experiencing the most significant drop of -39.03%, followed by Public Bank Berhad with a -31.79% decrease, and Malayan Banking Berhad with a -17.10% decline. These results underscore the vulnerability of the banking sector to external shocks like a global pandemic. However, amidst the challenges posed by the pandemic, several positive developments have arisen. One notable transformation occurred in the banking sector during the pandemic wave is with digitalization taking center stage. For instance, Maybank Bhd introduced Maybank EzyQ, an innovative online appointment management system for its customers, becoming the first bank in Malaysia to offer such a service within its banking portfolio (NST Business, 2020). This innovation holds the promise of enhancing customer experiences and convenience significantly. With Maybank EzyQ, customers now have the flexibility to select their preferred date and time slots for branch visits, along with specifying the services they require, such as account opening, debit card inquiries, or product advisory. This empowers customers to reduce wait times and prioritize their personal safety by effortlessly scheduling appointments online. Additionally, in alignment with global health guidelines advocated by the World Health Organization (WHO) to minimize physical interactions, there has been a growing shift towards cashless transactions. E-payment solutions have gained widespread popularity in Malaysia, with most banks offering their own e-payment platforms, including Maybank QRPay, GO by Bank Islam, and CIMB Clicks, catering to the evolving preferences of Malaysians (Kee, et al., 2021).

The rise in healthcare benefits cost during the COVID-19 pandemic can be attributed to the scarcity of medical supplies. Due to this shortage, significant government expenditures were allocated to formulate stimulus packages aimed at bolstering the healthcare industry. These measures were thoughtfully designed to channel

resources towards enhancing acute care capabilities, procuring essential equipment like ventilators, and stockpiling critical medical resources, including personal protective equipment (PPE) (Samah, et al., 2020). As outlined in the presentation on Covid-19 Health Expenditure Estimation by the Ministry of Health's Malaysia National Health Accounts (MNHA) on November 10, 2022, the total healthcare expenditure aimed at containing the virus in 2021 witnessed a substantial increase compared to the RM2.25 billion spent in 2020. This surge was primarily attributed to the acquisition and dissemination of Covid-19 vaccines. The expenditure associated with the Covid-19 vaccination effort encompassed various components, including the costs of procuring vaccines, executing vaccination campaigns, managing distribution logistics, compensating healthcare professionals such as doctors and nurses involved in administering the vaccines, and covering organizational expenses. Nonetheless, some positive outcomes have emerged from the pandemic. The implementation of the Movement Control Order (MCO), which mandated citizens to remain confined and permitted only essential service workers (in healthcare, finance, essential food supply, and government services) to operate, resulted in a significant reduction in road traffic accidents and occupational injuries related to industrial activities. This overall effect has led to a noteworthy decrease in trauma cases in Malaysian hospitals, primarily due to reduced activity and mobility resulting from the restrictions imposed to curtail disease transmission (Lip, Huei, Mohamad, Alwi, & Mat, 2020)

3. Conclusion

In conclusion, this comprehensive assessment has provided an overview of the far-reaching impact of the COVID-19 pandemic on a diverse range of industries in Malaysia, with particular emphasis on the service sector. The service sector, a cornerstone of Malaysia's economy, holds significant sway in terms of contributing to GDP and employment, encapsulating various segments such as transportation, tourism, hospitality, finance, and healthcare. Throughout the pandemic, these sectors grappled with distinct challenges, each bearing its own set of consequences.

This overview has delved into the intricate repercussions experienced by these service-oriented industries, scrutinizing the pandemic's influence on various facets, including business operations, shifts in consumer behaviour, fluctuations in employment dynamics, and the regulatory responses that ensued. Drawing upon an analysis of previous research findings, this study has unearthed critical insights into how Malaysia's service sector navigated the unprecedented disruptions brought forth by COVID-19.

Our findings have illuminated unique patterns and disparities among industries, shining a spotlight on sectors that demonstrated resilience and those that faced pronounced vulnerabilities during this challenging period. Moreover, we have identified pivotal strategies and factors that contributed to the stability and growth of specific industries, offering valuable guidance to businesses, investors, policymakers, and stakeholders alike.

This study also underscores Malaysia's distinctive role in managing the economic challenges posed by the pandemic and its concerted efforts to bolster the pivotal service sector. As we forge ahead, these insights will not only serve as a critical reference but also contribute to the ongoing discourse surrounding the nation's path to recovery and future resilience in the face of unforeseen disruptions.

Acknowledgement

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The Effect of Profitability, Good Corporate Governance, And Company Size on Disclosure of Corporate Social Responsibility

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Abstract

This study aims to determine the effect of Profitability, Good Corporate Governance and Company Size on Disclosure of Corporate Social Responsibility in Consumer Non-Cyclicals companies listed on the Indonesia Stock Exchange for the 2019-2021 research period. The sampling technique used in this study was a purposive sampling method and 123 samples were obtained from 98 Consumer Non-Cyclicals companies in 2019 - 2021 that met the criteria to be sampled. The research data was processed using Eviews 12 with the best model being the Random Effect Model. The results of this study indicate that company size has an effect on disclosure of corporate social responsibility, while profitability and size of the board of commissioners have no effect on disclosure of corporate social responsibility. Profitability, Board of Commissioners Size and Company Size have a simultaneous effect on Disclosure of Corporate Social Responsibility.

Keywords

Profitability, Size of the Board of Commissioners, Company Size, Corporate Social Responsibility

1. Introduction

In this era of globalization, it certainly has many positive influences that we can take advantage of in such a way, such as making it easier for stakeholders in a company, both internal and external, to obtain data or information about the company's performance, especially in terms of performance in implementing corporate social responsibility. We can get this from reports on the implementation of corporate social responsibility or better known as Sustainability Reports (SR) which are made using a set of technologies.

However, technology not only has a positive influence on human survival, especially on environmental sustainability and caring for fellow living creatures, the negative impacts resulting from advances in technology and information in the current era of globalization actually result in the exploitation of underage workers. it's getting easier, this is supported by research conducted by the International Labor Organization (ILO), quoted from the Kompas.com website, which states that 1.5 million children aged 10 to 17 years are employed in Indonesian agriculture (tobacco).

There is also environmental pollution of land, water and air. This was confirmed by the Ministry of Environment and Forestry (KLHK) which stated in a press release number SP. 174/HUMAS/PP/HMS.3/04/2018 that there were 61 cases of companies resulting from the disposal of Toxic and Hazardous Waste (B3) which polluted the environment and endangered the health of the surrounding community.

Thus, developments in the current era which have developed into an era of globalization certainly do not always have a positive influence on society, but there can also be negative influences on society and even the environment. A company's activities will certainly produce production waste which can pollute and even damage natural ecosystems.

Therefore, a company must carry out social responsibility and report it every year. This report is called a corporate social responsibility report or what is often called a Corporate Social Responsibility report (CSR), the report contains information on the responsibilities that the company has carried out to continue to preserve the environment and improve the welfare of the surrounding community.

Companies that can manage assets efficiently and effectively with the aim of getting greater profits compared to the previous financial year period or companies that have growth in profits earned each period are companies that have good financial performance, (Maryati & Siswanti, 2022).

In this way, companies that have greater profits tend to carry out and disclose corporate social responsibility activities in a more informative and broader manner. This is supported by research conducted by (Urmila & Mertha, 2017) which states that profitability has a positive effect on corporate social responsibility disclosure.

Apart from that, there was previous research conducted by (Budiman, 2015) which discussed the disclosure of social responsibility which stated that profitability had an effect on the disclosure of social responsibility. And research conducted by (Pradnyani & Sisdyani, 2015) states that profitability has a positive effect on CSR. And research conducted by (Damayanty et al., 2021) shows that profitability has been proven to have a significant positive effect on disclosure of corporate social responsibility.

Meanwhile, research conducted by (Wahyuningsih & Mahdar, 2018) showed that profitability had a positive effect on disclosure of corporate social responsibility in the manufacturing industry. However, there is research that has the opposite results, such as research conducted by (Rofiqkoh & Priyadi, 2016) stating that profitability has no effect on disclosure of corporate social responsibility as measured using ROA.

In a good company sustainability report, there is certainly disclosure of corporate governance, such as the vision, mission and goals of the company and no less important is a clear organizational structure of the company. From the organizational structure, we can see whether there are inappropriate position placements that can trigger fraud in the company or not. In this way, the implementation of social responsibility is determined by corporate governance, so companies are encouraged to apply the principles of Good Corporate Governance (GCG) as well as possible.

In line with all this, this can be seen from the size of the company. Company size is calculated from the company's total assets owned to fulfill all company operational activities so that it can remain going-concern. The larger the size of a company, the wider the disclosure of corporate social responsibility that is carried out and reported in the company's sustainability report.

This is supported by research conducted by (Rofiqkoh & Priyadi, 2016) which states that company size has a positive effect on disclosure of corporate social responsibility, in addition there is research conducted by (Salehi et al., 2019) which provides research results that company size has an effect positive towards corporate social responsibility.

However, company size has no effect on corporate social responsibility disclosure, because small and large companies have the same extent to corporate social responsibility disclosure. This is proven by research conducted by (Pradnyani & Sisdyani, 2015) that company size has no effect on social responsibility disclosure as measured using total company assets.

As for research conducted by (Budiman, 2015) that company size has no effect on disclosure of corporate social responsibility and research conducted by (Urmila & Mertha, 2017) provides results that company size has no effect on disclosure of social responsibility as well as research results from (Wiyuda & Pramono, 2017) revealed that company size has no effect on the extent of corporate social responsibility disclosure. Because there are still inconsistencies in the results between the various researchers, the researchers are interested in re-examining the influence of profitability, good corporate governance and company size on corporate social responsibility disclosure.

2. Literature Review
2.1 Grand Theory
The rationale underlying researchers using Stakeholder theory as the grand theory of research is based on the fact that stakeholders want the survival of the agency without legal sanctions being violated and a company cannot stand alone without investment or investment from these stakeholders (Chen, 2019). So that stakeholders in a company greatly influence the survival of the company, thus management in a company will put more effort into carrying out appropriate activities and strategies according to the needs and desires of its stakeholders to obtain material support (Urmila & Mertha, 2017). First of all, from a stakeholder perspective, business can be understood as a set of relationships between groups that have an interest in the activities that make up the business (Freeman, 1984). Stakeholder theory focuses on the distribution of financial output (Marcoux, 2000).

According to (Parmar et al., 2010) stakeholder theory or stakeholder theory is a theory that emerged as a new narrative to understand and improve three problems in business that are interconnected, such as problems in understanding how value is created and traded, problems in connecting ethics and capitalism, and the problem of helping the managers of a company to think about management in such a way that both internal and external problems of the company can be addressed.

Stakeholder theory says that a company is not an entity that only operates for its own interests, but must provide benefits to stakeholders (shareholders, creditors, consumers, suppliers, government, society, analysts and

other parties). Thus, the existence of a company is greatly influenced by the support provided by stakeholders to the company (Ghozali & Chariri, 2007 in Wahyu and Prima).

Based on ISO (International Organization for Standardization) 9001, it is stated that the stakeholders in question are customers to achieve maximum satisfaction that has been provided from existing services. Meanwhile, based on ISO 14001, stakeholders are the surrounding environment which includes the community, government and NGOs because the surrounding environment is the one affected by the company's activities. (Parmar et al., 2010).

Disclosure of Corporate Social Responsibility

To build trust with external parties such as investors and creditors, not only does the company need financial reports, but the company must report a corporate social responsibility report. According to the Ministry of Health of the Republic of Indonesia: "CSR (Corporate Social Responsibility) is a concept or action carried out by a company as a sense of corporate responsibility towards social and the surrounding environment where the company is located, such as carrying out an activity that can improve the welfare of the surrounding community and protect the environment. ", providing scholarships for underprivileged children in the area, funds for maintaining public facilities, donations for building villages/community facilities that are social and useful for the community at large, especially the community around which the company is located"

As for certification standard international System Management Environment that is ISO 14001 Which emphasize that implementation responsibility is emphasized to the 3Ps, namely *People* , which means humans-humans concerned with company activities, *Planet* which means the environment or ecosystem affected by the company's activities, and *Profit* or profit Which It means all activity Which done by company aimed at getting profit the maximum.

Profitability

One of the basics for assessing company performance is profitability, where profitability is a company's capability to reach something profit (profit) in period period time certain. Company Which have profit from performance finance Good ones will tend to disclose their responsibilities corporate social more broadly (Indraswari & Mimba, 2017). Mark This profitability can be used as an evaluation material for effectiveness management from that company.

So a company must have internal capabilities manage overall assets effectively and efficiently by the aim of gaining increasing profits. (Maryati & Siswanti, 2022). With exists profit the company increasingly have the ability to implement and express CSR in a way extensive and detailed.

Good Corporate Governance

Good corporate governance (GCG) in a way definition is something system Which become base rule as well as controller company so that for all *stakeholders*, this creates added value (*value added*) (Monks, 2003). According to Danu (2017), that *Good Corporate Governance* (GCG) very influential important to economy country, Wrong One for example is crisis economy in area Asia and America Latin Which believed happen Because exists failure of GCG implementation. In other respects, GCG is key success of the company to develop and grow and produce profit in period long.

GCG has a supervisory role by para holder interest (*stakeholders*) to implementation management with the aim of improving company accountability, information transparency, and implementation of corporate social responsibility (Suprapti et al., 2019). According to (Sembiring, 2020) states that a company that has an effective GCG system makes it possible there is a connection in general between disclosures and transparency and exists disclosure between material activity Which can influence society as well environment in a way special. In line with theory *stakeholders* Which have connection with GCG in A company, ie management company will meet the expectations of *stakeholders* that with investment Which has given company will increase attention on activity social environment.

Size Company

Size company is Wrong One factor important in determine the structure of capital (Houston, 2011). When investors want Investing business capital in a company often looks at the size aspect of the company and conduct a review of financial performance from the company (Ret & Sudarno, 2011).

Framework Theoretical

As for framework theoretical on study This as following:
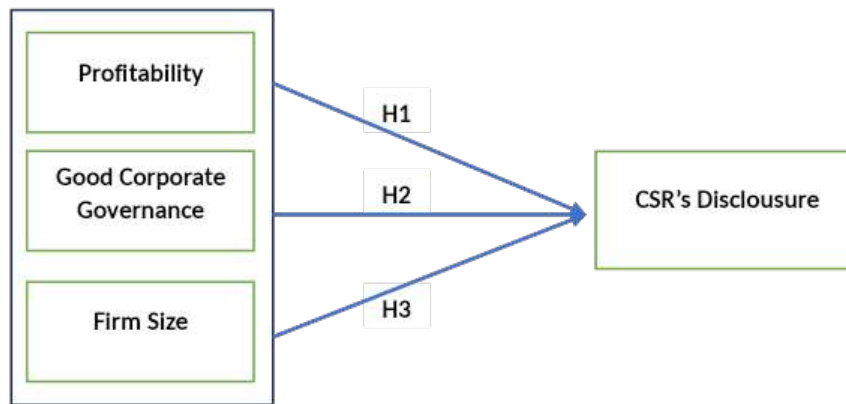
Development Hypothesis

The Influence of Profitability on Disclosure of Responsibility Social Company.
Profitability is aspect important as factor supporter all activities in disclosing corporate social responsibility. According to Chapter 74 Paragraph 4 Constitution No 40 Year 2007 About Company Limited, states that limited liability companies are required to make reports on corporate social responsibility. As for (Putri & Christiawan, 2014) state that company Which have profit is company who understands and care about the environment social. On segment This theory *stakeholders* have role to connection The influence of profitability on disclosure of social responsibility is increasing fund Which provided by para *stakeholders* so the more wide also disclosure of corporate social responsibility presented. Like that expressed by Urmila and Metha (2017) stated that profitability influential positive to disclosure *Corporate Social Responsibility.*
H1: Profitability has significant effect to Disclosure of Corporate Social Responsibility

The Influence of the Size of the Board of Commissioners
According to Act No 4o Year 2007 about Company Limited state that "The Board of Commissioners is a Company Organ whose task is to carry out general and/or specific supervision in accordance with the articles of association as well provide advice to the Board of Directors." Size of the Board of Commissioners is wrong One form mechanism *Good Corporate Governance* (GCG). The bigger size of the board of commissioners so in practice disclosure not quite enough answer social companies are also increasing wide express it. This thing supported by study Which done (Chen, 2019) state that size board of commissioners influential to wide CSR disclosure. Apart from that, as for study Which done by (Damayanty et al., 2021) Which state that composition from the board of commissioners influential to CSR disclosure. As for the results study others stated _ that board commissioner influential to wide disclosure CSR Which done by (Wiyuda & Pramono , 2017). With thereby CSR is as tool forr convince the company's stakeholders that company has carry out not quite enough answer social in accordance with provision law and standardization.
H2: Size of the Board of Commissioners has Influential Significant effect to Disclosure of Corporate Social Responsibility

The Influence of Company Size on Disclosure of Social Responsibility
In terms of company size, they are divided into two, namely small-sized and large-scale companies. The larger the size of a company, the easier it will be to obtain costs for carrying out its activities, including the practice of carrying out corporate social responsibility. This is supported by the results of research conducted by (Wahyuningsih & Mahdar, 2018) that company size has a positive effect on the spread of corporate social responsibility. Apart from that, research conducted by (Totanan et Al., 2022) provides results that positive size has an effect on the spread of CSR. There is research which has the result that company size influences CSR disclosure carried out by (Putra &

Setiawan, 2022). So, company management has full control over the financial reports to obtain funds used to finance CSR in each period. So you can get:

H3: Company size has a significant positive effect on disclosure of corporate social responsibility.

The Influence of Profitability, Good Corporate Governance, and Company Size on Social Responsibility Disclosure

Disclosure of corporate social responsibility requires more effort to reveal broader and more detailed information. Companies need a lot of funds to make optimal departure reports as a special means of deepening the social responsibility that has been carried out by the company, so that companies that have more profits in one period will express corporate social responsibility through settlement reports more optimally. Apart from that, within the limits of corporate social responsibility it will be influenced by internal parties, for example the size of the board of commissioners because stakeholders have control over the company's activities, the better the corporate governance, the maximum the scope of social responsibility that is reported through the company's termination report. And the size of the company will also have a negative impact on corporate social responsibility, because the size of the company will influence the results of information on corporate social responsibility that will be published at the end of the period.

Thus, from this explanation, we can draw temporary conjectures based on the three independent variables showing an influence on the dependent variable, so that we can obtain:

H4: Profitability, Good Corporate Governance, and Company Size Have a Significant Influence on Disclosure of Corporate Social Responsibility.

3. Methods
3.1 Types of Research

In this research, researchers used a quantitative paradigm. The data used to support research is data obtained from figures in a company's financial report as a template for analysis to obtain answers from research. Meanwhile, according to Sugiyono (2015), quantitative data is data in the form of numbers or numerical data. Researchers use this type of research by using research explanations to test the correlation between the independent variables (Profitability, Good Corporate Governance, and Company Size) and the dependent variable (Disclosure of Corporate Social Responsibility) to test the truth of the hypothesis that the researcher has made.

3.2. Object of research

The research objects used in the research are Profitability, Good Corporate Governance, and Company Size on the implementation of Corporate Social Responsibility in non-cyclical consumer industries that are implementing corporate social responsibility in the period 2019 to 2021.

3.3. Population and Sample
3.3.1. Population

According to Sugiyono (2011) Population is an area that contains objects or subjects, has certain characteristics and qualities as research material for researchers to study and draw conclusions. For the population in this study, researchers used companies in the non-cyclical consumer industry that were listed on the Indonesia Stock Exchange in the period 2019 to 2021.

3.3.2. Sample

The sample is part of the population with a smaller range for use by researchers in searching for answers in research. As for the sample, according to Sugiyono (2011), the sample is part of the research. In sampling, there is a technique for determining a sample that is taken into consideration to be used as printed material in research, which is called a purposive sample. Thus, the technique used in disclosing the sample by the researcher is by means of a purposeful example. The samples that will be used by researchers are companies operating in non-cyclical consumer industries that are listed on the Indonesia Stock Exchange, and report Social Responsibility for the 2019 and 2021 periods. The criteria used in sample disclosure include the following:

Table 3. 1 Sample Drawing

No	Criteria	Number of companies
1	Company registered on the IDX and having shares actively traded in 2019 2021 non-consumer industry cyclicals	98
2	Minus: Non-cyclical consumer industry companies that do not consistently present annual reports in IDX during the 2019-2021 period	(25)
3	Minus: Non-cyclical consumer industry companies that do not consistently provide sustainability report for the 2019-2021 period	(30)
4	Minus: Non-cyclicals consumer industry companies that use eyes foreign money in annual reports	(2)
	Number of Population used	41
	Observation Year	3
	The Number Sample used	123

3.4 Data collection technique

In this study, researchers obtained data using secondary data collection techniques. obtained from annual reports, financial reports, and corporate social responsibility reports on the official website of the Indonesia Stock Exchange or the official page of the company website.

3.5 Variable Operations

The measurements of the variables used in the research include the following:

Table 3. 3 Operational Variables

Variable	Indicator	Scale
Disclosure of Corporate Social Responsibility (Y) (Nurkhin, 2009)	CSRDI berdasarkan GRI	Nominal
Profitability (X1) (Ernesto and Pangaribuan)	Net Profit After Sales Tax Ratio	Rasio
Good Corporate Governance (Size of the Board of Commissioners) (X2) (Ming Chen 2019)	Number of Members of the Company's Board of Commissioners Ratio	Rasio
Company Size (X3) (Urmila and Mertha 2017)	Natural Log of Total Asset Value Ratio	Rasio

3.6 Data analysis

In this study, researchers used multiple linear regression analysis using Eviews software to test all the variables used in the research and to see the correlation between the independent variables and the dependent variable.

The methods used to test correlation include the following:

3.6.1 Descriptive statistics

In this study, researchers used descriptive statistics to determine the average, minimum, maximum and standard deviation values for each variable.

3.6.2 Classic assumption test

In this research, the classical assumption test is used to obtain and determine accurate, unbiased results, data distribution and correlation between independent variables. In the Classical Assumption test, researchers used the Normality Test, Multicollinearity Test, Autocorrelation Test, and Heteroscedasticity Test.

3.7 Hypothesis testing

F test

The F test is carried out to determine the influence of the independent variable on the dependent variable simultaneously, with the following benchmarks:
- If sig. > 5% then H_0 is accepted
- If sig. < 5% then H_1 is rejected

With the equations in this research as follows:

$$Y = \alpha + \beta 1\ X1 + \beta\ 2X2 + \beta\ 3X3 + e$$

Y = CSR Disclosure
α = Constant
β 1, β 2, β 3, β 4 = Regression Coefficients
X1 = Profitability
X2 = Good Corporate Governance
X3 = Company Size
e = Error

4. Results and Discussion

4.1. Individual Parameter Significance Test (t Test)

The individual parameter significance test or t test is aimed at finding out whether the independent variables individually have an effect on dependent variable or not. Apart from that, in this t test we can find out whether a hypothesis can be accepted or rejected. The basis for decision making in the t test is as follows:
a. If the significance value is <0.05 then the hypothesis is accepted.
b. If the significance value is > 0.05 then the hypothesis is rejected.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.676301	1.304706	1.284811	0.2017
X1	0.647105	0.486560	1.329962	0.1864
X2	0.600717	0.383059	1.568209	0.1198
X3	0.189278	0.090811	2.084298	0.0396

Based on the table above, we can see the results of the individual parameter significance test or t test, that:
1. The variable profitability (X1) on CSR (Y) has a probability value of 0.1864, which means that variable X1 has no effect on variable Y.
2. The variable size of the board of commissioners (X2) on CSR (Y) has a probability value of 0.1198, which means that variable X2 has no effect on variable Y.
3. The variable company size (X3) on CSR (Y) has a probability value of 0.0396, which means that variable X3 has an effect on variable Y.

Results and Discussion

The Influence of Profitability on Corporate Social Responsibility Disclosure (H1)
The test results using the significance of individual parameters or the t test, show that the profitability variable as an independent variable in this study has a result of 0.1864, which means > 0.5 which is proxied by the Net Profit Margin by dividing the net profit after tax by the sales or income obtained by the company in one period.

This is also supported by research conducted by (Indraswari & Mimba, 2017) which states that profitability has no effect on the level of disclosure of a company's social responsibility. In line with the results of Indraswari and Mimba's research, previous research found that profitability had no effect on corporate social responsibility disclosure. This was obtained from research conducted by (Putra & Setiawan, 2022) which revealed that profitability had no effect on corporate social responsibility disclosure.

The Influence of Board of Commissioners Size on Corporate Social Responsibility Disclosure (H2)
Based on the results of descriptive statistical tests on the measurement of the variable size of the board of commissioners, the results show that the non-cyclical consumer sector has a maximum value of 3,082 or companies that have the number of boards. The test results through the significance of individual parameters or the t test, show that the variable size of the board of commissioners is an independent variable. in this study the result was 0.1198, which means > 0.5. Thus, it can be interpreted that the large or small number of board of commissioners in a company does not affect the extent or not of corporate social responsibility disclosure.

In this case, it is in line with research conducted by (Suprapti et al., 2019) that the board of commissioners has no influence on disclosure of corporate social responsibility. Apart from that, there are results from previous research which state that the board of commissioners has no influence on the disclosure of social responsibility. This was obtained from research conducted by (Viriany, 2019). And research conducted by (Ersyafdi et al., 2019) has the same results, that the size of the board of commissioners has no effect on CSR.

The Influence of Company Size on Disclosure of Corporate Social Responsibility (H3)
The test results using the significance of individual parameters or the t test, show that the company size variable as an independent variable in this study has a result of 0.0396, which means <0.5 which is proxied by the total assets owned by companies in the non-cyclical consumer sector. From the descriptive statistical analysis test, we can see from the measurements for the company size variable in the non-cyclical consumer sector that there is a maximum value of total company assets of 18,910 and a minimum value of 9,455. Thus, whether a company's total assets are large or small in one period influences the extent or not of the results of corporate social responsibility disclosure.

There are several previous studies that have results in line with this research, including research conducted by (Putra & Setiawan, 2022) that company size has a significant effect on CSR. Furthermore, research conducted by (Viriany, 2019) states that company size has a significant effect on the disclosure of social responsibility of a company. And the results obtained from research (Rofiqkoh & Priyadi, 2016) state that company size has a positive influence on social responsibility disclosure as measured using the natural log of total company assets.

The Influence of Profitability, Size of the Board of Commissioners, and Company Size on Disclosure of Corporate Social Responsibility (H4)
Based on the simultaneous significance test or f test on the measurement of all independent variables on the dependent variable, the results show that the independent variables profitability (X1), size of the board of commissioners (X2), and company size (X3) have an effect on the dependent variable of corporate social responsibility disclosure (Y). This is significantly supported by the test results via EViews which produce an f test value of 0.008701 or the equivalent of <0.05.

Thus, even though the partial measurement shows that the profitability variable and the board of commissioners' size variable have no influence on the disclosure of social responsibility, in the simultaneous test all the independent variables have an influence on the dependent variable in this study.
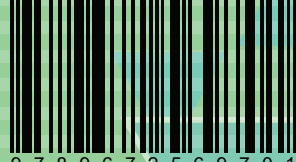
5. Conclusion
From the overall results of the tests in this research, the aim is to determine the influence of the independent variable on the dependent variable partially or simultaneously as well as to analyze and provide empirical evidence of the influence of profitability, good corporate governance and company size on disclosure of corporate social responsibility. Gives results that:

1. Profitability (X1) gives the result that the low or high level of a company's profits obtained from Net Profit Margin (NPM) calculations has no influence on the extent or not of social responsibility disclosure in a company in the non-cyclical consumer sector.
2. The size of the Board of Commissioners (X2) gives the result that the small or large number of commissioners in a company has no influence on the extent or not of social responsibility disclosure in a company in the non-cyclical consumer sector.
3. Company size (X3) gives positive results on corporate social responsibility disclosure, which means that the large or small amount of total assets owned by the company will influence the extent or not of corporate social responsibility disclosure in non-cyclical consumer sector companies.
4. Profitability, size of the board of commissioners, and company size, although they have results on the variables profitability and size of the board of commissioners, partially have no effect on disclosure of corporate social responsibility but have a significant influence on disclosure of corporate social responsibility through a simultaneous significance test.

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