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# The 1st International Colloquium on Accounting and Business (ICAB2022)

## Collaborator

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## **PREFACE**

ICAB2022 is the 1<sup>st</sup> International Colloquium on Accounting and Business, which is organized by the Faculty of Accountancy, UiTM Perak Branch, Tapah Campus in collaboration with the Accounting Research Institute (ARI), Universitas Paramadina, Universitas Indonesia, Kolej Universiti Poly-Tech Mara (KUPTM) and Institute Agama Islam Negeri Iain Lhokseumawe. This colloquium is held on 8-9 November 2022 with the theme ‘Accounting and Business Resilience in a Post-Pandemic Economy’. It is open to those who are interested in learning new knowledge as well as to those who want to share their own practices.

The objective of ICAB2022 is to provide a platform for academics, professionals, researchers and scholars from Malaysia and abroad to interact and share knowledge, experience and expertise in the fields of accounting, finance, economics and business management. These proceedings contain 50 research papers in the field of accounting, finance, management, business, educational, sustainability and other which focusing to the theme of Accounting and Business Resilience in a Post-Pandemic Economy.

Editors,

Faculty of Accountancy, Universiti Teknologi MARA, Perak Branch, Tapah Campus, Malaysia

*November 2022*

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## **Corporate Zakat Distribution: Exploring the Practice Among Corporate Zakat Payers in Malaysia**

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### **Abstract**

Companies have become key players in addressing social and environmental challenges. Companies contribute significant financial and non-financial resources to support social initiatives through their Corporate Social Responsibility (CSR). The Malaysian government encourages companies, including Islamic organizations, to participate in CSR actively. Consequently, companies allocated zakat for their CSR activities and sustainability agenda through wakalah corporate zakat refund. Using this wakalah mechanism, companies as corporate zakat payers receive an assignment of authority to eligible beneficiaries based on the specific condition after paying a certain amount of zakat-to-zakat institutions. The distribution of zakat refunds for CSR initiatives would strengthen the relationship between the corporate zakat payers as muzakki and zakat beneficiaries or asnaf. However, there is limited attention on the corporate zakat distribution practices among corporate zakat payers in Malaysia. Most studies on zakat distribution have focused on the efficiency and effectiveness of collection and distribution by zakat institutions. Thus, this study aims to explore and understand the practice of corporate zakat distribution for CSR initiatives. This study applied a qualitative approach where data obtained from interviews with five corporate zakat payers were examined thoroughly. This study identified three main themes in corporate zakat distributions; top management commitment, zakat framework, and stakeholder engagement. This study is expected to contribute to understanding corporate zakat practices in Malaysia and provide insights to encourage companies to manage their zakat fund systematically to support CSR initiatives.

### **Keywords**

Corporate zakat, Corporate Social Responsibility, Wakalah, CSR initiatives

### **1. Introduction**

Ending poverty and inequality is one of the most significant challenges in the current decade due to limited financing. Zakat can be a supporting source of the fund because the main aim of zakat is to reduce poverty and social injustice. Islamic organizations and companies are now focusing on their corporate social responsibility (CSR) activities and diversifying their CSR activities through strategic zakat distribution for their CSR initiatives. In line with this, the Central Bank of Malaysia issued a strategy paper titled Value Based Intermediation (VBI): Strengthening the Roles and Impact of Islamic Finance in 2017. The new strategic direction promoted in this strategy paper aims to deliver the intended outcomes of Shari'ah through practices, conduct, and offerings that generate a positive and sustainable impact on the economy and community, consistent with the shareholders' sustainable returns and long-term interests. Consequently, companies are encouraged not solely to focus on profit maximization but to participate in economic empowerment and community upliftment programs to serve the needy.

Companies nowadays are driven by public demand to increase their transparency and accountability concerning social responsibility due to changing societal norms and expectations. Indeed, any institution that claims to be Islamic should be socially responsible, as mentioned in the Qur'an and Sunnah of the Prophet Muhammad (P.B.U.H). From an Islamic perspective, business entities must focus their efforts on the less fortunate in society because Islam emphasizes social justice and thus needs wealth to be equally distributed. Zakat is one of the concepts described by the Qur'an that ensures good circulation of wealth in society.

Zakat is the third of the five major pillars of Islam and it is a divine act imposed by Allah on the wealthy Muslim, which is to be carried out through their legitimate earnings to the less. Zakat ensures the circulation of wealth in the society and effective tools for poverty alleviation. Zakat can also strengthen the bond between the rich and the poor, providing security and bringing happiness to the community (ummah). Zakat is not restricted to only individual responsibility. Still, it can be extended as the responsibility or an obligation of all corporations or organizations towards society, as these entities are generating profits and they can very well support the cause of enhancing the societal benefits (Javaid & Al-Malkawi, 2018).

Nevertheless, zakat has become part of CSR. Zakat could be used to increase the flow of corporate resources into the social sector through the use of wakalah zakat fund for CSR initiatives. The wakalah is the policy of zakat refund by



State Religious Councils (SIRCs) or zakat institutions to the entity that pays zakat to the authorized zakat collection center to be distributed to the eligible asnaf (beneficiaries) (Paizin & Sarif, 2019). Central Bank of Malaysia (BNM) defines wakalah as a contract in which a party (muwakkil) authorises another party as his agent (wakil) to perform a particular task in matters that may be delegated voluntarily or with imposition of a fee. The wakalah contract is one of the initiatives that can improve the zakat distribution (Ahmad & Wahid, 2017). Previous studies revealed that CSR activities of Islamic organisations including Islamic financial institutions in Malaysia have been funded with zakat fund (Nurul'Iffah & Hassan, 2022; Osmera, Wahid, & Mohd Noor, 2021; Ramli, 2018).

The business entities guided by Shari'ah principles face more expectations in performing CSR (Wan Jusoh & Ibrahim, 2020; Darus, Amran, Nejati, & Yusoff, 2014). Similar to paying corporate zakat, CSR is part of religious obligations (fard kifayah). Therefore, the organizations involved with CSR activities should carefully strategize CSR initiatives and incorporate them into their corporate strategy, planning and marketing (Dusuki, 2008). Islamic organizations are in exemplary positions in society to fulfill responsibilities that individual Muslims cannot meet (Farook, 2007). In this notion, the operation of Islamic organizations should be conducted in a permissible manner according to Shari'ah and Islamic principles, where business transactions can never be separated from the moral objectives of the society (Wan Jusoh & Ibrahim, 2020). CSR should also be considered a method to alleviate poverty and achieve the true economic goals of Islam (Yusuf & Bahari, 2015).

However, limited studies discuss how the corporate zakat is managed and allocated for CSR initiatives. Most studies on zakat and CSR are conceptual (Harahap, 2021; Selvik, 2018) and focusing on CSR disclosures and reporting (Nurul'Iffah & Husni, 2022; Abd Samad, Said, Mohd Nasir, Mahshar, & Kamarulzaman, 2018; Javaid & Al-Malkawi, 2018; Rosman, Haron & Othman, 2019; Hasan, 2020). Studies on zakat and CSR are mainly focus on Islamic financial institutions (Wan Jusoh & Ibrahim, 2020; Abu Bakar & Md Yusof, 2014; Mohd Nor & Hashim, 2015) and ignore other industries. Thus, this study aims to understand the management of zakat fund distribution for CSR initiatives among companies in Malaysia. Hence, disclosing the management practices of corporate zakat distribution is significant to encourage companies in Malaysia to pay corporate zakat to zakat institutions and distribute zakat themselves through their engagement in CSR. This study applies a qualitative approach where several interviews have been conducted with the key personnel responsible for managing corporate zakat in five selected companies.

## **2. Literature Review**

### **2.1 Corporate Zakat**

Zakat is the obligation toward society (Javaid & Al-Malkawi, 2018). Zakat on business or corporate zakat can be broadly defined as due 2.5 percent of wealth that a company must pay each year based on certain conditions to the eight categories of asnaf (Abd Samad et al., 2018). Malaysian Accounting Standard Board (MASB) defines zakat as an obligatory contribution assessed on certain assets owned by a Muslim that satisfies certain conditions and is to be distributed among specific categories of beneficiaries. Meanwhile, corporate zakat is an obligatory contribution assessed based on business assets owned by an entity that satisfy certain conditions and is to be distributed to specific categories (MASB, 2016). Despite an increase in the corporate zakat collection, the issues of whether the companies are obliged to pay zakat are still debatable because zakat on corporate wealth is never clearly discussed in classical Islamic texts. Moreover, there is no enforcement by the government through State Islamic Religious Council or zakat institutions to ensure that companies liable to pay zakat to perform their duties.

In Malaysia, the companies are obliged to pay zakat in accordance to the 31<sup>st</sup> Fatwa Committee National Council of Islamic Religious Affairs Malaysia held on 9 December 1992. The Fatwa Committee ruled out that the company is compulsory to pay zakat when it fulfils the following conditions:

- a. The company is owned by Muslims
- b. The company is owned by independent Muslims
- c. Absolute ownership
- d. The amount of wealth reaches the minimum zakatable limit (nisab)
- e. Sufficient haul which is a complete one lunar year or 354.3 days
- f. The zakat rate on a company is 2.5 per cent

Due to high potential of corporate zakat, country like Indonesia has imposed a regulation through CSR program on the zakat aspect. Every company in Indonesia must channel CSR funds by 5 percent. If the company that has channeled it 2.5 per cent of fund for CSR through zakat, it only disbursed 2.5 percent more budget for CSR initiatives (Harahap, 2021). Similarly, Islamic banks in Indonesia must publish financial reports stating the amount of zakat funds distributed to mustahik within the CSR program (Hasan, 2020). In Malaysia, paying corporate zakat is voluntary due to the absence of law enforcement in Malaysia. This situation discouraged the companies from paying zakat as it is perceived as unimportant and companies would focus more on paying corporate tax than corporate zakat (Abd Samad et al., 2018). They prefer to share some of their profit to the CSR program than paying zakat to zakat institutions (Hasan, 2020).

To encourage private sectors paying corporate zakat to zakat institutions and improve zakat distribution, one of the incentives introduced by zakat institutions is wakalah zakat (policy of zakat refund) (Ahmad & Wahid, 2017). Islamic Religious Council of Federal Territory (MAIWP) defines wakalah as assignation of authority to zakat payers to distribute zakat money by themselves to eligible asnaf group through a refund of an amount of zakat payment based on lined conditions (Osmera et al., 2021). A company can apply for refund until 50 percent or 37.5 percent of total corporate payment, depending on the amount of zakat payment. This wakalah incentive could reduce the corporate tax burden since the tax rebate for corporate zakat is minimal, unlike the individual tax, encouraging companies to pay corporate zakat to zakat institutions. The zakat refund can be distributed to asnaf and allocated for CSR initiatives.

In line with the participation of private sectors in charitable works and community services through their CSR initiatives, Muslim professionals have made innovations in the mobilization of corporate zakat to expand their CSR projects (Latief, 2013). This can be seen in how Islamic banking institutions practice and manage the corporate zakat. For instance, Bank Islam Malaysia Berhad (BIMB), the first Islamic bank in Malaysia, utilizes the refundable zakat (wakalah zakat) to conduct CSR initiatives. In 2021, BIMB paid RM11.8 million corporate zakat to 14 zakat institutions and distributed almost RM8 million worth of zakat to enhance the well-being of society through their various social initiatives (Bank Islam Integrated Report, 2021).

## **2.2 Corporate Social Responsibility**

Corporate social responsibility (CSR) is an umbrella term encompassing multiple concepts regarding the role and impact of business on society. CSR is defined as a discretionary allocation of corporate resources toward improving social welfare that enhances the relationship with key stakeholders (Barnett, 2007). Nowadays, the private sectors are expected to take part and contribute to society due to the government's limited resources to tackle socio-economic challenges and meet the citizens' needs. Companies continuously encounter pressure from multiple stakeholders to devote resources to CSR such as customers, employees, suppliers, community groups, governments, and institutional shareholders (McWilliams & Siegel, 2001). Due to the pressure from stakeholders, CSR is not just seen as philanthropic activity; instead, CSR is strategically used by companies to gain legitimacy, enhance brand image and also improve the financial performance of the company (Platonova, Asutay, Dixon, & Mohammad, 2018). Many managers invest in CSR activities not to make a financial return but because they seek to create social or environmental impact (Peloza & Shang, 2014). It is believed that the contribution to the community in which the companies operate will be potentially beneficial as it increases the license to operate and enhances the organizations' long-term sustainability.

The allocation of firm resources towards CSR is typically based on an argument for the business case (Barnett, 2019; Schaltegger & Burritt, 2018; Peloza, 2009; Barnett, 2007). A business case can be seen as a rationale that guides management thinking and justifies management decisions and activities (Schaltegger & Burritt, 2018). In this view, firms should understand their ability to gain benefits and profits from CSR, which provides a basis for their involvement in meeting the needs of society (Barnett, 2019). Studies like Barney (1991) and Branco & Rodrigues (2006) argued that companies would nurture their resources to enhance their performance and eventually gain competitive advantage in the long term. This argument is consistent with Carroll & Shabana (2010) that CSR focus has shifted from ethics orientation to performance orientation. Today, the business case paradigm for CSR dominates the practice of corporations, where firms annually portray their substantial investment in CSR in their sustainability report and declare a positive relationship between the firm's success and its contribution to society (Barnett, Cashore, Henriques, & Husted, 2021). In this practice, companies use CSR as a legitimacy strategy to change society's perception of their actions and improve their image through their involvement in community activities.

## **2.3 Zakat and Corporate Social Responsibility**

In Islamic perspective, businesses are responsible for society by performing zakat and other charitable activities as stated in Qur'an. Islamic organizations may use their resources to conducting CSR initiatives and contribute towards society well-being. The objective of CSR in Islam is to promote social justice as well as to obtain Allah's blessing (barakah) and al-falah (success) in this life and in the Hereafter. Javaid & Al-Malkawi (2018) argued that firms in developing countries are still in the nascent stage of their awareness and integration of CSR activities within their corporate policies and strategies. As Malaysia is progressing and becoming the leading Islamic finance hubs, there is still no a particular CSR framework to guide Islamic organizations including Islamic financial institutions, on CSR implementation (Wan Jusoh & Ibrahim, 2020; Darus, 2012). Currently, Islamic organizations based on Shari'ah principles and values derived from al-Qur'an and Sunnah are using the conventional CSR framework to guide their CSR activities and disclosures. This conventional framework may not be suitable to guide the CSR practices of Islamic organizations.

Furthermore, there is a lack of empirical studies on how the financial resources and CSR fund should be managed, especially the zakat fund, to support the CSR initiatives and bring impact to the asnaf and Muslim community at large. For instance, Abu Bakar & Md Yusof (2014) found that the zakat fund becomes the primary source of CSR fund in Bank Islam Malaysia Berhad. The study further detailed three dominant purposes of CSR engagement of Bank Islam; (1) to

fulfill the religious obligation as an Islamic business entity through zakat and so on, (2) to promote the image of the bank as a responsible bank for the sustainability of the business and (3) to enhance the well-being of all stakeholders. Mohd Pauzi, Wahid & Ahmad (2014) revealed that corporate zakat fund distribution by Bank Kerjasama Rakyat Berhad, helped the zakat institutions in more effective zakat distribution. Bank Rakyat has identified the potential asnaf, without depending on zakat institutions and has distributed the corporate zakat nationwide since they have branches in all states in Malaysia. Similarly, Osmera et al. (2021) found that the zakat wakalah mechanism enables companies to distribute zakat to any eligible asnaf from all places even though zakat collection is from Federal Territory. Thus, the distributive locality becomes more expansive, and distribution can be executed more quickly.

Other studies provided empirical evidence linking the zakat to the performance of Islamic banks. Using zakat contribution as a measure of CSR, Rosman et al., (2019) found that zakat contributions improve the Islamic bank's financial performance. This indicates that when Islamic banks focus on social obligations, it can build their reputation and expectation from various stakeholders. Their findings are consistent with Javaid & Al-Malkawi (2018), where zakat contributes positively to the firm's profitability and value to society. On the other hand, Nurul'Iffah & Hassan (2022) and Samad, Said, Kamarulzaman, & Mahshar (2015) found that Islamic banks in Malaysia have minimal disclosure on zakat despite so much initiatives have been delivered using zakat fund. It is proven that some form of regulatory intervention is needed to result in high quality or good practice of organizations whose operations are based on Shari'ah principles (Wan Jusoh & Ibrahim, 2020).

### 3. Methods

This study involves qualitative research. Because the objective of this study is to understand the practice of corporate zakat distribution for CSR initiatives among corporate zakat payers in Malaysia, this study used semi-structured online interviews and recorded after obtaining permission to record the interviews. The interviews were conducted with informants who are involved in managing zakat fund and conducting CSR initiatives in the company. Qualitative approach can provide knowledge that target societal issues, questions or problems and therefore serves humankind (Tracy, 2019). According to Qu & Dumay (2011), there are two rational for using semi-structured interviews. First, a semi-structured interview allows rich feedback from the informants of the study, and secondly, it allows more focus in deriving the research findings through a series of themes. An interview script as part of interview protocol containing a list of questions was prepared prior to the interview process. Five companies which are consistent zakat payers in MAIWP are selected and can be categorised into two groups: (1) financial institutions and (2) non-financial institutions. Table 1 provides summary of the interviews conducted at five selected companies. Interview data were immediately transcribed before the data analysis. The transcription is translated to English as the interviews were conducted in the mixed language of Malays and English to suit the informant's needs. Transcripts were imported into Nvivo 12 software for data analysis is to be carried out. Data were then coded and analysed to search for patterns and emerging themes.

**Table 1. Summary of Interviews**

| <b>Companies</b> | <b>Type of companies</b>                        | <b>Category</b>           | <b>Informants</b>   | <b>Date of interview</b> |
|------------------|---|---------------------------|---|--------------------------|
| Company 1        | Public listed company (property and investment) | Non-financial institution | Head of Shari'ah Department (INF 1)                         | June 2020                |
| Company 2        | Takaful company                                 | Financial institution     | Head of Shari'ah Centre of Excellence (INF 2)               | February 2021            |
| Company 3        | Islamic bank                                    | Financial institution     | Assistant General Manager, Centre of Social Finance (INF 3) | April 2021               |
| Company 4        | Islamic bank                                    | Financial institution     | Head of Shari'ah Department (INF 4)                         | July 2021                |
| Company 5        | Private company (consumer product)              | Non-financial institution | Senior Executive of Islamic Affair Department (INF 5)       | July 2021                |

## 4. Results and Discussions

The interview results revealed that all these five companies strongly committed to contributing back to the community. Three main themes are identified from the analysis of transcriptions; (1) top management commitment, (2) zakat framework, and (3) stakeholder engagement.

### 4.1 Top management commitment

In line with the Islamic principles, all these five companies firmly believe that distributing zakat through their CSR initiatives is part of religious obligations to share their corporate wealth with the poor and the needy and the corporate zakat refund (wakalah) has been allocated systematically towards sustainability in line with Sustainability Development Goal (SDG). Thus, CSR practice go beyond philanthropic commitments where the focus CSR is creating shared value for both the business and the society. On top of that, the top management commitment towards sustainability is highly regarded as important factors in ensuring the CSR is delivered accordingly to ensure the value creation, thus influence more effective zakat distribution by the company.

*“The top management in our company always believe that we have social responsibilities to the society. We have a role to help the society through community development programme. Before this, we we don’t have zakat framework but now, our Board of Directors have endorsed zakat framework which guide our corporate zakat distribution” (INF 1)*

*“Our Board of Directors are always committed to sustainability. They give us examples of other companies that successfully implementing sustainability in their operations. This gives us some ideas to synergise more effective delivery of our CSR initiatives. Our zakat fund is used systematically for this purpose” (INF 2)*

*“Our company want to be a game changer and leading Islamic social finance institutions. We focus on financial inclusion and uphold the Value Based Intermediation concept and SDG concept in our business plan. We also focus on digitalisation and enhancing our Islamic social finance agenda through many initiatives” (INF 3)*

*“We have a framework based on Maqasid Shari’ah, not just depending on normal Islamic banking framework. At the same time, we are also committed for VBI and sustainability” (INF 4)*

Despite each company having different structure in zakat management, CSR is highly related to zakat. Due to this, these companies are consistently paying zakat to MAIWP and using the zakat refund as one of the main sources for CSR fund. Moreover, engagement with CSR and distribute zakat directly to the asnaf could enhance corporate image.

*“In 2016, our Board of Directors decided to distribute the zakat through wakalah mechanism where we receive zakat refund from zakat institutions. It is not just part of our obligations, but the direct zakat distribution makes our company closer with the public and improve our image” (INF 1)*

### 4.2 Zakat framework

The findings from the interviews revealed that companies agreed that zakat is an important resource of fund for their CSR initiatives. With zakat fund, they are expanding their CSR initiatives and able to meet the needs of more asnaf and beneficiaries. Zakat fund is also distributed to other states in Malaysia although the zakat is paid to MAIWP which result in more effective distribution. In addition, companies have a right to identify the asnaf themselves without depending on the zakat institutions.

*“We distribute zakat for national and state level based on our zakat framework. For national level, zakat fund is distributed for sustainable and long-term initiatives and managed by CSR and Sustainability Department. It is distributed throughout country for education, healthcare and community upliftment projects. For state level, zakat is allocated for one-off programs and managed by Shari’ah Department such as financial donation to asnaf students and school van to selected religious school” (INF 1)*

This study also found that not all companies have zakat framework that guides them. The zakat allocation is properly planned and executed towards CSR initiatives that create value and impact. The use of zakat fund is still systematically budgeted and presented to the top management of the companies.

*We don’t have a framework but we align our CSR initiatives towards VBI and SDGs as per what our top management wants. As an example, now we have CSR projects to provide clean water supply for rural areas as to align with SDG number 6” (INF 2)*

*Our zakat distribution is aligned with core business. We don’t have formal zakat framework but the planning on zakat distribution shall be presented at the BOD meeting. Upon approval, we distribute zakat for community CSR program such as orphanage centre and donation to mosque. Other than that, we provide financial assistance and product supplies to micro-entrepreneurs especially those who have affected due to COVID-19 pandemic” (INF 5)*

### 4.3 Stakeholder engagement

Engagement with stakeholders such as government, communities, customers, businesses, and non-governmental organizations through collaboration is perceived as essential and able to leverage on synergies to create greater value for

society at large. Through collaboration in CSR initiatives, all three companies believe it can holistically transform the communities and create positive social impacts. On top of that, the companies believe that the selection of collaborative partners is crucial to ensure the effective zakat distribution and their CSR initiatives achieve its socio-economic objectives that can bring value and impact.

*“The zakat fund has been utilised for funding community upliftment programs such as medical and healthcare programs in government hospitals. We collaborate with government agencies and government hospitals to realise and fulfill these CSR initiatives. Through collaboration, we can identify the area for the specific targeted populations and we receive input from the hospitals on the details of the equipment required. We plan and channeling the zakat fund for medical equipment contributions at the targeted areas” (INF 1)*

*“We have a project of CSR where we collaborate with NGOs and universities to help the students from a poor family. Students from the welfare home are identified by the NGOs and we pay their education fees and to the extent, we ensure these students can pursue their studies in collaborated universities” (INF 2)*

*“We use zakat fund for programs such as food for homeless and micro-credit scheme to aid small entrepreneurs. We also have economic empowerment program in Sabah where we work with NGOs to identify the targeted location and beneficiaries” (INF 3)*

*“The purpose of our jariah fund is to develop economic empowerment program and we have been running the program for almost one year. We focused on profitability, viability, training and mentoring. We collaborate with NGOs for this purpose to help us in screening the potential beneficiaries for this economic empowerment program” (INF 4)*

*“We have a good partnership with Pusat Pungutan Zakat MAIWP (PPZ-MAIWP) and support their program such as Bangkit Khaira for those affected due to pandemic. Our wakalah zakat fund is distributed for asnaf and community. With the support from PPZ MAIWP, we managed to identify and selected a group of 500 microentrepreneurs and distributed RM500,000 for their financial assistance to run their businesses” (INF 5)*

The interviews provide evidence on the importance of the collaborative approach of *wakalah* zakat funded CSR initiatives as the partnership and alliance with the partners contribute to knowledge sharing and network that assist in tackling the selected social issues. The social issues could be addressed systematically and, in the end, could create value to the business and society.

## **5. Conclusion**

Paying corporate zakat is considered a religious obligation for Islamic organisations. Interestingly, the *wakalah* mechanism introduced by zakat institutions provides an opportunity for companies and Islamic organizations to allocate their zakat refund as a source of CSR fund. The CSR nowadays goes beyond philanthropic commitments where CSR is aligned with sustainability agenda. The zakat fund has the potential to fill the gap in funding needed to achieve SDG. Hence, it is important to have more corporate zakat payers contribute in helping the government, non-governmental organizations (NGOs) and zakat institutions addressing socio-economic challenges in society. Meanwhile, the Islamic organizations and companies can use the zakat fund as part of CSR fund and invest in a sustainable way to identified group of recipients and ensure those recipients become economically empowered. Zakat funded CSR initiatives can be prioritized to the selected social issues, aiming to the correct targeted beneficiaries and could reach a larger scale of communities.

This study proposed that there is a need for zakat institutions and regulators in Malaysia to provide a guideline on corporate zakat distribution framework to assist the private sectors in distributing zakat fund effectively. Additionally, the zakat framework should be aligned with SDG agenda and value-based intermediation (VBI) which ensuring that zakat fund and CSR initiatives of the companies can bring impact and value to the business and community. Meanwhile, zakat institutions should proactively encourage the corporate zakat payers to distribute zakat themselves through zakat *wakalah* mechanism. The good practice of existing corporate zakat payers in delivering their zakat distribution through CSR initiatives should be used as a benchmark for other companies which consequently, contribute more companies to pay zakat to zakat institutions.

Certain limitations in this study need to be acknowledged. Although the researchers managed to interview five companies consisting of financial and non-financial institutions, the difference between the zakat distribution practices among these two groups are not being addressed by this current study. Thus, future study should conduct a comparison between zakat distribution practices implemented by non-financial and financial institutions. In future research, the corporate zakat payers should also include the cooperatives as they are also corporate zakat payers and pay a significant amount of zakat-to-zakat institutions.

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## **Fraud Triangle Theory's Factors and Academic Dishonesty**

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### **Abstract**

The Covid-19 pandemic has an impact on the global education system by shifting face-to-face teaching and assessment to open and distance learning (ODL). The ODL, however, poses greater dangers for academic honesty because it gives students more chances to participate in academic dishonesty. Thus, this study aims to examine the factors that influence students' academic dishonesty behaviours during Covid-19 pandemic. This study uses three main factors based on the fraud triangle theory namely pressure, opportunity and rationalization. Using 97 accounting students from Malaysian public university as the respondents of questionnaire survey, the findings show that significant increase in the number of students involved in academic dishonesty during Covid-19 period.

### **Keywords**

Academic Dishonesty, Fraud Triangle Theory, Covid-19 Pandemic, Malaysia, Student

### **1. Introduction**

The Covid-19 pandemic has dramatically affected the education systems in every part of the globe. Started from March 11, 2020, the date World Health organization (WHO) declared Covid-19 as a pandemic, most universities either suspended or cancelled all face-to-face events, ranging from day-to day classroom lectures to larger scale events such as conferences, workshops, and even indoor or outdoor sports activities. New ways of teaching and assessment has been adopted by most universities to minimise the risks involving educators, administrative staff, and students; mainly involving open and distance leanings (ODL). This abrupt transition brings many challenges to the education institutions especially on student's assessment.

Electronic examinations have been adopted by most universities as a students' assessment tool to minimise person-to person contact. The challenges on using electronic examinations/assessment includes technical area; i.e., internet connectivity issue, suitable assessment platforms, increase in students' stress (Lazarevic & Bentz, 2021) and academic dishonesty (Bilen & Matros, 2020; Oducado, 2020). Academic dishonesty is considered as one of the major challenges in ODL due to increased opportunities for academic dishonesty in online assessments (Elsalem et al., 2021). These ad-hoc solutions for students' assessment have low accountability and monitoring procedures on students' behaviour (Janke et al., 2021). The students feel less accountable to their academic dishonesty behaviour since they are less likely to be caught. Among the solutions for the academic dishonesty problem are invigilating on online exam, using open ended questions and collaborative exams. Despite all these efforts, academic dishonesty is still a major issue in higher education institutions (Watson & Sottile, 2010; Daniels et al., 2021; Janke et al., 2021).

This study aims to extend and complement previous studies on academic integrity examining students' perceptions and actual experiences of academic dishonesty among accounting students in pre- and during covid-19 period which represent two different learning settings: face to face and ODL in developing country, Malaysia. This study is also looking whether the country's objective in nurturing balanced knowledgeable and ethical students, as documented in Malaysia Education Blueprint 2015 – 2025, is on the right track.

The next part of the study reviews the relevant previous literatures on academic dishonesty. This will be followed by the research method. The fourth part shows the findings and empirical results. And lastly, the conclusion the study will be presented.

### **2. Literature Review**

Academic dishonesty is widespread in school, colleges and universities as shown in the previous literatures (Stone et al., 2009; Lin & Wen, 2007; Herdian et al., 2021; Watson & Sottile, 2010; Daniels et al., 2021; Janke et al., 2021) and could affect the image of the educational institutions. In addition, the academic dishonesty has been widespread and previous studies have detected the issue in various disciplines such as in nursing (Laduke, 2013; Harper, 2006; Abusafia et al., 2018; Birks et al., 2018; McClung & Gaberson, 2021), business (Malgwi & Rakovski, 2009; Hendy & Montargot, 2019) and accounting (King et al., 2009; Yussof & Ismail, 2018; Alleyne & Thompson, 2019).



Academic dishonesty is defined as intentional behaviour in breaking academic rules for the purpose of personal gain. This includes plagiarism, lying, cheating in exams and falsifications (Bashir & Bala, 2018). Another definition of academic dishonesty involves four types of unethical conducts: cheating by using unsanctioned materials, fabrication of untrue information, facilitation others in academic dishonesty, and plagiarism by claiming credit for others' words, ideas, or statements (Eriksson & McGee, 2015). Among the methods use in academic dishonesty are seeking external help during examination, using prohibited materials, and circumventing assessment process (Hayes, Hurtt & Bee, 2006; Faucher & Caves, 2009), for the purpose of gaining unethical advantage (Keresztury & Cser, 2013).

Among the reasons for academic dishonesty are the pressure to get good grade, lack of preparation time, poor teaching method, and lack of interest on the subject (Kalhori, 2014). In addition, demographic (Wotring, 2007; Park et al., 2013), personality traits or attitudes (De Bruin & Rudnick, 2007; Park et al., 2013), and cultural attributes (Smithee, 2009) also encourage academic dishonesty. Other aspect such as individual factors, ethical beliefs, and contextual factors, i.e., perceived peers' cheating, peers' attitudes and behaviors or the academic institution's atmosphere, also affect academic dishonesty (Park et al., 2013).

New technology has also impacted academic dishonesty and some authors have classified academic dishonesty into two categories: a) traditional; academic dishonesty inside and outside of the classroom and plagiarism, and b) contemporary; academic dishonesty using computers, internets, personal data assistants and cell phones (Witherspoon, Maldonado & Lacey, 2012). The technological devices that are used in academic dishonesty activities includes phones, micro recorders, iPods, cameras, ultraviolet pens, internet access (Faucher & Caves, 2009) and handheld scanner (Underwood & Szabo, 2003). Even in the controlled environment, i.e., computer laboratory, is not spared from academic dishonesty (Keresztury & Cser, 2013). The internet both provides information at the fingertips of students (Deranek & Parnther, 2015) as well as encouraging the students to involve in academic dishonesty. YouTube is one of academic dishonesty point of references among students (Seitz et al., 2011). In addition, there are websites which encourage academic dishonesty by offering free or paid answer for assessment (Underwood & Szabo, 2003) and to some extent that the students rely more on the websites than on the textbooks (Wan Abdul Rahman et al., 2016).

There are several recent studies that have examined the association between online assessment and academic dishonesty during Covid-19 pandemic (Janke et al., 2021; Daniels et al., 2021; Herdian et al., 2021). Janke et al. (2021) noted that that the students cheated more frequent on online than on-site exams method, which has negatively impacted the academic integrity.

### **3. Research Methodology**

This study aims to extend and complement previous studies on academic integrity examining students' perceptions and actual experiences of academic dishonesty among accounting students in pre- and during covid-19 period which represent two different learning settings: face to face and ODL. This study formulate questionnaire by adopting Sabli et al. (2016).

By using the purposive random sampling method, 800 questionnaires were distributed to second-final (semester 4) and the final (semester 5) diploma level accounting students in a public university in Malaysia. The rest of the students, who enrolled at the start or during the Covid-19 pandemic, are excluded as they have limited knowledge on how the manual assessment or examination is conducted, one of the essential prior knowledge areas required in answering the questionnaire. A total of 97 students responded to the questionnaire and found to be usable. Bartlett et al. (2001) stated that a sample of 76 is adequate for a population of 800. Therefore, this sample size is regarded as sufficient and reliable for the study. The questionnaire attempted to gather responses, perceptions, or opinion about academic cheating from the students' perspective and how they perceived this academic integrity issue.

The questionnaire consists of three parts. Part A gathered information on demographic profiles. Part B explores the definition of academic dishonesty, dishonesty using 5-point Likert scales, and awareness of the illegality of academic dishonesty. Part C measures the experiences of the respondent, directly or indirectly, on academic dishonesty, by using "Yes" or "No" responses. Then, the questionnaire explores the methods of academic dishonesty using 5-points Likert scales. Lastly, they were also asked about their overall view about the academic dishonesty during the Covid-19 pandemic period.

SPSS analyses the data using descriptive statistic and factor analysis; and the results were interpreted accordingly. The questionnaire is tested on their reliability to ensure its consistency. The results, with Cronbach's Alpha of > 0.7, showed that the questionnaire is consistent, as follows:

**Table 1. Questionnaire's Reliability Statistics**

| <b>Cronbach's Alpha</b> | <b>Cronbach's Alpha Based on Standardized Items</b> | <b>N of Items</b> |
|-------------------------|---|-------------------|
| .907                    | .905  | 53                |

## 4. Data Analysis and Findings

### 4.1 Demographic of Respondents

No personal data of the respondents are gathered to respect their privacy and to encourage participation in the study. Male to female ratio of the respondents is 1:9, which is the reflection of the gender in the accounting programme. Most of the respondent are from the semester 4, which also reflected the population of the study.

### 4.2 Definition of Academic Cheating and Awareness of Its Illegality

The study asked the respondents views on the academic dishonesty's definition to gauge their understanding on academic dishonesty. Table 2 shows that academic dishonesty mainly refers to copying others' work, with a mean of 3.91. This is followed by adopting others' work and presenting it as their own (3.81). It is also considered as illegal (3.80) and involving the falsifying information (3.68) presented to others. External assistance during assessment is also considered as dishonest (3.67). Lastly it is also viewed as improper way of getting certificate (3.61).

This study also asked to ensure that the students believe that academic dishonesty is illegal in the university and its reasons. As expected, most of the respondents (99%) agreed the illegality of academic dishonesty.

**Table 2. Definition of Academic Dishonesty**

|   | Mean | Std. Deviation |
|---|------|----------------|
| Copying others' answer in examination or assignment | 3.91 | 1.032          |
| Adopting others' work & presenting it as their own  | 3.81 | 1.188          |
| Illegal action                                      | 3.80 | 1.006          |
| Falsifying information                              | 3.68 | 1.094          |
| External assistance during examination              | 3.67 | 0.904          |
| Achieving academic certificate in improper way      | 3.61 | 1.075          |

### 4.3 Past Experiences and Methods of Academic Dishonesty

The respondents have been asked of any experience, directly or indirectly, in academic dishonesty. There is a significant increase by 30% in the number of students who involved directly or indirectly in academic dishonesty from prior to during Covid-19 pandemic period. However, this figure also involves indirect experiences of academic dishonesty, which many students might be referring to a popular academic dishonesty case.

Academic dishonesty has evolved over the years and there are so many tactics of academic dishonesty used by students. This study attempts to understand the popular methods based on the respondents' experiences. Table 3 shows that, prior to and during Covid-19 pandemic, the most popular method is sharing answer or work with other students, with a mean of 3.46 and 3.51 respectively. This is followed by plagiarizing (3.43 and 3.44). Engage or seek external help is the third most popular method for both periods (3.35 and 3.26). Online searching or forum or discussion (3.15 and 3.22) is gaining popularity during Covid-19 period. Exchange of answer during examination (3.32 and 3.11) are the least popular method among the students since it is easier to work with other students during online assessment.

**Table 3. Methods of Academic Dishonesty (Respondents Experienced Academic Dishonesty)**

| Methods of Academic Dishonesty            | Prior Covid-19 |                | During Covid-19 |                |
|---|----------------|----------------|-----------------|----------------|
|   | Mean           | Std. Deviation | Mean            | Std. Deviation |
| Sharing answer / work with other students | 3.46           | 0.903          | 3.51            | 1.007          |
| Plagiarising                              | 3.43           | 0.976          | 3.44            | 0.991          |
| Engage or seek external help              | 3.35           | 0.966          | 3.26            | 1.126          |
| Online searching or forum or discussion   | 3.15           | 0.944          | 3.22            | 1.051          |
| Exchange answers during examination       | 3.32           | 1.032          | 3.11            | 1.120          |
| Hidden notes during examination           | 3.22           | 0.982          | NA              | NA             |
| Peeping into others' answer or work       | 3.18           | 0.998          | NA              | NA             |

### 4.4 View on the Level of Academic Dishonesty

The respondents were asked of their overall view on the level of academic dishonesty during the Covid-19 pandemic, as shown in Table 4. Most of them are concern about the future of accounting students and feel uncomfortable with the ODL, with mean of 3.58. They also feel uncomfortable with the fact of widespread of academic dishonesty (3.55) and something need to be done to address the issue (3.42). However, most of them can still maintain their honest attitude during the current crisis (2.93).

**Table 4. Respondents' Opinion on the Current Level of Academic Dishonesty**

| Opinion of the Respondents  | Mean | Std. Deviation |
|---|------|----------------|
| I am concern about the future of accounting students by looking at the level of academic dishonesty | 3.58 | 0.870          |
| I am uncomfortable with the current teaching and learning process                                   | 3.58 | 0.996          |
| Academic dishonesty is more rampant during the Covid-19 pandemic period                             | 3.55 | 0.796          |
| I suggest something drastically must be done to curb academic dishonesty as soon as possible        | 3.42 | 0.820          |
| I can no longer afford to be honest as compared to prior Covid-19 pandemic period                   | 2.93 | 0.937          |

## 5. Conclusion

Thus, this study aims to understand the academic dishonesty during Covid-19 pandemic period by examining the students' perceptions on the topic and their experiences prior to and during the pandemic period. This study is done to support the Malaysia Education Blueprint 2015 – 2025's aspiration to nurture knowledgeable and ethical students.

Most of the students aware of the illegality of academic dishonesty and its impact negative on the students and the university. In conclusion, there is a significant increase in perceived academic dishonesty cases during the Covid-19 period as compared to prior Covid-19 period. Sharing of work with other students and plagiarizing are the most popular academic dishonesty methods. However, most of the students feel that they are still able to maintain the level of honesty as before and hope that drastic actions should be done to minimise the act of academic dishonesty.

This study provides the evidence on students' perceptions and actual experiences of academic dishonesty among accounting students in developing country in both face-to-face and ODL settings. In addition, ODL affect academic dishonesty in higher education institutions and this issue need to be tackled seriously by the academic administrators by improving ODL methodologies especially on assessment tools in limiting the impact of academic dishonesty to the image of higher education institutions as well as the education in general.

The findings are based on small size of samples and the study only involves one public university in Malaysia. Therefore, no attempt is made to generalises these findings on the whole population and future research are expected to overcome this limitation.

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## **The Impact of Corporate Governance on Tax Avoidance of Malaysian Family Listed Firms**

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### **Abstract**

The aim of this study is to examine the impact of corporate governance on tax avoidance of family-owned listed on Bursa Malaysia. Consistent with prior research, this study uses effective taxes rate (ETR) to measure tax avoidance. In particular, we investigate how corporate governance mechanism affects tax avoidance of Malaysian listed firms. Using a sample of 1,457 firm-year observations of Malaysian family-owned public listed companies from 2004 to 2014, this study finds corporate governance affects tax avoidance practice. In particular, the findings indicate that there are significant and negative relationship between board size, board independent and ETR. The results suggest that board size and board independent are the most effective corporate governance mechanism in mitigating tax avoidance strategies of such firms.

### **Keywords**

Tax avoidance, Malaysia, Family-Owned Firms, ETR

### **1. Introduction**

Corporate tax is an essential source of government funding for almost all countries. It is a tax imposed by the government that all businesses must pay in order to support its social and political goals. Such taxes, however, come at a high cost to the businesses and reduce the cash flow available to the shareholders (Chen et al., 2010). Due to that, managers are more likely to engage in tax evasion and avoidance in order to lower their tax obligations. Tax evasion is a criminal crime in which businesses avoid paying their true tax obligations. Contrarily, tax avoidance is a legitimate activity that entails using different tax planning techniques to reduce tax liability. Indeed, Hidayat and Khalid (2021) state that tax avoidance is an unethical tax management strategy that aim to reduce amount of tax paid which in turn might lowering the company's operation costs. According to Pasternak and Rico (2008) corporate tax avoidance is the practice of arranging company's financial and economic affairs to minimize tax using various strategies including legal deductions, exemptions, and allowances. Although tax avoidance is a legal strategy but it will result in revenue losses to the country (Wahab et al., 2017).

Prior studies highlight the effect of corporate governance on tax avoidance including size of the board (Armstrong et al., 2013; Setayesh et al., 2014; Masyayekhi & Seyedi, 2015; Mohammadreza et al., 2017), size of board committee (Collier, 2006; Oussil & Taktak, 2018; Van & Quang, 2021; Mc Mullen, 1996; Lisic et al. 2019; Ashfaq & Rui, 2019). Nevertheless, this empirical research produces mixed results. Given that, this study aims to reexamine the impact of three corporate governance mechanisms; firm board size, firm board audit committee size and board independent on tax avoidance among Malaysian family listed firms.

The remaining parts of the paper are organized as follows: Section two provides the review of literature on corporate governance and tax avoidance. Section three elaborate the research method of the study. Section four presents and discusses the findings. The final section provides summary and conclusions.

### **2. Literature Review**

#### **2.1 Tax Avoidance**

Tax avoidance has been seen as a way to save money on taxes while increasing a company's value. Money has been transferred from the government to the corporation's owners as part of a tax-saving scheme. Tax avoidance, according to Hanlon and Heitzman (2010), is the practice of lowering explicit taxes through both legal tax-saving and tax-sheltering activities. Sari (2014) stresses that legal tax avoidance was not prohibited, but it commonly attracts unfavorable attention by the tax authorities because it causes significant revenue losses for the governments.

## **2.2 Corporate Governance**

Corporate governance is defined as the system of control mechanisms, by which the suppliers of money to firms ensure themselves of gaining a return on their investment (Shleifer & Vishny, 1997). According to Desai and Dharmapala (2006), depending on the governance structure of the companies, the effect of strong power incentives on tax hiding may differ. Tax avoidance will boost a company's worth for well-governed enterprises, but not for poorly governed ones (Desai & Dharmapala, 2009). In a similar vein, Chen, Hu, Wang, and Tang (2014) discovered that while tax evasion behaviour tends to reduce firm value due to higher agency costs, this effect is lessened in well-governed businesses. Similar to this, Arif and Hashim (2013) offered early evidence that corporate tax evasion increases the value of companies in Malaysia, and that the value relevance is higher for companies with stronger governance than their competitors. A company's level of corporate governance will moderate the causal impact of tax evasion on firm value. As a result, it shows that the shareholders and investors are protected with corporate governance in place, and most studies discover a connection between corporate governance and how well a corporation operates.

## **2.3 Board Size**

The degree of tax avoidance may vary depending on the board's size. Beasley (1996) discovered that the size of the board affects the likelihood of accounting fraud. Jensen (1993) and Garcia-Meca and Ballesta (2009) suggest that the number of directors is one of the important factors in the effectiveness of a board. There are two views on this issue. Proponents of agency theory believe that a larger board has more opportunity to control and monitor the actions of management as it has a greater number of people with more expertise (Dalton et al., 1999), and valuable experience (Xie et al., 2003) to prevent or limit managerial opportunistic behaviour. Finkelstein and D'Aveni (1994) noted that a larger board has more problem-solving capabilities, as the burden facing the directors is equally shared among them. Thus, this study hypothesises that:

H1: Firm that has larger board size is more likely to mitigate tax avoidance.

## **2.4 Board Independence**

Fama and Jensen (1983) theorise that the board of directors is the highest internal control mechanism, responsible for monitoring the actions of top management. However, they argue that the ability of the board to act as an effective monitoring mechanism depends on its independence from management. Independent directors are believed to be able to monitor managers as they have incentives to develop their reputations as experts in decision control (Agrawal & Chadha, 2005). Thus, the presence of independent directors on the board is seen as a check and balance mechanism, enhancing a board's effectiveness and constraining opportunistic behaviour among managers. This study predicted a negative association between board independence and tax avoidance practices, as the theory suggests.

H2: Board independence is more likely to mitigate tax avoidance.

## **2.5 Audit Committee Independence**

An audit committee is in charge of controlling the process of financial reporting and internal controller (Annisa & Kurniasih, 2012). Audit committee with accounting or financial competence may perform a better supervision for the management, therefore an immediate correction would be made when a manipulation is found (Ariyani dan Harto, 2014). The independence and competence of audit committee in accounting and/or finance are expected to be more effective in supervising the management so as to minimize tax avoidance. The results of research by Dewi and Jati (2014) and research by Diantari and Ulupui (2016) prove that audit committee has a negative influence on tax avoidance. Research conducted by Abbott et al. (2000) states that the audit committee independence may hinder financial reporting aggressiveness and accounting fraud. Forker (1992) argues that the existence of an audit committee can improve the internal control system and considers it as an effective monitoring device to improve the quality of information disclosure. Beasley and Salterio (2001) also argue that the board of directors and the audit committee are important internal monitoring mechanisms as it controlling the process of financial reporting and internal controls (Annisa & Kurniasih, 2012). If the audit committee has accounting or financial expertise, it will be able to oversee management more effectively, which will result in faster corrections when fraud is discovered (Ariyani dan Harto, 2014). It is anticipated that the audit committee's independence and expertise in accounting and/or finance will make it more effective at monitoring the management to reduce tax-avoidance. The findings of studies by Dewi and Jati (2014) and Diantari and Ulupui (2016) demonstrate that the audit committee affects tax evasion. Hence, based on the prior studies, this study predicts that:

H3: Audit committee independent is more likely to mitigate tax avoidance.

## **3. Methodology**

### **3.1 Sample Selection and Data Collection**

Our sample comprised 1,457 firm-year observations of Malaysian family-owned public listed companies from 2004 to 2014. The data required for computing tax avoidance and firms' specific characteristics as control variables were collected

from Thompson Reuters' Datastream. Meanwhile the data on family ownerships and various governance variables were collected from the companies' annual reports.

### **3.2 Operationalisation of the Dependent, Independent and Control Variables**

#### **3.2.1 Dependent Variables: Tax Avoidance**

The dependent variable for this study is tax avoidance. Following prior research, this study uses ETR to measure tax avoidance. ETR is the ratio of the total tax expenses to the total income before tax. Consistent with Abdul Wahad et al. (2017), this study classifies family-owned firms as tax avoidance firms when the ETR is lower than corporate statutory tax rates. Observations with a negative value for tax avoidance are coded as 1, represent as tax avoidance firms. Observation with a positive value for tax aggressiveness are coded as 0, represent non-tax avoidance firms.

#### **3.2.2 Independent Variable: Corporate Governance Attributes**

The key independent variable in this study is corporate governance. This study uses three proxies to measure corporate governance namely, board size, board independence and audit committee independence. Consistent with prior studies, this study uses the number of directors on the board to measure firm board size (BODSIZE),

#### **3.2.3 Control Variables**

We control for a number of variables in the test. These control variables are classified into two categories: firm characteristics and board characteristics. Following Chan et al. (2013), we control for firm's size. Size is measured as a natural logarithm of the total assets. Large firms often receive more media attention, have a higher analyst following and face a greater level of public scrutiny that results in less tax aggressiveness. Second, the study controlled for leverage. Firms with higher levels of debt have lower ETR because of the deductibility of interest payments for tax purpose (Chan et al., 2013). Third, the study controlled for market to book ratio (MB). MB is a proxy for firms' investment opportunities. Spooner (1986) argues that firms with greater investment opportunities have higher ETRs. a dummy variable to proxy for audit quality (BIG4). This variable takes the value of 1 if the firm is audited by a Big4 company and 0 otherwise. A year dummy and an industry dummy were also included in the study to control for year and industry effects.

### **3.3 Logistic Regression Models**

To test the research aims, we run the following regression models:

$$TA_{ft} = \alpha + \alpha_1 BODSIZE + \alpha_2 AUDIND + \alpha_3 BODIND + f(\text{control variables}) + \xi \quad (1)$$

Where,

Dependent variables:

$TA_{ft}$  1 if the ETR is less than the statutory tax rates, 0 otherwise,

Independent variables:

$BODIND_{ft}$  The proportion of independent directors on the board,

$BODSIZE_{ft}$  The number of directors on the board,

$AUDIND_{ft}$  The proportion of independent directors on the audit committee,

Control variables:

$AUDQ_{ft}$  1 if the firm is audited by a Big4 company and 0 otherwise.

$SIZE_{ft}$  Natural log of total assets of firm  $f$  in year  $y$ ,

$LEV_{ft}$  Total liabilities to total assets of firm  $f$  in year,

$MB_{ft}$  Market to book ratio of firm  $f$  in year  $y$ ,

$YEAR_{ft}$  Year,

$IND_{ft}$  Industry

## **4. Results and Findings**

### **4.1 Descriptive Analysis**

The results show that 1041 firm year observations are engaged in tax avoidance strategies from 2004 to 2014 period. The results reveal that more than 70 percent of Malaysian family-owned firms are more likely to use various tax planning in reducing corporate tax burden.

## 4.2 Logistic Analysis

Table 1 reports the results of the logistic estimation of audit quality on the tax avoidance. A total of three hypotheses were formulated and tested. Under  $H_1$ , the findings demonstrate that board size has significant negative association with proxy of tax avoidance. The outcome is in line with earlier research by Hanny & Niandari (2018)) which found that a larger firm board mitigate tax avoidance but that audit quality has no effect on tax avoidance in an Indonesian context. Regarding  $H_2$ : the result indicates that board independent is more likely to mitigate tax avoidance. In line with Yetti Murni, Eka Sudarmaji & Eneng Sugihyanti, (2016), board independence has a significant effect on tax avoidance. The last hypotheses  $H_3$ : states that there is a connection between audit committee independent and tax avoidance. Dang & Nguyen (2021) the audit committee's characteristics have an impact on tax avoidance as well. In line with research by Sandhi (2018), prove that audit committee has a significant negative effect on tax avoidance.

With regard to the control variables included in this study, Table 1 shows a significant negative association between three proxies of corporate governance; BODSIZE, BODIND and AUDIND and tax avoidance. This implies that firms that have larger board size and higher composition of independent directors are less likely to involve in tax avoidance.

**Table 1. Logistic estimation analysis on audit quality and tax avoidance**

| Variables   | Model (1) ETR      |
|---|--------------------|
| BODSIZE   | -0.75**<br>(4.817) |
| BODIND  | -0.139**<br>(0.76) |
| AUDIND  | -0.30<br>(-0.235)  |
| <i>Control Variables: Firm's specific characteristics</i> |                    |
| SIZE  | -1.021<br>(-.597)  |
| LEV   | 0.251<br>(.214)    |
| MB  | 0.354<br>(.311)    |
| AUDQ  | -.031<br>(-.138)   |
| R-Square  | 17.20              |

## 5. Conclusion

The purpose of this paper was to examine the relationship between corporate governance mechanism: board size, board independence and audit committee independence and tax avoidance. The study used a sample of 1,457 firm-year observations of Malaysian family-owned public listed companies from 2004 to 2014. Overall, the result of the study finds that board size and board independence have negative and negative relationship with tax avoidance. audit quality has negative insignificant relationship with tax avoidance measure. However, the finding suggest that board size and board independence are the most effective corporate governance mechanism in mitigating tax avoidance strategies of Malaysian Family listed firm.

This study is not without its limitations. First, this study examines only Malaysian family-owned firms listed on Bursa Malaysia. To provide more interesting and meaningful results, future studies could examine all Malaysian family-owned firms both list and non-listed. Second, this study only focuses on single measures of tax avoidance. Another avenue for future research could be to use other proxies for measuring tax avoidance in order to test for the robustness of the results of this study.

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## **Determinants of Whistleblowing Intention on Academic Dishonesty**

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### **Abstract**

This study aims to investigate the intentions of Malaysian universities students towards whistleblowing on academic dishonesty and the factors that predict such intentions. This study used the survey method of research, and data was gathered through the use of questionnaires. A total of 120 accounting students from a public university in Malaysia participated in the survey. The findings of this study show that age and academic performance positively influenced the intention to report academic dishonesty. Findings of this study have implications for policymakers and university administrators who have a keen interest in enhancing whistleblowing activities and whistle blower protection in mitigating unethical behaviour in higher education institutions.

### **Keywords**

Whistleblowing, Academic dishonesty, Malaysia, Intention

### **1. Introduction**

The Covid-19 pandemic has caused huge changes in social life especially in higher education system. Universities were temporarily closed as a measure to curb the spread of Covid-19 virus among the community. These closures affected the learning and examinations process. Face-to-face lectures as well as the examinations were conducted online. This has risen the academic dishonesty globally. Research conducted at German higher education institutions reported that students cheated more frequently in online than on-site exams (Janke et al., 2021). Lambert et al. (2003) generally defined academic dishonesty as a set of behaviours that intentionally breaking of academic rules for personal gain. Such definition reflected in multifaceted types of academic dishonesty including plagiarism, lying, cheating in exams and falsifications (Bashir & Bala, 2018). Indeed, Eriksson and McGee (2015) define academic dishonesty as a combining four main types of fraudulent and unethical conducts; i) cheating - intentional or attempted use of unauthorized materials, ii) fabrication - creating false information or citation; iii) facilitation - assisting others to engage in academic dishonesty; and iv) plagiarism - the use, adoption or reproduction of others' words, ideas, or statements as one's own.

In response, various strategies have been introduced by higher education institutions. One of widely used mechanism to mitigate academic dishonesty among universities' students is whistleblowing. Whistleblowing is defined as disclosure by organization members of illegal, immoral or illegitimate practices to persons or organizations that may be able to effect action [Brown et al., 2016]. Whistleblowing plays important role in uncovering frauds and organizational wrongdoing (Lazim et al. 2022). For example, in corporate setting, by reporting misconduct in place, whistleblowers can help organizations to avoid financial losses due to employee embezzlement, lawsuits filed resulted from employee discrimination or moral assault cases, and reputational damages (Liyandarachi, & Adler, 2011).

Whistleblowing, however is a risky moral duty. Most whistle blowers face some form of retaliation from colleagues or supervisors after disclosing misconduct (Mayer et al., 2013). For instance, in corporate environment, they suffer for termination, demotion, unfavourable job performance evaluation, involuntary transfer, assignment of unmanageable task, professional blacklisting and social ostracism. Meanwhile in academic setting, whistle blowers face with social ostracism, name-calling and other forms of social sanctions from their academic peers. Due to various personal risks, many individuals choose to remain silent.

Given such dilemma and social environment, it is important to predict whistleblowing intention and investigate factors that influence individuals to blow the whistle in academic setting. Thus, this study aims to expand prior works by examining student's intentions to report wrongdoing in academic settings.

The remainder of the paper is organized as follows. Section two provides a review of prior studies on determinants of whistleblowing. Section three elaborates the research method. Section four presents and discusses the findings. The final section provides the summary and conclusions.

## **2. Literature Review**

### **2.1 Age, Gender, Academic Performance and Whistleblowing Intention**

The traits of whistleblowers may be influenced by their demographics like age and gender. Females and older persons are more inclined to blow the whistle than are males and younger persons, according to studies on whistleblowing in the workplace (Erkmen et al., 2014). A study of whistleblowing on academic dishonesty done by Stone et al. (2012) found that female and older students were more likely to report cheating than males and younger students. However, contrary to these studies, gender was not found to be significantly related to the intention of blowing the whistle, according to a study done on final-year accounting students at a higher learning institution in Malaysia to determine how future accountants see blowing the whistle and how likely they are to do so (Mustapha & Siaw, 2012). In their study on internal whistleblowing intents among internal auditors in Malaysia, Ahmad et al. (2012) discovered that demographic variables including gender and age were unable to predict whether internal auditors would have internal whistleblowing intentions. Even though these studies produced contradictory findings about the connections between individual's whistleblowing intents, any potential impact of these variables in the current study has to be explored.

There is little research on accounting students' academic performance and ethical principles. According to some claims, students with higher education levels are more likely to report wrongdoings (Ponnu et al, 2008). In 2010, Abu Bakar et al. conducted research on exam cheating among students. They found that compared to students with poor grades, good students are less likely to cheat on exams.

Therefore, the influence of age, gender and academic performance on whistleblowing intention was examined and the relationship between these variables is hypothesized as follows:

H<sub>1</sub>: Age positively influences whistleblowing intention among university students.

H<sub>2</sub>: Gender positively influences whistleblowing intention among university students.

H<sub>3</sub>: Academic performance positively influences whistleblowing intention among university students.

### **2.2 Integrity culture and Whistleblowing Intention**

An institution's principles on encouraging academic honesty as well as preventing and punishing academic misconduct are referred to as its academic integrity culture. Academic offences are tolerated and reported by faculty and students, the severity of the sanctions enforced for academic violations, and the existence or absence of an institutional ethical code all reflect these principles (Kisamore et al., 2007). A research by Simon et al. (2004) found that when the culture on campus promotes academic integrity, students are more likely to come forward and report cheating. The findings from research by Stone et al. (2012) suggest that integrity culture is an important determinant of whistleblowing. Thus, this study predicts that:

H<sub>4</sub>: Academic integrity culture positively related to whistleblowing intention among university students.

## **3. Methods**

### **3.1 Sample and Data Collection**

Data for analysis were gathered from a sample of students from one public university in Malaysia. The respondents are undergraduate students from Faculty of Accountancy who are invited to participate in the study as volunteers. They were informed that the study was of a scientific nature and they would not be identified at any time, as the data collected was anonymous. The choice of participants was made using a convenience sampling technique.

### **3.2 Measures**

The questionnaire consists of Three Sections. Section 1 is used to gather demographic information of respondents on gender, age and academic performance. Following Stone et al. (2012), Section 2 used to gauge how the students felt about the institution's academic integrity culture. Each element of the institution's culture received a score from 1 (low) to 5 (high) from the students. The elements measured include "climate of academic integrity", "faculty concern about academic integrity" and "severity of penalties for cheating". Finally, Section 3 measures the dependent variable; whistleblowing intention. The whistleblowing intention was measured using eight circumstances of academic dishonesty modified from McCabe and Trevino (1993). These eight circumstances (Table 1) were presented to participants to gauge their intentions to report academic dishonesty. On a scale of 1 (very unlikely) to 5 (very likely), respondents indicated their intent to make a whistleblower report for each circumstance.

## 4. Data Analysis and Findings

### 4.1 Demographic of Respondents

All personal data of the respondents are not gathered to respect their privacy as well as to encourage participation in the study and this fact is made aware to all potential respondents. 76.4% of the respondents are female and 23.6% are male. This somewhat reflective of the gender in the accounting programme, even though the respondents are mostly female. Majority of the respondents are from semester three and four accounting students, and this fact is also reflected the population of the students selected for the study.

### 4.2 Whistleblowing Intention

The study asked the respondents views on whistleblowing intention. This is to analyse the respondents' opinion and their understanding on their intention to whistle blow the academic dishonesty.

**Table 1. Whistleblowing Intention**

|   | Mean  | Std. Deviation |
|---|-------|----------------|
| Bribing a reprography employee to gain access to the exam in advance          | 3.333 | 1.4221         |
| Leaking the test content to other students                                    | 3.308 | 1.3769         |
| Hacking the absentee system to tamper with class attendance list              | 3.192 | 1.4278         |
| Hiring someone to solve test and assignments in your place                    | 3.308 | 1.4307         |
| Fully plagiarizing a course assignment found on the internet.                 | 3.417 | 1.3694         |
| Cheating during an exam   | 3.333 | 1.3740         |
| Signing a presence list as a colleague who is not present                     | 3.333 | 1.3679         |
| Putting his/her name in a group assignment that he/she did not participate in | 3.550 | 1.4716         |

From the survey, as expected in Table 1 the intention to report is much higher for the act of putting his/her name in a group assignment that he/she did not participate in which ranked first (3.550). As depicted, most students are highly likely to report on students plagiarising some course assignments that were available on the internet which ranked second (3.417). Most students would report on wrongdoings for bribing a reprography employee to gain access to the exam in advance, cheating during an exam and signing a presence list as a colleague who is not present which ranked third (3.333) of the survey.

### 4.3 Multiple Regression on Determinants of Whistleblowing Intention on Academic Dishonesty

The results of the multiple regression analysis (Table 2) indicated that whistleblowing intention is positively influenced by age. As expected, older students relative to younger students were more likely to report on academic dishonesty. This result consistent with the past studies (Kisamore et al., 2007, Erkmen et al., 2014, Liyanarachchi & Adler, 2011, Stone et al., 2012) for age positively influenced the whistleblowing intention. The second important factor is academic performance. The outcome seems to indicate that students who perform well academically are more likely to come forward than those who score poorly.

The current study found that gender not to be positively influenced the intention of the university students to whistle blow the academic dishonesty. The current finding is in line with the previous research (Mustapha & Siaw, 2012, Ahmad et al., 2012, Kisamore et al., 2007) that fail to support the significance of gender as determinant of the intention to whistle blow on academic dishonesty.

It is discovered that integrity culture did not positively relate to whistleblowing intention among university students. This result consistent with Kisamore et al., 2007 where the integrity culture was not positively related to the whistleblowing intention.

**Table 2. Multiple Regression Result on Determinants of Whistleblowing Intention on Academic Dishonesty**

| Variables                   | Whistleblowing<br>Intention |
|-----------------------------|-----------------------------|
| Gender                      | -0.123<br>(-0.491)          |
| Age                         | -0.645*<br>(-1.277)         |
| Academic performance (CGPA) | 0.281*<br>(1.771)           |

|                   |         |
|-------------------|---------|
| Integrity culture | 0.092   |
|                   | (0.548) |
| Adjusted R-square | 0.135   |

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Note: \*Significant at 10% level

## 5. Conclusion

This study aims to investigate the intentions of Malaysian universities students towards whistleblowing on academic dishonesty and the factors that predict such intentions. The study used a sample of 120 students from one public university in Malaysia. The respondents are undergraduate students from Faculty of Accountancy. Overall, the results of this study finds that age and academic performance positively influence the intention to whistle blow the academic dishonesty among university students.

From these findings, it can be concluded that older students and students with better academic performance will incline to whistle blow the academic dishonesty instances in their university. However, these finding also indicates that gender and integrity culture did not influence the intention to whistle blow the academic dishonesty. Clear communication of ethical standards, the establishment of tools that make it simpler to identify and report academic dishonesty, and the use of appropriate sanctions and rewards for whistle blowers can all help to build an environment where integrity is valued.

This study's limitations are the small sample size and sample selection. The respondents of this study were limited to one Malaysian public university. As a result, it may not be appropriate to generalise these results to the entire population. Furthermore, all of the students were taking accounting classes. The generalizability of the results to students outside these fields may be limited. It is anticipated that future studies will work around these limitations.

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## **Anti-Money Laundering Compliance: Malaysian Banking Institutions**

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### **Abstract**

The purpose of this paper is to present a review of literature on anti-money laundering compliance with a specific focus on banking sector. Specifically, it aims to provide further knowledge on recent developments in money laundering research. This study employed structured review process as well as 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 five sections; introduction, definition, process of money laundering, money laundering cases in Malaysia, anti-money laundering regime in Malaysia and prior studies on anti-money laundering in banking institutions. This study will be beneficial to academics, policymakers and compliance officers interested in banking's anti-money laundering compliance experiences.

### **Keywords**

Anti-Money Laundering Compliance, Money laundering, Banking

### **1. Introduction**

Over time, enormous sums of money have been stolen due to financial crimes, putting the stability of the world economy in danger. Financial crime is generally defined as deceitful, intentional, involves a breach of trust and losses, and it might be concealed (Jung & Lee, 2017). According to Henning (2009), financial crime can occur in various types, including fraud, bribery, corruption, embezzlement, insider trading, tax evasion, cyber-attack and money laundering.

Money laundering is a concept that entails the movement of proceeds from unlawful activity and concealment of their true, illegal origin (FATF, 2021; Nguyen, 2014) In this financial crime, illegally obtained funds which frequently linked to terrorism, drug trafficking, arms trafficking, and human exploitation (Gottschalk, 2016) are 'cleaned' through financial institutions or legitimate businesses abusive. As consequences, money laundering undermines the integrity of financial institutions which in turn jeopardizes the stability of such industry (Schott, 2016).

Given of the serious implication, almost all countries have banded together to combat the money laundering. In 1989, The Financial Action Task Force's (FATF), an inter-governmental body has been established to play important role in promoting legal, regulatory and operational measures of money laundering globally. The FATF issued 40 Recommendations as an international standard for anti-money laundering (AML) regulations (FATF, 2019). In addition, numerous new anti-money laundering and counter-terrorism financing regulations have been published by many countries to counter money laundering activities at national level. Economic and financial sanctions are levied on nations, organizations, and people suspected of committing money laundering as a result of the AML legislation.

As financial institutions especially banks are exposed to money laundering risk, anti-money laundering (AML) act is one of the legally obligated regulation by such institutions to ensure that they do not support money laundering activities. Every bank is required to has AML compliance program which consists of all initiatives taken by the banks to ensure their institutions comply with the AML regulation. The initiatives include banking internal operations, user-processing procedures, account monitoring and detection, and money laundering activities reporting which also called suspicious transaction reporting (hereafter refer as STR).

### **2. Definitions of Money Laundering**

The definitions of money laundering are foundationally straightforward which involves concealing the existence of funds and other assets as well as their amounts, origins, or ownership in an effort to avoid (i) detection of illegal activity, (ii) evidence of illegal activity, (iii) taxation, and (iv) restrictions on profitable uses of the proceeds of illegal activity, whether to fund additional illegal activity or to reinvest the proceeds of illegality in legal activity.

The Malaysia Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 defined money laundering as: "Any person who directly or indirectly engages in a transaction involving illegal activities or instrumentalities of an offence; acquiring, receiving, possessing, impersonating, transferring, converting, exchanging, bringing, disposing of or using proceeds of an unlawful activities of instrumentalities of an offense; bring into or removes from Malaysia proceeds of an illegal activity or instrumentalities of an offense; conceal, disguise or obstruct the

establishment of the actual nature, origin, location, disposition, movement, rights, or possession, results of an unlawful activity or instrumentalities of an offense.”

The fundamental definition of money laundering appears to be agreed by the majority of multinational groups that have addressed the questions<sup>1</sup>. That definition has three components:

1. act-conversion, transfer, or concealment of the actual components of property ownership, or acquisition or use of property, or aiding or advising such an act;
2. knowledge that the property is obtained from one or more specific forms of illegal conduct; and
3. objective-to conceal the illegitimate origin of the property or to aid a party in the underlying criminal action in avoiding the repercussions of its discovery.

### **3. Process of Money Laundering**

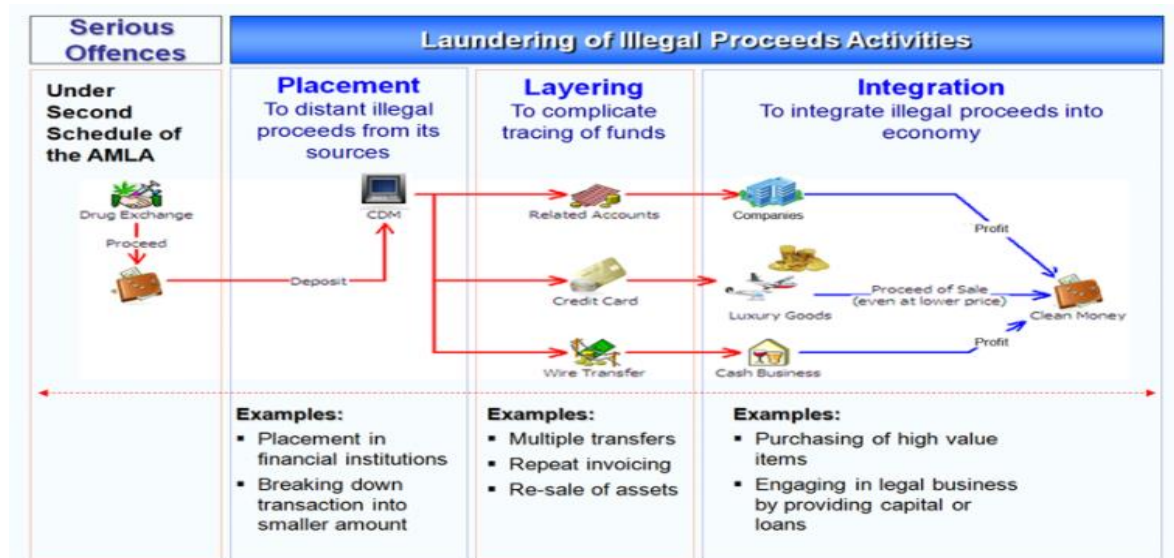
Banks are vulnerable to the risk of money laundering because criminals utilize them to convert illegally obtained funds, which harms the banks' reputation. Money laundering occurs in banking institutions in three stages: placement, layering, and integration. In the first stage, placement, money launderer usually introduces the proceeds of illicit money to the financial system.

Money launderer put a huge amount of cash into the financial system such as structured deposits, investment in gold business or other legitimate businesses. The second step is layering. At this stage, the proceeds of illegal crimes will be converted into other shapes of funds to make tracing the illegal funds become more complicated. Indeed, Omar et al. (2014) highlight the aim of layering is to obfuscate the financial sum involved. Multiple transfers and re-transfers in the same account or through different accounts are examples of layering.

Other than that, there are also repeat invoicing for the same transaction and re-sale of assets such as stocks, commodities and properties. The third stage is integration which the proceeds of illegal activities unite with economy to produce the clean money. At this stage, the process of money laundering will be considered as completed. Examples of integration in which after layering the funds, money launderer purchase high value items such as gold, diamonds and luxury goods and then they will sell the items. The proceeds of sale will produce the clean money even they have to sell at cheaper price than current market value. Other example of integration is money launderer engaging in legal business such as restaurants or legal companies. Figure 1 shows the three stages of money laundering process in financial sector including banking institution.

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<sup>1</sup> The fundamental documents reflecting the foremost international efforts to combat money laundering are (i) the 1988 U.N. Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, U.N. Docs. E/Conf. 82/15 and E/Conf. 82/14 (December 19, 1988) (the "Vienna Convention"); (ii) the Council of Europe Convention on Laundering, Search, Seizure and Confiscation of the Proceeds from Crime, Eur. Consult. Ass., Doc. No. 141 (November 8, 1990) (the "Council of Europe Convention"); (iii) the Report of the Financial Action Task Force on Money Laundering, April 19, 1990 (the "FATF Report"); (iv) the E.C. Directive on prevention of the use of the financial system for the purpose of money laundering, O.J. Eur. Comm. (No. L 166) 77 (1991) (the "EC Directive"); (v) the Model Regulations Concerning Laundering Offenses Connected to Illicit Drug Trafficking and Related Offenses of the Organization of American States, OEA/Ser. P, AG/doc. 2916/92 rev. 1 (May 23, 1992) (the "OAS Model Regulations"); and (vi) the Statement of Principles concerning "Prevention of criminal use of the banking system for the purpose of money laundering" (the "Basle Statement"), adopted by the Basle Committee on Banking Regulations and Supervisory Practices in December 1988. This paper can itself be read as a summary, comparison, and commentary upon the international money laundering regime outlined in those documents.



**Figure 1. Money Laundering Process in Financial Sector**

Source : Bank Negara Malaysia

#### 4. Money laundering Cases in Malaysia

Malaysia was classified as having "enhanced follow-up" in the Financial Action Task Force's most recent Mutual Evaluation Report (FATF & APG, 2018). The FATF's standard policy provides the foundation for enhanced follow-up, which entails a stricter follow-up procedure for members who have major shortcomings in their AML and counter-financing of terrorism (CFT) systems (for technical compliance or effectiveness). In other words, it demonstrates Malaysia's inability to achieve technical compliance standards in the AML/CFT legislation. According to the Malaysian Basel AML Index, an impartial annual ranking that examines the risk of money laundering (ML) and terrorism financing (TF) worldwide (Basel, 2016, 2017, 2018, 2019; 2015; 2020; 2021), the indexes show a mixed picture from 2015 to 2021. Malaysia's Basel AML Index showed a growing trend from 2015 to 2017 and a modest reduction from 2018 to 2021. Malaysia, on the other hand, is still rated as a medium risk threat by the ML/TF. Malaysia's vulnerability to ML/TF is evident at the international level; Malaysia is not a "clean" country in terms of ML (Jamil et al., 2022).

Malaysia has had a number of documented incidences of money laundering involving banking institutions. A Swiss court convicted a banker in a case involving Malaysia's scandal-plagued sovereign wealth fund 1MDB for failing to sound the alarm regarding millions of dollars. In light of this, the Federal Criminal Court declared the banker guilty of failing to comply with reporting requirements and fined him 50,000 Swiss francs (\$55,000) in addition to court costs. In order to end the investigation into the bank's involvement in Malaysia's 1MDB corruption crisis, Goldman Sachs Group Inc. struck a settlement that included fines totaling US\$2.9 billion (The Star, 2020).

According to Rahman and Wahab (2021), another case is Lee Ee Lin v. Citibank Berhad (Award No. 75 of 2015), in which the claimant was fired for allegedly failing to report the STR in accordance with AML laws. According to the facts of the case, the claimant was aware of money movements between her family members' accounts and that the monies originated with her brother, who was under investigation for money laundering. As a result, the court determined that the claimant's wrongdoing was substantial and struck at the basis of the employer-employee relationship, making him eligible for dismissal by the bank. The claimant was deemed to be conversant with the bank's anti-money laundering rules and was aware of her responsibility to alert the bank to questionable transactions but failed to do so. Given that the claimant was aware of the problem and nevertheless failed to perform her duties faithfully, it was deemed grave misconduct, equal to dismissal. In other words, the wrongdoing was determined to be substantial, striking at the heart of the employer-employee relationship, which is based on mutual trust and confidence. On this point, the Industrial Court additionally determined that the dismissal was appropriate to the nature and seriousness of the claimant's misconduct.

#### 5. Anti-Money Laundering Regime in Malaysia

##### 5.1 National Coordination Committee (NCC)

According to FATF and APG (2015), the implementation of AML/CFT regime in Malaysia is coordinated by the National Coordination Committee (NCC), a body established in 2000 to coordinate, implement and monitor the development of the national AML/CFT initiatives. There are two levels of coordination which are NCC Working Group and NCC High



Level. NCC Working Group is operational level where it involves coordination at the working level to address operational issues pertaining to the implementation and effectiveness of initiatives approved by the NCC High Level. At the operational level, sub-committees and task forces are established to discuss specific issues that require participation of various members. NCC High Level formulates policy, provide advisory role, and set out the strategic direction of the NCC. This level comprises of the Heads or Deputies of the member Ministries or agencies (FATF and APG, 2015). Mandates of the NCC are to foster co-operation and promote consultation in the development of AML/CFT policies, legislation, law enforcement and other supporting infrastructures; co-ordinate the National AML/CFT Risk Assessment initiatives and facilitate good practices regarding the development, dissemination and implementation of AML/CFT measures; and provide a forum for examining any operational or policy issues that have implications on the implementation, effectiveness and efficiency of the National AML/CFT and, where necessary, to make recommendations to the Government in order to address the issues. Figure 2 shows the members of the NCC comprised of 16 Ministries and government agencies from supervisory/regulatory authorities, law enforcement agencies and policy-making ministries.

| Supervisory/Regulatory  | Enforcement   | Policy  |
|---|---|---|
| <ul style="list-style-type: none"> <li>• Bank Negara Malaysia</li> <li>• Companies Commission of Malaysia</li> <li>• Labuan Financial Services Authority</li> <li>• Registrar of Societies</li> <li>• Securities Commission Malaysia</li> </ul> | <ul style="list-style-type: none"> <li>• Inland Revenue Board of Malaysia</li> <li>• Immigration Department of Malaysia</li> <li>• Malaysia Anti-Corruption Commission</li> <li>• Royal Malaysia Customs Department</li> <li>• Royal Malaysia Police</li> </ul> | <ul style="list-style-type: none"> <li>• Ministry of Finance</li> <li>• Ministry of Foreign Affairs</li> <li>• Ministry of Home Affairs</li> <li>• Ministry of Domestic Trade Co-operatives and Consumerism</li> <li>• Attorney-General's Chambers</li> <li>• Ministry of International Trade and Industry</li> </ul> |

**Figure 2. Ministries/Agencies under the NCC**

*Source: Bank Negara Malaysia*

According to Bank Negara Malaysia (2020), as the secretariat of the NCC, BNM plays a major role in promoting a collaborative culture between the agencies towards achieving effective AML compliance in the country. It includes organizing regular forum and consultations with the NCC members to address the updated issued on money laundering and discuss on the solutions to be used by each party involved. The outcome from the regular meetings then discussed with the government, especially with the regulators for further action. Figure 3 below highlights BNM's roles as the secretariat of the NCC.

## 5.2 Anti Money Laundering Act 2001 (AMLA)

The Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 (AMLA) is the primary statute governing the AML/CFT regime in Malaysia. The Act was gazetted as law on 5 July 2001 and came into force on 15 January 2002 (BNM, n.d., 2001; Buang, 2018). The AMLA provides for the offence of money laundering and terrorism financing and the measures to be undertaken for the prevention of money laundering and terrorism financing offence. The AMLA stipulates wide-ranging investigation powers including powers for law enforcement agencies and public prosecutor to freeze and seize properties that are involved or suspected to be involved in money laundering or terrorism financing offenses, and the power of the court to forfeit properties derived from the proceeds of serious crimes. The first schedule in AMLA is about reporting institution and the second schedule relate to serious offence. The enforcement of the AMLA is undertaken by various ministries/agencies based on the predicate offenses under their respective purview which is listed under the Second Schedule of the AMLA. As at November 2014, there are 356 offenses under 42 pieces of legislations are listed under the Second Schedule of the AMLA (BNM.; Buang, 2018).

| <b>BNM's Roles</b>  |
|---|
| <ul style="list-style-type: none"><li>• receive suspicious transaction reports (STR) from the reporting institutions;</li><li>• receive cash threshold reports (CTR) from relevant reporting institutions;</li><li>• analyse the STRs and CTRs;</li><li>• disseminate information on suspected offences derived from the STRs and CTRs analysis to the appropriate law enforcement agencies for investigation;</li><li>• compile statistics and records;</li><li>• give instructions to reporting institutions pertaining to any report or information received;</li><li>• make recommendations to the relevant supervisory authority, enforcement agency and reporting institutions arising from any report or information received; and</li><li>• create training requirements and provide training for any reporting institutions in respect of the reporting institutions' obligations under Part IV of the AMLA.</li></ul> |

**Figure 3. BNM's Roles as the Secretariat of the NCC**

*Source: Bank Negara Malaysia*

## **6. Prior Studies on Anti-Money Laundering in Banking Institutions**

A review of literature on anti-money laundering compliance among banking institutions can be categorized into (i) perceptions of compliance officers on issues, challenges and factors affect the effectiveness of money laundering regulation, (ii) attitudes of compliance officers on money laundering, and (iii) intention of compliance officers to report money laundering activities.

In the Malaysian context, Said et al. (2013) examine a range of issues regarding compliance measures adopted by the Malaysian commercial banks. The sample of the study consists of 39 respondents among compliance officers in commercial banks. The findings indicate that Malaysian commercial banks take their obligations to comply with anti-money laundering and counter-terrorist financing regulations seriously, but their level of execution is much lower. This is most likely because they perceived the level of risk of money laundering in their organisation to be minimal. The findings also indicate that the banks tend to strengthen their anti-money laundering and counter-terrorist financing programmes when they believe they are at a greater risk of money laundering and terrorist financing activities. According to the findings, the reasons for the low adoption of anti-money laundering and counter-terrorist financing measures are a lack of senior management support, a lack of expert employees, a lack of technology infrastructure, an insufficient allocation of resources, and a lack of political support.

Pok et al. (2014) investigate the perceptions of bank compliance officers in Malaysia on the effectiveness of the anti-money laundering and counter-terrorism financing regime. Using quantitative method, the sample of the study consists of 82 compliance officers from 43 banks which segmented into local conventional (51), local investment bank (2), local Islamic bank (13), foreign conventional bank (7) and foreign Islamic bank (9). The results find that operating and capital expenditure of implementing AMLATFA requirements increases from 51% to 56% over 3 years. The results also show that 90% of respondents thought the purpose of the law was to find and stop people from funding terrorism, but only 57% thought it was effective in accomplishing this objective. In addition, avoiding penalty was ranked as the principal driver of complying with the provisions of AMLATFA, followed by its contribution to improving brand image. Pok et al. (2014) also found that the Islamic bank compliance officers considered AMLATFA's most important advantage that it helps with knowing the customer better, while the conventional bank officers consider the reduction of fraud cases to be the top-ranking benefit. Both banks considered better reputation to be the second-ranking benefit of AMLATFA. The findings also show 70% of respondent from conventional banks opined that the culture within their organisations was highly or highly compliant, while only 54.5% of compliance officers in Islamic banks felt accordingly. Thus, the authors suggest BNM should discuss the issues of compliance to AMLATFA with top management of banks in Malaysia. For compliance culture to permeate throughout an organisation, support from top management is crucial. BNM also should consider discussing the importance of and the need for meticulous implementation of the legislation with the top management, especially of the Islamic banks.

Isa et al. (2015) examine banking institutions' procedures for assessing money laundering risk, with a particular emphasis on the role of frontline officers as the first line of defence. The study's purpose also includes a consideration of some of the concerns and challenges confronting banking institutions in ensuring frontline employees carry out their responsibilities effectively in assessing money laundering risk. Using face-to-face interview and discussions in this paper are based on four series of interview sessions, which involved compliance officers from three commercial banks and one representative from the banking supervision department of BNM, the results show money laundering risk is a real risk in the banking institutions, and the frontline officers should be adequately competent in discharging their duties. Even if the banking institutions are equipped with automated risk management solutions, human expertise is indispensable in assessing money laundering risk. Support provided by the compliance department is complementary for the roles played

by the frontline officers and monitoring ensued by the regulatory authority should have enhanced the compliance intensity in the banking institutions.

Isa et al. (2019) examine the influences of behavioural factors on bank officers' judgement through the operationalization of between-within-subjects experimental approach. Using Partial Least Squares of Structural Equation Modelling, the sample of study consists of 185 bank officers in three banking institutions in Malaysia. Through an investigation of the factors in a controlled setting, it was discovered that an individual factor (i.e., competency) acts as the anchor determinant in influencing bank officers' judgement. Apart from the direct relationship between competency and bank officers' judgement demonstrated in this study, the study also establishes a mediation effect of contextual factor (i.e., CDD task intensity) and a moderating effect of organisational factor (i.e., regulatory supervision) on the relationship between competency and bank officers' judgement. For a relatively unexplored area in the study of behavioural judgement, this study contributes to confirming the theoretical underpinnings of this research and expanding the body of knowledge on money laundering risk. Practically, these findings are significant in identifying the factors that matter when bank officers assess money laundering risk, as incorrect risk assessment implicates not only the banks, but also the officers, as mandated by the AMLA 2001. In this regard, it is critical to understand the behavioural factors that influence bank officers' judgement in order to absolve bank officers of such liability.

Another study conducted by Isa and Sanusi (2021), investigate the influence of customer due diligence (CDD) process and bank employees' expertise on their judgement and decision making when assessing money laundering risk. The authors utilised an experimental approach where a case-based questionnaire was gathered from 122 employees in three major banks in Malaysia. Results demonstrated a substantial association between the depth of the CDD process with bank employees' judgement and decision-making in assessing money laundering risk. This correlation is moderated by employees' expertise, which shows that it is vital for the correct people with adequate qualifications to be employed as CDD process may be done better with greater articulation and educated judgement. The findings could provide useful insights into the judgement capabilities of bank employees with reference to the rigorousness of the CDD procedure and their experience in assessing risk.

## 7. Conclusion

This study aims to present a review of literature on anti-money laundering compliance with a specific focus on banking sector. Specifically, it aims to provide further knowledge on recent developments in money laundering research. In general, the results show that most of prior studies on money laundering among Malaysian banking are very limited and more on conceptual papers. Most of the empirical studies more emphasized on perceptions of compliance officers on issues, challenges and factors affect the effectiveness of money laundering regulation. Thus, in order to increase understanding on anti-money laundering compliance practices among banking compliance officers, more empirical research is needed in this research area.

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## **Anti-Corruption Disclosure in Malaysian Public Listed Companies: A Legal Perspective**

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### **Abstract**

The rise in corruption in the private sector raises concerns about anti-corruption policies in the business environment in Malaysia. Accordingly, the Malaysian Anti-Corruption Commission Act 2009 has been amended to include corporate liability provisions that took effect on June 1, 2020. The provision compels businesses to implement anti-corruption policies and procedures in order to combat corrupt practices. Due to the short interest in studies addressing companies' commitment to combat corruption in Malaysia, this study examines the extent of corporate anti-corruption disclosure among 396 listed companies on the main board of Bursa Malaysia using the content analysis method. The anti-corruption policies were measured using an index developed based on previous studies and rearranged according to 'TRUST' principles outlined by the Malaysian Anti-Corruption Commission (MACC) as guidelines to comply with adequate procedures under corporate liability provisions. The descriptive analysis results show a relatively good level of corporate anti-corruption disclosure in publicly listed companies, with the mean scores of all 5 themes of the disclosure index falling between 0.45 and 0.64. The result indicates that public companies responded well to the call to provide adequate procedure despite requests from many business entities to hold the enforcement of corporate liability

### **Keywords**

Corruption disclosure, Content Analysis, Anti-corruption, Private-sector corruption

### **1. Introduction**

Corruption in the business environment has been recognized as widespread and does not appear to be declining (Blanc et al., 2019; Hauser, 2019). World Bank surveys show that approximately 20% of over 135,000 companies across 139 countries reported receiving at least one request for bribery (Boles, 2019). In Malaysia, corruption in the business environment is also problematic, as PWC Malaysia's fraud and corruption survey report (2020) indicates that bribery and corrupt practices among business entities rose more than threefold from 10% in 2014 to 35% in 2018 and 2020. Even worse, in July 2022, the Wall Street Journal ranked Malaysia as the most corrupt nation for conducting business. Malaysia performed worse than even Indonesia, which has a long-standing reputation for corruption. The Malaysian government has taken several initiatives to curb corruption in the private sector, including encouraging companies to sign corporate integrity pledges as a tool to develop their own anti-corruption programs to strengthen anti-corruption measures among companies. Further, the Malaysian Anti-Corruption Commission (MACC) has enforced the Corporate Liability Act that came into force on June 1 2020, enabling the prosecution of companies involved in corruption. The provision requires companies to take urgent action to create comprehensive compliance programs with "Adequate Procedures" in order to benefit from the statutory defence provided by Section 17A of the MACC Act, and having comprehensive anti-corruption policies is part of it.

Thus, this paper examines the companies' commitment to mitigate corruption by looking at the disclosure of corporate anti-corruption policies of companies listed on the main board of Bursa Malaysia after the enforcement of the Corporate Liability Act. The disclosure of these policies is considered a fundamental instrument in the fight against corruption. It is a strong indicator of the quality and comprehensiveness of a company's efforts in addressing corruption. This study enriches the literature on anti-corruption policies in the private sector, which have always received less attention than public sector corruption. It sheds light on how much anti-corruption information Malaysian companies disclose in their annual report, sustainability reports, and website. The remainder of this paper proceeds as follows. Section 2 provides the literature review on anti-corruption policies in the private sector. Section 3 describes the methodology, followed by the presentation of the result and discussion in Section 4. The last part of the paper offers conclusions, limitations of the research and suggestion for future research.

### **2. Literature Review**

The development of corruption cases in the Malaysian business environment has put pressure on companies to involve directly in mitigating corruption. The development of corporate anti-corruption policies is an immediate action that

companies should take as a commitment to mitigate corruption in the business environment. Corporate anti-corruption policies account for both internal and external perspectives. Internal perspectives are endogenous to business, whereas external perspectives imitate exogenous regulations and restrictions imposed by the government or outside institutions (Goel et al., 2015). Internal policies may refer to any internal initiatives by companies to combat corruption, including policy, codes of conduct, ethical leadership and investing in corporate social responsibility to support government initiatives to combat corruption (Barkemeyer et al., 2018). These are known as self-regulatory actions, or soft law approaches, where the corporations themselves will take a company stand in the fight against corrupt practices, including behaving in accordance with ethical principles and taking actions that build economic benefit and social good for society at the same time (Hess, 2012).

However, while creating anti-corruption rules alone is insufficient to remove corporate corruption, many studies feel that transparency surrounding anti-corruption policies is one of the most important for reducing corporate corruption (Barkemeyer et al., 2015; Mahmud et al., 2022; Sari et al., 2021). Disclosures on these policies send signals to investors and other stakeholders about companies' commitment to combating corruption and enhancing transparency and accountability (Duho et al., 2020). It is also a strong indicator of the quality and completeness of a company's efforts in addressing bribery and corruption (Joseph et al., 2016). There are numbers of guidelines available for companies to guide them pertaining to anti-corruption disclosure. Global Reporting Initiative (GRI) guidelines suggest a company's sustainability report should include anti-corruption policies and procedures implemented in the organization's training programmes on anti-corruption practices and the total number of operations used to assess corruption-related risks (Barkemeyer et al., 2015). Transparency International also established a framework for combating corruption known as The Business Principles for Combating Bribery (BPCB) in 2002, and a specific edition specializing in small and medium-sized businesses was published in 2008. The BPCB's objective is for companies to embrace principles and procedures that will help them combat corruption in all of its forms. It urges greater emphasis on public reporting of anti-bribery systems, and enterprises commission external verification or assurance of their anti-corruption programmes (Carr & Outhwaite, 2011; Halter et al., 2009). Meanwhile, The United Nations (UN) has advised the participating corporations of the Global Compact to take the following steps in regard to fighting corruption: 1. To introduce anti-corruption policies and programmes within their organizations and their business operations; 2. To report on their work against corruption in the annual Communication on Progress; 3. To share experiences and best practices through the submission of examples and case stories; 4. To collaborate with their industry peers to jointly find solutions to fight corruption through sectoral initiatives; 5. To collaborate with Transparency International and the International Chamber of Commerce as the main provider of tools in the fight against corruption; 6. To engage in collective efforts with all stakeholders; 7. To lobby for the ratification and implementation of the UN Convention against Corruption in as many countries as possible (Hess, 2012).

Previous studies have documented several works of literatures on anti-corruption disclosure. Blanc et al. (2019) state that anti-corruption disclosure is higher in countries with lower levels of secrecy. However, they acknowledge that companies with higher levels of secrecy who depend on the international community for resources have high disclosure of anti-corruption to conform to the expectations and to maintain legitimacy. Meanwhile, Islam et al. (2018) suggest that the level of media focus on this topic strongly correlates with the manner in which companies disclose anti-corruption actions. The positive correlations are consistent with the company's larger legitimization strategy, which include a rise in anti-bribery declarations to mitigate the detrimental consequences of unfavourable media attention and preserve the company's legitimacy. Similarly, Blanc et al. (2017) propose that the media can contribute to the anti-corruption disclosure by raising social pressure on corporations by highlighting concerns with companies. In nations with less press freedom, however, media pressure does not appear to elicit similar responses; hence, different tools for enhancing corporate anti-corruption transparency may be required. In a comparative study between Malaysia and Indonesia, Joseph et al. (2016) find that Indonesian companies disclosed more anti-corruption information as compared to Malaysian companies due to higher coercive pressure. The Indonesian government is putting in a lot of effort to clear up the reputation of Indonesia as a corrupt nation and strong desire of Indonesian companies to be seen as socially acceptable in relation to corruption and legitimate due to the nature of business within the social and environmentally sensitive industries.

### **3. Methods**

Companies listed on the main board of Bursa Malaysia as for December 2019 are selected as the population of the study. As the population is represented by the sectorial index, stratified random sampling was employed, which involved the process of stratification, followed by the random selection of subjects from each sectorial. There are 13 different sectorial indexes in Bursa Malaysia, and all sectorial indexes will be considered samples since all sectors are exposed to corrupt

practices and subject to corporate liability regulations. After considering the minimum sample requirements for each sectoral index, the final sample of 396 companies was drawn from the total population.

As for capturing data for companies' anti-corruption efforts, this study uses content analysis of inclusion or exclusion disclosure of information related to anti-corruption from annual reports, corporate governance reports 2019, board charter and also companies' website from June to December 2020. The index for anti-corruption reporting is adapted from (Barkemeyer et al., 2018; Islam et al., 2018; Issa & Alleyne, 2018; Joseph et al., 2016) and the MACC Act that meet the usual practice of Malaysian companies. The items of the index are then rearranged according to the T.R.U.S.T principles, which is a guideline established by MACC for adequate procedures. The corporate anti-corruption index score from the above five themes is then calculated as follows:

$$TRUST_{idx} = \sum_{t=1}^{n_j} \frac{x_j}{N}$$

Where,

- TRUST<sub>idx</sub> = TRUST anti-corruption policies index for every theme
- N = Number of items expected for each theme
- X<sub>j</sub> = 1 if the information is disclosed, 0 if the information is not disclosed

## 4. Results and Discussion

**Table 1. Descriptive Analysis for Corporate Anti-Corruption Policies**

|   | <b>Min</b> | <b>Mean</b> | <b>Max</b> | <b>Std. Dev</b> | <b>Skewness</b> | <b>Kurtosis</b> |
|---|------------|-------------|------------|-----------------|-----------------|-----------------|
| T | 0.00       | 0.504       | 0.900      | 0.204           | -0.076          | -0.570          |
| R | 0.00       | 0.451       | 1.000      | 0.292           | -0.171          | -1.135          |
| U | 0.103      | 0.636       | 0.879      | 0.138           | -1.325          | 1.832           |
| S | 0.00       | 0.343       | 0.750      | 0.164           | -0.336          | -0.452          |
| T | 0.00       | 0.495       | 0.944      | 0.192           | -0.374          | 0.043           |

*Notes: T= Top-level commitment, R= Risk assessment, U= Undertake control measure, S= systematic review, monitoring and enforcement, TC= Training and communication  
N=396*

Overall, the descriptive result from Table 1 above, shows a relatively good level of corporate anti-corruption policies in public listed companies, with the mean scores of all themes falling between 0.45 and 0.64, which is higher than the mean score of the descriptive study conducted by Joseph et al. (2016), where the range of the mean of anti-corruption policies for all seven themes in their study fell between 0.185 and 0.27. However, their sample only included 24 listed companies that participated in ACCA Malaysia Sustainability Reporting Awards (MaSRA) in 2011. They argue that the lower level of anti-corruption disclosure is due to the low level of coercive pressure on anti-corruption policies in Malaysia.

## 5. Conclusion

This study has achieved its intended objectives to examine the disclosure of anti-corruption in Malaysian public listed companies. The results relatively show a good level of disclosure. This indicates that after the government enforcement of corporate liability under the MACC Act 2009 in mid-2020, companies have better anti-corruption policies, supported by the higher mean score of anti-corruption policies discussed above. This also indicates that public companies responded well to the call to provide adequate procedure despite requests from many business entities to hold the enforcement of corporate liability due to the covid 19 pandemic. However, there are companies which score 0 for several categories indicating that they disclosed very minimum information on anti-corruption that could be driven by minimum effort in anti-corruption activities.

The results indicate that anti-corruption disclosure in Malaysia still has considerable space for improvement, and this study recommends that authorities increase enforcement of anti-corruption practices and disclosure in publicly listed companies, as they demonstrate the companies' commitment to preventing corruption and convey a signal to investors, particularly foreign investors. This is to bolster the international capital market participants' perception of Malaysia's resolve to tackle corruption and to ensure that investors are better protected against the risk of corrupt activities. This study is only a descriptive study; future research might consider factors that influence anti-corruption disclosures and factors that prevent companies from disclosing more on certain categories of anti-corruption information.

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## **Price Fluctuation of Brent Futures and the Impact on Stock Prices of Oil Companies in Malaysia**

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### **Abstract**

This study aims to investigate the impact of crude oil market price fluctuations on public listed oil companies in Malaysia. Individual stocks of oil producers and refineries were selected instead of stock market indexes. This study employed autoregressive distributed lag bounds test approach with weekly data spanning from January 2011 until June 2022. The study found statistical evidence of a cointegration relationship between Brent Futures with stock prices of PETRONAS Chemical, PETRONAS Gas, Hibiscus Petroleum, and Petron Malaysia indicating potential co-movement towards long-run equilibrium. On top of that, substantial statistical evidence of causal impact is also found from Brent Futures to the stock prices of oil companies implying the significant role of Brent futures in influencing the stock prices behaviour of oil companies in Malaysia. The empirical results of this study will be able to assist the fund managers of these companies or retail investors in making investment decisions and hedging strategies.

### **Keywords**

Oil Companies, Stock Prices, Brent Futures, ARDL, Malaysia

### **1. Introduction**

Crude oil is a top traded commodity where Brent Futures is on the top followed by West Texas Intermediate (WTI) Futures on second. Brent Futures is listed under Intercontinental Exchange (ICE) while WTI Futures is under New York Mercantile Exchange (NYMEX). Both futures contracts had experienced numerous bull and bear markets where the highest price printed at \$128 in March 2011 and the lowest was \$21 in April 2022.



**Figure 1. Price Chart of Brent Futures from January 2011 until June 2022**

Malaysia's national oil company namely Petroliaam Nasional Berhad (PETRONAS) was established in 1974 and tasked to oversee oil activities in and out of Malaysia. It is wholly owned by the government thus this national oil company is not listed in any exchange but there are several subsidiaries listed in Bursa Malaysia namely PETRONAS Chemical, PETRONAS Dagangan, and PETRONAS Gas. Since operating, PETRONAS is consistently giving returns in terms of dividends to the government based on their reported revenue. The impact of price fluctuation of crude oil on the stock markets was widely discussed around the world including in Malaysia. Being an oil-rich country with a multi-billion oil

company definitely has a different impact on the fluctuation of the oil price since crude oil is one of the main incomes of this country and PETRONAS. Price fluctuations could bring uncertainty to Malaysia's economic development, growth, government income, and stock price itself.

Figure 1 shows the price movement of Brent Futures, a crude oil commodity future listed in Intercontinental Exchange. As the leader of top commodity traded in the world, the share price performance of oil companies is subject to market risk, and the crude oil is subject to significant price fluctuations. In Malaysia, there are 5 oil producer and refinery list their shares on the Bursa Malaysia Securities Berhad. Since crude oil trading integrates with international financial market and become a main subject discussed around the world, it attracts institution and retail investors to participate by investing in these public listed oil companies. Thus, there is a need to investigate the performance of these stocks based on the price movement of crude oil. Result of this study will assist fund managers, hedge fund managers, investors, and traders to track the performance of oil listed companies that derive substantial revenue from crude oil related activities.

## 2. Literature Review

There are several studies conducted investigating the relationship between crude oil and stock markets. Cointegration relationship was found between crude oil and the stock market in China, India, Saudi Arabia, USA, Russia (Imarhiagbe, 2010), OECD and non-OECD countries, (Zu et al., 2011), Nigeria (Asaolu, & Ilo, 2012), India (Ghosh & Kanjilal, 2016), Canada (Mahmoudi & Ghaneei, 2022) and Turkey (Tursoy & Faisal, 2018). On top of that, stock markets in these countries have a positive relationship with crude oil except in Nigeria and India. Furthermore, crude oil has a long-run relationship with six stock indexes of OECD countries (Miller & Ratti, 2009) and a shock in crude oil influenced ASE Greece Index (Filis, 2010). In China, oil shocks able to affect profitability of a firm due to fluctuations in output, inflation, and decline in real consumption (Sim & Zhou, 2015).

Meanwhile close to Malaysia, Narayan & Narayan (2010) who employed the Johansen cointegration test found a positive impact of oil price towards Vietnam's stock market. Similar to Vietnam, Hadi *et al.*, (2009) and Darmawan *et al.*, (2020) found a positive long-run relationship between crude oil with Indonesia's stock market. In Malaysia itself, Hussien *et al.*, (2012) found a positive relationship between crude oil price and FBM Emas Shariah Index by employing Vector Autoregression (VAR) and monthly data spanning from January 2007 until December 2011. Interestingly, Bani & Ramli (2019) who employed different indices namely FBM KLCI and FBM Emas found a negative relationship with crude oil. However, Nordin *et al.*, (2014) who used monthly data from the period of February 1997 until September 2012 found no relationship between crude oil with KLCI. Contradicting results motivate this study to investigate further the relationship between Malaysia's stock market with crude oil.

Raza *et al.*, (2016) and Mishra *et al.*, (2019) stressed that every finding in previous research conducted on crude oil influencing stock prices are significant and can play a vital role in making and investment decision, derivatives valuation, and hedging strategies. Approach of this study considered novel as the closest studies examined the relationship between crude oil and stock indexes. Different from the previous researchers, this study will investigate the cointegration relationship between Brent Futures with selected oil producers and refiner companies that are listed in Bursa Malaysia. This is important since different companies have different market capitalisation and costs of production, operation, and extraction. Previous studies were only conducted until 2019 and there is a need for a new investigation since crude oil went into various shocks, especially in the Oil Crash 2014-2016, the global pandemic of COVID-19, and the latest war between Russia and Ukraine.

Brent Futures was selected as a proxy for crude oil since Brent Futures is listed in ICE and openly tradable around the world. Besides, Brent crude oil price is used by the Malaysian government in preparing the annual budget as well as PETRONAS for annual reports. For oil producers and refineries companies, the PETRONAS Chemical, PETRONAS Dagangan, PETRONAS Gas, Hengyuan Refining, Hibiscus Petroleum, and Petron Malaysia were selected for this study. All of these companies are listed in Bursa Malaysia with a minimum market capitalisation of MYR1.5 billion and up to RM75 billion (as of 30 June 2022).

In summary, this study attempted to investigate the long-run and short-run relationship between Brent Futures with oil producers and refineries companies listed in Bursa Malaysia. Furthermore, all of the previous studies were conducted using the index as the dependent variable with different methods. Whether the same relationship exists between the index and individual stocks should be a concern, hence the focus of this study.

## 2. Data and Methodology

In order to investigate the relationship between Brent Futures with stock prices of oil companies listed in Bursa Malaysia, this study adopted the empirical models for each stock price of oil companies from Narayan & Narayan (2010), Imarhiagbe (2010), and Ghosh & Kanjilal (2016) as follows:

$$\ln SP_t = a_1 + b_1 \ln Brent_t + b_2 \ln Exr_t + \varepsilon_t \quad (1)$$

This study used weekly data spanning from January 2011 to June 2022 where all the stock prices (SP) of oil companies are obtained from Bursa Malaysia while Brent Futures (Brent) and Exchange Rate (Exr) are collected from

the Bloomberg terminal database. PETRONAS Chemical (LnPChem), PETRONAS Dagangan (LnPDag), PETRONAS Gas (LnPGas), Hengyuan Refining (LnHeng), Hibiscus Petroleum (LnHib), Petron Malaysia (LnPetron) represent the oil companies. These oil companies were selected based on their market capitalisation and core business of producers and refineries as stated in Bursa Malaysia. Meanwhile, Brent Futures (LnBrent) was selected as the independent variable by controlling the Exchange Rate (LnExr). In addition, all variables are presented in natural logarithms (Ln).

Unit root test based on Dicker-Fuller (DF) and Phillips-Perron (PP) are carried out in this study to examine level of stationary for every variable and none of the variable stationary at I (2). The Akaike Information Criterion is used for DF where the maximum lags were set to 4 while PP is based on Newey-West bandwidth. Both unit root tests were run with intercept. It is rational to perform unit root test since ARDL bound test can only be applied when the variables are stationary at I (0) and I (1).

The error term in DF is unlikely to be white noise and the test was extended to the augmented version, i.e., the Augmented Dickey-Fuller (ADF). It also includes extra lagged terms of the dependent variable to eliminate autocorrelations. The hypothesis for the unit root test is

$$H_0 : \varphi = 0$$

$$H_a : \varphi < 0$$

The null hypothesis is  $H_0$  and the alternative is  $H_a$ . In the case of  $H_a$ , where the Dickey-Fuller statistical value is negative and smaller than critical value,  $H_0$  will be rejected and it would be concluded that the variable is a stationary process. Meanwhile for PP can be express through autoregression process as

$$\Delta y_{t-1} = a_0 + \delta y_{t-1} + \varepsilon_t$$

Difference from ADF, PP test corrected the t-statistic of the coefficient  $\delta$  from autoregression process to account for the serial correlation in  $\varepsilon_t$ . Furthermore, PP test is a modification of the ADF where it takes into account on the less restrictive nature of the error process. Moreover, PP test is robust to general forms of heteroscedasticity in the error term and can be used without specifying a lag length of regression.

The cointegration test based on ARDL bound test is used in order to investigate the long-run relationship between stock prices of oil companies in Malaysia with Brent Futures. ARDL is considered more robust, appropriate, and has less problem on endogeneity as it free from residual correlation especially when dealing with small sample of data. Furthermore, the long-run, short-run, and Error Correction Model (ECM) coefficients can be estimated simultaneously compared to other cointegration methods without losing any long-run information (Nkoro & Uko, 2016). The ARDL (p,q) model can be expressed as follows:

$$\Delta y_t = a_0 + a_1 y_{t-1} + b_1 x_{t-1} + \sum_{i=1}^p \delta_i \Delta y_{t-i} + \sum_{j=0}^q \theta_j \Delta x_{t-j} + \varepsilon_t \quad (2)$$

Alternatively, the equation (2) can be specified as:

$$\Delta \ln SP_t = a_0 + a_1 \ln SP_{t-1} + b_1 \ln Brent_{t-1} + b_2 \ln Exr_{t-1} + \sum_{i=1}^p \delta_i \Delta \ln SP_{t-i} + \sum_{j=0}^q \theta_1 \Delta \ln Brent_{t-j} + \sum_{j=0}^q \theta_2 \Delta \ln Exr_{t-j} + \varepsilon_t \quad (3)$$

where  $a_1$ ,  $b_1$ , and  $b_2$  are the long run coefficients,  $a_0$  is a constant, while  $\varepsilon_t$  is a white noise error term. The bounds F-test is used in order to investigate the existence of long-run relationship in the model where the null hypothesis of no cointegration in equation (3) is  $H_0: a_1 = b_1 = b_2 = 0$  against the alternative hypothesis  $H_a: a_1 \neq b_1 \neq b_2 \neq 0$ . If the test statistic is below the lower critical value, I(0) or lies in between the lower and upper critical values, I(1), this study cannot reject the null hypothesis indicating no cointegration between dependent variable and the regressors. In order to reject the null hypothesis, the value of F-test statistic must be exceeds the upper critical value, I(1). If this study failed to reject the null hypothesis, the ECM model without the error correction term is used and can be written as follows:

$$\Delta \ln SP_t = a_0 + \sum_{i=1}^p \delta_i \Delta \ln SP_{t-i} + \sum_{j=0}^q \theta_1 \Delta \ln Brent_{t-j} + \sum_{j=0}^q \theta_2 \Delta \ln Exr_{t-j} + \varepsilon_t \quad (4)$$

The lags order of ARDL model are selected based on Akaike Information Criterion (AIC) where the maximum number of lags is set to four. The short-run dynamic of ARDL specification is derived by constructing an ECM model. If there is evidence of long-run relationship between the variables, the following long-run regression will be estimated.

$$\Delta \ln SP_t = a_1 + \sum_{i=1}^p \delta_{2i} \Delta \ln SP_{t-i} + \sum_{j=0}^q \theta_{21} \Delta \ln Brent_{t-j} + \sum_{j=0}^q \theta_{22} \Delta \ln Exr_{t-j} + \varphi ECT_{t-1} + \omega_t \quad (5)$$

All coefficients in the equation (5) represent short-run dynamics of the model convergence to equilibrium.  $\varphi$  represents the speed of adjustment with negative sign and statistically significant is expected with the value of less than 1.

### 3. Empirical Results

Results of descriptive statistic were presented in Table 1 for the overview of each variable. The summary of common statistics contained the mean, standard deviation, skewness, and kurtosis.

**Table 1. Descriptive Statistics**

| Variable | Mean      | Std Dev  | Skew       | Kurtosis |
|----------|-----------|----------|------------|----------|
| LnPChem  | 1.952565  | 0.154431 | 0.223224   | 2.899162 |
| LnPDag   | 3.106584  | 0.143844 | -0.109962  | 2.788471 |
| LnPGas   | 2.931831  | 0.146386 | -0.0849036 | 2.273726 |
| LnHeng   | 1.71626   | 0.403584 | 0.010621   | 2.427287 |
| LnHib    | -0.215461 | 0.620897 | -0.734657  | 3.065904 |
| LnPet    | 1.486914  | 0.401318 | 0.766003   | 2.781413 |
| LnBrent  | 4.252316  | 0.367057 | -0.216951  | 2.245109 |
| LnExr    | 1.33376   | 0.131036 | -0.629513  | 1.714552 |

*Std.Dev. stands for standard deviation while skew stands for skewness. Total number of observations is 565.*

LnBrent has the highest mean followed by LnPDag, LnPGas, LnPChem, LnHeng, LnPet, LnExr, and LnHib. LnHib has the highest and LnExr has the lowest for standard deviation. All series are negatively skewed except for LnPChem, LnHeng, and LnPet which are positively skewed. With the exception of LnHib that is leptokurtic, all the remaining series have playkurtic as the value is less than three. This study proceeds to investigate level of stationary of every variable. Although the ARDL model did not stress the importance of knowing the level of integration, there was still a need to examine the variables as it cannot proceed beyond I (1). Result of unit root test presented in Table 2 and none of the variable has level of integration of I (2).

**Table 2. Unit Root Test**

|         | Augmented Dickey-Fuller |                | Phillips-Perron |                |
|---------|-------------------------|----------------|-----------------|----------------|
|         | Level                   | 1st Difference | Level           | 1st Difference |
| LnPChem | 0.4534                  | -11.10994***   | -1.760944       | -26.13379***   |
| LnPDag  | -2.509753               | -27.51946***   | -2.712076*      |                |
| LnPGas  | -2.289768               | -12.62349***   | -2.451909       | -27.74419***   |
| LnHeng  | -2.431599               | -11.96367***   | -2.15624        | -18.03376***   |
| LnHib   | -1.556024               | -22.26359***   | -1.596649       | -22.27379***   |
| LnPet   | -1.376182               | -9.252561***   | -1.435008       | -20.7416***    |
| LnBrent | -1.76709                | -9.090343***   | -1.77895        | -21.69556***   |
| LnExr   | -1.445183               | -22.68727***   | -1.477533       | -22.7725***    |

*\*\*\* and \* denote significant at 1% and 10% levels respectively. Akaike Information Criteria was employed where maximum lags were set to 4.*

**Table 3. ARDL Bound Test**

| Model                       | F-Statistic | Null Hypothesis |
|-----------------------------|-------------|-----------------|
| LnPChem = f(LnBrent, LnExr) | 4.659866**  | Rejected        |
| LnPDag = f(LnBrent, LnExr)  | 1.497       | Accepted        |
| LnPGas = f(LnBrent, LnExr)  | 3.86572*    | Rejected        |
| LnHeng = f(LnBrent, LnExr)  | 1.944258    | Accepted        |
| LnHib = f(LnBrent, LnExr)   | 4.15987**   | Rejected        |
| LnPet = f(LnBrent, LnExr)   | 4.162119**  | Rejected        |

*\*\* and \* denote significant at 5% and 10% levels respectively. Upper bound I(1) for all models is 3.87 (5%) and 3.35 (10%).*

This study proceeds to the estimation of cointegration by employing ARDL bounds test approach and summary results presented in Table 3. Based on the results obtained, LnPChem, LnHib, and LnPet has a long-run relationship with LnBrent and LnExr at 5 percent level of significance while LnPGas with 10 percent level of significance. LnPDag and LnHeng failed to reject the null hypothesis as the value of F-statistic is smaller than the lower critical value, I(0) indicating

there is no long-run relationship. Thus, this study proceeds with the Error Correction Regression for LnPChem, LnHib, LnPet, and LnPGas while causality test for LnPdag and LnHeng.

Results in Table 4 indicating the coefficient of regressors in the long-run. Based on the probability value, both LnBrent and LnExr are significance at 1 percent level indicates every 1 percent change in Brent Futures will be responded by 0.1672 percent increase on PETRONAS Chemical while every 1 percent increase of exchange rate led to a decrease of 0.6532 percent on PETRONAS Chemical. In the case of PETRONAS Gas, only Exchange Rate is statistically significant at 1 percent indicating every 1 percent increase of Exchange Rate will lead to a decrease of 0.4032 percent for PETRONAS Gas's stock price.

In the case of Hibiscus, both Brent Futures and exchange rate are statistically significance where every 1 percent increase of Brent Futures lead to an increase of 0.603 percent of Hibiscus's stock price. Furthermore, every 1 percent increase of exchange rate led to a decrease of 1.17 percent for Hibiscus. Brent Futures and exchange rate are also statistically significant for LnPet and estimation result shows that every 1 percent increase in Brent Futures will boost the price by 0.1938 percent while every 1 percent increase in exchange rate led to a decrease by 0.4817 percent of Petron's stock price.

**Table 4. Long Term Coefficients**

|                | $\theta_{21}$ | $\theta_{22}$ | $x_{5C}^2$ | $x_{White}^2$ |
|----------------|---------------|---------------|------------|---------------|
| <b>LnPChem</b> | 0.167217***   | -0.653205***  | 5.387466   | 0.222916      |
| <b>LnPGas</b>  | 0.015956      | -0.403223***  | 1.675117   | 60.06231***   |
| <b>LnHib</b>   | 0.602998***   | -1.174425***  | 1.037057   | 5.308947**    |
| <b>LnPet</b>   | 0.19386***    | -0.481738**   | 1.016772   | 24.13893***   |

$\theta_{21}$  and  $\theta_{22}$ , represent the coefficient of LnBrent and LnExr respectively. \*\*\* and \*\* denote significant at 1% and 5% levels respectively.  $x_{5C}^2$  represent autocorrelation test based on Breusch-Godfrey Serial Correlation Lagrange Multiplier test while  $x_{White}^2$  denotes heteroskedasticity test based on White test.

Table 5 shows the results of the univariate Granger causality test. There were short-run causality running from LnBrent to LnPchem, LnPdag, LnHeng, LnHib, and LnPet, but none for LnPgas. Furthermore, this study also found a short-run causality impact from LnExr to LnPdag, LnPgas, LnHib, and LnPet. No causality was found for LnPchem and LnHeng. In terms of ECT, for LnPchem, the coefficient shows a negative sign and statistically significant indicating 0.059 percent of disequilibrium in the next period. The correction of the disequilibrium and speed of adjustment towards long-run equilibrium for LnPgas is relatively slow by 0.01978 percent. The examined result of ECT for LnHib is also negative and statistically significant and indicates that 0.02974 percent of disequilibrium is corrected in the next period. While for LnPet, as expected, the coefficient of ECT is also negative and statistically significant implying that the disequilibrium is corrected by 0.0245 percent in the subsequent periods.

**Table 5. Granger Causality**

| Alternative Hypothesis   | P-Value     | Result   | $\varphi$    |
|--------------------------|-------------|----------|--------------|
| <b>LnBrent → LnPchem</b> | 16.36898*** | Accepted | -0.059533*** |
| <b>LnEXR → LnPchem</b>   | 0.227167    | Rejected |              |
| <b>LnBrent → LnPdag</b>  | 4.224832**  | Accepted |              |
| <b>LnEXR → LnPdag</b>    | 3.374333*** | Accepted |              |
| <b>LnBrent → LnPgas</b>  | 1.662801    | Rejected | -0.019784*** |
| <b>LnEXR → LnPgas</b>    | 11.05039*** | Accepted |              |
| <b>LnBrent → LnHeng</b>  | 19.56439*** | Accepted |              |
| <b>LnEXR → LnHeng</b>    | 0.028264    | Rejected |              |
| <b>LnBrent → LnHib</b>   | 24.80946*** | Accepted | -0.029742*** |
| <b>LnEXR → LnHib</b>     | 6.969059*** | Accepted |              |
| <b>LnBrent → LnPet</b>   | 6.986405*** | Accepted | -0.024533*** |
| <b>LnEXR → LnPet</b>     | 4.401340*** | Accepted |              |

\*\* and \*\*\* denotes 5 percent and 1 percent level of significance. → indicates there is a causality.  $\varphi$  denotes the coefficient of ECT.

The last issue addressed in this study is related to the goodness of fit of the ARDL model. This study run a series of diagnostic and stability tests. Autocorrelation based on Breusch-Godfrey Lagrange Multiplier test results indicates no serial correlation for all models but there are heteroskedasticity problem based on the White test for LnPGas, LnHib, and LnPet. As the financial data are exposed to the structural changes, this study also performed cumulative sum of recursive residuals (CUSUM) and cumulative sum of squares (CUSUMSQ) to check the stability of the model chosen. For CUSUM, all models from Figure 2-5 shows that the line plotted remained within the critical bounds at the 5 percent level of significance. However, for CUSUMSQ, plotted line in Figure 3-4 touched the critical line while Figure 2 and 5 deviated from 2015 to 2020 indicating that the variances were unstable during this period.

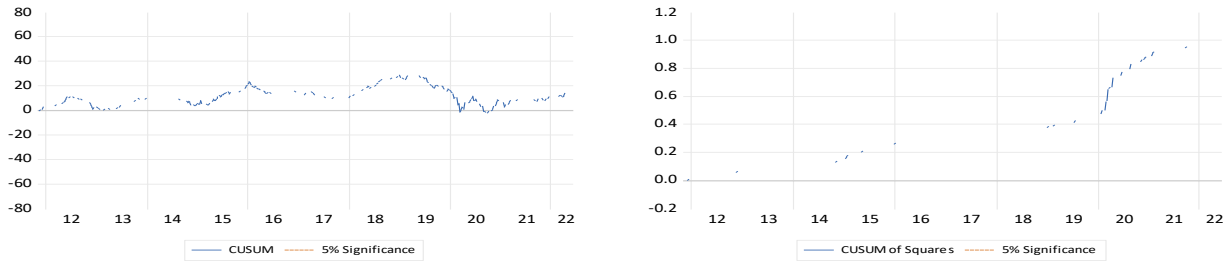


Figure 2. CUSUM and CUSUMSQ for LnPChem

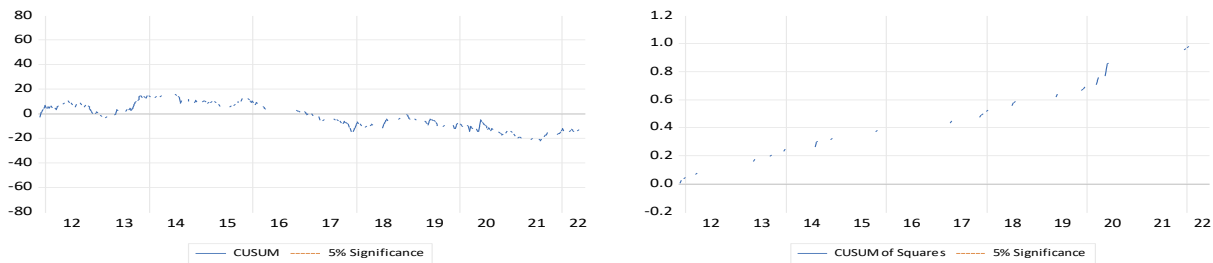


Figure 3. CUSUM and CUSUMSQ for LnPGas

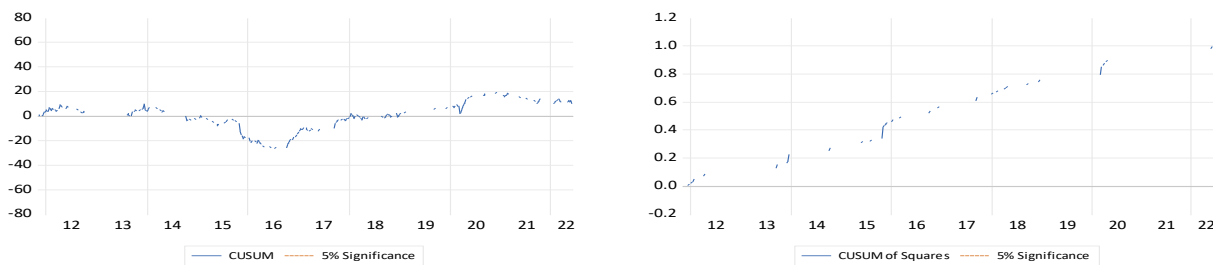


Figure 4. CUSUM and CUSUMSQ for LnHib

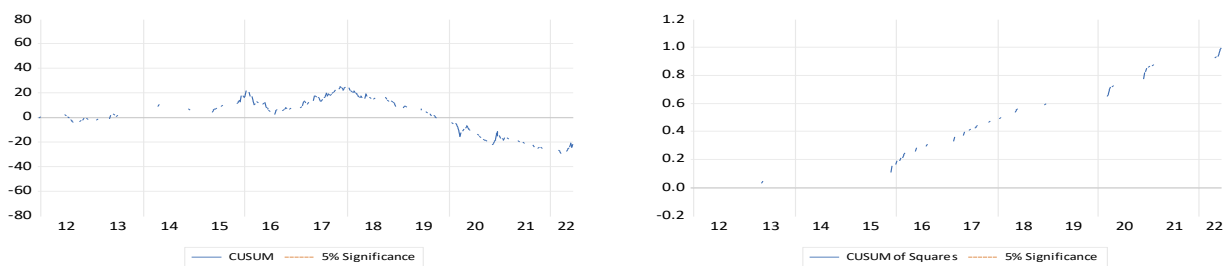


Figure 5. CUSUM and CUSUMSQ for LnPet

#### 4. Discussion and Conclusion

This study empirically investigated the influence of Brent Futures and exchange rate on the stock prices of oil producers and refineries listed in Bursa Malaysia namely PETRONAS Chemical, PETRONAS Dagangan, PETRONAS Gas, Hengyuan Refining, Hibiscus Petroleum, and Petron Malaysia. All of these stocks have at least RM1 billion of market capitalisation where PETRONAS Chemical is the largest with RM75 billion (as of June 2022). The ARDL bounds test and Granger causality were employed to establish the relationship among variables with a weekly data spanning from January 2011 until June 2022.

This study has significantly contributed to the body of knowledge by investigating the relationship between oil futures with the stock prices of public listed companies with core business of oil producer or refinery compared to previous study which investigated relationship between oil price and oil indices. The results of this study chartered a new chapter by going deep into individual stocks rather than general indices or at aggregate level since all indices is untradeable. Furthermore, this study able to see the impact of oil prices movement towards the individual stocks of oil companies listed in Bursa Malaysia.

The results of this study show that there is a positive relationship between Brent Futures with PETRONAS Chemical, Hibiscus Petroleum, and Petron Malaysia. This empirical result was in line with the previous studies where movement of oil price has positive impact to the stock market (Imarhiagbe, 2010; Narayan & Narayan, 2010; Zu *et al.*, 2011; Asaolu & Ilo, 2012; Ghosh & Kanjilal, 2016; Tursoy & Faisal, 2018; Darmawan *et al.*, 2020). Furthermore, weekly data and more samples included are among the possible reason why the results of this study contradicted with Bani & Ramli (2018) who found a negative relationship between crude oil with KLCI and FBM Emas. Likewise, Ghosh & Kanjilal (2016) who only found a relationship with Indian stock market after 2012 is mainly due to the structural changes and event happened in oil markets. This present study suggest further investigation for future researches where structural breaks is take into consideration since oil market has gone into many turmoils and events.

Moreover, the results of this study may assist in investment decisions especially for fund managers of each company or retail investors by monitoring the price movement of Brent Futures. Since oil price is subject to price fluctuation, fund manager can design hedging strategy when there is an uncertainty in oil market by including Brent Futures in their trading portfolio to reduce the risk exposure. In addition, exchange rate appeared to have a negative relationship with the stock prices of oil companies. Thus, the retail investor who are interested to invest in any individual oil stocks will be able to make a decision whether to invest, or sell their holding shares based on the price movement of Brent Futures in a stable exchange rate climate.

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## **Governance Mechanisms and Management Entrenchment During the COVID-19 Crisis: Evidence from Malaysian Islamic Banks**

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### **Abstract**

COVID-19, which hit the world in 2019, indirectly impacted the world economy. Investors and other users of financial information urge management and the right to ensure market viability. Management must do their best to ensure the company's competitiveness. This research examines the connection between management entrenchment and governance mechanisms in Islamic banks in Malaysia. Secondary data were obtained from the annual reports. The study sample comprises 80 observations of Malaysian Islamic Banks' annual reports for 2016-2020. The panel data analysis investigates the relationship between management entrenchment and governance mechanisms. The sample showed that only board independence positively correlates with management entrenchment. However, there is an insignificant correlation between management entrenchment and board size, audit committee expertise and Shariah committee expertise. Additional analysis confirms the negative impact of COVID-19 on management entrenchment. The data was gathered from the annual report, and the research could not draw any further conclusions on how governance affects managerial entrenchment. Further data methodology, like interviews, may be helpful to learn more about their impact. Future research can extend this study by adding another governance mechanism to explain the relationship between governance mechanism and management entrenchment.

### **Keywords**

Management Entrenchment, Governance Mechanisms, Shariah Committee, Islamic Banks, COVID-19

### **1. Introduction**

In the most recent study literature, managerial entrenchment has garnered an increasing amount of attention (Antounian et al., 2021; Dakhli & Mtiraoui, 2021; Guthrie, 2021; Salehi and Arianpoor, 202; Bilel, 2020; Dah et al., 2020; Di Meo et al. 2017; Marouan, 2015). Management entrenchment is sometimes described as a tactic used by managers to maximise their interests at the cost of the lawful interests of the business's owners and make their position inside the organisation irreplaceable (Dakhli & Mtiraoui, 2021; Kachouri et al., 2020; Ji et al., 2019). In this way, established managers use their administrative authority to maintain employment and escape enquiry from users instead of achieving organisational objectives (Dakhli & Mtiraoui, 2021; Gyimah and Gyapong, 2021).

The governance mechanism is also popular among researchers. The financial scandals that surfaced at the beginning of this decade gave rise to this expanded topic. Most companies are supposed to have a board member that complies with specific criteria, such as having several directors, having subcommittees, and having independent directors from the top management. It is both a requirement under each country's laws and regulations and an organisational solution to address the issues recently brought on by financial crises, particularly ones involving faulty governing systems. When managers work as shareholders' representatives, they may behave in a way that benefits them personally at the cost of shareholders and then take decisions that do not promote the welfare of the principal, which is when a conflict-of-interest issue arises. These possible conflicts create disciplinary actions and control mechanisms, enhancing corporate governance and improving business performance. By examining how managers' tactics affect the control system and, therefore, the performance of the business, entrenchment theory has merely clarified the effectiveness of control mechanisms that agency theory had emphasised as mechanisms meant to increase organisational efficiency.

Entrenchment is a management's voluntary decision to undermine the principal's enforced control mechanisms to give the manager more significant personal benefits (Moussa et al., 2013). It is argued that a manager is entrenched when it is difficult for the board of directors to remove him. Numerous issues surround the topic of entrenched managers, and the research on how this phenomenon affects business performance produces contradictory results. Following the settings of empirical investigation and the measurement variables, some differences exist. The study of issue entrenchment is of

some interest, and most economists and financiers find it challenging to explain how often managers act rationally. The issue of managerial entrenchment's impact on governance mechanisms, especially Shariah mechanisms, has garnered far less attention in existing research.

This study examines the relationship between governance mechanisms, including the Shariah mechanism and management entrenchment in Islamic banks in Malaysia. Moreover, this study investigates the effect of the COVID-19 crisis on governance mechanisms and management entrenchment. Understanding the issues with Islamic financial organisations in Malaysia advances our understanding of how governance systems impact managerial entrenchment. The study's findings would help Malaysian policymakers by giving them feedback on previous and present management entrenchment methods and governance procedures. More significantly, it is anticipated that the study's conclusions would aid decision-makers in examining the current governance frameworks and implementing the necessary rules to enhance them.

The remainder of this article is organised as follows. Section two presents the Malaysian Islamic bank governance system. The theoretical background is explained in Section 3. Section four of this article reviews the governance mechanism literature on management entrenchment and derives the hypotheses. Section five describes the research methodology, results, and discussion in section six. Section seven concludes with some implications and recommendations for future study.

## **2. Governance System of Islamic Banks in Malaysia**

The governance system for Islamic banks in Malaysia is slightly different from conventional banks. Islamic banks practice a dual regulation system, common law and Shariah principles. In contrast, conventional banks are only based on common law. Islamic banks must comply with Shariah requirements in their day-to-day operations (Kaaroud et al., 2020). Bank Negara Malaysia has released the Shariah Governance Policy Document 2019 to replace the previous policy document. Shariah Governance Policy Document 2019 is a document that explains the Shariah governance framework that Islamic banks must follow in Malaysia. This document can also increase public confidence in the integrity of the management. This policy document, divided into seven sections, provides guidelines for Islamic banks in Malaysia to achieve a more practical level of Shariah Governance. As a result, the Bank has improved its overall Shariah compliance and governance to align with the framework, particularly in light of the tightened governance standards for the Board and Shariah committee. There is a need to implement controls and new capabilities inside the team and the Bank to assist the board in performing this duty successfully.

Apart from the audit, remuneration, risk, and nomination committees, the Shariah committee is an additional committee for Islamic banks in Malaysia. Shariah committees are required to ensure Islamic banks' compliance with Shariah laws. The existence of the Shariah committee is an advantage to Islamic banks as one of the oversight boards for shareholders. The existence of a Shariah committee is also expected to reduce agency conflicts and managerial entrenchment.

## **3. Theoretical Framework**

### **3.1 Agency Theory**

The agency theory states that a firm may be considered a contract agent between management and shareholders, whose primary goal is to maximise shareholders' wealth (Jensen and Meckling, 1976). Conflicts of interest arise from the division of ownership and control between managers and owners of a company (Bauer et al., 2018). According to agency researchers, managers should put their objectives ahead of the company's (Garca-Sanchez et al., 2020; Bebchuk et al., 2017). The agency problems may significantly worsen managers' avaricious and opportunistic tendencies (Dakhli, 2021; Di Meo et al., 2017). Managers will have adequate managerial freedom to adopt opportunistic behaviour and grow in power and influence inside the company since monitoring and controlling the manager's actions are restricted. They cannot be done jointly (Dah et al., 2020).

According to agency viewpoints, prior research claimed that various corporate traits help or impede management entrenchment (Salehi et al., 2021). The authors demonstrate that organisations with ingrained managers perform much worse (Salehi and Arianpoor, 2021; Dah et al., 2020). They also asserted that seasoned managers pick less-than-ideal leverage (Agha, 2013). One of the key reasons for using the audit profession is the reduce the conflict between owners and management. Audited financial statements are one of the primary strategies for ensuring the clarity of financial information for businesses (Nazaridavaji and Khoramabad, 2021). Therefore, increasing corporate procedures' quality will help lower agency costs and weaken managerial entrenchment (Moussa et al., 2013).

### **3.2 Entrenchment Theory**

The entrenchment theory, proposed by Shleifer and Vishny in 1989, seems to provide a suitable research framework for analysing managers' opportunistic conduct and its effects on control mechanisms and company performance. According

to Freeman and Reed (1983), managers make a series of decisions to keep their existing positions and raise their pay. This idea aims to clarify how managers may firmly establish themselves in their roles by using procedures to boost the firm's performance. In actuality, managements use devious tactics to get beyond some control systems to obtain a particular position from which they can't be removed, making it difficult and costly to remove or replace them (Bilel, 2020). According to this theory, managers' primary goals are to expand their authority and discretionary space by making it expensive for the company to replace them. They will likely use specific avoidance tactics for this goal, including enhancing performance values over the rapid term, sharing positive information, and postponing the publication of harmful data.

## **4. Literature Review and Hypothesis Development**

### **4.1 Management Entrenchment**

Based on the corporate governance mechanism, the CEO has the advantage of influencing the board because the CEO is the highest authority in corporate governance. It leads to conflicts between top management and shareholders. Shareholders have less trust in the board because the CEO influences the board. Shareholders assume that the board will make decisions in the interests of management and shareholders. Management's advantage in accessing company information creates information asymmetry and increases information risk. In other words, agency problems exist between management and shareholders. The entrenchment of management is one of the most critical agency disputes.

Management entrenchment is a confrontation between the powers, either between the prominent or minority members or between shareholders and management (Di Meo et al., 2017). The controlling shareholder is the authority to direct the firm. A manager with the ability to misuse their position of authority is often in a supportive environment (GarcaSánchez et al., 2020). The management entrenchment process allows managers (CEOs) to be liberated from the oversight of the Boards, the audit committee, or even the company's shareholders (Fagbemi et al., 2020).

### **4.2 Governance Mechanism**

The governance framework must safeguard investors' appropriate profitability and safeguard their money from potential expropriation by owners and management. Managers are motivated in this situation to behave contrary to the interests of the shareholders. When asymmetric information is more prevalent, diversified businesses will likely participate in empire-building more readily (Jensen, 1986; Stultz, 1990; Marouan, 2015). A weak corporate governance framework cannot keep track of managers' actions and defend shareholders' interests (Tahir et al., 2020). Governance systems can be categorised in several ways, such as shareholders' rights, governance models, disclosures, regulatory processes, and board oversight. (Moussa et al., 2013; Jensen, 1993). The governance mechanism for this study is the board independence, board size, audit committee expertise and Shariah expertise.

#### **4.2.1 The Board Independent**

Since the recent financial crisis, the board's independence has taken centre stage in company governance. A board member who is not connected to the company's senior executives and has no material or financial stake in the company is an independent director. The board's independence will also probably keep a close eye on the business to prevent management opportunisms and promote shareholder value. The agency theory acknowledges the boards as the primary method to reduce the agency issue. The basic tenet of agency theory is that the boards should be autonomous to function effectively as a monitoring mechanism (Kaaroad et al., 2020). Outsiders may be persuaded to monitor successfully to save their reputations as directors. Because independent directors are more inclined to terminate a CEO after a lousy performance, they are better monitors than insiders (Dah et al., 2018)

A previous study by Ammari & ben Ayed, 2016 revealed some relationship between board independence and management entrenchment. A key component in guaranteeing that management will operate in the best interests of shareholders and can check entrenched management is an independent board that outside directors predominate. Specifically, Dah et al. (2018) found a positive relationship between board independence and management entrenchment. It is in line with the idea that having independent directors strengthens internal oversight and lessens management influence over the company. Requirements for board composition were imposed, which reduced the effectiveness of board oversight and increased the CEO's power and influence over the company. Based on the discussion above, the following hypothesis is proposed:

H1: Board independence positively affects management entrenchment

#### **4.2.2 The Board Size**

The number of people that make up a board of directors is the number of commissioners. It refers to the number of individuals in top management. Many economists and financial professionals believe that board size is a significant aspect that affects the performance and profitability of businesses. Additionally, it may assist in lowering agency operating

expenses. Ahmed et al. (2020a); Ahmed et al. (2020b) have looked at the impact of board size on company performance, including. The authors agreed that having more board members might also assist the organisation gain better control and efficiency.

The board of directors' role is to oversee critical managerial decisions and ensure that the company is managed to maximise shareholder value. Smaller boards, which may provide better monitoring than big boards, are encouraged for usage by businesses. In this situation, Marouan (2015) demonstrates that a smaller board seems to be more successful at managing management conduct than a bigger one. Although Coles et al. (2006) found that smaller boards can effectively manage not all businesses, they do not support this conclusion. These justifications suggest a malicious link between size and diversity. Looking at a sample of 7,000 organisations, Linck et al. (2008) showed that a smaller board of directors' benefits from a more established decision-making process. Furthermore, Cheng (2008) demonstrates that big boards are linked to poor decision-making. This outcome supports the notion that as a board's size increases, coordination and communication issues become more challenging to address.

Contrarily, many other investigations did not come to the same conclusion. Because a more board has more significant influence over the leader, Pearce and Zahra (1992) demonstrated that this limits the leader's opportunistic behaviour. The research by Marouan (2015) and Dalton et al. (1998) revealed the beneficial association between performance and board size is less clear for Small and Medium-sized Enterprises (SMEs), which supports this similar conclusion. Board size and managerial entrenchment do not seem to have any statistically significant relationships, according to Black et al. (2006), Chen et al. (2005) and Bhagat and Black (2002). Research conducted in Australia by Kiel and Nicholson (2003) found that big boards do not hinder successful entrenchment.

Anderson et al. (2004) also discovered that big-board companies had reduced debt costs. According to Adams and Mehran (2005), the manager's control and the calibre of decision-making are significantly more closely connected aspects that affect the connection between board size and diversity. Therefore, a board gives companies more resources, enhancing managerial entrenchment for shareholders' benefit. Thus, the study's underlying hypothesis is as follows:

H2: The board size positively affects management entrenchment

#### **4.2.3 Audit Committee Expertise**

In addition to the board's independence and size, other subcommittees, including the audit committee and the Shariah committee, serve as crucial monitoring tools. The boards and the audit committee are sub-group monitoring the financial reporting and disclosure procedure. The audit committee must know the organisation's procedures and internal controls to be effective. The audit committee must include at least one person with knowledge of finance, even though its members often come from a wide range of backgrounds, experiences, and industries.

The Malaysian Islamic banking institutions must establish an audit committee with at least three members, at least one of whom must have actual financial or accounting competence (Shariah Governance Policy, 2019). The audit committee's responsibilities include ensuring that the Islamic bank has adequate checks and balances to ensure accurate and fair reporting. Additionally, the committee assists the boards in communicating with an independent auditor and keeping an eye on the effectiveness of the internal practices. Cohen et al., 2013 found that members of audit committees having both accounting and industry skills outperform those with simply accounting knowledge. Additionally, they discovered that supervisory experts who are also business experts perform better in certain situations than supervisory experts alone. The authors contend that the committee's ability to oversee the financial reporting procedure increases by combining accounting experience and industrial knowledge. According to prior studies, the audit committee's financial and accounting knowledge strongly correlates with managerial entrenchment (Krishnan and Visvanathan, 2008; Cohen et al., 2013). Furthermore, the audit committee's makeup is improved when most members have financial competence credentials since this will improve the supervision and monitoring process (Kaaroud et al., 2020). Thus, the following hypothesis of the research is as follows:

H3: Audit Committee expertise positively affects management entrenchment

#### **4.2.4 Shariah Expertise**

The main characteristics that set Islamic banks apart from regular banks are those that follow Shariah. Equity investors assign their capital to Islamic banks so that they may make profits that adhere to Shariah rules. As a result, Islamic banks must have suitable mechanisms to deal with concerns linked to Shariah. Thus, the Shariah committee can act as an independent body and bargain with Shariah-related issues and the compliance of the Islamic bank's operations with Shari'ah (Rammal, 2006). It strengthens Islamic identifications and makes the Islamic bank more credible in the sight of its equity investors.

Some studies have supported the significance of the functions played by the Shariah committee in Islamic financial organisations. Quttainah et al. (2013) discovered that having a Shariah committee may reduce earning management tactics in Islamic financial organisations. However, according to Grassa and Matoussi (2014), a Shariah committee with knowledge of accounting and finance might impact how well Islamic financial organisations function.

The board's efficiency in giving tendency and advice to Islamic financial organisations is significantly influenced by the Shariah competence of its members. Consequently, it is anticipated that having members with diverse backgrounds and capabilities would increase the Shariah committee's efficacy (Ghayad, 2008). Members with experience in accounting and finance should be added to the Shariah committee, according to the 2019 Shariah Governance Policy Document, to help and guide the committee on finance and accounting issues. Shariah committee expertise in Malaysia is meant to assist and advise the board on Shari'ah matters involving Islamic banking institutions and the technical matters of accounting/finance (Kaaroud et al., 2020). Neifar et al. (2020) recently examined the effect of the Shariah committee's expertise on the performance of Islamic banks using four attributes. The link between board effectiveness and performance, on the one hand, and between board effectiveness and operational risk transparency on the other, is shown to be positively moderated by Shariah's expertise. Ajili and Bouri (2018) use an index to quantify the Shariah committee expertise and investigate how it modifies the association between financial success and accounting transparency. They discover that Shariah committee expertise has a detrimental moderating influence on the relationship between performance and disclosure.

Influential Shariah committee's expertise may be considered another form that may affect the management-related risks of Islamic banking institutions, given their crucial role in the efficient operation of such institutions. The presence of accounting and financial knowledge in the Shariah committee may aid the committee in addressing Shariah's difficulties, especially if they are connected to accounting and financial issues. Their knowledge in this field might expedite the Shariah audit procedure, lowering the likelihood of non-compliance with Shari'ah.

From the above, it was evident that the expertise of Shariah committees in Malaysia is intended to guide the board on technical and financial issues and Shari'ah issues regarding Islamic banking organisations. Thus, there is a shortage of studies describing how the independent auditor evaluates the total audit risks in Islamic financial organisations while considering the Shariah non-compliance risks. In light of the justifications above, the following hypothesis is put forth:  
H4: Shariah Committee expertise positively affects management entrenchment

#### **4.2.4 COVID-19 and Management Entrenchment**

Resources are often more limited during a crisis, and company leaders may come under scrutiny from the firm's stakeholders. Nearly all businesses are experiencing unheard-of financial effects from the COVID-19 situation. It has far-reaching instant effects since many businesses suddenly lose the capacity to make money. The stock market has been impacted by the COVID-19 epidemic (Phan and Narayan, 2020). The COVID-19 problem caused some businesses to lose a significant portion of their equity (Garel and Petit-Romec, 2020). Recent empirical study has discovered that the COVID-19 crisis has impacted every aspect of firm characteristics, including firm performance, corporate governance structure, dividend level, and liquidity (Zhang et al., 2021).

Regarding the Tunisian context, the COVID-19 situation, which Tunisia is aware of, harms the operations of Tunisian businesses (Jeribi et al., 2015). According to earlier research, crises, such as pandemic crises, significantly impact stock market values and the cost of financing corporate debt. Companies have challenges with cash flow and liquidity during pandemic crises, which may lead to management limits since it may be more challenging for managers to get additional perks and remuneration. Thus, the following hypothesis of the research is as follows:  
H5 COVID-19 negatively affect management entrenchment

## **5. Research Methods**

### **5.1 Sample Design and Data Collection**

Sixteen licensed Malaysian Islamic banks make up the sample for this study, including eleven local and the balance are international Islamic banks. The analysis so excluded specific sectors. The study didn't include licensed insurance businesses, traditional banks, or takaful since their regulatory standards differ. The five-year study period, from 2016 to 2020, was analysed. This research extracted the information from the annual report and internet sources. The 2016 data was chosen because MBSB Bank started operations as an Islamic bank that year. In that year, Asian Finance Bank Berhad was acquired by Malaysia Building Society Bhd (MBSB) and renamed MBSB Bank. MBSB Bank is one of the three full-fledged Islamic banks in Malaysia. The period's coverage is because the annual reports for 2021 were unavailable at the time of the study.

### **5.2 Variable Measurement**

#### **5.2.1 Management Entrenchment**

Management entrenchment is the dependent variable for this study. Many approaches are provided for measuring managerial entrenchments, such as the E-index, G-index and O-index (Di Meo et al., 2017; Gompers et al., 2003). E-Index, used by Salehi and Moghadam (2019); Salehi and Arianpoor (2021), measured management entrenchment based

on six variables. G-Index considered that governance practices' characteristics remain over time. (Gompers et al., 2003) The G-index used various entrenchment variables named poison pills, staggered boards, supermajority amendments and antitakeover devices (Salehi and Arianpoor, 2021). According to Di Meo et al. (2017), O-index is calculated by the differences between the G and E indexes. Lin et al. (2014) implemented six variables and factor analysis to measure management entrenchment.

This study is based on a set of corporate governance processes, similar to the findings of Kulathunga et al. (2017); Zakerean et al., (2020); Dakhli & Mtiraoui, (2021); Mawardi et al., (2021); Salehi and Arianpoor, (2021) and is likely connected to the management's capacity to influence the shareholders' interest. This study used CEO tenure to measure management entrenchment. CEO tenure is calculated by the years a person serves as CEO (Salehi and Arianpoor, 2021; Dakhli & Mtiraoui, 2021; Mawardi et al., 2021; Kulathunga et al., 2017)

### **5.2.2 Governance Mechanism**

This study's independent variable is governance structures comprising the board size and independence, audit committee expertise and Shariah committee expertise. The following are the measurement of each independent variable:

- 1) Board Independence was measured by the number of independent boards (Odjaremu & Jeroh, 2019; Kaaroud et al., 2020; Zulfikar et al., 2020).
- 2) Board size was measured by the number of the Board (Odjaremu & Jeroh, 2019; Kaaroud, 2020; Zulfikar et al., 2020).
- 3) Audit committee expertise was measured by the number of the audit committee (Al Farooque et al., 2019; Bhuiyan & D'Costa, 2020; Kaaroud et al., 2020).
- 4) Shariah committee expertise was calculated by the quantity of independences Shariah committees (Kaaroud et al., 2020; Zulfikar et al., 2020).

### **5.3 Model Specification**

This study used multiple regression analysis to examine the connection between managerial entrenchment and governance mechanisms. In this work, the following equation was estimated:

Model 1

$$ME_{it} = \beta_0 + \beta_1(BIND) + \beta_2(BSIZE) + \beta_3(ACEXP) + \beta_4(SCEXP)$$

Where:

$ME_{it}$  = Management entrenchment

$BIND$  = Board Independent

$BSIZE$  = Board Size

$ACEXP$  = Audit committee expertise

$SCEXP$  = Shariah committee expertise

## **6. Results and Discussion**

### **6.1 Descriptive Statistics**

Table I present descriptive analysis for all variables. The analysis shows that the mean CEO tenure for 2016-2020 is 4.4375, with a maximum of 13 years. It shows that most CEOs in Malaysian Islamic banks have served for more than four years. There is also a newly appointed CEO in the year in question, and the maximum time a CEO holds the position of CEO is 13 years. Table 1 also shows that the minimum board independence is two people, and the maximum is nine people. On average, board independence in Malaysian Islamic banks is more than four people. Table 1 also shows the maximum number of boards is 12 people, of which nine are independent. The minimum number of boards in Malaysian Islamic banks is two people, equal to the minimum number of independent boards. Most banks have an average of 6 board members, and four are independent. Next is the expertise of the audit committee. Table 1 shows that at least one audit committee knows finance and accounting. Most Malaysian Islamic banks have three audit committees with knowledge in finance and accounting.

Using the Jarque-Bera Test, the research evaluates the impact of Skewness and Kurtosis. Table 1 shows the skewness for all of the variables is more than 0.5. It indicates that the data is positively skewed. Kurtosis is detecting the outlier in the data. Table 1 shows that all of the variables are not normally distributed. CEO tenure, board independence, board size and Shariah committee indicate negative kurtosis (platykurtic). Audit committee expertise resulted in more than three will mean a positive kurtosis (leptokurtic).

**Table 1. Descriptive Statistics**

| Variables  | Mean   | Min  | Max   | SD    | Kurtosis | Skewness |
|------------|--------|------|-------|-------|----------|----------|
| CEO_TENURE | 4.4375 | 0.00 | 13.00 | 3.318 | -.087    | .907     |
| BIND       | 4.3625 | 2.00 | 9.00  | 1.730 | .674     | .968     |
| BSIZE      | 6.7875 | 2.00 | 12.00 | 2.400 | -.492    | .600     |
| ACEXP      | 3.1750 | 1.00 | 15.00 | 1.833 | 21.297   | 3.539    |
| SCEXP      | 1.6625 | 1.00 | 4.00  | 0.899 | 1.564    | 1.477    |

## 6.2 Correlation Analysis

The strength and direction of the linear relationship between two continuous variables are examined using the Pearson correlation coefficient. The correlation coefficient has a value range of between -1 and +1. According to Barrett et al. (2019), the strength of the association between the variables increases with the coefficient's absolute value. An absolute value of 1 for the Pearson correlation indicates a perfectly linear connection. There is no linear connection between the variables when the correlation is close to 0 (Barrett et al., 2019). Table II shows the positive relationship between CEO tenure and board independence, CEO tenure and board size, CEO tenure and audit committee expertise, and board independence and board size with audit committee expertise. While a negative relationship between CEO tenure and Shariah committee expertise, board independence and Shariah committee and Shariah committee and board size. The value indicates a lower relationship between variables, except that the relationship between board independence and board size indicates a moderate positive relationship.

According to Gujarati (2004), a multicollinearity issue arises when the connection between the independent variables is between 0.8 to -0.8. Table II presents the correlation analysis and shows no issue with the strong correlation between the independent variables. Multicollinearity is not a severe issue, as shown by the variance inflation factor (VIF) in Table II, which has values below two for each variable (Johnston, 1984).

**Table 2. Pearson Correlations Analysis**

|            | CEO_TENURE | BIND  | BSIZE | ACEXP | SCEXP |
|------------|------------|-------|-------|-------|-------|
| CEO_TENURE | 1.000      | .261  | .152  | .164  | -.069 |
| BIND       |            | 1.000 | .726  | .331  | -.262 |
| BSIZE      |            |       | 1.000 | .357  | -.344 |
| ACEXP      |            |       |       | 1.000 | .105  |
| SCEXP      |            |       |       |       | 1.000 |

## 6.3 Regression Analysis

To examine the relationship between the variables, regression analysis is performed. The regression analysis was used to test the hypothesis. Thus, regression analysis is applied to this study to predict and forecast the relationship between independent and dependent variables. This research used multiple regression analysis to test the relationship between management entrenchment and board independence, the board size, audit committee expertise and Shariah committee expertise.

Table III shows that the value of F-statistics is 1.953 and significant at 0.1. According to Stockemer (2018), the possibility that at least two groups are statistically distinct increases with increasing *F*-statistic. The value of  $R^2$  is 10%, indicating that the independent variables explain the 10% variance in management entrenchment. If the data is more prominent, the result of the  $R^2$  is more extensive than small data (Stockemer, 2018).

The results for regression analysis are shown in Table III. The finding presents that BIND has a significant positive relationship with management entrenchment, supporting hypothesis 1. H1 predict the positive relationship between board independence and management entrenchment in Malaysian Islamic banks. The sign indicates that the more quantity of independent boards, the more influential the monitoring procedures are. These results support the theory of agency, which contends that independent boards serve as a regulating force that reduces agency costs by preventing CEOs from manipulating data (Jensen and Meckling, 1976). Requirements for board composition were imposed, which reduced the effectiveness of board oversight and increased the CEO's power and influence over the company. The result is consistent with Marouan (2015), Ammari & ben Ayed (2016) and Dah et al. (2018).

H2 predict the positive relationship between board size and management entrenchment. The analysis supports the direction of hypothesis 2, but the result is insignificant. It is because of the varying number of boards between Islamic banks in Malaysia. Table 1 shows the minimum number of boards is two while the maximum number of boards is 12. There is a big difference between the number of boards that affects the results, which is insignificant. Its shows that the number of boards does not affect the management entrenchment of Malaysian Islamic banks. Thus, H2 is rejected.

H3 expects a positive association between audit committee expertise and management entrenchment, and H4 predicts a positive association between the Shariah committee and management entrenchment. The finding supports the

direction of hypothesis 3 and hypothesis 4, but the result is not significant. H3 and H4 are rejected. Although not statistically significant, the outcome in some ways supported agency theory since the committees' knowledge plays a part in the observing process in Malaysian Islamic banks. However, the research could not provide compelling evidence for how the audit committees and Shariah committee competence may affect managerial entrenchment.

**Table 3. Coefficients Analysis**

| Variable    | Coefficient | T-value                    | p-value | VIF   |
|-------------|-------------|----------------------------|---------|-------|
| (constant)  | 3.035       | 1.959                      | 0.054   |       |
| BIND        | 0.800       | 2.134                      | 0.036** | 3.169 |
| BFSIZE      | -.358       | -1.260                     | 0.212   | 3.501 |
| ACEXP       | -.226       | 1.023                      | 0.310   | 1.233 |
| SCEXP       | -.227       | -0.508                     | 0.613   | 1.218 |
| R-squared   | 10%         | Adjusted R <sup>2</sup>    | 5%      |       |
| F-statistic | 1.953       | Probability                | 0.110   |       |
| Observation | 80          | Significant at 0.05* level |         |       |

This study also examines whether COVID-19 impact the level of management entrenchment. For this reason, this study included COVID-19 as a new variable in the original model. It was a bogus (dummy) variable with a value of 1 during the COVID-19 period (2020) and a value of 0 before the COVID-19 era (2016–2019).

Table IV presents the regression analysis result after considering the impact of COVID-19. The result shows that COVID-19 significantly negatively impacts the management entrenchment in Malaysian Islamic banks. Thus, H5 expect that COVID-19 negatively impact management entrenchment is accepted.

**Table 4. Coefficients Analysis with The Impact of COVID-19**

| Variable    | Coefficient | T-value                     | p-value | VIF   |
|-------------|-------------|-----------------------------|---------|-------|
| (constant)  | 2.863       | 1.842                       | 0.069   |       |
| BIND        | -.775       | -2.067                      | -.042** | 3.181 |
| BFSIZE      | -.329       | -1.156                      | .252    | 3.529 |
| ACEXP       | .188        | .844                        | .401    | 1.264 |
| SCEXP       | -.228       | -.511                       | .611    | 1.218 |
| COVID-19    | -0.629      | -2.31                       | -.023** | 1.200 |
| R-squared   | 0.110       | Adjusted R <sup>2</sup>     | 0.050   |       |
| F-statistic | 1.826       | Prob (F-statistic)          | 0.118   |       |
| Observation | 80          | Significant at 0.05**levels |         |       |

## 7. Conclusion

This study investigates whether governance mechanisms affect management entrenchment measured by CEO tenure. The governance mechanisms are measured by Board independence, board size, audit committee expertise and Shariah committee expertise. The difference between this study and previous studies is to include Shariah committee expertise in the governance mechanism. It is because this study uses Malaysian Islamic banks as a study sample. The research made inferences about how management entrenchment reacts to the connection of governance mechanism factors by using agency and entrenchment theories to guide and explain the hypothesis development. The research looked at 16 Islamic banks' yearly reports for the five years between 2015 and 2020 in Malaysia. The sample showed that only board independence significantly affected management entrenchment. Whereas board size, audit committee expertise and Shariah committee expertise were not significantly affected by management entrenchment.

This study concludes that the COVID-19 crisis impacts managerial entrenchment from the extra study. This research concluded that the COVID-19 epidemic has significantly negatively impacted the managerial entrenchment in Malaysian Islamic banks. In times of financial crisis, Malaysian businesses have issues with liquidity and cash flow, which may lead to management limits since it may be more difficult for them to get additional benefits and compensation.

Both theoretical and practical ramifications of this investigation are pertinent. This research hopes to add several new ideas to the body of knowledge. The study's conclusions could be helpful to Malaysian policymakers. The results may be used by authorities to improve the governance mechanism for Malaysian Islamic banks in the future.

Although these benefits, this research has specific weaknesses that could be resolved in further research. First, just a small sample of businesses was used for this research. Therefore, care must be used since not all Malaysian enterprises may be able to apply the results. Future research could expand this study by including other types of business. A second limitation is that the research only looked at the Malaysian environment. As a result, the study's conclusions could not be relevant



to other countries since their organisational structures and legal frameworks differ. A comparative analysis of other nations with Islamic financial institutions may be conducted in future research.

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## **Waqf Governance in Malaysian Public Universities: An Exploratory Study**

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### **Abstract**

Over the past five years, the reduction in government funding for public education in Malaysia has led public universities to find alternative resources. Therefore, Waqf (Islamic endowment) is proposed as one of the possible solutions. Waqf is interesting because the accountability system is different as it has triple accountability: upward accountability to God, lateral accountability, and downward accountability to beneficiaries and donors as well as other stakeholders. The main objective of this study is to examine the contemporary education Waqf governance, administration, and management practices of Malaysian public universities. Secondly, to examine the problems and challenges faced by Waqf managers and finally recommend some best practices for administration and management. The study applies the qualitative method of thematic analysis. A total of five interviews were completed for the exploratory study. We use the theoretical sampling method to select the sample. We find that the Ministry of Education prescribes three governance models and three universities have adopted the third model of shared governance. Each university has its internal committees that manage the education waqf. We conclude that the shared management model gives more power to the State Religious Council as it manages the universities' Waqf funds, except Universiti Malaysia Pahang (UMP), which has been allowed to manage the funds itself. We commend the Waqf administration of universities as competent and their qualified managers are aware of their primary responsibility to God and stakeholders. However, this is in stark contrast to the Waqf administration of twenty years ago. One important point voiced by a few respondents is that some improvements are needed in the governance structure to enhance accountability to the stakeholders. It should consist of one paragraph of 250 words maximum. The abstract should state briefly the purpose/objective of the research, the research methodology, and the main findings.

### **Keywords**

Education Waqf, Waqf Governance, Public Universities, State Religious Council, Waqf Management

### **1. Introduction**

Endowments and charities have attracted much attention in recent years (Yaacob et al, 2015; Nahar and Yaacob, 2022). There are centuries of records on the proven benefits of these organizations (Nahar and Yaacob, 2011; Shatzmiller, 1991). They provide public goods such as social welfare, education, health facilities, foreign aid, and medical research, thereby relieving the pressure on the government. This reduces the pressure on the government to find more revenue for fiscal expenditure (Yaacob, 2006), even though the aim of such organizations is non-profit (Dellaportas et al., 2012). In the UK, the estimated revenue of this sector is about £ 80 billion (Hyndman and McKillop, 2018), which has greatly helped the society and community in the UK and abroad.

In the Malaysian context, the cut in government funding for Malaysian public higher education institutions (public universities) over the last five years has prompted public universities to find alternative resources (MOHE Malaysia, 2016). Therefore, Waqf (Islamic endowment) is suggested as one of the possible solutions. The cut in government grants has stunted the growth and development of public universities as they have to cut their expenses across the board. Fewer scholarships for deserving students, less research funding, and fewer grants for students. So, the universities waqf governance is very important to ensure trust and continuous contribution to the waqf funds. Effective governance should help the sustainability of the waqf funds.

#### **1.1 Problem Statements**

In the early days of Islam, the mutawalli (waqf administrators) administered the waqf and not the state. Currently, in Malaysia, the state religious council administers the waqf, as the Malaysian constitution states that all religious matters are the responsibility of the states unless the state is under federal authority, such as the Federal Territories. In most Southeast Asian countries, such as Brunei and Singapore, the Waqf is administered by the government or state religious councils, which act as statutory bodies. In Indonesia, however, non-governmental organizations administer the Waqf, but a state or national body oversees these NGOs (Ihsan and Ibrahim, 2011). The growing awareness among Muslims of the Waqf as a highly regarded economic contribution to Islam is reflected in the increase in the Waqf collection. In many countries, the collection is growing positively year by year (Yaacob et al., 2015). Therefore, the relevant authorities should ensure that the collected Waqf funds are properly and equitably distributed to the beneficiaries as clearly stated in the

Waqf deeds. Moreover, this would require a good and proper accounting and reporting system, such as the SORP in the UK. However, the research shows that many Waqf managers still have problems with the distribution of Waqf funds (Yaacob and Nahar, 2017).

Regardless of who manages the awqaf institution, the investigation has revealed that many managers or mutawalli are not doing their job properly (Kuwait Times, 2014), especially in the Malaysian context. Evidence of this can be seen in the 2014 National Audit Report where the Auditor General found that the overall performance of awqaf institutions is not satisfactory. The Auditor General of Malaysia found that the overall performance of awqaf institutions is not satisfactory, such as unregistered and unrecorded awqaf lands and properties under the authority of the religious council, incomplete databases for awqaf assets, and assets that have great potential are not developed (Utusan Malaysia, 2015). These problems are widely reported in conventional and social media. This problem has even attracted the attention of the Sultan of one of the states who called for more development of awqaf lands so that the Ummah can fully benefit (David, 2016). Undoubtedly, the collaboration of government, private and public enterprises is needed to make this a reality. It is hoped that a newly established cash waqf will be able to contribute the much-needed funds for development as lack of funds is usually cited as a reason for the absence of a development agenda (Ali, 2016; Ihsan and Ibrahim, 2011; Nahar and Yaacob, 2011).

In addition, improper rental management of awqaf assets, which includes a lack of rental contracts and low rents due to non-valuation of awqaf assets, has kept rental income at a significantly low level. For example, in some other cases, an awqaf institution had rental arrears of more than one million ringgit due to a lack of monitoring and control of rental income and illegal settlements being built on awqaf properties without the knowledge and concerns of the state religious institutions (Sinar Harian, 2015; Malaysian Insider, 2015). The above reports clearly show that awqaf managers lack accountability in their management. Although the waqf administrators responded by saying that most of the problems in registering awqaf assets are due to bureaucracy at the Land Office and stamp duty problems with the Inland Revenues Board are the reasons for the delay, these problems will damage the reputation of awqaf administrators. The public, donors, and contributors will not like to hear the problems and may reduce awqaf contributions in the future.

Accounting and accountability in non-profit organizations or institutions have attracted much research interest in the last thirty years among contemporary accounting scholars in Western and Eastern countries (Cao and Zhang, 2012; Ebrahim, 2005) (Bigoni et al., 2013; Connolly and Dhanani, 2013). One of the most interesting developments is that the Vatican recently hired PricewaterhouseCoopers (PwC) to conduct a full and comprehensive audit of its financial affairs for 2015, which became effective in November 2015 (Reuters, 2015). This problem is not new as Quattrone (2004) notes that the medieval churches in Italy had similar problems and instituted some accounting and auditing measures to ensure that church members accounted for their funds and assets.

Waqf institutions and managers should be highly accountable compared to other Islamic institutions because they carry the important Amanah (trust) to collect and distribute Waqf funds (Yaacob, 2006). Nahar and Yaacob (2011) emphasize that accountability is not only to people but ultimately to Allah, as accountability in Islam is transcendental; all Muslims are accountable for their actions and omissions in this world to achieve al Falah (success) in the hereafter (Abdul Rahman and Goddard, 1998). Waqf authorities need strategic and comprehensive training and planning to maximize available resources. And thus, secure the Waqf funds. Based on the above, we believe that good governance and management are essential to ensure the sustainability of Waqf funds, to fulfill Waqf's desire, and more importantly to ensure that the beneficiaries receive the intended benefits.

## **1.2 Significance of the Study**

Shatzmiller (2001) notes that despite the increasing interest in the Waqf, most of the studies are conducted on legal and administrative issues. Very few studies deal with the aspect of accounting, reporting, and accountability of Waqf managers. Yaacob (2006) conducted a study on a state-owned Islamic religious institution that manages the awqaf in Malaysia and found that the management and investment of awqaf assets and funds are not properly and systematically documented and accounted for. His findings are similar to those of Siti Rokyah (2004) and Abdul Rahim et al. (1999).

In addition, Nahar and Yaacob (2011) and Yaacob (2006) found that the distributions of awqaf institutions are very small compared to the amounts collected or received by them. Their study uses return on investment (ROI) to measure efficiency. Only Yaacob et al (2015) find good and systematic financial management and accounting of awqaf assets managed by the Singapore Awqaf Board. The Awqaf Board has a comprehensive policy for management, accounting, and reporting. The awqaf assets also earn a favorable return to ensure their sustainability. This study is important because it has successfully examined how institutions manage their collection and distribution of waqf assets. The awareness that they are responsible for managing these Waqf assets is commendable.

Despite the significant and steady growth in the field of nonprofit studies, especially in North American and European countries (Jackson et al., 2014), the topic is not yet of great interest to Asian researchers and Muslim scholars. Therefore, this study aims to arouse interest and contribute to the body of knowledge on Waqf governance and management in public universities in the Malaysian context. The reason for this is the great impact that education has on

the growth and development of certain countries and nations. We believe that it is very important to research this topic. Therefore, the main purpose of this study is to investigate the current practices of Waqf governance and Waqf management in Malaysian public universities. Secondly, to examine the problems and challenges faced by Waqf managers and finally recommend some best practices for governance and management.

This paper is organized as follows. The next section deals with the administration and management of foundations, charities, and Waqf. Then a section on research methodology. This is followed by the results and the discussion section. The conclusion is presented in the last section.

## **2. Literature Review**

Governance (Latin: *gubernare*) means "to direct or guide" and is derived from the Greek word 'kybernan' which means "to steer or guide a ship". Therefore, governance can be defined as the process of controlling, directing, and regulating organizations, especially companies where shareholders, as the main stakeholders, have some financial interest in the company, which is managed by a set of managers (Yaacob and Basiuni, 2014). For charities, corporate governance is equally important as it determines the successful fulfillment of the charity's mission and vision as it depends on the resources of donors or contributors and even governments.

There is a lot of literature on corporate governance as there are many cases of corporate mismanagement and fraud (Cao and Zhang, 2012; Ebrahim, 2005; Yaacob and Basiuni, 2014), but there is a lack of interest and studies on non-profit organizations, especially charities. This is not to say that the management of charities is insignificant, but the extent of fraud and mismanagement of resources in nonprofit organizations, especially charities, due to misappropriation and mismanagement of funds is not as great as in corporations (Yasmin et al., 2013). The managers of non-profit organizations also have incentives to manipulate financial reports (Trussel, 2003).

Nevertheless, any scandal can have a great impact on the charity to get more donations, such as the Red Cross in Shanghai, China (Cao and Zhang, 2012). Yasmin *et al.* (2013) reported that in the UK, more than 30% of charities were investigated for poor governance and financial practices. Regrettably, Islamic charities accounted for 11% of all actions. The government needs to ensure that charities are properly managed and meet their objectives as the majority of funding for charities comes from public donations (Vamstad and von Essen, 2012). The government provides significant funding for many charities, which is another reason they monitor the charity sector (Tacon *et al.*, 2017).

Therefore, good governance is required as a basis for effective and efficient management to ensure that charities meet the legitimate expectations of their key stakeholders without neglecting other stakeholders (Wellen and Jegers, 2014). Furthermore, in the UK and the United States, several organizations maintain databases of charities to help donors make an informed decision about which charity to donate to (Connolly and Dhanani, 2013), for example, Charity Navigator (<http://www.charitynavigator.org/>). In the case of the Waqf, this is still lacking as even the annual reports are outdated and Waqaf institutions or managers rarely evaluate themselves and publish the results (Siti-Rokyah, 2004).

We can divide governance in charities into internal and external mechanisms. The internal governance mechanism would be a board of trustees that includes some internal committees, such as the remuneration committee and internal audit (Hyndman, 1990). The external governance tools include accounting standards, financial transparency (Lecy and Searing, 2015), reporting requirements, government regulations, and external auditors (Hyndman, 1990). The study argues that good governance is important in gaining a positive reputation as it attracts potential donors and contributors.

Hyndman (1990) argues that the role of governance in charities is essential in determining whether there is accountability, how accountability is exercised and what types of information are produced, and how the information is shared or communicated. All of this must be communicated to stakeholders, especially donors, as they are the most important external stakeholders (Chen, 2012). In addition, charities reduce conflict with donors by limiting their ability to divert funds to their members or officers and focusing more on their charitable activities. Charities have taken the form they have to reduce transaction costs and make them economically efficient compared to legal entities (Connolly and Hyndman, 2004).

Poor governance of charities undermines trust and thus affects giving and activities if they cannot raise adequate funds (Cao and Zhang, 2012; Lecy and Searing, 2015). Donors' or contributors' perceptions are important. If they feel that the government is effectively monitoring charities, the potential for donations will increase. This increases confidence that their money is going to charitable causes. Although the non-profit form provides security to potential donors, stakeholder demands for good governance and accountability increase when large numbers of funds are involved (Dellaportas et al., 2012).

However, the charity also faces some financial problems when there are too many regulations that increase the cost of compliance for charities and reduce the number of funds for their main activities. The important components of charity governance include charity regulation, monitoring, operation, and reporting. From an Islamic perspective, the act of giving is an act of charity, a virtue that will be greatly rewarded in the hereafter. The funds or *al maal* (bounty) from Allah are not only for private benefit or consumption. A certain portion of it is meant for others, namely *zakat* and *sadaqah*.

In this ayat, the Qur'an particularly emphasizes the virtues of giving. In the following ayat from Aal-i-Imraan (3:92), Allah elevates the status of a person who gives to others and gives him high recognition:

لَنْ تَنَالُوا الْبِرَّ حَتَّى تُنْفِقُوا مِمَّا تُحِبُّونَ ۚ وَمَا تُنْفِقُوا مِنْ شَيْءٍ فَإِنَّ اللَّهَ بِهِ عَلِيمٌ

(You will not attain righteousness unless you give of that which you love; and whatever you give, Allah knows it well).

Good waqf administration improves accountability. Islam encourages Muslims to engage and help each other to create a 'check and balance' process rather than blindly trusting the annual reports of the Awqaf trustees (Yasmin *et al.*, 2013). Thus, this study moves away from conventional governance research based on quantitative analysis of cross-sectional data (Tacon *et al.*, 2017). The Waqf is unique in that it has a threefold dimension of accountability compared to other types of non-profit organizations. There is upward accountability to God, lateral accountability to relevant authorities, staff, and communities, and downward accountability to beneficiaries. We argue that good governance is essential for compliance with the accountability framework (Tacon *et al.*, 2017).

### 3. Methods

Qualitative research is concerned with 'verstehen' (understanding) the social phenomenon from the actors' perspective through observation and (non)participation in the life of those actors (Abdul-Rahman and Goddard, 1998; Taylor and Bogdan, 1984). Hence, the qualitative researcher is immersed in the phenomenon of interest that they studied as they are embedded in the actual circumstances of the study (Powdermaker, 1966 in Firestone 1987). Yin (1994) outlines some characteristics of qualitative research where the method tends to answer the how and the why; the researcher cannot manipulate the behavior of those involved in the study; it covers contextual conditions and believe it is relevant and the boundaries are not clear between phenomenon and context.

Qualitative research focuses on context and thus it is interpretive (Marshall and Rossman, 2006). It is taking place in the natural world (real-world setting). It also uses multiple methods to generate data. The data is humanistic and interactive as well as non-quantifiable. Therefore, qualitative research is a general study of social phenomena (Taylor and Bogdan, 1984). To the qualitative researcher, all perspectives are valuable because the aim is not to find or judge the truth or morality. Furthermore, the ultimate aim is to have a detailed understanding of other people's perceptions and comprehension of the real world through their personal experiences. This is impossible to achieve by using statistical analyses and models as a human is a unique and subjective creature, full of abstract, and concepts (Taylor and Bogdan, 1984).

The study adopted the Straussian Grounded Theory methodology, as this is the most suitable method to answer the research questions and achieve the research objectives. This method enables the discovery of theories from social construction (Corbin and Strauss, 2015). The two philosophical underpinnings of this grounded theory are symbolic interactionism and pragmatism which guide the researcher on how to pursue the method. Pragmatism entails that human select actions based on the context (Aldiabat and Navenc, 2018).

#### 3.1 Data Collection and Analysis

In view that there exists no specific method of collecting data suitable for all research methods (Fink, 1998; Yin, 1994), the best strategy, therefore, is to suit the methods with the research questions and objectives. As mentioned earlier, the qualitative approach involved collecting data in the field or setting (Ahrens and Chapman, 2006). Accordingly, the study uses semi-structured interviews and document analysis (Chen, 2012). Prior literature had extensively used the data collection methods (Ahrens and Chapman, 2006; Leonard and McAdam, 2000).

Interviews are conducted at the interviewees' premises after confirmation of the appointment is secured. Each interview is recorded on tape and written notes are taken during the interview for future reference and reflections (Qu and Dumay, 2011). The interviews are later transcribed and coded using NVIVO software. Coding is a process of several stages of data analysis (Corbin and Strauss, 2015) to transform them into findings. This explanation can be theoretical or interpretive. (Boeije, 2010). The semi-structured interview is employed as the researcher has some prepared questions based on identified themes and it is flexible and capable of soliciting hidden information (Qu and Dumay, 2011). However, Qu and Dumay suggest that the information should not be used to harm the interviewees as one of the most important relationship-based ethical rules (Corbin and Strauss, 2015).

The combined data formed a 'reservoir of materials of a social situation (Irvine and Gaffikin, 2006). An electronic recording is used to record interviews and the transcriptions are kept in separate electronic data storage for future reference or scrutiny. This will help to reduce the risks of error or any misinterpretation of the conversation, as it needs to be referred to more than once (Leonard and McAdam, 2000). Moreover, interviews enable substantial data collection at a minimum time. This allows the researcher to do follow-up procedures for any clarification on uncertain matters (Marshall and Rossman, 2006).

The voice files are uploaded into an electronic storage system to create a database. The transcriptions are kept in soft copies for future reference and hard copies for analysis and verification. Each hardcopy is labeled with all the details such as the date of the interview, the time taken for the interview, and the venue. Other important observations are recorded in a special format journal. The data are then analyzed to get the concepts and themes (Irvine and Gaffikin, 2006). The study uses NVIVO for its data analysis. On the other hand, it is important to note that the data analysis is conducted as soon as the data for research is collected. Irvine and Gaffikin (2006) argue that this will help the researcher to shape and understand the study as it progresses.

#### 4. Results and Discussion

**Table 1. Demographic Data**

| Demographic  | Age     | Gender | Location   | Occupation        | Qualification |
|--|---------|--------|------------|-------------------|---------------|
| Cases\\PhDUMT_INT_01_UMT_PIM_31032019_19092019 (2) | 30 - 40 | Male   | Terengganu | Director          | PhD           |
| Cases\\PhDUMT_INT_02_UMT_BND_01042019_21092019     | 40 - 50 | Female | Terengganu | Deputy Bursar     | Bachelor      |
| Cases\\PhDUMT_INT_03_UNZ_WZN_31032019_23092019     | 40 - 50 | Male   | Terengganu | Director          | PhD           |
| Cases\\PhDUMT_INT_04_TGN_MDM_14072019_01102019     | 30 - 40 | Male   | Terengganu | Religious Officer | Master        |
| Cases\\PhDUMT_INT05_UMP_MYG_18072019_14102019      | 30 - 40 | Male   | Pahang     | Director          | Master        |

The interviews followed a broad theme with questioning and probing used to interview respondents from the Universiti Malaysia Terengganu located at Kuala Terengganu, Terengganu. Terengganu is one of the states on the east coast of Peninsular Malaysia. The director of the Islamic Centre is the first interviewee. He is very cooperative and honest in his opinion. The interview was attended by another two colleagues from the faculty of business of the university. The Islamic Center is the secretariat for the Waqf Ilmu UMT. The second interview was with the Deputy Bursar, Puan F. in her office at the Bursar building. The next interview was with the director of the waqf and zakat center at the faculty of business building at the Universiti Sultan Zainal Abidin (UNISZA) also located in Kuala Terengganu, Terengganu. The fourth interview was with the Universiti Malaysia Pahang (UMP) director of My gift UMP which is in charge of the waqf funds. UMP is in the state of Pahang, Malaysia. The fifth interview was with the Religious Officer at the state religious council of Terengganu, the Majlis Agama Islam dan Adat Istiadat Melayu Terengganu (MAIDAM). The interview was conducted at his office at the MAIDAM Building located in the city center of Kuala Terengganu, Terengganu. Four of the interviewees are male and one is female. Two hold a Ph.D. two Master's degrees and one Bachelor's degree. Their age ranges from thirty to fifty years old.

The three universities are on the east coast of Peninsular Malaysia. All of them were colleges before and were upgraded into a full-fledged university. The Universiti Malaysia Terengganu (UMT) was the Kolej Universiti Sains dan Teknologi Malaysia, The University Sultan Zainal Abidin was the Kolej Ugama Sultan Zainal Abidin and the Universiti Malaysia Pahang was the Kolej Universiti Kejuruteraan dan Teknologi Malaysia. The state religious council interviewed is the Majlis Agama Islam dan Adat Istiadat Melayu Terengganu (MAIDAM).

The initial coding results in 44 nodes from the five interviews. Among the main nodes are governance structure; waqf management; fund management; tax rebate; relationship with state religious councils; and red tape. Three interesting findings here are the tax rebate, relationship with the state religious council, and red tape in the administration of waqf at the university level and the state religious councils. Waqif (waqf contributors) are concerned that they are not getting the tax rebate for the amount they have waqf. The Inland Revenue Board only permits the state religious councils to issue the tax rebate certificate. University is not an approved company; therefore, the Income Tax Department did not allow them to issue tax rebate certificates. Therefore, after the funds are remitted to the state religious councils, the universities should wait for the state religious councils to issue the tax certificate. We elaborate more in the tax rebate section on this issue.

**Table 2. Initial Codes from NVIVO**

|   | alternative to waqf,   | Challenges and target,   |
|---|--|--|
| collective efforts on waqf, early history of waqf in Terengganu, Fund management, Governance structure, inculcate benevolent culture, Issues in waqf education, legislation and acts, | competency and good governance, experiences,   | diplomacy strategy, formation,   |
| networking,   | future aspiration, government policy, internal control, issues with the tax authority, mission and vision, perseverance, | Governance status, history UMP, Investment procedures, land issues, misunderstanding on waqf concepts, proactive leadership, |

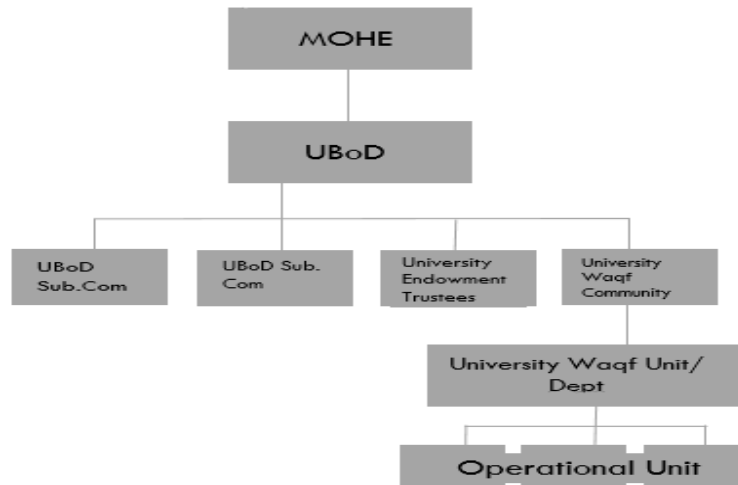
public trust,  
source of waqf fund,  
teamwork in managing waqf,  
waqf development and financing,  
waqf investments,  
waqf reporting,

public waqf awareness,  
State Religious Council,  
venturing into waqf,  
waqf expenses,  
waqf management,  
waqf stakeholder,

responsibility,  
tax rebate,  
waqf accountability,  
waqf fund distribution,  
waqf marketing,  
waqf zuriyyat,

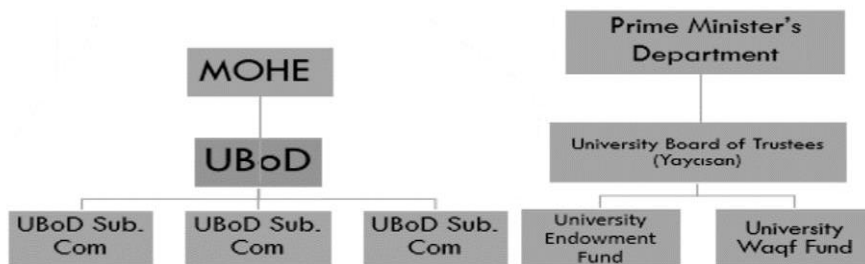
#### 4.1 Governance Structure

The Ministry of Education concerning the Purple Book they have published a framework for the waqf initiatives and prescribed the governance structure of the education waqf. There are three governance models. The first model includes the waqf under the management of the university board without any direct relationship to the state religious council.



**Figure 1. Governance Model 1 (source: MOHE Malaysia, 2016)**

Under this model, a university that has been awarded the administrator status sets up a unit or department within the university itself. In addition, a University Waqf Committee is set up under the University Board of Directors (UBoD) as one of Board committee. All decisions on waqf programs and activities are made upon approval by university management. All accounts and financial management of waqf are under the jurisdiction of the university management (MOHE Malaysia, 2016).



**Figure 2. Governance Model 2 (source: MOHE Malaysia, 2016)**

Under the second model, a university sets up a waqf office under the University Board of Trustees. The University Waqf Fund is under the Board of Trustees as a project under the University Foundation (Yayasan) and will have a separate account and financial management. All decisions on waqf programs and activities are conducted upon approval by the University Board of Trustees (MOHE Malaysia, 2016).



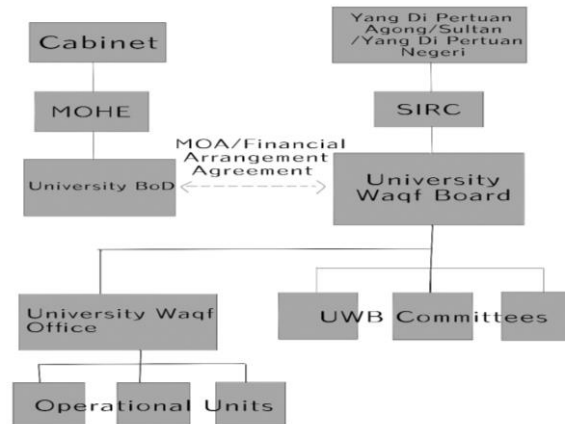


Figure 3. Governance Model 3 (source: MOHE Malaysia, 2016)

In Model 3, the university established a University Waqf Board (UWB) as a separate and independent entity. Collaboration and coordination, as well as roles and responsibilities of the UWB, are spelled out in a written agreement or Waqf Deeds. UWB members comprise representatives from both the University and state religious councils (MOHE Malaysia, 2016). This is confirmed by *Ustaz R.* from MAIDAM in the interview.

We find some issues to highlight in terms of getting the approval to set up the education waqf. UMT has taken a few years to get the approval to set up the education waqf. They had several meetings with the state religious council (MADAM) and were finally approved in early 2018. They started the initiatives in 2012. Quotation from Dr. Rz.:

*“In the enactment, only the state religious council is allowed to manage waqf, we finally got the approval on 28 March 2018 to officially open the UMT Education Waqf Fund (Dalam enakmen dia tulih hanya dia saja yang boleh, so selepas tu kita pada akhirnya pada 28 March 2018, tahun lepas baru kita dapat mou dengan pihak Maidam dan kelulusan untuk pembukaan Tabung Waqaf Ilmu UMT)”*.

UNISZA, however, played a different ballgame as mentioned by the Director of the waqf. Quotation from Dr. Az. on the strategy:

*“We prepare the waqf paper and called MAIDAM for consultation, and we invite them to give us input and the venue is at the hotel, then MAIDAM will tell us what to include and what to exclude in the proposal paper... (kita buat paper kita panggillah dulu MAIDAM untuk beri input, buat di tempat2, kita buat di hotel, hahaha ya berilah input, dia kata ooo yang ni kita buang, ha yang ni kita tambah...)”*

They have a good strategy as mentioned by the director, first, they invited MAIDAM to a briefing session and after that, a follow-up session to get the feedback and they got the approval just in about two-year times. Meanwhile, UMP has the cleanest record as they have a very good political connection with the state religious council. It seems that political connection does pay its due. The chancellor is from the royal family and the state religious council is under the royal family. So, they have had the least problem, furthermore, the MAIP gave them the power to manage the funds themselves albeit it is just by the project. This gives a lot of managerial efficiency in terms of funds allocation and usage.

We infer that the relationship with the state religious council especially power and the political connection is very important to the universities to manage their waqf effectively and efficiently. This is evidenced in the case of UMP where the head of the state religious council is also the chancellor of UMP. UMP is in an advantageous position to ask or in negotiating with the state religious council although it is a public university. It is a different scenario with the UMT and UNISZA. UNISZA was originally an Islamic college that belonged to the state and thus they have a long relationship with the state religious council (MAIDAM). UMT used to be an engineering college and it is now a public university. We can see from the interviews that the relationship is just cordial. In addition, it is a little strained about the waqf tax certificate issue.

## 4.2 Waqf Management

Two committees manage the waqf at UMT. One is the Waqf Management Committee and the other one is the waqf technical committee. UNISZA has the same management structure. However, waqf is a division in the department for *zakat, waqf, and infaq*. At UMP, the Islamic Center under Dr. Rizwadi, the Director, manages the waqf. For UNISZA, the Director is Dr Hairul Azrin. Both of them manage the waqf together with *zakat* and *infaq*. Each committee member consists of representatives from the Bursar Office and Vice Chancellor’s office. The UMP MyGift is the secretariat for the waqf. They have a few administrative assistants and various divisions at the university representing the committee.

We noticed that the management of waqf is very systematic and has competent and qualified managers and human resources. This is a very positive circumstance compared with the waqf management from twenty years ago (Yaacob, 2006; 2013). The universities' Bursar Office manages the waqf financial aspect. All three universities' waqf managers and staff members showed good team spirit and were aware of their accountability to the stakeholders. UNISZA is the best example as they have achieved the target of collecting one million-ringgit waqf fund within three months. They also managed to collect more than three million ringgits with the collective efforts of all organizational members. At UMP, even the Vice Chancellor attends any briefing or fundraising activities as mentioned by Mr. Jamil, the waqf manager. However, we did not see the same level of cooperation at UMT.

### 4.3 Waqf Fund Management

UMT and UNISZA collect the waqf funds and account for this in the university trust account. The university then remits the accumulated funds to the state religious council (MAIDAM) every quarter. MAIDAM keeps this money in an account specifically open for each UMT and UNISZA as confirmed by the state religious council officer in charge of waqf. The Bursar Office handled this process. MAIDAM, upon receiving the cash, will deposit them into the respective accounts for investment at one of the Islamic banks. The amount is intact and no withdrawal shall be made on the principal amounts. However, the universities are allowed to use the hibah or profit from the investments which are around 5% per year. UMT has about one million ringgit and UNISZA has around 3 million ringgits in the investment accounts.

In the UMP case, although they did not get the full *mutawalli* status, they managed to get the authority to manage the waqf funds internally. The funds are in an account at one of the banks and UMP is required to report the activities of the accounts on monthly basis. UMP is a little bit different as the waqf fund is under their management. Therefore, the current waqf fund for the hostel construction is managed by UMP but reports are submitted to the MUIP for monitoring and control. UMP is doing the collection and the Bursar office is doing the accounting and reporting on behalf of MyGift UMP.

### 4.4 Tax Rebate Certificate

It is difficult for the UMT waqf to issue each waqif the tax rebate certificates as the state religious council only gives them one receipt for the total amount of remittances. This should not be the case as each waqif contributes different amounts. Hence, they require the exact amount to be specifically mentioned in the receipt so that the tax authority accepts it as a deduction when they computed the waqf tax payables. The waqif is entitled to get the tax relief certificate for their waqf contributions or donations; however, the existing tax laws did not allow the universities to issue the tax certificates in their name if they are not conferred the full *mutawalli* (waqf manager) status. The state religious council according to special provisions and approval can only grant the full *mutawalli* status to the head of the state religious council who is normally the head of the state or sultan.

Therefore, in the case of the three universities, they are not conferred with full *mutawalli* status. This has created some dissatisfaction among the university's waqf as in the cases of UMT and UNISZA, they have to remit the waqf collection to the state religious council every quarter and the state religious council only issues the tax certificate every quarter after receiving the remittances. UMT has a big issue in such that the tax certificate is only a piece of receipt bearing the whole amount of the quarterly remittances, not according to each waqif's name, whether individual or company. The UMT waqf director said:

*"Pegi jugak maidam..., Macam tu la isu dia, sekarang Macam UMT ni sepatutnya dia keluarkan resit Secara individual kepada pewakf, issue dia dia keluarkan resit kepada Universiti, makna kita dana waqf ni 1 juta, so dia keluarkan resit satu juta, atas nama universiti....(the state religious council is supposed to issue a receipt for the tax rebate to individual waqf but now they just give one receipt with the total amount remitted under the university name, so if we remitted one million, they will just issue one receipt for the one million waqf money)"*

The UMP is facing almost the same problem, while they managed the waqf fund the tax certificate must come from the state religious council, which is MAIP. So far, they have a strong relationship with the MAIP and this is not a big issue after all. Having said that, UMP is facing another problem with the IRB as they have issued tax certificates for waqf endowment and gifts and student activities donations. The IRB recently warned them of breaching the tax laws as they are not entitled to issue tax certificates and they have been manipulating the tax certificate issuance. The IRB further mentioned that UMP is not the only university doing this as many other universities getting the *mutawalli* status have done similar offenses. The UMP waqf officer mentioned that the MOE was informed of this issue and they should have a further discussion together with the IRB to sort this matter out.

## 5. Conclusion

UMT, UNISZA and UMP need to find alternative resources for their funding as the government has been reducing the public university grant in their government budget. The MOE sees that endowment and waqf as one the plausible

alternatives to get funds to cover the reduction in government grants. By the year 2016, the MOE has asked all the public universities in Malaysia to form the education waqf and prescribed three governance models for them to choose from. All three universities adopted the third model, which has a joint board from the university and the state religious council and is managed by the university's waqf management committees.

We argued that the third governance model is more advantageous to the state religious council, especially in the case of UMT and UNISZA where the waqf funds are kept by the state religious council in investment accounts at the Islamic bank. There is a tedious process to get to use the waqf funds. We strongly recommend that the long processes at the university level and the state religious council level be shortened and simplified to achieve the waqf objectives. Shortening processes means time-saving and the utilization of the funds is much faster. If we look at UMP, although they also did not get the full mutawalli status the state religious council allows them to manage the funds at the university level with periodical reporting to the state religious council (MAIP). On the other hand, we commend the management of the waqf funds at the three universities, as they are proper rules and procedures. UMT and UNISZA remit the waqf funds every three months or quarter to the state religious councils as UMP keep it in their account.

The only ongoing issue is the tax rebate certificate where only the state religious council has the authority to issue it under the taxation laws. Problems arise as the universities need the tax certificate for each waqf and so far, the state religious council only issued a receipt for the total quarterly remittances. Therefore, it is difficult for the university waqf management to issue the tax certificate to individual waqif or waqf contributors. The conflict between the MOE and the IRB is evidenced when the IRB claimed that the universities' waqf management has manipulated the issuance of tax certificates. However, there is an ongoing discussion initiated by the universities waqf management with the IRB and MOE to resolve this issue.

We conclude that the universities' waqf management has done a very good job and is managed by competent and qualified managers unlike the case when the state religious councils managed waqf in the past (Yaacob, 2006; 2017). All of the waqf managers have tertiary education of Masters and Ph.D. degrees, and the state religious council officer is a Master's degree holder indicating the level of skills, knowledge, and professionalism. However, some of the respondents expressed their dissatisfaction with the governance models especially when they do not have the autonomy to manage the waqf funds.

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## **A Bibliometric Analysis on Earnings Management Activities**

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### **Abstract**

The current economic crisis, which is worsening as a result of the covid-19 epidemic, has become a hot topic in the business sector. Many businesses had to declare bankruptcy due to their inability to create profit during a pandemic due to earnings management activities. When several obstacles were placed during a pandemic, the earnings management activities were increased. Earnings management activities have been recognised for many years prior to the pandemic. Many past research has examined various earnings management activities approaches and their most common impact on corporate performance. This study used a mixed qualitative-quantitative method known as a meta-literature review on 878 publications retrieved from the SCOPUS database using social science citation index coverage. We use VOSviewer to analyse data acquired between 1986 and 2021 from multiple perspectives. The analysis identifies the top scientific contributors in terms of author's name, year and co-authorship network. It also displays the authorship network and identifies five research streams. This study provides a retrospective on the scientific collective efforts from the most prestigious journals to examine the earnings management activities, which will aid in a better understanding of the literary evolution and intellectual structure of this topic.

### **Keywords**

Earnings Management Activities, Bibliometric, Author's Name, Year, Co-authorship Network

### **1. Introduction**

One of the utmost objectives of financial reporting is to periodically sum information about an enterprise's financial performance (Welc, 2022, Wei et al., 2019). Earnings play a trail role in measuring the firm's performance. In addition, earnings are a central part of the financial statements additional disclosure that stakeholders use to evaluate how well managers discharges its stewardship duties (Xu et al., 2007, Crawford et al., 2018). For example, earnings are widely use stakeholders in measuring management's performance, determining executive compensation, assessing firm's future prospects to make resource allocation and firm valuation decisions. The role of earnings in compensation control and invests' assessment of firm performance induces incentives for earnings management (Kim, 2016, Suffian et al., 2022, Suffian et al., 2018).

The purpose of the present study is to shed some light on an issue that, particularly in the last years acute financial crisis, have proven to be of dramatic importance and great momentum: financial performance on the part of the management when a company is engaging in earnings management activities during crisis. A thorough exploration of prevailing studies will create opportunity to gain knowledge on the existing dimensions of earnings management activities at a glance which in turn creates a prospect for the policymakers to explore the most effective way in mitigating earnings management activities.

This study is different with the existing studies in which it focuses more on the name of the authors who contributed in adding to the body of knowledge of earnings management activities. Other than that, this study also focuses on the trend of co-authorship network as well as the number of productions by year. Moreover, this study has used VOSviewer software to analyse those elements mentioned earlier. It has examined a total of 878 articles for bibliometric analysis published from 1986 to 2021 in the SCOPUS database indexed journals. Finally, to the best of our knowledge, this would be the first study in earnings management literature that has deployed bibliometric analysis on the name of authors, co-authorship network and production of articles in the field by year which is up to year end 2021.

### **2. Earnings Management Activities**

Earnings management (EM) has been one of the most frequently stated causes of financial failures among publicly traded corporations in recent years (Suffian et al., 2022, Mohd Suffian, 2021). Increased capital market efficiency with EM practises requires disclosed earnings in the financial accounts. If the EM is above par, it will improve company market efficiency, attracting more investors to the company (Andersen et al., 2018). Because EM activities have both advantages

and disadvantages for businesses, excellent EM practises must be protected. Public confidence in the accounting profession has dropped significantly, and most financial scandals have seen the unfortunate participation of big names in companies.

Earnings management (EM) is the process of taking deliberate steps to achieve a desired level of reported earnings within the limits of generally accepted accounting rules (Gunny, 2010). Another definition is 'an intentional involvement in the external financial reporting process with the objective of earning certain private profits,' (Schipper, 1989). In other words, EM is a deliberate act by managers to manipulate a company's accounting figure to present an outstanding financial standing of the company to investors.

The Securities Commission of Malaysia (SC) reported that 12 cases of fraudulent activities were escalated to the court in 2018 (Securities Commission, 2018). The recent survey by PricewaterhouseCoopers (PwC), which was published in the 2018 Malaysian Global Economic Crime Report found that the number of fraudulent cases increased by 41% in 2018. When compared to a similar data from 2016, which claimed that the number of fraudulent cases grew by only 18% in that year, this figure was worrying. Furthermore, according to a PwC Report (2019), 48% of Malaysian organisations have been implicated in white-collar crimes, but only 25% have vowed to strengthen their internal audit system. The average loss in Malaysian enterprises owing to earnings management activities is RM 6.39 million.

Since the Asian Financial Crisis of 1997, earnings management activities have been employed as a middleman in fraudulent activities. According to Nor and Ismail (2017), reported earnings are independent of management bias and reflect the true results of the company's activities, which may be classified as amassing high earnings without any indications of EM tactics (Nor and Ismail, 2017). A prior study revealed that losses from fraudulent activities had a major influence on the organisation, which supports this viewpoint (BaMaung and Cuddihy, 2018, Rustiarini and Sunarsih, 2017). In other words, managers that avoid financial statement manipulation and depend on as-is statistics in financial statements lower the risk of fraudulent activities.

### **3. Methodology**

The bibliometric methodology encapsulates the application of quantitative techniques (i.e., bibliometric analysis – e.g., year, subject, source, country, author and affiliation. Data was collected from the SCOPUS database. It is representing the highest available quality of journals and articles in the field of social sciences and also is widely used in conducting studies (Bergman, 2012). The idea to this method is based on the analysis of database research following Archambault et al. (2009) to decipher how to target the highest quality articles and reviews on earnings management activities. It has been a focus of the past researcher to made use the 'bibliographic' web versions of the database (Archambault et al., 2009).

It is critical to the success of our data collection, as the accuracy in picking the right keyword highly affects the results number. To ensure selecting all or most of the related papers from SCOPUS database, this study adopted this query which was chosen after careful consideration: "(TITLE-ABS-KEY (earnings management) AND (LIMIT-TO ( OA,"all" ) ) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) ) AND ( LIMIT-TO ( SUBJAREA,"BUSI" ) ) AND ( LIMIT-TO ( LANGUAGE,"English" ) ) AND ( LIMIT-TO ( SRCTYPE,"j" ) )". The rationale behind using this query is the various use of terminologies like fraudulent activities; financial manipulation and earnings quality...etc. by researchers to express this topic. Hence, this query is more likely to bring most of the papers related to this topic, especially when searching in the topic area.

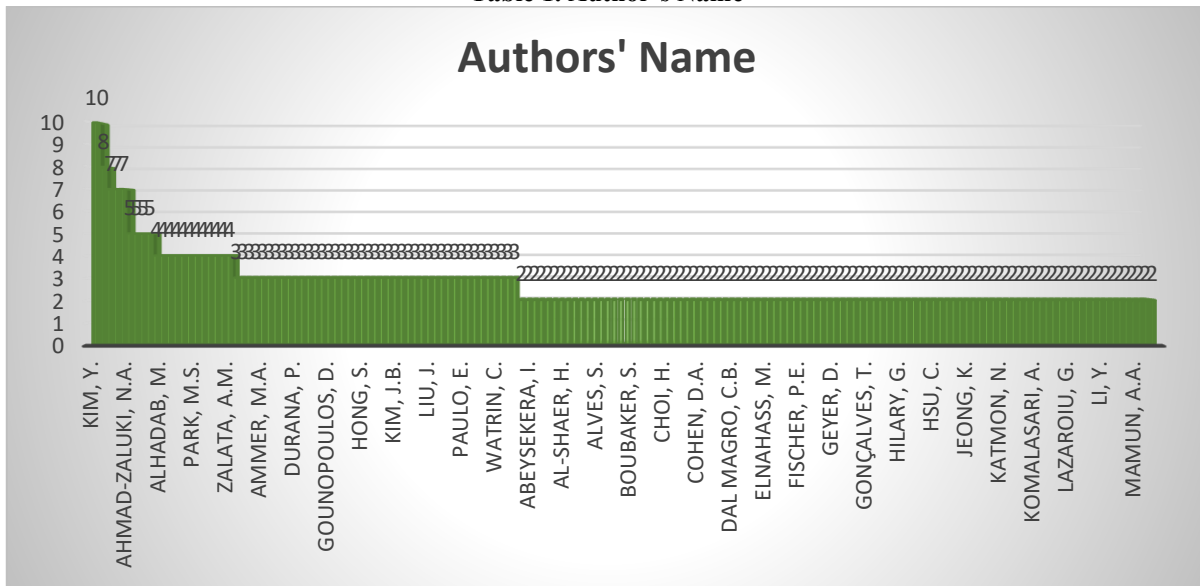
Initially, the articles and reviews on the related field is more than a thousand. However, this study has conducted several ways to exclude and include irrelevant papers. To ensure that the collected data is of direct relation to the designated aim rather than discussing the topic in a non-marginal and non-flimsy way, this study has undergone a careful and cursory examination of the tile and abstract of each article to include or exclude irrelevant papers (Hassan et al., 2022). Thus, the final sample of the data in this study is 878 articles and reviews remain.

## **4. Finding and Discussion**

### **4.1 Authors' Name**

Based on Table 1 below, the highest contributor to the field is Kim from South Korea. He has produced about 10 articles pertaining to the earnings management activities until year 2021. It follows by Ahmad Zaluki from Malaysia with 8 articles. Most researchers have produced at least 2 articles in the same field. All of these authors produced articles on the field of earnings management in the journals indexed by SCOPUS.

Table 1. Author's Name

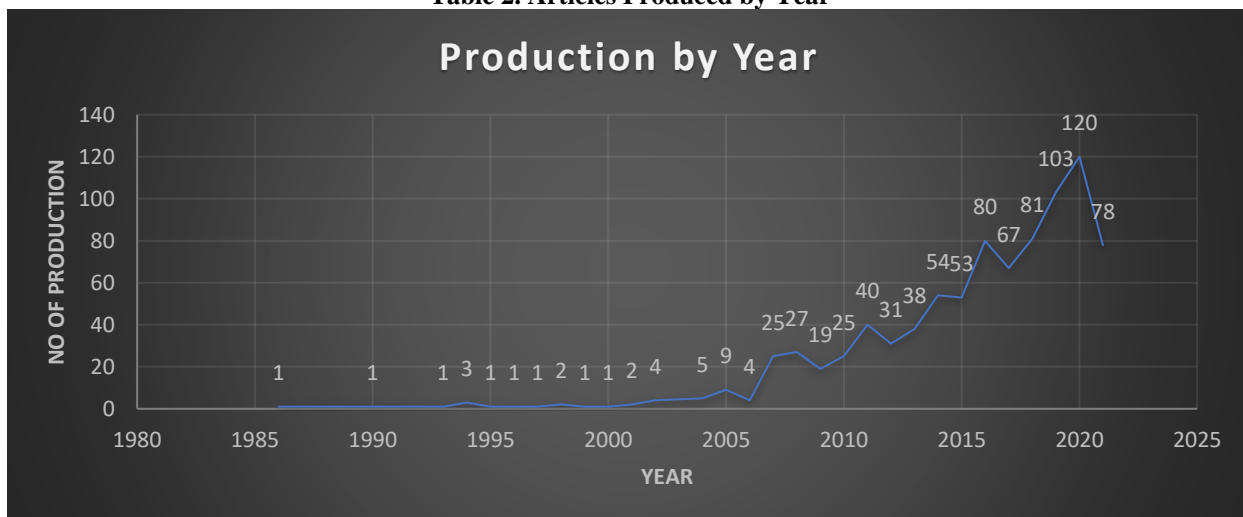


#### 4.2 Articles Produced by Year

Based on Table 2 below, this study presented the number of articles produced by year. According to the table below, year 2020 is the significant year where 120 articles on earnings management activities have been produced by the researchers. It follows by 103 articles produced in 2019; 81 articles produced in 2018 and 78 articles produced in 2021 based on SCOPUS database. This shows that earnings management became a hot topic when the Covid-19 pandemic started at the end of 2019. This is proven by the production of articles related to earnings management published in the SCOPUS database.

According to the table, the term 'earnings management' has been emerged in year 1986. Since that, more articles on this field using this term have been produced. Interestingly, more papers have been produced after year 2000. This can be linked to the collapsed of big audit firm, Arthur Andersen which has together involved in the most famous financial scandal in the history, Enron Corporation in the United States of America (Jackson, 2018, Nigrini, 2005).

Table 2. Articles Produced by Year



#### 4.3 Co-authorship Network based on Country

Figure 1 below presents the countries which have co-authored research on earnings management activities based on co-authorship. From the figure below, most researches have produced articles together with their co-authors from or with authors in the United States of America and United Kingdom. In Asia, Indonesia, Malaysia and Jordan are among the top

3 countries to co-authored articles on this field. The production of articles in the United States of America is said to be high compared to the other countries due to the infamous financial scandal of Enron Corporation and Arthur Andersen back in early 2000. The alliances among the authors were aim to produced articles in the field of earnings management in the indexed journals in SCOPUS database.

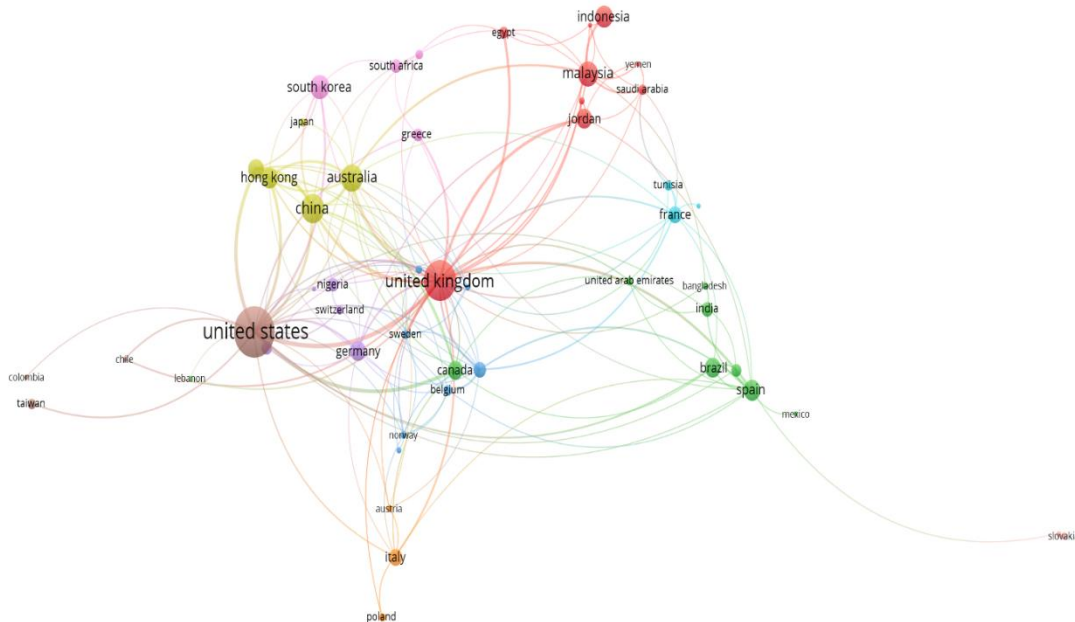


Figure 1. Co-authorship Network by Country

## 5. Conclusion

The purpose of the present study is to shed some light on an issue that, particularly in the last years acute financial crisis during the Covid-19 pandemic, have proven to be of dramatic importance and great momentum: financial performance on the part of the management when a company is engaging in earnings management activities during crisis. A thorough exploration of prevailing studies will create opportunity to gain knowledge on the existing dimensions of earnings management activities at a glance which in turn creates a prospect for the policymakers to explore the most effective way in mitigating earnings management activities.

This study has contributed to the literature of earnings management activities by providing a retrospective overview including a comprehensive overview of the intellectual structure of this field through identifying the most relevant actors of the scientific field, names of the authors, co-authorship and countries which produces articles on earnings management activities on SCOPUS database. This study only focused on two mainstreams which are name of authors and co-authorship. Like other studies, this study has got limitations too that refer to the criteria of collecting the data while its strength lies in reflecting the highest quality literature performance during 35 years of research.

## Acknowledgement

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## **Designing an Interactive Learning Tool in Accounting Education: A Descriptive Study of Lively Accounting**

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### **Abstract**

Covid-19 outbreak has changed the traditional education system to a new way of teaching and learning which lead to the development of various innovative learning methods. To be accepted as a professional accountant in the future, there is a critical need for accounting students to have adequate technical knowledge and relevant skills. Technical complexities in accounting subjects give huge challenges for students to understand as well as the underlying concepts of the accounting processes. The aim of this study is to develop preliminary findings on the feasibility of the primary features of Lively Accounting application and to discover main constructs that contribute to its technology acceptance. Introduction of Lively Accounting appears to act as an interactive learning tool that connects flashcards with augmented reality (AR) technology where users can learn offline and online. Data were collected using questionnaires distributed through an online platform and a demonstrative video about Lively Accounting was distributed to accounting students in UiTM Tapah. The descriptive results reveal that the primary features of Lively Accounting serve as learning aid and do meet the demands and preferences of students as it delivers information to the students interactively which in turn increases their rate of learning. Perceived usefulness and perceived ease of use are believed to be among the contributors on Lively Accounting acceptance. Given benefits offered by Lively Accounting, this approach will be one of the most preferable learning methods among the students and academicians particularly in accounting education.

### **Keywords**

Interactive Learning, Lively Accounting, Technology Acceptance Model, Flash Cards, Augmented Reality

### **1. Introduction**

Accounting is a great profession as it gives out the best in an individual. To produce a great accounting professional, we must ensure that they get the best accounting education from the beginning or the fundamental level of their study journey. Accounting education among other things, seeks to develop concepts, rules, skills, procedures, theories and general knowledge for solving accounting problems. In order to avoid the extinction of accounting education, it must stay relevant in today's advance environment. However, teaching accounting in accounting education is not an easy task.

Teaching accounting subjects has always been a challenging task for educators as students nowadays seek more interactive, fun ways of learning. Other than making sure that the students get the numbers correct, educators need to make sure that the concepts, theories and justifications are well understood by the students. Rebele and St. Pierre's (2019) suggested that emphasis on technical skills is very important and Apostolou et al. (2020) further added that the development of soft skills is also equally important. For effective teaching and learning output, accounting educators require a wide range of teaching aids and instructional materials along the way ranging from innovations and advancement in teaching and learning methods as well as materials in accounting. They have become vital to ensure students get the highest quality learning experience as the output. Educators need modern teaching aids, adequate and creative pedagogical approach and should not exclusively rely on lame lecture delivery method.

On the other hand, benefits of shifting or moving towards new advancement in teaching and learning process can be said to outweigh the costs. A study by Wang et al. (2019) found that majority of the students have agreed that, adopting a project management technique (A3 Planner) used by Toyota, had improved the management of assignments and projects. Sprenger and Schwaninger (2021) in their study found that, amongst the digital technologies used in learning process, classroom response system was rated the best by students, closely followed by e-lectures, then the classroom chat and then the mobile virtual reality. The students evaluated all tools favourably after usage except for mobile virtual reality. Previous literature also highlighted further creative and innovative learning methods which include choice-based learning (Opdecam & Everaert, 2019), collaborative learning (Tan, 2019), experiential education (Butler et al., 2019) and storytelling (Freeman & Burkette, 2019). These efforts in developing a better learning environment shows that the opportunity to create, innovate and improve the approaches in teaching and learning process is always present.

This study focuses on a new interactive learning tool that combines short notes on flashcards with augmented reality (AR) called Lively Accounting. The aim of this tool is to provide versatile and portable short notes for accounting students. Students can read the flashcards, as there is explanation on the topic matters, or they scan them using the Zappar App to make the cards come to life. By using the technology of AR, students can interact in the real and current situations with the virtual elements portrayed in Lively Accounting. This will enhance students' current perception of reality, that is from having to read the explanations on the card to watching a virtual explanation. With Lively Accounting, students can visualize like someone, or their educator is explaining to them, live. This can also support the feature of interactive learning in real time.

Other than that, students also can play videos that are linked with YouTube to explain the related concepts. Lively Accounting comes in a few topics such as partnership, issuance of shares, redemption of shares, presentation of financial statements and manufacturing account. The main feature of Lively Accounting is that it can be used online and offline. Students can refer the flashcards anywhere and anytime and this will reduce the time for students need to prepare their own short notes. There are many grounds on why this tool was created. One of the main reasons is that the analysis of UiTM Tapah past final examination results for subject Financial Accounting 5 extracted from semester March-August 2021, showed that students were able to score calculation questions, but some (72%) are worrying that they failed to get at least 50 marks for theoretical questions. This is one of the signs that accounting students are quite frail in the theoretical parts. Lively Accounting flashcards provide students the key information or theories for that particular topic, where they need to stress on.

Overall, the objective of this study is to explore the primary features of Lively Accounting by considering students' preferred learning materials. This study also serves as preliminary evidence regarding the development and the feasibility of Lively Accounting application from the perspective of users. Furthermore, this study aims to reveal comments and feedback by potential users of the tool and to identify possible variables towards technology acceptance of Lively Accounting. Table 1 listed out the descriptions of the primary features of Lively Accounting that are: i) versatility; ii) design & understandability and; iii) use of AR technology.

**Table 1. Primary Features of Lively Accounting (Omar et al., 2020)**

| <b>Primary Features</b>                       | <b>Description</b>   |
|---|--|
| i. Versatility                                | Flexible; able to be used offline and online; mobile user friendly   |
| ii. Design & understandability                | Create short notes on flashcards; designed to look like presentation slides; use simple terms; produce short explanation videos to explain the accounting concepts and theories; focus more on helping users to understand rather than memorise. |
| iii. Use of augmented reality (AR) technology | Users can scan the flashcards employing the Zappar App to watch and listen to the explanation of the related terms.  |

## **2. Literature Review**

### **2.1 Augmented Reality (AR) Technology**

The fourth industrial revolution (IR4.0), which has been referred to as the introduction of advanced digitization, communication, internet and smart object technologies, has caused a paradigm shift in various industries (Sharma et al., 2022). Due to the development of IR4.0, the technologies that are used to create augmented environments are already widely available (Cabiria, 2012) and have started to appear in a wide range of fields such as manufacturing, aviation, construction, surgery, military and others.

In respect of education sector, the way students today access information and learn has changed due the digitalization of daily life. These unheard-of needs can be met by utilising AR (Lampropoulos et al., 2020). With the rise in the usage of mobile devices and the internet in the past decade, the use of AR to create interactive learning is poised to be one of the important tools in education. Stojšić et al. (2020) suggested that education is one of the most promising sectors for implementing AR because it has the potential to enhance teaching and learning at all educational levels.

As described by Chang et al. (2010), AR is a technology that allows the superimposing of computer-generated virtual 3D objects over the real environment in real time. It is further supported by Sudharshan (2020) which explained that AR will integrate the user's view of the real world by overlaying a computer-generated image on that real world. By applying this technology, people can interact with both real and virtual worlds and obtain real-time data (Nayyar, et al., 2018). In order to apply AR systems, users need to have a display normally by using cell phones where real and virtual images are integrated, a computer to create interactive graphics and a tracking system. A tracking system is used to position and place the digital objects accurately in the physical surroundings (Sharma et al., 2022).

## **2.2 Benefits and Challenges of AR Technology Application in Education Environments**

Past literatures have witnessed a lot of advantages of AR in the education settings around the world. Among them are the use of AR in orthodontic teaching and research that has enhanced the ability of students and educators in assimilating and imparting knowledge (Gandedkar et al., 2021). The use of AR in education is widely documented in medical schools as well (see Kovoor et al., 2021; Moro et al., 2021). Although AR is still a relatively new technology in English language teaching, Kohnke and Leskis (2018) found that it can infuse a typical English language education with enlivening visual imagery. By using their mobile phones and tablets with software, students will be able to view real-life objects with virtual media overlaid in the camera of a mobile device. As a result, this will increase the level of students' engagement with the context, environment, and language needed to communicate the learner's ideas (Klopfer, 2008; Kohnke & Leskis, 2018).

In accounting education, Hadi et al. (2021) have developed an AR mobile application for teaching accounting ethics for university students using revenue recognition cases. This study which applied the Technology Acceptance Model (TAM), shows that potential user's intent to use the application and the intention is affected by the perceived ease of use and the attitude towards the application. In another study done by Binti Che Din and Binti Yope @ Yahya (2022), a simple AR application has been introduced as a teaching tool in fundamental accounting subjects to enhance student's knowledge on the document sources through the visual image. The findings disclosed that students were excited to use the application since most of them know the types of document sources used in the accounting records, however they cannot imagine what it would look like.

Other researchers have also documented positive results relating to the use of AR in education. For instance, AR supports the understanding of complex phenomena by explaining abstract concepts to learners and offering interactive experiences that combine real and virtual information (Chang et al., 2010; Billingham & Dünser, 2012). A study by Akçayir and Akçayir (2017) mentioned the most reported advantage of AR is that it promotes enhanced learning achievement. Meanwhile, Radu (2012) claimed that AR will increase context understanding, favours long-term knowledge retention and increases learning motivation. Wu et al. (2013) added to the benefits of AR by saying that it empowers, ubiquitous, collaborative and situated learning, visualising the invisible and bridging formal and informal learning.

However, the studies also mentioned various difficulties in implementing the AR technology with the learners. This supports Akçayir and Akçayir (2017) assertions that there are certain basic challenges being encountered by the students such as usability issues and frequent technical problems. Usability difficulties may cause time loss for students and may require excessive additional lecture time (Akçayir & Akçayir, 2017). This time constraints issue was also emphasised by Kohnke and Leskis (2018) and Calabor et al. (2019). Other issues highlighted by the researchers are funding or budget constraints (Shuck, 2016; Kohnke & Leskis, 2018), security and privacy concerns (Isaías, 2018; Sharma et al., 2022) and incentives to motivate and increase knowledge to use new teaching tools (Calabor et al., 2019).

Besides that, Isaías (2018) revealed the fact that not all educators possess the necessary skills to use technology effectively is one of its challenges. This is supported by Stojšić et al. (2020)'s example of designing gamified solutions, which calls for a particular strategy and a unique set of abilities that not many people have. This is a significant barrier to its adoption (Williams, 2017; Stojšić et al., 2020). Incorporating AR in the classroom is an exciting new avenue to explore, however it will increase demands on the teacher (Kohnke & Leskis, 2018).

## **2.3 Utilization of Technology Acceptance Model (TAM)**

To address the aim of this study, the theoretical basis of Technology Acceptance Model (TAM) was applied. Numerous studies have utilized TAM to identify how users accept technology which mainly consist of perceived usefulness and perceived ease of use. Perceived usefulness has empirically been acknowledged and proven to have a technology positive influence on usage intention (Huang & Liaw, 2018; Chen & Tseng, 2012). When users realized the usefulness of the technology as it will enhance their work performance, it is likely that they will experience pleasure from and feel attracted by them. Factor of convenient, versatility and flexibility of online learning technology will also increase the student's adoption of this learning method. In other words, users would formulate a greater intention to use a particular technology, if they perceived the usefulness of it.

Previous literatures also have been consistently verified that perceived ease of use will influence individuals' intentions to use technology (Huang & Liaw, 2018; Chen & Tseng, 2012). If the student perceives that the adoption of technology systems in their academic activities require less physical and mental effort, they tend to have positive intention towards its usage, thus greater possibility that it will be utilized (Mohammadi, 2015). The perception of not encountering any difficulties when interacting through a new technology is expected to make users experience pleasure from and feel interested by it. When a task is considered easy by students, it means that it requires less cognitive effort, thus permitting them to concentrate on other learning issues (Saadé & Bahli, 2005). Moreover, when students do not have to spare a significant amount of time and effort to use information technology, they might be able to adopt the new learning medium. Through the application of technology in learning process, students can digest the materials easily based on their own

pace and time, thus increasing their productivity and better retention of information (Liaw & Huang, 2013). Hence, this specifies that the acceptance of technology is based on several constructs that have been discussed above.

### **3. Methods**

#### **3.1 Data Selection**

This current research employs descriptive approaches. The population of this study is accounting students in Universiti Teknologi MARA Perak Branch, Tapah Campus which represent a large population of accountancy diploma students as compared to other Private Finance Initiative (PFI) campuses. For data collection, a full set of questionnaires were circulated through an online survey using Google Form. A simple random sampling technique was used for selecting the students to be included as a sample of this study. All students have an equal opportunity to be included in the study as the respondents are randomly selected from the sampling frame. Overall, a total of 362 respondents have participated in the survey. This number also has met several rules of thumb in determining the appropriate sample size. According to Sekaran and Bougie (2013), a sample size in a study should be between the range of 30 to 500. Thus, samples size of 362 is considered to be sufficient in this study.

#### **3.2 Measurement of Variables**

The survey was designed to capture students' needs, preferences in accounting education and acceptance of Lively Accounting. Meanwhile, a YouTube video showing the features and attributes of the Lively Accounting prototype was posted online to gain responses and comments. The survey consists of three sections. Section A needs the respondents to fulfill their demographic information. Section B consists of 45 questions, designed particularly to ask about the respondents' needs and preferred learning materials.

While Section C specifically asks about the respondents' acceptance of Lively Accounting which consists of technology acceptance attributes mainly perceived usefulness and perceived ease of use. All the questions for this section were ordinarily adapted after the prior research obtained through an analysis of literature which is revised suitably in the perspectives of Lively Accounting. Perceived usefulness, perceived ease of use and technology acceptance were adapted from well-established instruments which were fairly tested for validity and reliability which led to the reliable results and findings (Venkatesh et al., 2003, Venkatesh & Bala, 2008). Variables involved for Section C were measured by a seven-point interval scale ranging from: (1) strongly disagree to (7) strongly agree.

### **4. Results and Discussion**

#### **4.1 Demographic Analysis**

Based on the analysis of demographics, the majority of the respondents as per Table 2 are among female undergraduate accounting students (75.4%). From the total sample population, 47.5% and 46.7% students undertaking courses from semesters 2 and 4 are actively participating in this current study. This data implies that most of the respondents already have previous online learning experience. In terms of current geographical location, data of this current study indicates that students mostly stay in urban areas in which the distance of residence to the nearest town is less than 5 km when the online learning was conducted (57.5%).

Most students feel it is convenient to use a laptop as a medium of study (95.9%) followed by smartphones (mobile user) as compared to other devices together with readily internet accessibility. It is also important to highlight that 51.4% of the students are from B40 families, 26% are from M40 families and 12.7% are from T20 families. 9.9% of the respondents came from families with a monthly household income of less than RM1,000. The impact of Covid-19 pandemic indirectly has caused many households to lower-income categories due to income reduction and loss of employment.

**Table 2. Summary of Demographic Characteristics**

| <b>Variables</b> | <b>Sub</b> | <b>Frequency (<i>f</i>)</b> | <b>Percentage</b> |
|------------------|------------|-----------------------------|-------------------|
| Gender           | Male       | 89                          | 24.6%             |
|                  | Female     | 273                         | 75.4%             |
| Semester         | 1          | 12                          | 3.3%              |
|                  | 2          | 172                         | 47.5%             |
|                  | 3          | 4                           | 1.1%              |
|                  | 4          | 169                         | 46.7%             |
|                  | 5          | 5                           | 1.4%              |

**Continuation of Table 2. Summary of Demographic Characteristics**

| Variables  | Sub              | Frequency<br>( <i>f</i> ) | Percentage |
|--|------------------|---------------------------|------------|
| Distance of residence to town                              | 0-5 km           | 208                       | 57.5%      |
|  | 6-10 km          | 99                        | 27.3%      |
|  | 11-15 km         | 21                        | 5.8%       |
|  | More than 15 km  | 34                        | 9.4%       |
| Devices use to study<br>(Student may choose more than one) | PC               | 25                        | 6.9%       |
|  | Laptop           | 347                       | 95.9%      |
|  | Smartphones      | 331                       | 91.4%      |
|  | Tablets          | 24                        | 6.6%       |
| Family household income<br>(monthly)                       | < RM1,000        | 36                        | 9.9%       |
|  | RM1,000-RM5,000  | 186                       | 51.4%      |
|  | RM5,001-RM10,000 | 94                        | 26%        |
|  | > RM10,000       | 46                        | 12.7%      |

*N* = 362

## 4.2 Discussion of Results

Generally, there are several categories of learning resources including online/offline materials available to students such as printed and visual materials (books, notes, slides, short notes, study guide), audio materials (audio recordings, podcasts, radio), audio-visual materials (videos, online classes), and electronic interactive materials (mobile apps, games). However, from the perspective of versatility, it was found that students do prefer offline materials over online materials. Lively Accounting has satisfied the students' preference which it created a different type of experience where users can learn offline and online. As supported in Table 3, 77.3% students favour offline materials and 66% of their learning materials to be in hardcopy. It was also revealed that the students use both online materials and offline materials to study. This demonstrates that although they prefer hardcopies of learning materials, online resources are equally important to complement the printed materials as it will provide extra educational resources to them.

**Table 3. Students' Preference on Versatility Features**

| Features                          | Yes                       |            | No                        |            |
|-----------------------------------|---------------------------|------------|---------------------------|------------|
|                                   | Frequency<br>( <i>f</i> ) | Percentage | Frequency<br>( <i>f</i> ) | Percentage |
| Favours hardcopy over softcopy    | 239                       | 66%        | 123                       | 34%        |
| Favours offline materials         | 280                       | 77.3%      | 82                        | 22.7%      |
| Uses offline materials more often | 197                       | 54.4%      | 165                       | 45.6%      |

*N* = 362

Table 4 presented students' preference on the design and understandability is well presented in Table 4 from the perspective of Lively Accounting. The results show that the features of Lively Accounting meet the students' needs in learning. By providing short notes which are designed to resemble teaching presentation slides, it satisfies 89.5% of students preferred learning material. The results also show that 50.3% of the students prepare their own short notes. Lively Accounting will reduce the time needed in preparing those notes. As the students do not have to spend significant amounts of time and effort for notes preparation, thus they are able to concentrate on other learning issues and increase their chances of achieving important things in their study. According to the results, the majority of the students (98.1%) use explanation videos which are expected to be accessed through online platforms such as YouTube and prefer it to be in short duration (91.2%). Lively Accounting supports the students' need and fulfills their study requirement which links the flashcards with online videos prepared by lectures to describe certain terms which most students (74%) use in their learning activities. The usage of videos has been widely used by educators around the world to increase students' knowledge, competency and improve their study habits. The findings are consistent with the study done by Taylor et al. (2018) who pointed out digital materials will improve students' engagement and conceptual understanding. D'Aquila, Wang and Mattia (2019) further proved that students' learning effectiveness can be enhanced with the inclusion of online videos. Furthermore, Shuck (2016) projected by 2025, online videos and mobile devices will take over laptops and learning in classrooms as the main methods of student interaction with learning material.

**Table 4. Students' Preference on Design, Understandability and Use of AR Features**

| Features                                | Agree            |            | Disagree         |            |
|---|------------------|------------|------------------|------------|
|   | Frequency<br>(f) | Percentage | Frequency<br>(f) | Percentage |
| Uses presentation slides to study       | 324              | 89.5%      | 38               | 10.5%      |
| Make own short notes                    | 182              | 50.3%      | 180              | 49.7%      |
| Use video materials to study            | 355              | 98.1%      | 7                | 1.9%       |
| Favours short explanation videos        | 330              | 91.2%      | 32               | 8.8%       |
| Stream online to watch videos           | 268              | 74%        | 94               | 26%        |
| Use of augmented reality (AR) materials | 289              | 79.8%      | 73               | 20.2%      |

N = 362

Moreover, the most notable discovery is that 79.8% of the students as per Table 4 are interested to use AR technology which resembles the application in Lively Accounting. As the students also prefer to use smartphones for their medium of study, the application of AR technology is deemed suitable for them as it is mobile user friendly, and it will provide interactive learning styles. Some of the probable reasons for not reaching 100% ready use rate is that students aware that this learning tool normally attach with a price and the result of the study indicates that students on average are only willing to pay up within the range of RM5-RM20 for each tool. This price as depicted in Table 5 will be considered affordable for them to spend for their learning aid since most of the students in this study come from B40 families with a household income of within RM1,000 to RM5,000 only. Due to limitation of income and purchasing power, the B40 group of income normally will prevent buying costly tools and supporting items which are beyond the reach of many B40 families. Table 5 additionally demonstrates that 14.1% of the students are totally willing to pay for a mobile application by using interactive technology such as AR to facilitate their learning activity. While 41.4% and 38.1% of them do not mind paying for these learning materials but depending on the price and the usefulness respectively. This argument further supported by the prior studies which claimed that the struggle to implement different approach in education and attract the users' interest will greatly face several challenges and barriers (Akçayir & Akçayir, 2017; Calabor et al., 2019).

**Table 5. Students' Affordability for Interactive Learning Materials**

| Questions  | Measurement                         | Frequency (f) | Percentage |
|--|-------------------------------------|---------------|------------|
| 1. Do you mind paying for mobile apps (AR technology, etc.) that could facilitate your learning activity?                | Yes                                 | 51            | 14.1%      |
|  | No                                  | 23            | 6.4%       |
|  | Maybe (depending on the price)      | 150           | 41.4%      |
|  | Maybe (depending on the usefulness) | 138           | 38.1%      |
| 2. How much would you pay for a mobile app (AR technology, etc.) that is specifically designed for a particular subject? | Less than RM1                       | 34            | 9.5%       |
|  | RM1 to RM5                          | 58            | 16.2%      |
|  | RM5 to RM10                         | 99            | 27.7%      |
|  | RM10 to RM20                        | 92            | 25.41%     |
|  | RM20 to RM30                        | 41            | 11.5%      |
|  | RM30 to RM40                        | 12            | 3.4%       |
|  | RM40 to RM50                        | 15            | 4.2%       |
| More than RM50   | 11                                  | 3.1%          |            |

N = 362

Meanwhile, a demonstrative video about Lively Accounting was disseminated to accounting students in UiTM Tapah with the intention to acquire feedback on effectiveness of Lively Accounting. Currently, the introductory video of the Lively Accounting concept and prototype in YouTube successfully collected 1,855 views and was liked by 791 viewers. 38 positive comments were received highlighting the creative and innovative accounting learning tool. Some of the viewers agree that students tend to focus more on the calculation part, resulting in weak understanding of theoretical concepts. One of the viewers pointed out that the tool will engage students to learn more about accounting. Additionally, majority of viewers claim that the idea of using AR in teaching accounting education is innovative and will greatly benefit the users. AR technology can increase students' engagement and motivation specially to learn fundamental concepts that are difficult to understand. Technologies such as AR not only improves learning outcomes, but also makes teaching and learning more interesting and motivating (Cheng, 2017).

**Table 6. Descriptive Analysis of Technology Acceptance Variables**

| Variables  | Frequency and Percentage |                |                |
|--|--------------------------|----------------|----------------|
|  | Agree                    | Neutral        | Disagree       |
| <b>Perceived usefulness (<math>\alpha = 0.907</math>; N = 5)</b>             |                          |                |                |
| Using Lively Accounting will allow me to accomplish the task more quickly.   | 189<br>(52.2%)           | 112<br>(30.8%) | 61<br>(16.9%)  |
| Using Lively Accounting will improve my learning performance.                | 148<br>(40.8%)           | 122<br>(33.8%) | 92<br>(25.4%)  |
| Using Lively Accounting will make it simpler to learn course content.        | 142<br>(39%)             | 131<br>(36.3%) | 89<br>(24.7%)  |
| Using Lively Accounting will increase my learning productivity.              | 132<br>(36.6%)           | 115<br>(31.7%) | 115<br>(31.7%) |
| Using Lively Accounting will enhance my effectiveness in learning.           | 147<br>(40.5%)           | 122<br>(33.8%) | 93<br>(25.6%)  |
| <b>Perceived ease of use (<math>\alpha = 0.889</math>; N = 4)</b>            |                          |                |                |
| Learning to operate the Lively Accounting is easy for me.                    | 195<br>(53.8%)           | 105<br>(29%)   | 62<br>(17.2%)  |
| The instruction on how to use Lively Accounting is clear and understandable. | 184<br>(50.8%)           | 104<br>(28.7%) | 74<br>(20.5%)  |
| I find it is easy to have Lively Accounting to perform what I want it to do. | 212<br>(58.6%)           | 94<br>(26%)    | 56<br>(15.4%)  |
| Overall, I find Lively Accounting is easy to use.                            | 215<br>(59.4%)           | 98<br>(27.1%)  | 49<br>(13.5%)  |
| <b>Lively Accounting Acceptance (<math>\alpha = 0.861</math>; N = 3)</b>     |                          |                |                |
| I plan to use Lively Accounting regularly in the future.                     | 146<br>(40.3%)           | 134<br>(37%)   | 82<br>(22.7%)  |
| I will strongly recommend others to use Lively Accounting.                   | 169<br>(46.7%)           | 90<br>(24.9%)  | 103<br>(28.4%) |
| Overall, I like using the Lively Accounting method.                          | 174<br>(48.2%)           | 100<br>(27.6%) | 88<br>(24.2%)  |

N = 362

To support the predicted use and primary acceptance of Lively Accounting by the students, the study further uses main variables of TAM particularly perceived usefulness and perceived ease of use. The TAM has become the most popular research model to determine and predict use and acceptance by an individual regarding information systems and technology. As per Table 6, 48.2% of the students like using the Live Accounting and 40.3% of them plan to use Lively Accounting which links the flashcards with technology of AR regularly in the future which indicates their positive acceptance toward this innovative learning tool. From the initial positive acceptance, some of them (46.7%) are also highly willing to suggest others to use Lively Accounting.

Some of the probable reasons for this encouraging technology acceptance is that 52.2% of the students perceived that by using Lively Accounting will allow them to accomplish the task more quickly and expected to improve their academic performance (40.8%) thus enhancing their effectiveness in learning (40.5%). Primarily, students assume that learning productivity can be enhanced (36.6%) by accepting this technology since it will provide learning assistance and is simpler for them to learn course content (perceived usefulness). Perceived usefulness commonly implies the expectation that the use of technology can enhance learning outcomes. When the students felt that the technology would not help in enhancing and improving their learning performance, they would possibly hunt for an alternative interactive learning environment (Al-Azawei, 2019). Apparently, there is a possibility of a decline in student perceptions in learning and applying the new technology, if they did not realize the usefulness of it.

With the initiative of combining flashcards that link with AR which includes some real-life examples, most of the students (59.4%) shown in Table 6 believed that the Lively Accounting application as a whole is easy to use, beneficial and makes the learning process easier. Learning to operate Lively Accounting is easy for them (53.8%) as it is user friendly, instruction to use is also clear and understandable which can simplify their learning process (conceptually similar to perceived ease of use). Besides that, 58.6% of the students find it is easy to have Lively Accounting to perform what they want to do. If students did not know how to operate certain platforms and applications, it would take up so much time and make the learning process become unnecessarily tedious. Generally, perceived ease of use represents the expected mental effort needed to use the technology. Students will not perceive Lively Accounting usefulness if they feel that this educational technology requires high effort to be used (Al-Azawei, 2019). Furthermore, when students do not



have to spend a significant amount of time and effort on using online learning technology, they are quite likely to adopt this medium. Overall, accounting students perceived that the views of usefulness and ease of use are believed to be among the relevant contributors for Lively Accounting acceptance as their modern learning tool.

## 5. Conclusion

The demand of modern and interactive learning tools in educational settings is well presented by prior literature. Since technology has the power to transform education, educators may use technological advancements in innovating teaching methods and creating new learning materials. Educators must be aware and adjust the changes in learning techniques to remain connected with their students. Therefore, the aim of this study is to develop preliminary findings on the applicability of the key features of Lively Accounting, an interactive learning tool that combines flashcards with AR and to identify main constructs that contribute to its technology acceptance. In conclusion, the results of this study documents that Lively Accounting will be a useful tool as it meets students' preference of learning materials and offers features of a modern accounting education tool. The use of AR technology is perceived to bring positive attitudes and outcomes of students such as academic level improvement, motivation, engagement, and excitement. Furthermore, perceived usefulness and perceived ease of use are believed to be among the relevant contributors of technology acceptance specifically for Lively Accounting. It appears that students with a positive feeling about the usefulness of technology will have more intention to use and accept it in a way to gain new online learning experience.

There are several limitations in this study. Firstly, the finding may only provide an initial understanding of how Lively Accounting would suit in accounting education as the survey was done based on the prototype and not the full version. Further research must be done to better understand the product and well-expand the conclusions on its reliability. More variables under TAM such as attitude towards use together with regression analysis for explaining the technology adoption can be fully utilised in future research as it would give better understanding and interpretation regarding the application of Lively Accounting. Secondly, the selection of students particularly in accounting education in UiTM Tapah may limit the generalisation of the results. Further research should expand the selection of the sample size outside the sample of UiTM accounting students to generate a real representative of the whole population.

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## **The Influence of Board Diversity on Corporate Performance in Malaysia: Before and During the COVID-19 Pandemic**

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### **Abstract**

This study intends to investigate how board diversity influences the performance of Malaysian Pharmaceutical Listed Companies by drawing on the resource-based theory, efficient monitoring theory, and agency theory. Board diversity is vital in ensuring the success of the company, as a diverse board of directors will include a variety of perspectives, ages, genders, cultures, and skills for effective decision-making. An area of board diversity that has been looked at is gender, which is in line with the MCCG's (2017) mandate that at least 30% of the boards of listed companies include female members. The annual reports of the pharmaceutical industry listed on the Bursa Malaysia Berhad were collected that covered the period 2015 to 2020. Tobin's Q, ROE, and ROA were used as a proxy for accounting indicators of company performance. The results revealed mixed and inconclusive findings. Gender diversity significantly and negatively influences firm performance through ROA. However, neither ROE nor Tobin's Q produced any conclusive findings. Performance before and during the COVID-19 pandemic was compared using the T-Test to check if there was a difference. The results showed that only ROE presents a significant finding, while Tobin's Q and ROA do not exhibit any significant findings. The resource-based theory, efficient monitoring theory, and agency theory are all contradicted by the findings of this study. The paper provides recommendations that companies concentrate on board diversity mechanisms and include skilled and experienced female directors on the board of directors to maximize shareholder value.

### **Keywords**

board diversity, corporate performance; COVID-19 pandemic

### **1. Introduction**

Corporate governance highlights the board of directors' responsibility to deliver long-term value to stakeholders, create management policies, and make critical choices to ensure a company's survival and longevity. Good corporate governance entails a competent, diversified, and balanced board of directors. According to Jensen and Meckling (1976), based on agency theory, managers prefer to pursue their personal goals at the expense of shareholders. Therefore, to achieve boardroom balance, the presence of independent directors in the boardroom helps defend the interests of stakeholders by upholding the board's integrity and impartiality. Over the years, numerous studies have been conducted to examine the relationship between board diversity and firm performance. Some studies recommended that board diversity would act as a tool to improve the company's performance, reputation, and sustainability (Goyal et al., 2019; Nguyen et al., 2020). Inconsistently, prior research has found that board diversity has a negative impact on firm performance. For example, Daniel et al. (2015) discovered that business performance suffers in nations when there is substantial cultural resistance to appointing women to boards of directors or implementing gender quotas. From the Malaysian perspective, the Security Commission of Malaysia has actively promoted gender diversity in the boardroom. Therefore, to increase the number of women on the board of directors, one of the recommendations is the Malaysian Code on Corporate Governance 2017 (MCCG 2017) requires all the listed companies must have at least 30% female directors on their boards.

The main objective of this study is to examine the impact of board diversity on corporate performance in terms of Tobin's Q, Return on Asset (ROA), and Return on Equity (ROE) before and during COVID-19. According to Shen et al. (2020) and Alsamhi et al. (2022), they found that COVID-19 has resulted in a decline in the company performance when measured by industry. On the other hand, the pharmaceutical sector is expected to expand more quickly during the COVID-19 pandemic due to increased demand for medical supplies and equipment, commercialization, and partnerships in the COVID-19 vaccine. This study utilized the data from 2015 to 2020 to examine the impact of board diversity on the corporate performance of the pharmaceutical industry listed on Bursa Malaysia. As of December 31, 2020, there are 13 pharmaceutical businesses listed on the Bursa Malaysia. Additionally, theoretical foundations such as resource-based theory, efficient monitoring theory, and agency theory are also discussed in this study. The current study makes a significant contribution by presenting the perspective of how board diversity will influence the firm performance before and after COVID-19 from the Malaysian perspective. The results suggest that functionally diverse boards are more

effective in a variety of board functions, which may be useful in developing policies. The following section will discuss the literature review, methodologies used in this study, analysis conducted, discussion, and conclusions of the study.

## **2. Literature Review and Hypothesis Development**

According to Van der Walt and Ingley (2003), board diversity refers to the distribution of various attributes and characteristics among directors, which affect attitudes and opinions, as well as changes in the structure of boards. Board members can be categorized according to a variety of factors, such as gender, age, nationality, functional background, skills, religion, political preference, and sexual orientation (Rao & Tilt, 2016). The resource-based theory, effective monitoring theory, and agency theory are the three theories that are explored in this study to support the theoretical framework that is put forth. Resource dependence theorists expanded the idea by proposing that board members with diverse backgrounds, abilities, and genders will act as strategic resources to the company, potentially leading to better performance. This hypothesis established the theoretical framework for research on board diversity in corporate governance (Ramon-Jeronimo et al. 2019; Ujunwa et al., 2012). The resource-based theory supports that companies will achieve high performance if they utilize the resources effectively, as it will create valuable opportunities to develop competitive advantages over their rivals. To gain competitive advantages, the firm can exploit external opportunities using existing resources in a new way rather than trying to acquire new skills for each different opportunity. The resources that are difficult to imitate and rare will become the company's strength and lead to long-term success and better performance (Barney, 1991). Kauppila (2015) found that the strategic actions taken by the company to leverage its alliance management capability would lead to higher company performance, as it will prolong the growth of the firm. Ramon-Jeronimo et al. (2019) further supported that utilizing resources maximally will exert substantial effects on the size of operations and product development capabilities. These factors directly affect market performance and boost company performance.

The efficient monitoring theory hypothesized that a higher concentration of ownership gives large shareholders robust incentives and the power to oversee management at a lower cost (Hu & Izumida, 2008). As large shareholders have an important role in corporate internal control, they can alleviate the free rider problem since shareholders who hold a small portion of the share would not be interested in monitoring due to avoiding monitoring costs. This finding is consistent with the study conducted by Lima and Hossain (2018) on non-financial companies listed on Dhaka Stock Exchange who found that concentrated ownership might improve firm performance by increasing monitoring and alleviating the free rider problems associated with dispersed ownership. To protect their significant investments, large shareholders can actively monitor and influence a firm's strategy to maximize firm value as they focus more on long-term earnings expectations rather than pressure to meet short-term goals (Alves, 2012). In mitigating earnings management because of a manager's opportunistic behaviors from the alignment of ownership and management interests, monitoring by institutional ownership is the best governance mechanism that should be in place. Kazemiana and Mohd Sanusi (2015) stated that institutional investors have the opportunity, resources, and ability to monitor managers thus suggesting that there is an inverse relationship between a firm's earnings management activity and its institutional share ownership. In another recent study, Khalid et al. (2020) claimed that if institutional investors possess a significant portion of a company's share, agency issues are more likely to be resolved.

From the corporate governance perspective, agency theory focuses on the relationship between the shareholders and company managers or directors. In general, the shareholders are the person who invests in a company, and they depend heavily on the managers, as they are responsible for financial decision that could result in fluctuating outcome that will affect the value of the shareholders' investment. Shareholders are mostly not involved in the day-to-day working of the company and hence are not well equipped to understand the rationale behind critical business decisions. On the contrary, managers are more far-sighted and have a far greater risk appetite due to their close access to relevant information. Despite their differences, the shareholders expect the managers or directors to make the right decision and thus may create a feeling of distrust that led to conflict between them. Agency problems arise when shareholders and managers have a conflict of interest and the manager's act on behalf of the shareholders in ways that are not in their best interests (Jensen & Meckling, 1976). If the managers or directors act negatively, it will reduce the shareholder's wealth and lead to a disadvantageous relationship. For instance, some managers tend to involve in earnings manipulation to get higher incentives or bonuses. On the other hand, a positive relationship will form when the managers act ethically, which will boost the shareholders' stock price. Therefore, to reduce the conflict between the shareholders and managers, it is crucial to choose the best strategies so that their interests are taken care of to ensure a healthy relationship.

To promote women's leadership on Malaysian boards, the Malaysian Code of Corporate Governance 2017 (MCCG, 2017) requires companies to have at least 30% of their board members be female. According to Low et al. (2015), gender diversity will increase board oversight and board legitimacy, broaden perspectives and choices, and thus be able to better relationships with stakeholders. Song et al. (2020) and Dong, Liang & Wanyin (2022) further supported that gender diversity influenced firm performance. A well-diversified board will lead to numerous viewpoints and perspectives from the directors, and new insights can be created based on their experiences, backgrounds, and skills, allowing for more effective corporate decision-making. Furthermore, all board members are encouraged to express their

thoughts and points of view to foster effective board debates that lead to broader perspectives, improved company performance, and better corporate governance. To give a clear picture of how having women on board would influence the company's performance; Tobin's Q, Return on Asset (ROA), and Return on Equity (ROE) are used. Hence, this study hypothesized that:

H1: There is a positive relationship between board diversity and performance.

The specific hypotheses are:

H1a: There is a positive relationship between board diversity and Tobin's Q.

H1b: There is a positive relationship between board diversity and Return of Asset (ROA).

H1c: There is a positive relationship between board diversity and Return on Equity (ROE).

### 3. Research Methods

This paper aims to examine the effect of board diversity on corporate performance before COVID-19 and a year after COVID-19. The non-financial information was taken from the annual report of the pharmaceutical sector in Bursa Malaysia Berhad. On the other hand, DataStream Thomson Reuters was used to retrieve financial information. 13 businesses from the leisure and hospitality sector, spanning the years 2015 to 2020, made up the sample for this study. There are 78 observations in total.

#### 3.1 Variables measurement

**Table 1. Description of Variable used in this research**

| Variables                                     | Operationalisation  | Formula  |
|---|---|--|
| Board Diversity<br>(Independent Variable)     | Board Size<br>(Bhatt & Bhattacharya, 2017)                                | <7 = 0<br>8-14=1<br>>15=2  |
|   | Board Independence<br>(Bhatt & Bhattacharya, 2017)                        | <50%=0<br>50%-75%=1<br>>75%=2  |
|   | Board Meeting<br>(Bhatt & Bhattacharya, 2017)                             | <4=1<br>4-8=1<br>>8=2  |
|   | Board Expertise<br>(Garcia-Sanchez, Martinez-Ferrero & Garcia-Meca, 2017) | 1=YES; 0=NO  |
|   | Female Director<br>(Masulis, Wang & Xie, 2012)                            | 0= Less than 30% female<br>1=More than 30% female                          |
|   | Foreign Director<br>(Masulis, Wang & Xie, 2012)                           | 0=No foreign director<br>1= At least 1 foreign director                    |
| Corporate Performance<br>(Dependent Variable) | Tobins's Q<br>(Suffian, Sanusi & Mastuki, 2015)                           | $(\text{Market Value of Equity} + \text{Total Debt}) / \text{Total Asset}$ |
|   | Return on Asset<br>(Kothari, Leone & Wasley, 2005)                        | $\text{Net Income} / \text{Total Asset}$                                   |
|   | Return on Equity<br>(Kothari, Leone & Wasley, 2005)                       | $\text{Net Income} / \text{Shareholders' Equity}$                          |

Table 1 describes the definition of the variables used in this study. The Beneish M-score Model was used to assess the scope of probable fraudulent companies. Beneish (1999) created this model to discriminate between earnings manipulators who break accounting standards and non-manipulators. According to Ezrein et al. (2016), this model can detect 82 percent of the public listed companies prosecuted by the Securities Commission of Malaysia for fraudulent financial reporting, demonstrating that this model is reliable and capable of identifying potential fraudulent companies listed on Bursa Malaysia. This approach detects financial statement fraud using eight financial ratios, as shown in Table 1.

## 4. Results and Discussion

### 4.1 Descriptive Analysis

Table 2 displays the descriptive statistic for a total of 78 observations. The results are consistent with the prior research conducted by Bhatt and Bhattacharya (2017) and Garcia-Sanchez et al. (2017). The descriptive statistic presents the sample data of firm performance and five independent variables used in this study. The BODIndex consists of board size, board independence, board meeting, board expertise, and proportion of female directors and foreign directors. Based on Table 2, the average BODIndex is 7 which indicates that most companies comply with the corporate governance guidelines. Despite the fact that the data is normally distributed, the analysis discovered that part of the data is outside the range of -2 to 2 due to the small number of observations. Complying with corporate governance could lead to effective decision-making and will act as a defense against any malpractice that could badly affect the firm performance.

**Table 2. Descriptive Statistics**

|               | Min       | Max      | Mean     | Std. Dev | Skewness  | Kurtosis |
|---------------|-----------|----------|----------|----------|-----------|----------|
| BODIndex      | 1         | 7        | 3.858974 | 1.364907 | .4416101  | 2.396808 |
| TobinsQ       | .001921   | 14.99642 | 1.804893 | 2.200443 | 3.418624  | 1.875185 |
| ROA           | -.2097772 | .4007880 | .0840868 | .0813886 | -.1641401 | 7.537516 |
| ROE           | -.4187059 | .8316865 | .0997019 | .1382313 | .8165778  | 1.533489 |
| SIZE          | 4.907175  | 7.649827 | 6.110784 | .6428555 | .5371628  | 3.195378 |
| LEV           | .001921   | .4359176 | .1556909 | .1258050 | .6027652  | 2.200429 |
| GROWTH        | 0         | .0076151 | .0016051 | .0018579 | 1.610284  | 5.050517 |
| CurrentRatio  | .7758663  | 29.36057 | 22.37236 | 6.874469 | 3.233409  | 11.63003 |
| AcidTestRatio | .256063   | 28.02611 | 20.75254 | 6.579908 | 3.237999  | 11.66039 |

### 4.2 Regression Analysis

**Table 3. Regression Results on Firm Performance**

|                    | Tobins Q                | ROA                     | ROE                     |
|--------------------|-------------------------|-------------------------|-------------------------|
| Constant           | -.1130378<br>(-0.08)*** | -.3268846<br>(-1.90)*** | -.2899144<br>(-1.14)*** |
| BODIndex           | -.1222392<br>(-1.02)    | -.0158758<br>(-2.15)**  | -.0075332<br>(-0.52)    |
| SIZE               | .1298745<br>(0.49)      | .0737796<br>(2.51)**    | .055922<br>(1.25)       |
| LEV                | -.2365875<br>(-0.20)    | -.0077483<br>(-0.12)    | -.0259951<br>(-0.21)    |
| GROWTH             | 9.995774<br>(1.21)***   | 16.12499<br>(3.50)***   | 46.16747<br>(4.96)***   |
| CurrentRatio       | .0429398<br>(0.33)      | -.0005907<br>(-0.10)    | 0.099233<br>(0.83)      |
| AcidTestRatio      | -.0449205<br>(-0.33)    | .0004782<br>(0.08)      | -.0103608<br>(-0.83)    |
| Firm Effect        | YES                     | YES                     | YES                     |
| sigma_u            | 0                       | .07158162               | .08765466               |
| sigma_e            | 1.2271518               | .04637827               | 0.9864537               |
| rho                | 0                       | .70433242               | .44120993               |
| R Squared          | .7208                   | .2507                   | .3022                   |
| Adjusted R Squared | .6972                   | .1874                   | .2432                   |
| Wald chi2          | 183.30                  | 24.05                   | 31.05                   |
| N                  | 78                      | 78                      | 78                      |

\*\*\*Significant at the 1% level (1-tailed), \*\*Significant at the 5% level (1-tailed), \*Significant at the 10% level (1-tailed)

We run regression analysis to examine the effect of board diversity on firm performance. This study uses different independent variables to measure the performance of the firm: Tobin's Q, ROA, and ROE. Based on the result reported in Table 3, this study found a mixed result. Out of three independent variables, only ROA is adversely significant at 5% (t-value= -2.15) for pooled data, while not significant for Tobin's Q and ROE. The reason could be that there are only

78 observations in the sample, which is too small to assess the influence over just one year. Other variables, however, are not significant. The results of this study rejected all the hypotheses. The finding suggests that board diversity has a negative effect on firm performance when measured by using ROA. Therefore, when female directors are on board, the firm performance will decrease. The result is consistent with Ko et al. (2019).

### 4.3 T-Test Analysis

The t-test findings for comparing company performance before COVID-19 and during COVID-19 are shown in Table 4. According to the findings, only ROE is significant (0.05), whereas Tobin's Q and ROA are not significant. It shows that by using ROE, there is a different performance before COVID-19 and during COVID-19. In March 2020, the World Health Organization (WHO) declared the COVID-19 coronavirus outbreak a pandemic and disrupted the global financial markets and economies. The tourism, hospitality, and consumer industries were severely affected and no exception for Malaysian companies. As a result, the panic generated by the pandemic may be to blame for the decline in company performance.

**Table 4. T-test for Pre- and During Pandemic COVID-19**

|                   | Tobins Q  |          | ROA       |          | ROE       |          |
|-------------------|-----------|----------|-----------|----------|-----------|----------|
|                   | Pre       | During   | Pre       | During   | Pre       | During   |
| Mean              | 1.611039  | 2.774162 | .0797443  | .1057989 | .085971   | .1688963 |
| Mean Diff.        | -1.163122 |          | -.0260546 |          | -.0829252 |          |
| Std Error         | .1846176  | 1.177748 | .0083239  | .0370783 | .0128591  | .0674122 |
| Std Dev           | 1.488434  | 4.24643  | .0671093  | .1336877 | .1036735  | .2430581 |
| 95% Conf          | 1.242223  | .2080693 | .0631155  | .0250123 | .060282   | .0220177 |
| 95% Diff.         | 1.30877   |          | -.0752682 |          | -.1649602 |          |
| Interval          | 1.979855  | 5.340254 | .0963732  | .1865856 | .1116601  | .3157748 |
| Interval Diff.    | 2.301016  |          | .0231591  |          | -.0008903 |          |
| t-stat            | .0818     |          | -1.0544   |          | -2.0133   |          |
| p-value           | -1.7635   |          | .2950     |          | .0476     |          |
| Degree of Freedom | 76        |          | 76        |          | 76        |          |
| Observations      | 65        | 13       | 65        | 13       | 65        | 13       |

### 4.4 Discussion

This study examines the impact of board diversity on firm performance represented by Tobin's Q, ROA, and ROE. Using data on 78 observations from the pharmaceutical industry in Malaysia, the analysis runs the data from 2015 to 2020. Surprisingly, though the demand for health products increased during the pandemic, the result presents mixed and inconclusive findings. Tobin's Q and ROE both show no significant results, whereas only ROA reveals a negative and significant influence at 5%. In terms of results before and during the pandemic, only ROE presents a significant finding. While Tobin's Q and ROA show no meaningful results. Interestingly, the result is consistent with the study conducted on pharmaceutical companies listed on Dhaka Stock Exchange where Islam (2018) documented a negative significant relationship between gender diversity and firm performance proxies by ROA and ROE. Inconsistent with the study done by Ujunwa et al. (2012), they reported a negative insignificant relationship between board gender and firm performance. A study on the Chinese A-listed firm revealed that gender, education, and foreign national diversity positively and significantly influence company performance (Khidmat et al., 2020). Recently, Fahad et al. (2022) portrayed that diversity in Bangladesh's Pharmaceutical industry has positive effects on both ROA and Tobin's Q but significantly affects Tobin's Q only. Thus, the result of this study does not support the resource-based theory that different gender can add valuable and diverse expertise to board effectiveness. According to Amin et al. (2019), women are complicated by nature and prone to professional problems including emotional conflicts and communication difficulties that result in lengthy and ineffective decisions. The efficient monitoring theory was also rejected as more women on boards might result in over-supervision for corporations with historically strong governance, which lead to inefficiencies (Adams & Ferreira, 2009). Finally, the results showed how crucial agency theory is in assessing how board diversity affects corporate success. The findings demonstrate that the company's corporate governance practices were ineffective at enhancing firm performance (Makhlouf et al., 2017). Ahren and Dittmar (2012) stated that more gender diversity among decision-makers will also be more expensive owing to disagreements and slower decision-making, which would harm business performance. Thus, the relevant authorities must thus keep an eye on these firms to ensure that corporate governance is properly implemented to improve company performance.

## 5. Conclusion

This study comprehensively discusses the correlation between board diversity on firm performance before and during the COVID-19 pandemic. The theoretical underpinnings of this study are also discussed, including resource-based theory, efficient monitoring theory, and agency theory. Based on the findings, board diversity significantly and negatively influences the performance of Malaysian firms, particularly in the pharmaceutical industry before and during the COVID-19 pandemic. Therefore, when the number of female directors increases in a firm, the financial performance will decrease. The finding did not support that having more women on board, will enhance the firm performance. The negative relationship shows that the firm performance may not be dependent on the number of women directors on board. This study is subject to a few limitations such as using a small sample size of pharmaceutical industry companies. Therefore, the outcome may not be generalized to other industries. Another reason may be due to the limitation of the period of study, which only covered the year 2015 to 2020. Therefore, this issue can be one of the tasks for future research. Thus, it is advisable to use a larger sample from various industries and extend the duration for future research to have a better understanding of how board diversity affects business performance. This study might be a helpful resource for investors, decision-makers, and academicians to consider and develop workable decisions and policies to enhance the performance of companies.

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## **Financial Distress and Earnings Management: Evidence from Malaysian Public Listed Companies**

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### **Abstract**

Previous study finds that key circumstances such as poor industry performance, poor firm performance, and high leverage can all lead to a company's financial distress. It may have an impact on how earnings are manipulated. Hence, the study aims to assess the choice of earnings management approach among financially distressed firms. The manager may choose either Accrual Earnings Management (AEM) or Real Earnings Management (REM). This study uses the modified Jones, 1991, model for AEM. Whereby for REM is the Abnormal Cash Flow from Operation, Abnormal Production Cost, and Abnormal Discretionary Expenses model by Roychowdhury, 2006. Using a final sample of 672 firms' year observation consisting of Malaysian public listed companies for the period of 2018 to 2021, this study discovered that financially distressed firms do manipulate earnings using the REM approach. In addition, some other control variables such as leverage, firm size, ROA and liquidity also have a significant effect on EM. This study contributes to the earnings management literature, notably how managers choose to manipulate earnings at the different levels of financial health, which then can influence the accounting earnings quality.

### **Keywords**

Earnings Management, Accrual Manipulation, Real Activity Manipulation, Financial Distress, Earnings Quality

### **1. Introduction**

Financial reporting acts as a means for communication between firms that report both quantitative and qualitative information to both internal and external users for decision-making purposes and provides a measurement of a company's performance (Healy & Wahlen, 1999). However, in certain cases, such as in the cases of Sime Darby Berhad and Transmile Group Berhad, financial reporting is used to portray the better performance of the firm even if in reality, it does not perform as well as indicated in the financial report (Hamid et al., 2012). This is known as an accrual-based earnings management practice. It is defined by Healy and Wahlen (1999) as an action in which managers use financial reporting and transaction reports to deceive financial statements to 1) manipulate some stakeholders about the firm's operating financial performance, or 2) affect contractual outcomes that rely on reported financial statements.

On the other hand, real earnings management, as opposed to accrual-based earnings management, modifies the firm's fundamental operations. Roychowdhury (2006) discovered evidence of managers changing actual operations to manage earnings. According to Roychowdhury (2006), and Cohen and Zarowin (2010), firms that manage earnings upward are likely to have one or all of these accounting effects: (i) unusually low cash flow from operations due to the increasing price discounts or lenient credit terms to accelerate sales for the current period, (ii) unusually low discretionary expenses due to the aggressive reduction in R&D, advertising and SG&A expenses to improve earnings for the current period, and (iii) unusually high production costs to reduce Cost of Goods Sold (COGS), which in turn increase the operating margin for the current period.

Some factors have motivated managers to engage in earnings management. Previous research has listed some motivations such as altruistic motivation - which concerns the interest of other parties; speculative motivation - which concerns self-interest; and pressure from affiliated parties (Chen & Tsai, 2010). One of the altruistic motivations has been caused by financial difficulties. Li et al., (2020) and Campa and Miriano (2015) found that financially distressed firms have significant effects on earnings management. Asquith et al, (1994) highlighted those key circumstances such as poor industry performance, poor firm performance, and high leverage can all lead to a company's financial distress. However, the prior study that used the Malaysian sample (Karina & Soenarno, 2022 & Ghazali et al., 2015) only examined the AEM in financially distressed firms. Therefore, even though this study similarly uses AEM, it extends prior studies by examining the impact of financial distress on REM activities. The objectives of this paper are to examine 1) the impact of financial distress on AEM, and 2) the impact of financial distress on REM. This study uses the modified Jones, 1991, model for AEM. Whereby for REM is the Abnormal Cash Flow from Operation, Abnormal Production Cost, and Abnormal Discretionary Expenses model by Roychowdhury, 2006. Using a final sample of 672 firms' year observation consisting of Malaysian public listed companies for the period of 2018 to 2021, this study discovered that financially distressed firms do manipulate earnings using the REM approach.

The remainder of this paper is organized as follows. Section 2 provides evidence from prior studies on financial distress with AEM and REM and also the development of the hypotheses. Section 3 presents the data, sample selection and research methodology. Section 4 provides the analysis of the results. Finally, the conclusion and suggestions for further research are presented in section 5.

## **2. Literature Review**

Firms in financial distress have strong incentives to manipulate their earnings to accomplish a certain goal and subsequently mislead stakeholders concerning their financial performance (Campa & Miriano, 2015; Zang, 2012). There are two main methods of earnings management (EM) available to managers to manipulate earnings in the accounting literature, which consist of accrual and real activities. Previous studies have widely documented the impact of financial distress on accrual earnings management (AEM) (Bisogno & De Luca, 2015; Agrawal & Chatterjee, 2015) and real earnings management (REM) (Zang, 2012; Campa & Miriano, 2015). According to Dechow and Skinner (2000, p. 240), accrual earnings management comprises accounting choices within Generally Accepted Accounting Principles (GAAP), that intend to “obscure” or “mask” true economic performance. These choices consist of fair value measurement, depreciation, deferred tax, goodwill impairments and others. In contrast to this, real earnings management arises when managers modify the timing or structuring of transactions, investments and allocation of resources to amend accounting earnings within a current period (Dechow & Skinner, 2000). This current research is concentrated on comparing the impact of financial distress on accrual earnings management and real earnings management.

### **2.1 Financial Distress and Accrual Earnings Management (AEM)**

The accrual earning management technique has received considerable attention in literature. As documented by a few researchers, financial distress has significant effects on income - decreasing accrual earnings management. Habib et al. (2013) find that managers of distressed firms engage more in income-decreasing accrual earnings management practices. This argument is supported by Agrawal and Chatterjee (2015) who find that a higher level of financial distress causes firms to adopt income-decreasing accrual earnings management instead, as managers are forced to engage in conservative earnings behavior by auditors. Furthermore, with more conservative earnings, new managers can blame weak performance on former managers and portray better future performance on themselves. With unsatisfactory performance than normal, managers may be likely to use income-decreasing accruals techniques as the poor results are unavoidable, allowing for managers to take advantage during periods of crises by reporting greater than necessary losses (Kjærland et al., 2020). In contrast to this, Bisogno and De Luca (2015) find that financial distress occurs in Italian small and private companies has a significant positive relationship with income-increasing accrual earnings management, with the mission to cover actual performance and retain debt financing from banks. Due to the pressure, this condition has triggered managers to conduct income-increasing accrual earnings management to prevent debt covenant violations, avoid probable bankruptcy, avoid turnover, or increase management compensations (Charitou et al., 2007).

Other than that, Joosten (2012) and Nagar and Sen (2016) directly compare the behavior of financially distressed firms on accrual earnings management which indicate that accrual earnings management is more prevalent in companies that experience distress and higher industry competition. Indirectly it means that the lower the financial health of the company, the bigger the magnitude of accrual earnings management that is conducted through managing the discretionary component of accruals (Muljono & Suk, 2018). Haga et al. (2018) also demonstrate that accrual earnings management is still adopted by firms with riskier financial status. Using a sample of all publicly traded firms in China, Li et al. (2020) similarly claimed that the worse the financial condition of a firm, the more accrual earnings management behaviors are conducted by the firm. Financially distressed firms normally reveal a tendency to perform more accrual earnings manipulation and less real earnings manipulation after trading off the relative cost and risk. Zang (2012) further claimed that companies will switch from real earnings management to accrual earnings management when the distress level gets higher since companies' capacity to perform real earnings management is impaired. Thus, it can be concluded here firms with poor financial health and not financially well-off are more likely to resort to accrual earnings management which is a proxy by discretionary accruals.

From a different point of view, Rusci et al. (2021) pointed out financial distress has a significant negative effect on accrual earnings management. The more financially distressed a firm is, the less likely they engage in accrual earnings management. Demirkan and Platt (2009) depict that the most distressed and unhealthy companies have the weakest relationship with discretionary accruals and the managers of firms would practice earning management only when the company is in a healthy condition (Ghazali et al., 2015). Agustia et al. (2020) similarly found that financially healthy firms or when the profit of the company is high will engage in high levels of earnings management. Specifically, a study done by Agrawal and Chatterjee (2015) exposed that higher performing firms will engage in higher earnings management, while distressed firms will engage in lower earnings management and tend to reveal their true condition.

As a result of the inconclusive evidence on the relationship between financial distress and accrual earnings management strategies, we develop the following hypothesis:

H1: The higher the level of financial distress, the higher the magnitude of accruals earnings management approach.

## **2.2 Financial Distress and Real Earnings Management (REM)**

The effect of financial distress on real earnings management has inconsistent outcomes in the earlier studies. A few researchers have found that during higher levels of financial distress, companies perform higher levels of income increasing real earnings management. Research by Campa (2019) documents that in the presence of severe financial problems, non-financial companies operating in France demonstrate income-increasing earnings manipulation carried out through real activities rather than discretionary accruals. Kim et al. (2011) describes that manager perform higher levels of income-increasing real earnings management especially when the borrowers experience higher bankruptcy risk. When the firms are being closed to face bankruptcy procedure, this condition will give a significant level of pressure on the managers and extensive upward real activity earnings management is preferable. Campa and Miriano (2015) consistently reveal that Spanish unlisted firms with higher levels of financial distress manipulate earnings upwards using real activity manipulation, but not through discretionary accruals. In the presence of difficult financial situations, managers disguise firms' financial difficulties using the less detectable earnings management strategy, rather than focusing on the cost of earnings management tools.

However, other researchers discover different findings. For instance, Zang (2012) specifically reveals that at the initial stages of distress, public companies conduct real earnings management more extensively than accruals earnings management, as their financial health and competitiveness in the industry enable them to deviate from optimal business operations. These arguments are supported by Joosten (2012), in which European companies conduct real earnings management to reach earnings targets when distress is low instead, because the companies' capacities enable them to alleviate the negative economic consequences of real earnings management. Nagar and Sen (2016) highlighted that companies engage in real earnings management through a reduction in discretionary expenses during initial stages of distress to enhance liquidity and profitability, while companies engage in higher levels of accruals earnings management at higher stages of distress to achieve the desired earnings target.

On the other hand, it is reported that companies that are under severe distress are going to shift from real earnings management and perform accruals earnings management more extensively instead to meet the desired targets. The existence of higher levels of financial distress has led companies to restrict the use of real activity earnings management while continuing to adopt accrual manipulation. Haga et al. (2018) provide support for this argument among UK entities and find that the tendency of firms in difficult financial positions to transform real activity manipulation with accrual earnings management is stronger for listed entities than unlisted firms. According to Zang (2012), real earnings management is risky due to its long-term economic consequences. Besides that, real earnings management is costlier than accrual earnings management since this approach requires changes to the firm's operations such as manipulating cash flows through operational, investment and financial activities throughout the year. Real activity manipulation will be considered too expensive for the entities in poor financial conditions since the marginal cost of deviating from optimal business plans would be too severe under these conditions.

Previous researches have revealed conflicting results regarding the effects of financial distress and real earnings management. Based on the previous discussion, the following hypothesis is developed:

H2: The higher the level of financial distress, the higher the magnitude of real earnings management approach.

## **3. Research Methodology**

### **3.1 Sample Selection**

The initial sample includes all industry firms in Refinitiv Eikon Data Stream, excluding financial and insurance firms listed on Bursa Malaysia from 2018 to 2021. Finally, any missing values and outliers found in the sample firms were eliminated, and the final sample of 672 firms' year observation will be used to test the hypothesis developed in this study.

### **3.2 Measurement of Dependant Variables**

The earnings management approach among firms experiencing financial problems is either AEM or REM. The models used to measure the EM proxies included in this study will be discussed in more detail in the following section.

#### **3.2.1 Accrual Earnings Management**

The proxy of AEM in this study is discretionary accruals. This study measures AEM by using the Modified Jones Model (Jones, 1991) which is consistent with many studies of EM, such as Agustia et al. (2020); Li et al. (2020) and Zang (2012). Discretionary accruals are the difference between actual accruals and the normal level of accruals. The following is the Modified Jones Model.

$$NDA_{it}/A_{i,t-1} = \alpha_0 + \alpha_1(1/A_{i,t-1}) + \alpha_2[\Delta AR_{it}/A_{i,t-1}] + \alpha_3[PPE_{it}/A_{i,t-1}] + \varepsilon_{it} \quad (1)$$

Where,

|                   |  |
|-------------------|--|
| NDA <sub>it</sub> | Non-discretionary accruals of firm i in year t;                                    |
| A <sub>it-1</sub> | Total assets of firm i in year t-1;  |
| ΔAR <sub>it</sub> | Change in account receivables of firm i between year t-1 and t;                    |
| PPE <sub>it</sub> | Gross property plant and equipment of firm I in year t.                            |
| ε <sub>it</sub>   | A residual term that captures the level of abnormal cash flow of firm i in year t. |

### 3.2.2 Real Earnings Management

Following Roychowdhury (2006), this study defines REM as when managers act with distinct practices from what normal business should do. Consistent with prior research (Campa, 2019 & Campa & Miriano, 2015), this study employs the sum of three proxies to examine REM, namely abnormal cash flow from operating activities (AbCFO), abnormal production costs (AbPROD) and abnormal discretionary expenses (AbDISEXP). The study estimates AbCFO, AbPROD and AbDISEXP as the residual from the following models, respectively.

#### *Model for AbCFO*

$$CFO_{it}/A_{it-1} = \beta_1 [1/A_{it-1}] + \beta_2 [Sales_{it}/A_{it-1}] + \beta_3 [\Delta Sales_{it}/A_{it-1}] + \epsilon_{it} \quad (2)$$

Where,

|                      |   |
|----------------------|---|
| CFO <sub>it</sub>    | Cash flow from operation of firm i in period t;   |
| Sales <sub>it</sub>  | Sales of firm i in year t ;                       |
| ΔSales <sub>it</sub> | Change in sales of firm i between year t-1 and t. |

#### *Model for AbPROD*

$$PROD_{it}/A_{it-1} = \beta_1 [1/A_{it-1}] + \beta_2 [Sales_{it}/A_{it-1}] + \beta_3 [\Delta Sales_{it}/A_{it-1}] + \beta_4 [\Delta Sales_{it-1}/A_{it-1}] + \epsilon_{it} \quad (3)$$

Where,

|                        |  |
|------------------------|--|
| PROD <sub>it</sub>     | The sum of cost of goods sold and change in inventory of firm i in year t;                       |
| ΔSales <sub>it-1</sub> | Change in sales of firm i from year t-1 to t; and all other variables are as previously defined. |

#### *Model for AbDISEXP*

$$DISEXP_{it}/A_{it-1} = \beta_1 [1/A_{it-1}] + \beta_2 [Sales_{it-1}/A_{it-1}] + \epsilon_{it} \quad (4)$$

Where,

|                      |  |
|----------------------|--|
| DISEXP <sub>it</sub> | The sum of Research and Development (R&D) expenses and Selling, General & Administrative (SG&A) expenses of firm i in year t; and all other variables are as previously defined. |
|----------------------|--|

#### *Model for REM*

Following Li et al. (2020), the three real activity manipulation measures are then added together to form a single proxy, REM, which will be used to test the hypothesis:

$$REM_{it} = AbCFO_{it} + AbPROD_{it} + AbDISEXP_{it} \quad (5)$$

Where,

|                   |  |
|-------------------|--|
| REM <sub>it</sub> | The sum of REM of firm i in year t; and all other variables are as previously defined. |
|-------------------|--|

### 3.3 Measurement of Independent Variable

Following Li et al. (2020) and Zhang (2012), this paper employs the modified Z-score as the proxy for firms' financial healthy. The higher the Z-score portrays better financial health for the company. A company that scored smaller than 1.81 in z-score will be classified as a financial distress company while the other companies may be classified as gray area, where they can be determined as neither healthy nor financially distressed firms if their score is greater than 1.81 but less than 2.99. The companies are considered financially health if the Z-score is greater than 2.99. The Z-score is expressed by the following equation:

$$ZSCORE_{it} = 0.3x_1 + 1.0x_2 + 1.4x_3 + 1.2x_4 + 0.6x_5 \quad (6)$$

Where,

|                |   |
|----------------|---|
| x <sub>1</sub> | the ratio of net profit to total assets |
| x <sub>2</sub> | the ratio of sales to total assets      |

- x3            the ratio of retained earnings to total assets
- x4            the ratio of working capital to total assets
- x5            the ratio of market value of equity to total liabilities

### 3.4 Measurement of Control Variables

This study includes some of the control variables since they provide a monitoring mechanism with EM. This study uses leverage (LEVERAGE) as proxy for debt ratio following the study by Campa (2019) and Ghazali et al. (2015). The firm size (SIZE); Return on Assets (ROA) and liquidity (LIQUIDITY) also have a significant effect on EM (Lidsa and Julisar, 2022 & Rakshit & Paul, 2020). The control variables are measured as follows:

- LEVERAGE    the ratio of total liabilities to total assets
- SIZE            the log of total assets
- ROA            the ratio of EBIT to net assets
- LIQUIDITY    the ratio of current assets to current liabilities

### 3.5 Data Analysis

Data were analyzed using SPSS (Statistical Package for Social Science) software. A descriptive statistic is conducted to compare the mean, median and standard deviations between variables. The multiple regression analysis is used to test the hypotheses and the regression models are as follows:

$$AEM_{it} = \alpha_0 + \alpha_1 DISTRESS_{it} + \alpha_2 LEV_{it} + \alpha_3 SIZE_{it} + \alpha_4 ROA_{it} + \alpha_5 LIQUIDITY_{it} + \varepsilon_{it} \quad (7)$$

$$REM_{it} = \beta_0 + \beta_1 DISTRESS_{it} + \beta_2 LEV_{it} + \beta_3 SIZE_{it} + \beta_4 ROA_{it} + \beta_5 LIQUIDITY_{it} + \varepsilon_{it} \quad (8)$$

Both models will be used to determine which approach of earnings management that financially distressed firms choose during the observation period. To test H1 (The higher the level of financial distress, the higher the magnitude of accruals earnings management approach),  $\alpha_1$  in Model (7) is used to explain the relationship between financial distress and accrual earnings management. Whereas to test H2 (The higher the level of financial distress, the higher the magnitude of real earnings management approach),  $\beta_1$  in Model (8) is used to explain the relationship between financial distress and real earnings management.

## 4. Result and Discussion

### 4.1 Descriptive Analysis

Table 1 shows the descriptive statistics for the full sample of observations. The mean for suspected firms that engage in AEM and REM activities is different. From the result, the mean of the AEM is -0.721 while the mean of the REM is 0.983. The negative mean of AEM suggests that public listed companies in Malaysia use more income decreasing accruals. Meanwhile, the positive mean of REM indicates that those companies use more income increasing accruals for their earnings management. The mean for financial distress is 0.153, indicating that 15.3% of the companies in the sample are in a financial distress situation. The mean for other control variables which are LEVERAGE, SIZE, ROA and LIQUIDITY is 0.397, 6.307, 0.077 and 2.703 respectively.

**Table 1. Descriptive Statistic for the Full Sample**

|                    | <b>N</b> | <b>Mean</b> | <b>Minimum</b> | <b>Maximum</b> | <b>Std. Deviation</b> |
|--------------------|----------|-------------|----------------|----------------|-----------------------|
| <b>AEM</b>         | 672      | -0.721      | -2.767         | 0.109          | 0.451                 |
| <b>REM</b>         | 672      | 0.983       | -0.090         | 4.885          | 0.717                 |
| <b>FinDistress</b> | 672      | 0.153       | -1.990         | 1.220          | 0.408                 |
| <b>LEVERAGE</b>    | 672      | 0.397       | 0.025          | 0.926          | 0.195                 |
| <b>SIZE</b>        | 672      | 6.307       | 5.002          | 8.261          | 0.662                 |
| <b>ROA</b>         | 672      | 0.077       | -0.321         | 1.028          | 0.102                 |
| <b>LIQUIDITY</b>   | 672      | 2.703       | 0.188          | 31.604         | 2.831                 |

### 4.2 Pearson Correlation

Tables 2 and 3 show the Pearson correlation coefficient. The correlation for Model (7) is shown in Table 2. AEM and FinDistress have a non-significant correlation. Except for ROA, all of the other control variables exhibit substantial correlations with AEM.

**Table 2. Pearson Correlation for Model AEM**

|                    | AEM     | FinDistress | LEVERAGE  | SIZE      | ROA      | LIQUIDITY |
|--------------------|---------|-------------|-----------|-----------|----------|-----------|
| <b>AEM</b>         | 1       |             |           |           |          |           |
| <b>FinDistress</b> | -0.046  | 1           |           |           |          |           |
| <b>LEVERAGE</b>    | 0.053*  | 0.339***    | 1         |           |          |           |
| <b>SIZE</b>        | -0.057* | -0.038      | 0.531***  | 1         |          |           |
| <b>ROA</b>         | -0.031  | -0.287***   | -0.242*** | -0.221*** | 1        |           |
| <b>LIQUIDITY</b>   | 0.085** | -0.332***   | -0.741*** | -0.377*** | 0.248*** | 1         |

\*, \*\*, \*\*\* significant at the 0.1, 0.05 and 0.01 levels respectively.

Table 3 presents the correlation for Model (8). There is a statistically significant positive correlation between REM and FinDistress at the 1% level. Furthermore, for other control variables, only the SIZE and ROA have significant correlations with REM. The correlation coefficients presented below provide preliminary evidence to support the hypotheses. Multiple regression analysis may then be performed to provide statistically valid evidence concerning the proposed hypotheses.

**Table 3. Pearson Correlation for Model REM**

|                    | REM       | FinDistress | LEVERAGE  | SIZE      | ROA      | LIQUIDITY |
|--------------------|-----------|-------------|-----------|-----------|----------|-----------|
| <b>REM</b>         | 1         |             |           |           |          |           |
| <b>FinDistress</b> | 0.629***  | 1           |           |           |          |           |
| <b>LEVERAGE</b>    | -0.048    | 0.339***    | 1         |           |          |           |
| <b>SIZE</b>        | -0.239*** | -0.038      | 0.531***  | 1         |          |           |
| <b>ROA</b>         | 0.294***  | -0.287***   | -0.242*** | -0.221*** | 1        |           |
| <b>LIQUIDITY</b>   | 0.017     | -0.332***   | -0.741*** | -0.377*** | 0.248*** | 1         |

\*\*\* significant at the 0.01 levels.

### 4.3 Regression Analysis

All variables are normally distributed and the analysis met all the assumptions of multiple regression analysis. Table 4 explains the testing of the current study's hypotheses. The study regressed the variables separately using each estimation model described in Section 3.5, where each model represents a different proxy for EM which are AEM and REM. The results are shown in Table 4 below.

The F-statistics show significance at the 1% level for both models. The R-squared indicated how much the ratio of variance in the dependent variable can be explained by the independent variable. In the first model (Model 7), AEM, the study shows that FinDistress, LEVERAGE, SIZE, ROA and LIQUIDITY have explained 5.9% of the variance of accrual earnings management. The low R square is considered common for this accrual regression, as evidenced by earlier research (Li et al., 2020 & Ghazali et al., 2015). First, the regression Model (7) is used to test H1 with a predictive value for  $\alpha_1$  to be positive. The result shows a significant negative association (with a coefficient of -0.107) between FinDistress and AEM at a 5% significance level. Thus, H1 is rejected. The findings are consistent with Rusci et al. (2021); Ghazali et al. (2015) and Demirkan and Platt (2009), who claim that distressed companies do not engage in discretionary accruals because they have used up all of their resources manipulating earnings before distress and may not see the point of doing so. Ghazali et al. (2015) further conclude that AEM would only be used by managers in financially sound companies.

Second, using Model (8), REM, R-squared shows that FinDistress, LEVERAGE, SIZE, ROA and LIQUIDITY have explained 68.1% of the variance of real earnings management. The higher R square is also found in Campa and Miriano (2015). The large gap of R-squared between these two models may be because other variables could explain the AEM deviation than those being examined in this study. Therefore, future study may increase the R-squared by including additional variables.

The regression Model (8) is used to test H2 with a predictive value for  $\beta_1$  to be positive. Consistent with the H2, the FinDistress is positively associated with REM and significant at the 1% level which a coefficient of 0.849. This finding implies that the company that is in worse financial status will favour real earnings management. This result is supported with study by Campa (2019) and Campa and Miriano (2015). Campa (2019) further explained that companies in the presence of severe financial problems do engage in income-increasing earnings manipulation through real activities. It verifies the "opportunistic behaviour" hypothesis in terms of how listed companies manage their earnings, at least when such companies are largely reliant on external debt and the institutional environment does not provide adequate creditor protection.

**Table 4. Regression Result of Accrual and Real Earnings Management on Financial Distress**

| Variables               | Accrual Earnings Management<br>(AEM) | Real Earnings Management<br>(REM) |
|-------------------------|--------------------------------------|-----------------------------------|
| (Constant)              | <b>-0.407**</b><br>(-2.080)          | <b>0.612***</b><br>(3.376)        |
| FinDistress             | <b>-0.107**</b><br>(-2.472)          | <b>0.849***</b><br>(33.631)       |
| LEVERAGE                | <b>0.362***</b><br>(5.720)           | <b>-0.203***</b><br>(-5.515)      |
| SIZE                    | <b>-0.167***</b><br>(-3.559)         | 0.022<br>(0.810)                  |
| ROA                     | <b>-0.080**</b><br>(-1.960)          | <b>0.484***</b><br>(20.458)       |
| LIQUIDITY               | <b>0.274***</b><br>(4.839)           | 0.037<br>(1.117)                  |
| R <sup>2</sup>          | 0.059                                | 0.681                             |
| Adjusted R <sup>2</sup> | 0.052                                | 0.679                             |
| F-statistics            | 8.393***                             | 283.590***                        |
| N                       | 672                                  | 672                               |

\*\* , \*\*\* significant at the 0.05 and 0.01 levels respectively.

In addition, some of the control variables show a significant result with the models as the proxy for EM. First, LEVERAGE (with a coefficient of 0.362) has a significant positive association with AEM at a 1% significance level. The findings are consistent with 'debt hypothesis' in Sweeney (1994), who discovered that the probability of a manager using income increasing accounting procedures increases with the company's debt to equity ratio. On the other hand, at a 1% level of significance, LEVERAGE (with a coefficient of -0.203) exhibits a significant negative association with REM. The findings are consistent with Campa (2019). Prior to this, the "control hypothesis" for debt creation (Jensen, 1986) claimed that debt might be utilised to lower agency costs since managers would then have more discretion over the firm's cash flow. The control role starts when management is required to make interest and principal payments since failing to do so may force the firm into bankruptcy court. Larger interest payments will prevent managers from using their judgment, hence, reducing the potential of EM.

Second, the result of negative significance at the 1% level between SIZE and AEM (with a coefficient of -0.167) is in line with Lidsa and Julisar (2022). They suggest that larger companies have adhered to more restrictions with higher supervision, thus restricting them from exercising earnings management. Next, ROA is significantly negative with AEM which a coefficient of -0.080 at the 5% level. This is inconsistent with Rakshit and Paul (2020) that found a positive significant relationship with EM. However, using Model (8), the result is supported by Rakshit and Paul (2020). ROA (with a coefficient of 0.484) also has a significantly positive 1% level with REM. According to Rakshit and Paul (2020), managers of profitable firms seek to exercise earnings management to attain their desired level of earnings and acquire the trust of investors. Lastly, LIQUIDITY is significantly positive with AEM which a coefficient of 0.274 at the 1% level. Additionally, this study supports Rakshit and Paul's (2020) conclusion that businesses with strong liquidity have less motivation to manipulate their earnings through discretionary accruals.

## 5. Conclusion

This empirical study examines the impact of financial distress on the choice of earnings management approach using a sample of Malaysian public listed firms between 2018 - 2021 which consists of 672 firm year observations. The first hypothesis is rejected. However, Model (7) indicated a significant negative association between financial distress and AEM, suggesting that the healthier the firm (lower degrees of distress), the more likely the accrual earnings management approach will be used to meet earnings targets. On the other hand, the second hypothesis is supported, thus, the finding is highlighted that financially distressed firms did engage in real earnings management. Since real earnings management activities are less detectable, managers who are under extreme pressure, such as when they are at risk of going bankrupt, prefer to manage real activity earnings management without considering the long-term effects (Campa & Miriano, 2015). The main finding is that the choice of earnings management approach is influenced by the financial health of the companies. Based on previous literature and the finding of the current study it can be concluded even if the approach has a far higher cost than the other choices, a firm in financial distress will choose to use an earnings management strategy that is difficult to identify. In addition, the significant effects between control variables (LEVERAGE, SIZE, ROA and



LIQUIDITY) with earnings management can also be highlighted as they have an influence on both AEM and REM approaches. This evidence offers some guidance to regulators and practitioners to respond appropriately to recent failures of businesses affected by opportunistic EM, which could have an impact on the accuracy of accounting earnings.

However, this study has several limitations, which must be addressed. First, it examines firms as a whole without taking into account the variety of industries that could have different characteristics and influence the choice of earnings management approach. Second, the data only demonstrate an association between financial distress and earnings management, not a cause-and-effect link. Therefore, additional theoretical and empirical research is needed to better understand how financial distress causes REM. Finally, further research may be performed to determine from the three proxies of REM, which activities the businesses engaged in since the study discovered that financially distressed firms had engaged in real activities earnings manipulation.

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## **Core Competencies and Business Performance Support Business Resilience: Literature Study on The Case of Business Start-up Failure in Indonesia**

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### **Abstract**

The emergence of new start-ups that have affected almost all countries in different regions of the world, cannot be separated from the rapid development of information technology, even in Indonesia. New start-ups, whose initiatives and ownership are dominated by the millennium generation, are inevitably able to give rise to a glimmer of high hope about the bright business world in the future. However, in the middle of 2022, the business world in Indonesia was shocked by reports in various media informing about the number of companies that had left their businesses because they were no longer strong enough to finance their activities. Many parties are surprised by the bad information that is affecting companies in Indonesia. The objective of this study is to analyse the importance of core competencies and conventional business performance measures to explain the causes of the failure of new start-ups in Indonesia. The core competencies analysed are the skills, skills and resources that an organization must possess in any way to maintain business existence in both the short and long term. This business performance includes economic, financial and social aspects. These two aspects are the basic competences and performance of companies as standard measures in the operation of a company, which are allegedly not optimally applied in the management of a start-up company in Indonesia. This research approach is conceptual through the study of literature and the use of secondary data.

### **Keywords**

Start-Up Company, Business Performance, Capabilities, Skill and Resources

### **1. Introduction**

Changes caused by the development of technology and information in the era of the 4.0 revolution, resulted in an unprecedented disruption. The changes that are happening, happens so quickly and are no longer predictable, and affect almost every aspect of life, without exception in the business world. The order in the business world that has been functioning "normally," has been shattered by technological developments that occur, through mechanisms, replacing and changing all traditional patterns that have been running, with digital technology, which is much easier, faster, and cheaper. With the concept of easier, faster, and cheaper "transport", making digital technology able to be adapted to human needs, so that things that have been traditionally made and tend to take a lot of time, in an instant turn into very practical and tend to be much more modern in an instant. Just like in other parts of the world, one of the phenomena of the disruption that was "concerned" by the era of revolution 4.0 was the emergence of new start-ups in various business fields, which grew like mushrooms in the rainy season, where in the future, companies began to change the map of competition, becoming more interesting and passionate. The increasing number of start-up companies in Indonesia is growing and developing in line with the increasing number of Internet users year by year.

Data from the Ministry of Home Affairs of the Republic of Indonesia, Indonesia's total population in 2020, up to 273 million people ([dukcapil.kemendagri.go.id](http://dukcapil.kemendagri.go.id)). Meanwhile, according to cited data from [cnbcindonesia.com](http://cnbcindonesia.com), the total number of Indonesians using the Internet in their daily lives is 76.8%, or 214 million of them familiar with using the internet. It is therefore not surprising that this has attracted many parties to start a business in Indonesia. According to data quoted from [startuprangking.com](http://startuprangking.com) (a site specializing in research on the development of startups in the world), until 2021, Indonesia has 2100 start-up companies by 2021 and is in fifth position, the country with the largest number of startups in the world. A number of newly created Indonesian "original" companies have been registered and have entered the level of unicorn (a new start-up company with a unicorn level when the company has a valuation value of US\$1 billion or almost Rp 14.8 trillion. Examples such as Bukalapak, Gojek, Traveloka and Tokopedia. Even specifically for Gojek, since 2019 it has entered the decacorn level, because the company's valuation has climbed to US\$10 billion or almost Rp 140 trillion.

#### **1.1 The Impact of the Development of Digital Technology in the Revolutionary Era 4.0**

The development of digital technology in the era of Industrial Revolution 4.0 occurred so quickly. Many things were affected / many sectors were massively interrupted and even the changes that occurred were so fundamental, which surprised many parties because they had no time to prepare for such an extreme change in the models. Many parties do not expect that the changes brought about by the development of digital technology is approaching the area in which they

are currently located. So far, they believe that changes will occur periodically, with a predictable period, like the changes that have occurred before. However, it turns out that facts on the ground are far from what has become a habit so far. It turns out that the disturbance came earlier, "approached" all the joints of human life, and destroyed the order that has been functioning regularly. There is not a single aspect of human life that is not affected by the development of digital technology, be it in the education sector, in the health sector, in the tourism sector, the economic sector and other sectors. As in the field of education, people living in rural or remote areas today can have the same opportunity to access quality education through online distance learning. There have been many applications that facilitate and adapt this, so distance and place are no longer a barrier for those who live far outside the city to get a high-quality education. Other examples include the tourism sector, with the development of digital technology, making people from all over the world connected to each other, making it easier for them to know or learn beforehand, the tourist places they will visit, just by "surfing" on the Internet, without needing to go directly to their dream tourist location. Likewise, at this time also have the convenience to order tickets or book hotels where they will stay in the tourist attractions they will visit. Much has changed with the development of digital technology in the era of industrial revolution 4.0. Many jobs are out of business and replaced by artificial intelligence, such as toll gatekeepers, bank tellers, admin accounting, and many other jobs that are out of business due to the development of digital technology. The same applies to the industrial sector. The change that is even becoming a global phenomenon is the emergence of start-up companies (start-up companies) that occur in various areas. As already mentioned, a feature of the development of digital technology is to do everything, faster, easier and cheaper. Start-up companies that have emerged as a result of the development of digital technology also contribute to the principles of convenience, cost-effectiveness and speed in the management of their business. It is therefore not surprising that many start-up companies have emerged in all areas of life. Many parties are interested in becoming involved in business creation. This is consistent with the growing understanding and use of the Internet in public. The Internet is no longer used just to send e-mails, or just look for information, but has even been used to create a start-up business.

## **1.2 Start-up Business failure in Indonesia**

By the third quarter of 2021, the increase in the emergence of start-ups in various types of businesses can be quite significant (kominfo.go.id). This cannot be separated from the massive news about the success achieved by start-up businesses that have already been established (such as Gojek, Tokopedia, Bukalapak, Traveloka, and others), as well as the growing spirit of entrepreneurship, especially among the Millennials generation. All these factors are the main factors that contribute to increasing the number of start-up companies in Indonesia. Millennial generation is a generation or demographic group that comes after generation X (Gen-X was a generation born in the mid-60s at the end of the 70s). Unlike previous generations, millennia are a generation with unique characteristics, they have great "mobility", they are also relatively anti-establishment, and as new things that are full of challenges and above all place's emphasis on comfort in life. So, it is not surprising that many millennia choose to open, start and run their own business instead of working in a company full of regulations and prioritize seniority in their daily practices. According to the report by The Ministry of Women's Empowerment and Child Protection of the Republic of Indonesia, stated that One thing that distinguishes the millennial generation from previous generations is that they have a relatively good level of education and knowledge compared to the previous generation, and are "more " familiar with technology (kemenpppa.go.id). One thing that distinguishes the millennial generation from previous generations is that they have a relatively good level of education and knowledge compared to the previous generation, and are "more " familiar with technology (kemenpppa.go.id). With a high level of entrepreneurship, a higher level of education and a more competent mastery of digital technology, it is not surprising that the majority of start-ups in Indonesia come from the millennium generation. The excitement caused by the emergence of start-ups in Indonesia has once again thrilled the business world. There are great hopes and hopes on the part of various parties for a bright future brought by the millenary generation through the newly created companies. Even in the last 2-3 years, large companies seem "overwhelmed" in facing the aggressiveness of start-up companies. Meanwhile, several other large companies that refuse to become extinct in the increasingly fierce competition, cooperate with start-up businesses that are both involved in similar industries, to synergize to become mutually beneficial strategic partners, as Bluebird did with Gojek.

However, the glorious achievements of start-up companies seem to be disappearing. Early 2022, the public was surprised by widespread news of the collapse of start-up business in Indonesia (cnbcindonesia.com). Many start-up companies are no longer able to navigate increasingly fierce and bloody competition. In order to ensure that the termination of the employment relationship of their employees can no longer be avoided, they do not have the means to finance their daily activities. It can be analyzed that the failure experienced by start-up business actors in Indonesia is due to poor management and a strategy that is still too raw, so that the success that has been achieved and is proud of by many parties cannot be maintained for a long time.

### **1.3 Causes of failure of Start-up Business in Indonesia**

Initial analysis based on the development of existing information, the cause of the failure of start-ups in Indonesia is due to a lack of competence and skills, as well as insufficient resources, so that the start-up business people are unable to support business and business resilience. It is undeniable that sufficient competence and capacity are needed to manage a business entity. The skills and capacities in question are not only seen based on their educational qualifications but what is also important is their managerial ability. Of course, good leadership qualities cannot be acquired in a short time. Sufficient process and experience is needed to develop qualified management skills. Good managerial ability can be seen in several aspects, such as: 1) How to make effective and efficient use of available resources. 2) The extent to which management can bring added value to the organization and can be used as a role model that can inspire all members of the organization; 3) How to formulate a great strategy and "can" implement it well, so that the vision of the organization can be realized.

### **1.4 Research purposes**

The objective of this study is to analyse the importance of competence, capability and good management of resources, in order to improve business performance and support business resilience and business sustainability of start-up enterprises in Indonesia in the long term.

## **2. Literature review**

### **2.1 Core competences**

A basic competence is the collective knowledge of how to coordinate the various production skills and technologies (Prahalad & Hamel, 1990). There are three aspects that must be met to identify a company's core competencies (Prahalad & Hamel 1990). The first is that core competencies must be applicable to the creation of new types of products, or in other words to the potential access of businesses to a wide variety of markets. The creation of new products is obtained from synergies or learning a skill or knowledge that enable companies to create new products. This innovation is possible when there is the use of core competencies in order to support the sustainability of the organization over the long term. Second, basic skills must be able to make a significant contribution to the perceived value of customers for the products or services consumed. That is, the company's ability to create products with support from existing core skills must enable it to adequately meet the needs appropriately according to the needs of consumers. In this way, the company will be able to create products or provide services according to consumer needs. The consumer's value shall be created provided that the benefits are proportional to the costs or the perceived benefit exceeds the costs incurred. Third, core competencies must be able to distinguish a company from its competitors and are difficult to imitate. Basic skills can only be specified in a particular product, as core skills contribute to the competitiveness of various company-owned products/services. This uniqueness is a form of the positioning of the company. Research related to the analysis of core capabilities dimensions are already analysed. They include skills and knowledge, values and norms, culture, technical systems, and managerial systems (Dorothy, 1992); analysis of the role of core competencies to support company performance (Makadok & Walker, 2000); analysis of product innovation supported by the company's competence (Danneels, 2002); core competencies will support a sustainable competitive advantage (Kak & Sushil, 2002); core competencies make it easier for companies to diversify their business (Miller, 2004); competence with resources as well as capabilities will make the company have a competitive advantage and be oriented in the long term (Cheng & Yeh, 2007); the relationship between competencies, resources and capabilities to form in core competencies (Ljungquist, 2008). Gavronski's (2012) research reveals five dimensions of the sustainable operations strategy: the external context, the competitive dimension, strategic decisions, value chain operations, and organizational learning and knowledge. This paper will develop a framework for a sustainable operational strategy consistent with the five dimensions of a sustainable development strategy.

From the explanation above, it can be synthesized that core competencies are able to determine the best work process, determine the right direction, make the right decisions and act to realize work with total skills based on holistically integrated values. The company also has core values that are to form core competencies. The core competencies of employees that derive from core values can be seen through the work ethic and work skills of employees. Internalizing the company's core values into the basic skills of employees is not an easy job. Companies need training, enlightenment, and systems that familiarize employees with core competencies from core corporate values. Usually, for employees to have basic skills based on core values, businesses need time, patience, discipline, perseverance and high morals. Ljungquist (2008) proposes a model that highlight the components of core competencies. The components of the proposed core competencies are competence, capacity and resources. These three dimensions are considered a bridge to understand all these dimensions, are the roots of the formation of core competences in the long term. By understanding all three aspects at once, companies can understand the interrelations between themselves so that they can formulate a better and more coordinated strategy. Each dimension of basic competence proposed by Ljungquist (2008) is a conceptual proposal. The explanation of each competency dimension is drawn from several relevant reference and support literature to explain

the concept of basic competence. Related to the competence dimension, the competition explanation is taken from Bartram (2005) which shows eight important competences that exist in the organization. In the context of the company's capabilities, this study uses the Grant concept (2010); while for the explanation of the resources from Thompson et al. (2018).

## **2.2 Competence**

Kawshala (2017) defines competence as a unit of capacity, commitment, knowledge and experience that facilitates an individual or organization to act effectively on a job. Ljungquist (2007) argues that competence is something that exists in individuals and teams related to expertise. Javidan (1998) points out that competence is an integration between functions and coordination between capacities and a range of expertise and know-how in an operational unit. Danneels (2002) argues that competition is divided into functional aspects and integrative aspects. The functional aspects relate to the aspects that are regularly required to support business processes, while the inclusive aspects are new competences needed to simplify the activities and business processes carried out. Competence is a series of behaviours that become a means of transmitting expected results (Bartram, 2005). In a business environment, this behaviour is necessary to achieve business goals. Bartram (2005) points to eight important competencies that exist in organizations including Leading and Deciding, Supporting and Cooperating, Interacting and Presenting, Analysis and Interpreting, Creating and Conceptualizing, Organizing and Executing, Adapting and Coping. From the various theories above, it can be concluded that what is meant by competence is the unification of knowledge, skills, attitudes and behavior, which can make a person or organization able to complete the tasks.

## **2.3 Capability**

Thompson et al. (2018), organizational skills have more complex properties than resources. Existing resources are an integral part of the organization in terms of organizational capabilities that include all aspects of knowledge that are inherent to people, including intellectual capital, processes and systems that exist in the organization. Skills can be made up of resources so that resources can form organizational capacity. Grant (2010) argues that an organization's ability is the ability to optimize resources to achieve the organization's short- and long-term goals. This capability is owned to improve the capacity for better resource organization. Capacity is created through the development and exchange of information between employees. Thus, capacity becomes something that adds value to the resources that are in possession. Collis and Montgomery (2010) argue that ability is the company's ability to deploy and integrate a range of resources to support the creation of expected results. According to Grant (2010), companies are able to classify skills with two approaches, namely functional analysis and value chain analysis. Functional analysis identifies skills related to functional principles related to management aspects. Value chain analysis is linked to all dimensions of core and supporting activities in business processes. The functional analysis includes a number of elements, corporate functions, management information, research and development, operation, marketing and product design and sales and distribution. From some of the theories above, it can be said that capability is the ability possessed by an organization in order to create competitive advantage through the formation of superior resources to help the organization achieve its goals. In addition, good organizational capabilities can affect the increase of employee engagement.

## **2.4 Resource**

Resources are productive inputs or competitive assets owned and managed by the company (Thompson et al., 2018). Businesses have different types of resources in the form of type and quality. Some companies have more qualified resources and have a higher level of competitiveness than others. Thompson et al. (2018) the types of resources into two main categories, namely tangible and intangible resources. This category of resources allows the company to identify the resources it has to become a competitive advantage and can be optimized related to further strategy formulation. Tangible resources are easiest to identify, see and measure. Intangible resources are resources that are not easily seen but become a company's competitive asset in the long run.

Tangible resources of the company according to Thompson et al. (2018) covers four main aspects of the company: 1) Physical resources. These resources include land, buildings, plants, equipment, distribution facilities, raw materials and ownership of natural resources. 2) Financial resources. These funds include cash and cash equivalents as shares, other securities assets and lending capacity. 3) Technology assets. These assets include patents, copyright, production technologies, innovation technologies and technological processes. 4) Organizational resources. These resources include technology, communication systems, control systems, organizational design, and work reporting structures. In addition to tangible resources, businesses also have intangible resources.

These intangible resources include the following: 1) Human assets and intellectual capital. This includes training, experience, knowledge and talent, cumulative learning and employee knowledge. This collective learning is integrated into the organization. Intellectual capital and understanding of employees' technical knowledge include leadership skills, understanding of business functions, management talent, creativity, and power of innovation. 2) Brand, brand image and

reputation. This includes brand name, trademark, product image or image of the company, the loyalty and goodwill of consumers, the company's reputation for quality and service, service, reliability and reputation of suppliers and partners. 3) Build relationships. Forms of relationships developed by enterprises such as partnerships, joint ventures and other forms of partnerships that provide, for example, access to technology, know-how, network, sales and trust of partners. 4) Organizational culture and incentive system. This includes rules of behaviour, business principles and beliefs in the company, employees' emotional attachment to the organization, employee compensation systems and employee motivation in the organization.

Core competencies are the links between skills, competences and resources. Each of these dimensions is aimed at becoming the central competence of an organisation. Capabilities are a system or can be a routine. As a system, capability is dynamic, which can change depending on changes in the business environment, while it is routine, which means it is something that supports business processes as they should. As far as competence is concerned, there are functional and integrative aspects in terms of competence. The functional aspects relate to the aspects that are routinely needed to support business processes, while integrative aspects are new competences needed to simplify the business activities and processes that are carried out. In terms of resources, resources are the most core elements in the organization. Resources cannot be useful if they are not used to support business processes and if not, all resources are used to support business processes. However, resources will be used (use) to support business processes (recovery).

## **2.5 Business Performance**

Today, the problems of managers and corporate leaders are increasingly complex and complex. For this reason, the organisation must be properly managed, so that the business performance of an organization can increase in a sustainable manner (Manik, Hilda & Gani: 2021). Business performance is the ability of the company to adapt to the business environment, accompanied by changes in the market environment that include customers, competitors and other forces that can change the way the business works (Rekarti & Doktoralina: 2017). Veliu and Manxhari (2017) state that a business performance is indicated by an organisation's effectiveness in terms of financial and non-financial performance, with financial performance indicated by financial efficiency and profit measures, while non-financial performance includes customer satisfaction, revenue growth, employee growth, market share, new products, product quality, marketing efficiency and added value. Business performance begins with objectives, which are the main components that help formulate initiatives in planning, progress, reward and improvement. In order to achieve strategic objectives, organizations should focus on critical success factors and ensure that planning, budgeting, forecasting and reporting are aligned with their objectives (Gruenbichler et al., 1997). 2021). Aini et al. (2017) argued that organizations must be innovative to survive in a constantly turbulent environment. Organizations with strong innovation capabilities will be able to respond to challenges more quickly and will be able to exploit new products and market opportunities better than non-innovative organisations. Meanwhile, Jyoti and Sharma (2012) have stated that an organization's company will not be able to improve its performance without change. The change must be aimed positively at achieving results, providing customer service and satisfaction, and generating benefits. Therefore, the performance of an organization must be clearly articulated and structured. The clarity of business performance can be started from the determination of the goals to be achieved by the organisation. Goal setting is the main component that helps organizations formulate other important things, such as: initiating plans, measuring progress or award achievements. Without clear objectives, time and energy are devoted to a variety of activities, often wasted and very little contribution to the success of the organization. From the description above, regarding business performance, it can be concluded that business performance is a parameter of organizational achievement, which reflects the progress and development of the organization, and is the result of the work of all members of the organization.

## **2.6 Business Resilience**

In the midst of conditions full of uncertainty, organizations must have resilience or great competitiveness. This must be done so that the organisation can continue to be relevant to the changes that are taking place. The demands have their own competitiveness, indirectly challenging the organization to create and implement the right strategy, so that the organisation can fight and compete in increasingly fierce competition. Organizations must therefore innovate. Innovation will help the organization survive in the long term (Carvalho et al, 2016). Alias et al. (2019) added that organizations by creative individuals will always try to find solutions to the challenges they face. There is therefore a need to continuously strive for a conducive environment, in order to encourage employees to make their creativity known in order to achieve the success of the organization. In other words, to create business resilience, a creative climate is needed in the organization, one of which is the support of creative employees. Therefore, organizations need to develop practices and strategies that promote creativity in order to create corporate resilience. According to Wishart (2018), business resilience is the company's ability to absorb, learn and develop specific capabilities to address challenges, disruptions and changes that can threaten the organization's survival. Meanwhile, Saad et al (2021) have stated that the resilience of companies can be defined by the combination of the company's own "capacity portfolio" by keeping the overall performance of the company

amid unfavourable conditions. According to Linnenluecke (2017), Business Resiliency is generally seen as a characteristic an organization wants to have, in order to be able to face various kinds of difficulties. Prastian, Setiawan and Bachtiar (2022) explain that the resilience of companies is focused on risk awareness, risk protection, competitive advantage, innovation, strategic management and supply chain resilience. From the explanation above, it can be concluded that business resilience is an organization's ability to withstand unexpected changes, or anticipate discontinuities between products and consumer demand.

### **3. Research Method**

This research is qualitative research that uses the study of literature. Literary research is considered to be one of the research methods that are carried out when reviewing various existing literature, both sourced from books and from various other literature such as national journals, international journals, and sources of other online media. The stages of this research use the Sethi and King (1998). This process of the literature review is a sequential step that begins with the steps of information collection, knowledge, understanding, application of concepts or theories, analysis, synthesis, and evaluation.

### **4. Analysis**

#### **4.1 Competence**

The core competences described in this study are based on the Ljungquist (2008) core competence dimensions, which consist of competences, skills and resources. Competence is considered to be a way of achieving the results set by the company. Bartram (2005) said that the competences that economic actors generally possess are a set of skills that 1) are leading and crucial; (2) support and cooperation; 3) interaction and presentation; 4) analysis and interpreting; 5) creating and conceptualizing; organizing & executing; 6) adapting and coping; and 7) enterprising and performing. These competencies are not limited only to organizations of a certain scope. Organisations of all forms and sizes are expected to have these skills in order to be able to manage the organization well and survive in the long term. Sunder et al. (2019) mapped the dynamic capabilities that can be used as a reference for businesses of all shapes and types to survive in the long term.

The company should have the following skills. 1) Organizational resources that include human resources, financial resources, infrastructure and technological resources, information, knowledge and organizational systems, and networks and relationships. 2) Organizational processes that include progress in work, behaviour processes and change processes. 3) Endogenous factors which include organizational culture, leadership, management actions. 4) Exogenous factors that include the understanding of competitors, suppliers, market influence, social, economic and regulatory factors, as well as legal factors. 5) Short-term results that include competitive advantage, performance and profit, value creation. 6) Long-term results that include long-term competitive advantage, market share and value support.

According to Perdana (2021), the competence possessed by business actors, especially those that develop start-ups, is the initial capacity linked to the creation and conceptualisation of ideas to run companies. They tend to make easy decisions without being able to fully understand the idea. Decisions are taken too quickly, focusing on the short-term. They tend to imitate other economic actors, so they are more likely to follow the strategies of other start-up business players and are guided by the desire to achieve high and simple profits. Bestari (2022) also points out that the failure of start-ups is the inability to understand the needs of the market. The competencies they possess must be related to analysis and interpretation, i.e., the ability to think analytically and to apply effective skills. Economic actors are unable to understand market needs as the target market. They produce or offer only products without understanding the needs of the target market. Nor does research precede this, so that the limited ability of managers to understand their needs and desires correctly is not realized. Based on the theory above and the problems raised in this paper, it can be said that competence is an important thing that needs to be possessed so that the organization can continue to develop and be relevant to the changes that occur. Technology, systems, facilities and infrastructure may be imitated by other organizations, but not with competence. Competence possessed by members of the organization is a differentiator for the organization.

#### **4.2 Capability**

Grant (2010) argues that businesses have functional and value chain capabilities. Related to functional aspects, these elements relate to the ability of start-up managers to optimize existing capacities. There are a number of elements known to cause the failure of new start-ups related to functional aspects (Bestari, 2022).

1) Inadequate planning. Planning, which is not carried out properly, leads managers to have no direction to conduct business activities. In fact, planning has been carried out, but for long-term guidance it appears not to be focused in a way that is more results-oriented in the short term. Urban and Naidoo (2012) point out that in enterprises still on a small or medium scale, the ability to formulate plans is very important. This planning may cover a number of aspects,



- namely: i) the company is able to determine the time required for the development of new projects or products, ii) the company is able to determine the design of new products, iii) the company is able to allocate materials, capacity, production, and other resources to develop products or simply.
- 2) Lose competition. Regarding the ability to be unable to compete, start-up business people do not research first. As a result, economic operators do not receive good information on the competitive card, so they are not able to properly develop strategies. Products that are not relevant to the user. This is also due to the limited capabilities of the company in relation to marketing strategy and product design capabilities. The products offered by the company are not analysed first. The company's orientation is more on the company side than on the consumer's wishes, so existing products are not relevant to consumers' wishes or needs.
  - 3) Products without business model. The business model is necessary because it becomes the basis for the company to understand the target market and supporting business activities. It is considered that start-up agents do not develop a good business model. The decisions that are made are based on anticipating the rapid needs of the market so that the development of business models is not optimal or does not exist at all. Business models such as Osterwalder and Pigneur business models can be a reference in the development of business models for start-ups in the future. Osterwalder and Pigneur (2010) proposed a canvas consisting of nine elements, namely: Value propositions, namely the value or benefit offered to the target market and becomes a positioning for the company.
    - i. Customer segments, namely groups that are used as targets to be served by an undertaking because they are considered profitable.
    - ii. Customer relationships, namely the efforts of the company with certain customer segments with the motivation of customer acquisition and retention to maintain and improve performance.
    - iii. Channels, namely the company's way of transmitting, delivering and interacting with the customer segment in order to convey the value supply.
    - iv. Key resources, namely the resources needed by the company to support the creation of a value proposition for consumers
    - v. Key activities, namely the company's main activities in the production of products or services.
    - vi. The main partners, namely the partners supporting business activities.
    - vii. Cost structure, which represents all the costs necessary for the operation of the enterprise.
    - viii. The revenue flows, namely the ability of the company to generate money from any target market.
  - 4) Bad marketing. This poor marketing is also the cause of the failure of start-ups to survive in the long term. Managers tend to have a product orientation to sell quickly, so they use advertising strategies that tend to be aggressive. This strategy aims to persuade consumers to shop quickly.
  - 5) Ignore customers. Start-up companies tend not to manage their relationships with consumers well. Ability to maintain relationships with clients' needs to be improved. Businesses must focus on the emotional side through good communication with consumers on a coherent basis. Good relations with consumers can be built continuously. Ljungquist (2013) argues that the competencies that companies possess include how to maintain good relations with consumers on a continuous basis. This is an important aspect of the uniqueness of the organization.
  - 6) Product launch is not on time. The ability of the company to determine the timing of the product launches is also a problem in itself. Start-ups have difficulty determining the right time for the launch of a product. Mistakes in the timing of this time will cause consumers to ignore the products offered due to various factors, for example, there are the same competing products that do not support the ecosystem, and there are certain economic conditions.
  - 7) There is no harmonization between equipment. The harmonization of equipment in start-up organizations is also not well built. This team works on behalf of the organization and comes from every unit that cooperates to achieve organizational objectives. However, the team's performance was not optimal, so it could not support the achievement of the given performance. This is due to the characteristics of start-up managers from the millennium generation, who tend to be dynamic and ready to make quick decisions. The result is that each member has his or his own idea and tries to get their idea carried out. Strong teams need to be built to cope with the rapid changes in the organization.

### **4.3 Resource**

In this study, secondary data are also used to explain that there are a number of resources that are not owned by start-up companies. Resources are productive inputs or competitive assets owned and managed by the company (Thompson et al., 2018). Based on the Thompson et al. (2018), there are two types of resources in two main categories: material and intangible resources. These resources help the company to carry out business activities in order to become a competitive advantage and achieve better performance. Companies must also be able to find and maintain the organization's core competencies, especially in search of people who have good competencies and compensation that makes it difficult for them to move from one company to another (Kuiate & Noland, 2019). Bestari (2022) also shows that the failure of start-ups is the inability to understand the needs of the market due to the lack of resources held by the organisation. Guarantee fee. Start-up companies get funding from investors. This funding does not mean that the company is free to use the funds

for business activities. However, business managers must optimize the use of these funds in order to get good performance. Unfortunately, business actors do not optimize the funding.

- 1) No funding. Not all startups can afford the investment. The funding constraints make it impossible for the company to manage its activities optimally. This funding is necessary to carry out the planned activities.
- 2) Running out of money. In business activities, businesses may lack financial resources in their business processes. This could be due to the lack of good planning. Good planning can help business managers allocate the right funding for each planning process.
- 3) Leader ability. Leadership is an intangible resource. This leadership plays an important role in leading the planning, coordination, implementation, monitoring and evaluation of corporate performance. Leaders also have a role to play in motivating all existing employees. In this case, the start-up people tend to lack good leaders. This shows that not all start-up leaders have good planning and implementation. Start-up managers are currently considered to be inclined to have short-term orientation and do not have a good corporate instinct. Ljungquist (2013) argues that the leader's ability as a core business skill must also be equipped with the ability to feel, meaning understanding the dynamic development of the fast business environment. This will allow companies to be more adaptive to better formulate and adapt strategies.
- 4) Inadequate team composition. A strong team is an important intangible resource. A good team is made up of a number of employees with their respective expertise which is synergistic. A business problem with a certain complexity requires a strong team to be able to solve business problems correctly. The composition of the team that is not correct can cause the organization to be unable to solve the problems properly.
- 5) Culture is not strong. Culture as an intangible business resource is an important aspect of the colouring of employees' activities. The culture and values that accompany it can be an emotional direction and unifier for all employees working in the organization. The cultural internalization takes a long time. Meanwhile, new start-ups have a relatively short operating time, so the internalisation of culture is not yet strong. As a result, in the exercise of daily activities, culture does not affect the implementation of the work. A strong culture can actually color business activities better because it provides added value in each business activity. Bari et al. (2022) argues that one of the company's strategic planning is to build an organizational culture. The organizational culture is part of long-term thinking in organizations because cultural training takes a long time. Cultural internalization needs to be strengthened from the start so that employees who are members of the organization have the same values and passion to raise the organization.

## **5. Conclusion**

The start-up business is one of the phenomena created by the development of digital technology that took place in the era of the Industrial Revolution 4.0. In Indonesia, the emergence of new start-ups in various industrial sectors/in various types of business, was warmly welcomed by various groups, both private actors from the industrial world, the wider community, and the government. The start-up of businesses is expected to be a business model in the future that will replace the business model that has been implemented so far. Realizing the enormous potential and prospects for the future, large companies whose existence lasts for decades, many imitate the business models of start-ups, while some of them even take up start-up companies as strategic partners. However, in early 2022, there were shocking news reports about the number of start-up companies that had "disrupted" both old start-ups with large valuations and start-up companies that had only been founded with small valuations for less than a year with small evaluations. The analysis, which was accompanied by observations and research by various parties, showed that the recession experienced by start-ups in Indonesia was influenced by three important factors: Lack of competence and capacity of the start-up managing director, so that it affects the non-optimal use of available resources, leading to inability to improve the performance of the start-up company. The lack of competence and capacity of start-up business managers who went out of business can be seen by the many errors in the organization's strategic decision-making as follows: the products are not requested by the public, wrongly in determining the marketing policies that are implemented (promotions to fix the wrong price). , as well as the inadequate composition of the equipment, which causes inefficiency and ineffectiveness in the use of available resources / property of the company in progress. Therefore, what is experienced in the new start-up companies previously should be used as a lesson for economic actors that when managing an organisation (whatever its nature), competence and ability of organisational managers are needed, of course, competences and skills that are consistent with the industry involved. from the organization, so that the ownership/available resources can be used optimally to improve the performance of the companies in the long term.

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# **The Impact of Covid-19 on the Sales and Services Tax (SST) Collection in Malaysia.**

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## **Abstract**

Malaysia's economy has seen a significant downturn as a result of the COVID-19 pandemic outbreak, which began in the first quarter of 2020. The outbreak has caused an unprecedented decline in numerous economic activities, which affect the production levels, household consumption, investment, and the labour market. Containment measures such as travel restrictions and the release of stimulus packages have resulted in massive government spending and enormous economic losses for the country. All of this has an impact on the nation's tax revenue collection, which is critical for covering government expenditures and reducing the national budget deficit. This study makes an attempt to examine the impact of COVID-19 on consumption tax, i.e. SST revenue collection in Malaysia. Analysis is made based on published revenue data issued by government and its related agencies. The outcome of this study will help the policymakers to analyze the extent of the SST revenue loss to the government and will allow them to take more appropriate measures in the future.

## **Keywords**

Sales Tax, Services Tax, SST, Covid-19 and Tax Revenue

## **1. Introduction**

Just like other countries around the globe, Malaysia's economy has also been greatly affected by the Covid-19 outbreak that occurred at the beginning of 2020. The containment measures through border closures, lockdowns, and social distancing restrictions had resulted in the closure of a wide range of economic sectors which led to lower businesses' turnover, employees' loss of job and change in household consumption behaviour. Though the disastrous impact to economy was obvious, the move was necessary for government to stem the transmission of the pandemic and save people's lives. The economic disturbance had caused sharp decline in tax revenues which had directly reflected in the decline of the country's GDP in the year 2020.

Tax revenue is an important source for the government to finance its operating and development expenditures especially at the time of pandemic crisis as caused by the Covid-19 where government has to increase its spending in taking measures to control the spread of the outbreak as well as to mitigate the impact of the crisis on the local economy. There are 2 main categories of tax revenues in Malaysia, direct taxes and indirect taxes, with the earlier be administered by the Inland Revenue Board of Malaysia (IRBM) and the latter by the Royal Malaysian Customs Department (RMCD). More than 50 % of Malaysian tax revenue is generated from direct tax which consists of corporate income tax, individual income tax and petroleum income tax. While the remaining is through indirect tax collection which mainly contributed by the Sales and Services Tax (SST). As reported in the Fiscal Outlook 2022 issued by the Ministry of Finance Malaysia, tax collection in 2020 had drastically dropped by 14.5%, that is from RM 180,566 million in 2019 to RM154,398 million in 2020.

This study focuses mainly on the impact of the Covid-19 containment measures as well as fiscal measures for economic recovery on SST collection in Malaysia. Since SST is just reintroduced after the abolishment of GST in 2018, impact on this tax regime is worth studying especially when government is currently considering options to reduce its reliance on direct taxes and widen the revenue base by shifting to consumption-based taxation. To better understand such impact, three phases of Covid-19 are examined which involve pre-pandemic phase, pandemic phase, and endemic phase. Section 2 of this study examines the literature on SST in Malaysia and its connection with Covid-19. Section 3 describes method used for data generation. Section 4 discusses the findings and Section 5 concludes the findings with closing remarks.

## **2. Literature Review**

### **2.1 SST in Malaysia: History and Background**

Sales tax was first introduced in Malaysia in 1972 with the Sales Tax Act 1972, followed by service tax under Service Tax Act 1975. After implementing both taxes for about four decades, it was replaced by the Goods and Services Tax

(GST) on 1 April 2015 (Ka, 2022). GST was governed under the Goods and Services Tax Act 2014 and administered by Royal Malaysia Custom Department (RMCD), a department under the Minister of Finance in Malaysia (Sidik, et al., 2019). Then on 1 September 2018, the enhanced version of Sales and Service Tax, known as SST 2.0, was re-introduced to replace GST with two new acts, namely Sales Tax Act 2018 and Service Tax Act 2018 (Ka, 2022). There are about 160 countries in the world implementing a GST, and Malaysia became the first country to make a U-turn going from the GST back to the SST (Xirui, 2018).

SST is a single-stage tax with sales tax imposed only once on the manufacturer and importer levels while services tax is imposed on the consumer using tax services or service providers (Fatt, 2018 and Narayan, 2018). According to Fatt (2018), sales tax is levied on manufacturing, and oil and gas industries with an annual threshold of RM500,000, while service tax is levied on selected service providers with an annual threshold of RM500,000 and above while RM1.5 million threshold on service tax providers on foods and beverages (F&B) operators. The existing GST registrants in manufacturing, oil and gas and service provision are automatically registered for SST 2.0. Under the new SST 2.0, the RMCD will impose a tax of 5% to 10% on the sale of goods and 6% on services (Fatt, 2018). Compared with GST, a total of 11,197 goods was imposed a 6% GST rate; however, only 5,612 goods are subjected to a 10% sales tax, and 793 items might be subject to a 5% sales tax (Ghani, 2021).

Meanwhile, GST or Value Added Tax (VAT), is a multi-stage tax system with tax are collected at multiple points in the production distribution chain that covers everyone, retailers and trades (Narayanan, 2018). There are several reasons for GST being considered failed to be implemented in Malaysia, and SST was re-introduced. Among the causes are the general price increase when GST was implemented, complicated to administer with high compliance costs and not being revenue neutral (Narayan, 2018). Revenue neutral in the sense that the GST failed to bring the same revenue that would be lost by abolishing the sales tax (Narayan, 2018). However, its abolishment was more due to political pressure rather than an efficiency issue as it was only implemented less than 4 years since April 2015, when there is still much room needed for improvements to the tax regime.

## **2.2 SST in Malaysia: System and Collection mechanism**

The sales and service tax (SST) system covers aspects of concepts, registration and submission. As mentioned above, sales tax is a single-stage tax charged and levied on all taxable goods Manufactured in Malaysia by a registered manufacturer or imported into Malaysia by a taxable person. The rate applicable for sales tax is 5%, 10% or a specific rate depending on the category of goods. Those registered manufacturers with an annual threshold of RM500,000 and above must register with RMCD as SST registrants (Fatt, 2022).

Service tax shall be charged and levied on any taxable services provided in Malaysia by a registered person in carrying on a business or any imported taxable service, including hotels, restaurants, F&B providers, professionals, gaming activities, specialised industries and credit card service providers (Fatt, 2022). The tax rate is fixed at 6% for all taxable services except for the provision of charge or credit card services. The thresholds applicable for service tax providers registered with RMCD range from Nil, RM500,00 or RM1,500,000 (Fatt, 2022).

The submission for sales and service tax (SST) is on the last day of the month following the end of the return period using the SST return or online submission at the RMCD website (Fatt, 2022). The taxable period for SST is two calendar months. The SST return is mandatory and needs to be submitted one month from the expiration of the taxable period, even though no tax is due or payable. Failure to submit the SST return will be subjected to a late penalty (Fatt, 2022). The SST collection mechanism in Malaysia is under the jurisdiction of RMCD in which all the registered SST must submit the SST return within the stipulated taxable period (Fatt, 2022).

## **2.3 Covid-19: Containment and Fiscal Measures**

COVID-19 is the disease caused by a new coronavirus called SARS-CoV-2. The World Health Organization (WHO) first learned of this new virus on 31 December 2019, following a report of a cluster of cases of 'viral pneumonia' in Wuhan, People's Republic of China (World Health Organization, 2021). At the time of writing, a total of 596,873,121 confirmed cases of COVID-19, including 6.5 million deaths caused by the virus, with 12 million vaccine doses being administered (COVID-19 Dashboard, August 2022). COVID-19 has caused the population around the world to be confined at home during the pandemic, with many activities related to work, education, shopping, socialising, and other pastimes moved from the physical to the virtual world (International Telecommunication Union Academy, 2020). COVID-19 also has highly affected social, economic and political, which include an increase in the poverty level, accelerated economic downturn, debt distress, loss of jobs, high cost of health care, closing classroom, internet inequalities, gender distinctions, conflict and violence, and severe food shortage (Blake and Wadhwa, 2020; Mofijur et al., 2021).

Enforcement of the containment measures to control the spread of Covid-19 through Movement Control Orders (MCOs), lockdown, and travel restrictions have significantly disrupted business activities in various sectors, affecting people's income and causing economic chaos in the country. An MCO was enforced as the biggest decision by government to strictly and seriously break the chain of Covid-19 within the community. This tough decision has obviously

affected all sectors especially the economy from the smallest scope of individual income to the largest of international trade.

In mitigating the effects of the pandemic and its containment measures, the Malaysian government has granted a huge budget to various sectors by announcing four economic stimulus packages. The first one was on March 2020, the Prihatin Rakyat Economic Stimulus Package (PRIHATIN) valued at RM250 billion to minimise the impact of COVID-19 on the public and businesses to strengthen the Malaysia economy as a whole (Ministry of Finance, 2021). In April 2020, the PRIHATIN Plus package of RM10 billion was introduced to further support small and medium enterprises (SMEs) businesses. The SMEs however, must be registered with the IRBM to enjoy this benefit. Then, three months later, in June 2020, the Government launched the RM35 billion National Economic Recovery Plan (PENJANA) to restart the economy. The implementation of all the stimulus packages, which then immediately followed by the Recovery Movement Control Order (RMCO) has allowed the reopening of most businesses and economic sectors and has stimulated the Malaysian economy positively (Baharuddin, 2021). In September 2020, additional package named the PRIHATIN Supplementary Initiative Package (KITA PRIHATIN) was announced, amounting to RM10 billion, to further ease the burden of the people and keep businesses afloat (Ministry of Finance, 2021).

### 3. Methodology

It is a descriptive study to examine how the Covid-19 pandemic and its countermeasures have affected Malaysia's SST collection. This study uses data from published reports issued by the Ministry of Finance Malaysia and other government agencies that relates to SST in the pre period of the pandemic until the period of transition to endemic phase (2018 – 2022). The timeframe of the analysis starts from the year 2018 due to consideration that it was the first year the SST was reintroduced in Malaysia following the abolishment of GST tax regime. Therefore, there are three phases of Covid-19 been examined in this study which include Pre-pandemic phase (2018 -2019), Pandemic phase (2020 -2021), and transition to Endemic phase (2022).

## 4. Results and Discussion

### 4.1 Covid-19 and Impact on SST Collection

**Table 1. SST Collection and Relevant Fiscal Indicators in Pre-pandemic Phase to Endemic Phase.**

|                                 | Pre-pandemic |            | Pandemic   |            | Endemic    |
|---------------------------------|--------------|------------|------------|------------|------------|
|                                 | 2018         | 2019       | 2020       | 2021*      | 2022**     |
|                                 | RM billion   | RM billion | RM billion | RM billion | RM billion |
| SST                             | 25.68***     | 27.67      | 26.77      | 26.53      | 27.56      |
| Private consumption expenditure | 776.1        | 835.7      | 799.4      | 832        | 1,006.4    |
| Change in SST                   | -            | 7.70%      | -3.23%     | -0.92%     | 3.89%      |
| Change in private consumption   | 8%           | 8%         | -4%        | 4%         | 21%        |
| Unemployment rate (%)           | 3.3%         | 3.3%       | 4.5%       | 4.6%       | 3.8%       |

\* Revised Estimate; \*\* Budget Estimate; \*\*\* GST included

Source: Unit, E. P. (2021), Ministry of Finance (2022)

Based on indicators stated in Table 1, the following discussions are drawn:

#### 4.1.1 Pre-Pandemic Phase

Malaysia's economy was quite slow in 2019 resulting from the trade conflict amid the US–China trade war that had largely hit its exports (Harun, 2019). Fortunately, this global market disruption had no effect on the country's domestic demand. This enabled a steady growth in SST revenue in 2019 right after its reintroduction in 2018. However, it should be noted that the amount of SST in 2018 was included the GST and affected by 3 months tax holiday i.e., zerorisation of GST from June to August 2018, to accommodate the transition of the tax system back to the SST in September 2018.

In 2019, due to excellent collection in the first half of the year, the SST which was initially forecasted at RM22 billion was revised upwards to RM26.8 billion, following higher demand for automotive sector and food and beverages sector (Ministry of Finance. (2020). However, better than expected, the government managed to collect RM27.67 billion SST revenue as at the end of 2019. Private consumption remained as the major growth determinant in 2018 and 2019, with a constant rate of 8%. This was supported by stable labour market with unemployment rate sustained at 3.3% in both years.

#### **4.1.2 Pandemic Phase**

Malaysia's economy experienced the adverse impact of the COVID-19 pandemic beginning from the second quarter of 2020, due to containment measures to control the outbreak. Before the economic disruption, SST in 2020 was anticipated to increase to RM28.3 billion with sales tax collection projected at RM16.3 billion and service tax at RM12 billion in consonance with higher consumption, Visit Malaysia 2020 programme and various international events (Ministry of Finance, 2020). However, all the devised programmes and events had to be called off and postponed as a result of border closures and MCOs. Businesses faced challenging times as they had to slow down or totally closed their operations. This had ensued a spike in unemployment rate from 3.3% to 4.5% and caused a sudden slump in private consumption by 6% in the first half of 2020 (Ministry of Finance, 2020). Nevertheless, with government supports in cushioning consumption activities, household spending rebound in the second half of the year and registered a lower decrease of only 4% in 2020.

In June 2020, government announced sales tax exemption for the purchase of vehicles as part of its economic stimulus packages. Under this exemption, locally assembled-cars are fully exempted from the sales tax, while for imported cars, the sales tax has been reduced from 10% to 5% (Yusof, 2020). This initiative is necessary to keep the automotive industry remain viable as it was prior to the Covid-19 pandemic. However, the exemption was one of the reasons for the decrease in SST collection in 2020. SST revenue in 2020 dropped to RM26.77 billion, indicating a loss of approximately RM1.53 billion or 5.4% from the anticipated amount. In spite of this, SST's contribution to the Federal Government Revenue increased to 11.9%, an increase of 1.4% from 2019 (Ministry of Finance, 2022).

In 2021, while the struggle to fight Covid-19 was still ongoing, the unemployment rate continued to escalate to 4.6% from 4.5% in 2020. Despite the discouraging labour market condition, the private consumption became stronger to increase by 4%. This indicates the success of the government's recovery plans and fiscal measures in cushioning people's loss of disposable income, which has also heightened their confidence towards future economic uncertainty. SST collection continued to decline in 2021 but only at marginal rate of 0.92% to record at RM26.53 billion, mainly attributed to the extension of the sales tax exemptions on passenger vehicles until 31 December 2021 (Jalil, 2022) and the impact of ongoing containment measures on consumers and businesses. Though there was a decrease in collection amount, but in terms of contribution to the total Federal Revenue in 2021, SST recorded an increase to 12% (Ministry of Finance, 2022) due to the weak performance in direct tax collection.

#### **4.1.3 Endemic phase**

Beginning 1st of April 2022, Malaysia entered into the Transition to Endemic Phase following the effectiveness of public health preventive and control measures, including of the COVID-19 vaccination programme in managing the transmission of COVID-19 infection in the country. The transition has enabled reopening of all the social and economic sectors and expedite the country's economic recovery. Labour market is projected to progressively recover, at a pleasing decline in an unemployment rate to 3.8% which will usher the private consumption to soar by 21% in 2022. In consonance to improvement in consumer and business sentiments, SST collection is estimated to grow by 3.89% to RM27.56 billion in 2022.

Given the necessity to support future growth and expansionary fiscal spending in the post pandemic, much effort is expected to be put in place by the tax authorities in having more efficient tax collection. One of the recent moves that has been taken to strengthen the revenue collection is the implementation of Voluntary and Amnesty Programme (VA Programme) by the RMCD aiming at encouraging compliance among the taxpayers. This programme is conducted in 2 phases, where 100% penalty remission incentive is granted to participated taxpayers in the 1<sup>st</sup> phase while for the 2<sup>nd</sup> phase the penalty remission is at 50% (Sunbiz, 2021). Thus, it is believed that SST collection will continue to rise and make greater contribution to the nation's income stream in the future.

#### **4.2 Covid-19 and Impact on Tax Revenue pattern**

Referring to the tax revenue pattern presented in Figure 1 below, the percentage share of Direct Tax to GDP has gradually dropped from 8.98% in 2018 to 7.77% in 2022. The US-China Trade War in 2019 and the Covid-19 pandemic crisis that erupted in 2020 are thought as the culprit for this decreasing trend. There was a sharp decline in 2020 compared to other years in the period under review, which indicate a substantial impact of the Covid-19 on this category of tax revenue. The SST, on the other hand, responded in the opposite direction, where its share in GDP increased from 1.83% to 1.89% in the same year. The movement of SST is also more stable than that of direct tax, varying no more than 1% from year to year throughout 2018 to 2022.

The difference in impact of Covid-19 crisis on direct and indirect taxes can also be compared through their major components as shown in Table 2. In the first year the pandemic hit Malaysia's economy, SST experienced the smallest decline in revenue compared to other types of taxes, with the exception of individual tax. Despite the fact that the rate of decline for individual tax was relatively low in 2020, the severe effects of the crisis on it became evident in 2021 with a significant fall of 6.6%. This can be linked with the loss of income as proven by the higher unemployment rate in the second half of 2020 to 2021.



**Figure 1. Tax revenue as Percentage to GDP**

Source: Ministry of Finance (2020 – 2022)

**Table 2. Tax Revenue 2020 – 2022**

| COMPONENT             | RM Billion    |               |                | Change (%)   |             |            |
|-----------------------|---------------|---------------|----------------|--------------|-------------|------------|
|                       | 2020          | 2021          | 2022           | 2020         | 2021        | 2022       |
| <b>Direct Tax:</b>    | <b>112.51</b> | <b>120.05</b> | <b>127.334</b> | <b>-16.5</b> | <b>6.7</b>  | <b>6.1</b> |
| Corporate Income Tax  | 50.07         | 60.59         | 65.50          | -21.5        | 21.0        | 8.1        |
| Individual Income Tax | 38.95         | 36.40         | 37.51          | 0.7          | -6.6        | 3.0        |
| Petroleum Income Tax  | 12.77         | 11.50         | 12.40          | -38.5        | -10.0       | 7.8        |
| <b>Indirect Tax:</b>  | <b>41.89</b>  | <b>41.78</b>  | <b>44.04</b>   | <b>-8.6</b>  | <b>-0.3</b> | <b>5.4</b> |
| SST                   | 26.77         | 26.53         | 27.56          | -3.2         | -0.9        | 3.9        |
| Excise duties         | 9.86          | 9.76          | 10.20          | -6.2         | -1.0        | 4.5        |
| Import duty           | 2.35          | 2.33          | 2.50           | -14.2        | -0.7        | 7.3        |
| Export duty           | 0.75          | 1.41          | 1.61           | -33.7        | 88.5        | 14.5       |

Source: Ministry of Finance (2020 – 2022)

The tax revenue pattern resulting from the impact of Covid-19, as observed in this study, has also been discovered in several studies, which suggested that revenues from consumption taxes, such as SST, are typically less volatile than revenues from other bases such as corporate income tax (Simon & Harding, 2020; Shaw, 2021). People will continue to consume even in the event of loss of income, as they have savings and government assistance to support their spending. Consumption tax is hence less severely and drastically interrupted than direct tax, where for direct tax, no income earned means no income to be taxed. Therefore, direct tax is not growth enhancing (Afonso & Jalles, 2014) instead causes tax revenue collection more vulnerable to economic shock at times of crisis (Simon & Harding, 2020).

## 5. Conclusion

This study provides some insight into how SST collection has been impacted by the Covid-19 crisis, its contribution to Malaysia's economic growth, and its future prospect as a source of the nation's tax revenues. It is undeniable that the recovery measures through various stimulus packages provided by the government were effective at stoking household spending and curbing high unemployment rate at the time of Covid-19 crisis. This initiative however was not without huge government expenditure. In consequence, raising tax revenue is an option that the government needs to address urgently in the wake of the fiscal challenges resulting from the crisis.

In order to expand the fiscal space, it is important for the tax authorities to work together in combatting tax leakages and informal economy. Efforts such as the VA Programme and placing tax-registration with IRBM as a mandatory requirement to qualify for financial assistance under the stimulus packages are smart strategy to promote tax compliance and to bring in the potential taxpayers from the informal economy into the tax net. Effective data management, information sharing, and integration with other relevant agencies could further enhance tax administration of both IRBM and RMCD.

Consideration should also be made to broaden the revenue base by shifting reliance from direct tax to consumption-based tax. Rebalancing of direct tax toward indirect tax is necessary. High reliance on direct tax, which is now constituting more than half of the country's total tax revenue, renders the revenue collection susceptible to economic growth and business cycles. Consumption-based tax such as SST is more stable than direct tax and can be made even more robust when there are fewer exemptions. Thus, there is a need to review and improve the scope of the existing SST.

Alternatively, the government can consider to bring back the GST into the Malaysian Tax System as proposed by some tax experts, scholars, and even the industry players. This is with justification that the current SST only covers about



38% types of products and services, whilst the GST had a reach of about 70% types of products and services (Bernama, 2022). Revenue effects of adopting GST are associated not only with increased taxes from consumption but also with more efficient administration (Mansour & Schneider, 2019). It features enable to mitigate the tax-cascading impact of SST, manage the cost of doing business, and enhance compliance and transparency. Although results discussed in this paper are not based on robust statistical data analysis, its observations suggest interesting avenues for further exploration in future.

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## **The Perspective of Holistic Marketing in Supporting the Sustainability of The Banking Industry Post-Pandemic**

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### **Abstract**

The banking sector in Indonesia has undergone significant changes during and after the pandemic, forcing the banking sector and consumers to accelerate financial digitization. The aim of this study is to analyze the sustainability of the company through a holistic marketing perspective in the banking business, which consists of relational marketing, integrated marketing, performance marketing and internal marketing. Each of these perspectives is analysed on the basis of its contribution to the sustainability of the banking sector. This method of investigation was carried out in five state banks through interviews with 10 sources. The results of the study suggest that a holistic marketing perspective is considered important to support the long-term sustainability of the organization. First, because of the relationship marketing perspective, restrictions on community activities due to the prospect of marketing relationships have led banks to temporarily close their branches and open only the main branches that can manage transactions more fully. Secondly, with integrated marketing, banks are also accelerating the provision of digital branches to facilitate financial transactions for the public. Thirdly, with regard to business performance, bank performance is measured not only through the achievement of targets such as low NPLs and high profits, but also by meeting internal and external rules. Fourthly, internal marketing, responsibility for reducing NPLs and increasing profits is not only the responsibility of a single department, but all departments have important performance indicators.

### **Keywords**

Banking industry, Holistic marketing, Pandemic, Sustainability

### **1. Introduction**

Anticipating and reducing the number of corona virus sufferers in Indonesia, a policy has emerged to limit the activities of people outside the home, school activities are suspended, work from home (work from home), even worship activities are also suspended. The COVID-19 pandemic has caused various activities to stagnate, particularly in the economic field, because it involves the interaction of people and the traffic of goods. Economic activity has declined sharply and is of great concern, particularly in terms of economic activity and growth. It is indisputable that if the economy collapses, it can have an impact on social and environmental issues. The social impact is the existence of a protocol of the World Health Organization (WHO) on the application of social distancing and physical distancing, so that people's social patterns in different parts of the world are undergoing radical changes. The COVID-19 pandemic limits the movement of people and goods, which means that people must stay at home indefinitely to break the chain of spread of the COVID-19 pandemic. This pandemic condition has affected all companies in different sectors to implement policies that make work comfortable and safe for employees while providing them with the opportunity to meet their performance goals adequately. The Corona virus has also had a significant impact on the banking sector. In order to support better working conditions, the company implemented a home-based work system during the pandemic through the WFH. The implementation of WFH in the offices is driven by the widespread dissemination of COVID-19 throughout almost all of Indonesia. This WFH is part of the protection of workers' rights to health and safety at work under Act No 13 of 2003 concerning Manpower. In detail, this WFH policy is also a follow-up to the DKI Governor of Jakarta Province No. 16 of 2020 's instruction on increased awareness of the risk of transmission of coronary disease infection (Covid-19). The banking sector in Indonesia has undergone significant changes during and after the pandemic, forcing the banking sector and consumers to accelerate financial digitalization. Limitations to public activities have limited the mobility of the population, forcing people to use digital financial institutions for financial transactions, and the banking industry is strengthening the infrastructure for digitizing banking operations. The pandemic, which has been happening for two years since 2020, has changed the direction of banking activities in Indonesia. Prior to the pandemic, Indonesian banks relied heavily on branches/exits and ATMs to serve their customers, but during the pandemic, customers increasingly used digital applications (mobile banking and Internet banking) to conduct financial transactions. The motivation of this study is to analyze the sustainability of the company through a holistic marketing perspective in the banking sector. The holistic marketing perspective consists of relational marketing, integrated marketing, performance marketing and internal marketing. Each of these perspectives is analysed according to its contribution to the sustainability of the banking sector.

This research method was conducted in 5 state banks through interviews with 10 sources based on aspects of a holistic marketing perspective.

The aim of the study suggests that a holistic marketing perspective is considered important to support the long-term sustainability of the organization in the long term. First, because of the relationship marketing perspective, restrictions on community activities due to the prospect of marketing relationships have led banks to temporarily close their branches and open only the main branches that can manage transactions more fully. Under these conditions, bank customers are indirectly obliged to use digital banking channels to make transactions (payments, purchases and remittances). Secondly, with integrated marketing, banks are also accelerating the provision of digital branches to facilitate financial transactions for the public. The digitization of banking activities is strongly supported by the financial authorities of Indonesia, Bank Indonesia (BI) and the Financial Services Authority (OJK). In order to facilitate financial transactions in Indonesia, BI launched a standard Quick Response Code (QR) to perform transactions, particularly electronic payments, namely the QR Code Indonesia Standard (QRIS), and has added a method for sending money to BIFast. OJK itself has prepared a legal umbrella to strengthen banks to accelerate banking digitisation in the form of POJK No 12/POJK.03/2021 on commercial banks and POJK No. 12/POJK.03/2021 on commercial banking products. Thirdly, with regard to business performance, bank performance is measured not only through the achievement of targets such as low NPLs and high profits, but also by meeting internal and external rules. In addition, the performance of the Bank is also assessed in terms of compliance with obligations to favour banking partners. Fourthly, about internal marketing, banks must coordinate services in the context of internal marketing. The responsibility to reduce NPLs and increase profits is not only the responsibility of a single department, but all departments have important performance indicators. Therefore, the problem formulation of the research is:

- i. How is the implementation of holistic marketing to support the sustainability of the banking industry after pandemics?
- ii. How is the implementation of internal marketing?
- iii. How is the implementation of integrated marketing?
- iv. How is the implementation of relationship marketing?
- v. How is the implementation of performance marketing?

## 2. Literature Review

From a marketing perspective, a holistic and integrated approach to marketing, the concept of holistic marketing is based on the development, design and implementation of broad and independent marketing programs, processes and activities. The right business system will support the sustainability of the economy (Caldera et al., 2018; Chan, & Muthuveloo, 2020; Chan & Muthuveloo, 2018; Süß et al., 2021; Aldianto et al., 2021). Full marketing recognizes that everything is important in marketing, so a broad and integrated perspective is often needed. Holistic marketing thus recognizes the scope and complexity of marketing activities and reconciles them with each other (Kotler and Keller, 2016). Kotler and Keller (2016) claim that holistic marketing has four main dimensions: Relationship marketing, integrated marketing, internal marketing and performance marketing. The concepts of relationship marketing is to maintain customer relationships. The establishment of a special role in the company is intended to create long-term mutually beneficial relationships between the company and its customers. Another dimension of holistic marketing is integrated marketing. With the integrated marketing concept of Kotler and Keller (2016), namely "the whole is greater than the sum of the pieces" in order to convey value to customers. The next element of holistic marketing is internal marketing. Kotler and Keller (2016) claim that internal marketing is "the task of recruiting, training and motivating capable employees who want to serve customers well." The fourth dimension of holistic marketing is performance marketing. Marketing performance requires understanding financial and non-financial returns for the business and society from marketing activities and programs for businesses and society (Kotler and Keller, 2016). In the holistic marketing concept, performance is assessed not only from a financial perspective, but also from its ability to have a positive impact on the social environment.



**Figure 1. Holistic Marketing Concept**

## **2.1 Internal Marketing**

The company's consumers are not only targeted at end-users who buy products, but also consumers can refer to employees within the company who carry out business activities so that products or services can be appreciated by the company's external consumers. Internal marketing is defined as an attempt to engage, motivate and maintain quality employees through work and products that meet the needs of employees (Garas et al., 2018; Otto, 2019; Eid et al., 2019; Liu et al., 2017). Internal marketing is also considered a philosophy of treating employees as an important resource to help the company achieve optimal performance levels (Ngo et al., 2020). A number of advantages that companies can achieve in the proper implementation of internal marketing are 1) low turnover rates of the company, 2) increased quality of service, 3) increased employee satisfaction and 4) increased ability to implement changes within the company.

## **2.2 Integrated Marketing**

Integrated marketing is in fact a concept that describes a marketing program that includes four main activities, namely product determination, price, promotion and location. This program is part of the definition of marketing that was established in the American Marketing Association, namely, marketing is the process of planning and implementing the concepts of pricing, promotion, product distribution and services to create exchanges that meet individual and organizational goals. The concept of marketing integrated into the 4P (product, price, promotion and location) is a manifestation of the change from sales orientation to marketing orientation. The 4P program is a concept actually developed by McCarty and Niel Borden. There are twelve elements that need to be taken into account when formulating a marketing program. Twelve elements are product planning, pricing, branding, distribution, personal sale, promotion, advertising, packaging, display, service, physical handling, and finding and analysis of data or facts. However, these twelve elements were later simplified to just the 4Ps. However, the real development of 4Ps is also considered to be too simple and does not cover the aspects that can be applied in the marketing of services. In service marketing, there are other aspects to be discussed, namely the 3P (persons, physical evidence and process). All these concepts should be able to operate a marketing program correctly based on a marketing orientation.

## **2.3 Relationship Marketing**

According to Kotler and Keller (2016), relationship marketing is the measure of companies to get to know and serve their valued customers well. By examining this definition in relationship marketing, the main objective is to maintain and maintain existing customers by satisfying them so as to create loyal customers. The main objective of marketing is to develop deep and sustainable relationships with individuals and organizations that directly or indirectly influence the success of a company's marketing activities (Kotler and Keller 2016). Relationship marketing is a series of interactive processes that aim to strike a balance between the investment of the company and the fulfilment of the needs of the consumer with the aim of increasing profits. The relationship management concept is also an integrated effort aimed at identifying, building and developing networks with individual consumers to achieve benefits that are useful to the company (Pansari & Kumar, 2017; Zhang et al., 2017; Kunz et al., 2017; Finne & Gronroos, 2017; Steiner & Brandhoff, 2021). Relationship marketing is considered a complete business process. The relationship marketing process not only uses transaction data that can be automatically collected and stored in the company database, but is also a knowledge collection. Company data are the center of the company's knowledge management of consumers. Relationship marketing is specifically linked to customer relationship marketing which includes three sub categories, namely 1) operational CRM systems that include efforts to improve the efficiency and support the process of providing services to consumers, sales, and automation; 2) the collaborative CRM system includes efforts to manage and synchronize interactions with consumers and communication channels; 3) CRM systems analysis involves efforts to store and evaluate consumers' knowledge to better understand their behavior.

## **2.4 Performance Marketing**

Kotler and Keller (2016) state that the requirements of the business world today demand a positive relationship between the costs incurred for marketing activities with revenue or profits and the financial performance of a company. Even with increasingly complex and diversified competition, responsibilities are demanded not only financially, but also socially. In other words, in a comprehensive marketing approach, there must also be accountability from the side other than financial, such as environmental, legal and ethical. According to Kotler and Keller (2016), sellers are increasingly obliged to be able to explain and justify what they are doing for the company's investment. The use of financial performance measurement tools to measure intangible marketing efforts, such as brands, customers and intellectual capital. In terms of non-financial performance, marketers are also obliged to be able to conduct social responsibility marketing (Li et al., 2019; Kuzey & Uyar, 2017). Kotler and Keller (2016) explained: The organization's task is to identify the needs, wishes and interests of the target market and to satisfy them more effectively and efficiently than competitors, while maintaining or improving the long-term well-being of customers and society. Efforts to meet the company's customer needs must also take into account long-term sustainability (Zgrzywa-Ziemak & Walecka-Jankowska, 2021).

### **3. Methods**

This study uses an interview method with a qualitative approach, qualitative research describes data in words such as interview transcripts (Sekran and Candle, 2013). Qualitative data are derived from primary and secondary data sources, such as reports and interviews. Qualitative research was chosen by researchers to learn about the extent of the bank's sustainability efforts in dealing with the COVID-19 pandemic, through holistic marketing application. The sources selected for the interview were also identified from the outset, as these informants are key persons in the process that is the subject of this research. The data analysis used is qualitative with interactive analysis model. In this model, the analysis consists of three components: data reduction, data presentation and conclusion drawing, and is conducted in an interactive form with the data collection process as a cycle.

Bank A's profile is as follows. Bank A, Tbk was established on 5 July 1946. Bank A is the first BUMN (State Owned Enterprise) bank to become a public company after listing its shares on the Jakarta Stock Exchange and the Surabaya Stock Exchange in 1996. In order to strengthen its financial structure and its competitive power within the national banking industry, the BNI carried out a number of company shares, including the government recapitalisation process in 1999, the divestiture of shares by the government in 2007 and a limited public offering of shares in 2010. At present, 60 per cent of Bank A 's shares are owned by the Government of the Republic of Indonesia, while the remaining 40% are owned by the public, both by individuals and institutions, domestic and foreign. Bank A is now listed as the fourth largest National Bank of Indonesia, as seen from total assets, total loans and total third-party funds. Bank A is supported by several subsidiary companies, namely Bank A Multifinance, Bank A Sekuritas, Bank A Life Insurance, Bank A Asset Management and Bank A Remittance. To prepare for the digital bank, Bank A acquired Bank Mayora with a participation of 63.92 per cent. Bank A provides fund-storage services and credit facilities for the business, medium and small segments. Some of the best products and services have been tailored to the needs of clients in childhood, adolescence, adulthood and retirement.

### **4. Results and Discussion**

Information on the research data was obtained from the actual data used by Bank A in the implementation of holistic marketing as business continuity during the COVID-19 pandemic, through interviews with resource persons. The data actually used come from interviews on holistic marketing at Bank A. This analysis is based on interviews with executives who are directly involved in the company's marketing efforts. In the analysis of the depth of information from sources, there are several steps to research. First, the use of real data, both internal and external, is used to implement holistic marketing in the company. In addition, a list of interviews of the four dimensions of holistic marketing in Bank A based on Kotler and Keller (2016). In the next step, the author conducts management interviews at Bank A. After conducting the interviews, the next step is the on-site documentation to complete the research data. Then the next step is to move, record and sort the dates of all questions asked by the informants. Finally, analyze the data from the interviews conducted to draw conclusions.

#### **4.1 Internal Marketing**

Working relationships between departments during the pandemic have experienced challenges related to the policies of the WFO and the WFH. During the pandemic, organizations are aware of the difficulties in coordinating work. Unit heads are also aware that between units have different WFO schedules between the units and have difficulties because they are not used to coordinating face to face. However, reaching the company's Key Performance Index continues to function according to the specified time. The leaders of each organizational unit are aware that coordination of work during the pandemic must continue because it considers work targets. In the evolution of the pandemic, it is possible to maintain the performance of employees and work units, partly because employees are accustomed to working online (using zoom, goggles meet and other applications), adjustments are made to the work system, including memos, letters and documents between departments can be made electronically (e-sign). Online work has a further influence in the form of more working time, especially meetings between departments and with third parties because they are conducted online. This is in line with the concept of teleworking (Tokarchuk et al., 2021, Palumbo, 2020). The concept of internal marketing during the pandemic must continue, all departments must understand the goal. This company is a company that sells trust to stakeholders. All departments must have guidance in order to serve consumers well. Leaders must emphasize inter-departmental alignment for performance to be achieved (Chen & Sriphon, 2021). Internal marketing should be focused by the company (Gounaris et al., 2020).

#### **4.2 Integrated Marketing**

Post-pandemic marketing activities, in particular aspects of banking services, are further strengthened by a simultaneous approach to credit, fund recovery and credit recovery. Your goal is to get the maximum results compared to each unit to be operated alone. Product offerings are intended to ensure that consumers get good service. Use of applications or programs to speed up decision-making. To facilitate product acceptance, banks also offer applications that facilitate access

for consumers. Promotions related to this application by using the company's social networks, namely the website, Instagram and Twitter. Using applications to open accounts and bank transactions, thus helping prospective customers or customers help with transactions so they don't need to visit bank branches. It also shows that the bank has more confidence in the customer because it allows the customer to make transactions that previously could only be done at bank outlets. The developed banking application concerns not only the retail segment (individual consumers), but also the business segment that involves transactions of greater value, such as the opening of bank guarantees and L/C.

### **4.3 Relationship Marketing**

Relationship marketing should be maintained, although it takes place via mobile (Schierholz et al., 2007). The pandemic has led many companies to experience a decline in their performance, so banks face an increase in non-performing loans. Banks will face the condition of increasing NPL will be faced by banks in the next few years after the pandemic is over, banks will have to face the condition of increasing NPL, bearing in mind that the process of credit recovery and economic recovery still require quite a long time. On the other hand, mobility restrictions during the pandemic are quite difficult for marketing/RM employees to visit restrictions in entering buildings/buildings or to business locations of prospective debtors/debtors. This is one of the communication problems during the pandemic (Kim, 2021). However, during the pandemic, marketing activities still need to be carried out in the form of visits to prospective debtors in order to achieve expansion objectives and also to debtors in the context of credit control. Relationship marketing with debtors is still ongoing. It is important to maintain communication and to understand the updates of businesses managed by each debtor. Communication with debtors is also carried out online so that information updates related to business developments. This is a form of customer engagement used by the company to maintain an emotional connection (Marbach, et al., 2019). The good relationship developed also aims to enable the company to know the state of the individual debtors by offering a number of programs and support. Bank A is also involved not only in marketing relations with debtors, but also with other partners, namely consultants. The maintenance of relations with consultants aims to stay informed regarding the improvement of Bank A's improved performance. This collaboration is important to be able to provide advice so that Bank A continues to carry out its business activities.

### **4.4 Performance Marketing**

During the 2020 pandemic, Indonesian banks adjusted their expansion goals and more intensive management of NPL debtors by referring to OJK regulations on credit restructuring. Reserves made by banks for impairment losses have increased, reaching 200% of the value of the NPL. This generally leads to a decline in bank profits. After the pandemic, banks' recovery of credit quality will take a relatively long time, considering that many debtors have not been able to perform, especially in the micro, small and medium segments, the more economic growth has not yet recovered, visits to potential debtors and debtors with strict health protocols. Apart from the increase in the target set in comparison with the previous year, an improvement in credit quality is also expected to improve credit quality by helping to sell guarantees that have been taken over by banks.

## **5. Conclusion**

In the research on the sustainability of Bank A's operations during the COVID-19 pandemic suggests that Bank A has implemented holistic marketing as a fairly good sustainability effort. The four dimensions of holistic marketing, namely integrated marketing, relational marketing, internal marketing and performance marketing, have been well implemented by the company. The four dimensions of holistic marketing are integrated marketing, relational marketing, internal marketing and performance marketing as a comprehensive marketing unit that can be an advantage in maintaining the sustainability of the company. In performance marketing, the company has determined the measure of the success of the marketing strategy implemented, so that there is no change in the objective. Performance targets can be achieved because the company performs high efficiency in operational activities (Miceli et al., 2021).

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## Determinants of Job Satisfaction among Politeknik Ungku Omar (PUO) Employees

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### Abstract

The early retirement of workers is a concerning trend, especially when it comes to professionals and other highly skilled workers who form the foundation of the nation's economic growth. In Malaysia, the issue of job satisfaction is often a hot, sensitive issue and attractive among employees. Most of these problems, it may be argued, are related to working conditions, the availability of promotions, recognition, leadership skills and colleagues. Workplace behavior is directly influenced by employee satisfaction. Employees that are happy with their jobs tend to do them better. Since high employee happiness may be demonstrated to result in efficient workplace operations, top management needs to understand the key factors that increase employee satisfaction and, therefore, performance. This study aims to determine the level of job satisfaction at Politeknik Ungku Omar (PUO). The objective of the study is to examine the level of job satisfaction and the relationship between the factors that influence the level of job satisfaction among PUO employees. The study was carried out using the descriptive method and the technique used was the voluntary response sampling method. This study was conducted to develop a research framework to show the relationship between the independent variables (work conditions, leadership and management, career advancement, recognition, colleagues, and convenience) and the dependent variables (job satisfaction). Data were collected from respondents consisting of staff from Politeknik Ungku Omar, which is a total of 600 people. The variable measuring instrument used in this study was adapted from the existing instrument. The reliability values of the instrument are in the range of 0.628 to 0.831. The results showed that the independent variables (work conditions, leadership, and management, career advancement, recognition, colleagues and convenience) had a positive relationship with the dependent variables (job satisfaction).

### Keywords

Job Satisfaction, Working Conditions, Leadership And Management, Career Advancement, Recognition

### 1. Introduction

Politeknik Ungku Omar (PUO) was founded in 1969 as a leading institution in *technical education and vocational training (TVET)*. In Malaysia, there are now 36 polytechnics, which is an increase from the previous number in order to meet the demand for graduates with highly specialized skills. Polytechnic has been identified as the primary leader in the technical and vocational sphere by the Polytechnic Transformation Agenda (TEVT). However, a number of concerns arise, including the polytechnic's capacity to accomplish this aim on physical and mental readiness. One of the key obstacles to fulfilling the objectives of this transformation agenda is the physical condition, the environment and working hours, personnel mobility, and governance. As a result, the personnel at polytechnics play a vital role in generating graduates who accomplish their educational goals. Therefore, it is crucial for an organization to have a positive workplace culture, effective management, and a supportive environment for its personnel. Job satisfaction is the subjective opinion of a person that includes how they feel about their job and the company they work for. In addition, job satisfaction is the pleasurable emotional state that comes from upholding one's professional ideals. Each person uses a different set of standards to gauge their level of job satisfaction. Mateko Edith (2017) stated that the performance of academics and, ultimately, the standard of higher education institutions depend on the job happiness of academic personnel. Numerous elements should be researched in order to ensure high standards of education and job satisfaction for academics because happiness improves people's performance and productivity. An individual's feelings or mental condition in relation to the nature of his work are referred to as job satisfaction. The results of job evaluations based on personal experiences are referred to as "pleasant, positive sensations," or "work satisfaction. A person's evaluation of their positive or negative beliefs about their employment or job status is referred to as their level of job satisfaction (Fatwa Tentama et.al 2020). Education is a crucial area of life since it develops people's knowledge, skills, and innovations that are then used in all other businesses. As a result, educators' pleasure in their work should be highly regarded. The implementation of these issues, however, poses a barrier to educators' job happiness. In general, the objective of the study is to examine the level of job satisfaction among staff PUO and to determine the relationship between the determinants (work conditions, leadership, and management, career advancement, recognition, recognition, colleagues, and convenience) and job satisfaction.

## **2. Literature Review**

The degree to which a person is happy with their current working environment is referred to as their job satisfaction. Employee attitudes about their jobs can be both positive and negative depending on work satisfaction. Job satisfaction is related to employee behavior in the workplace. According to Aydin, Uysal, and Sarier (2012), the opportunity for advancement is a factor that affects job satisfaction. An employee's confidence will suffer if they believe they won't have many prospects for promotion. Promotion and employee performance have a good link. If a company wants to see exceptional employee success, all employees should have equal access to promotion chances (Khan et al., 2012).

Van Fleet (2010) explains that humans are more likely to be normal in the face of a task organization. The way individuals view the issue will rapidly alter once they start receiving internal and external benefits in the form of pay raises, accolades, and other things. They will exhibit a high level of job satisfaction with regard to the position and the way it is run. Conversely, those who do not receive rewards will exhibit a low level of contentment. Work performance is claimed to be clearly affected by job satisfaction. Job satisfaction affects not just the employee but also the employer and society as a whole. It is undeniable that there are issues with determining the degree of job satisfaction and how it relates to performance.

The way a supervisor interacts with his or her subordinate employees is important because it affects how happy the employees are with their jobs. According to Sudiarta (2021), the presence of effective leadership in workplaces is a determining element for employee performance, as productivity will be heavily dependent on how the manager or supervisor utilizes the workers to their fullest potential.

Circumstances and a person's working style can be used to determine the work environment. For example the workload, culture and background of the industry, industrial environment and working relationships. Good working conditions, facilities provided, and guaranteed safety is able to increase the level of job satisfaction (Jain, Ruchi, Kaur, 2014). The management style, company culture, hierarchy, and human resources are all components of the workplace environment. When creating a high-performing staff, a happy work environment helps to enhance employee happiness and cut down on attrition.

Compared to males, women are more satisfied with the behaviour of colleagues. The work environment can be made more joyful with the help of colleagues in numerous areas. It is clear from this that a positive working environment among colleagues affects job satisfaction. According to some earlier studies, a positive working environment is associated with higher levels of job satisfaction and higher levels of productivity. Employee productivity will be lowered if there are tensions with colleagues (Nur Afiah 2020).

Recognition is part of the need of life. One of the key components of keeping people motivated in life, according to Maslow's hierarchy, is acknowledgment. As a result, the management needs to acknowledge the work of the staff members and provide feedback frequently. In order to maintain their audience's interest in their work and position, they must effectively communicate. When an employer values and acknowledges their contributions, employees are more likely to put in more time and effort (Ballenstedt and Rosenberg 2008).

Academicians prefer to work at institutions with a favourable work environment since they are more satisfied and intend to remain longer. In addition, although a variety of working conditions are important to them, the particular aspects of the workplace that matter the most are not restricted to those conditions, such as having access to advanced educational technology and clean, well-maintained facilities. Instead, social factors like culture, leadership, and relationships amongst coworkers are more important in determining academicians' future aspirations and job happiness (Mustafa, 2022). However, it appears that creating a friendly work environment helps students learn more effectively.

## **3. Methodology**

The sampling size to be used in this study is 600. The sample size represents the number of respondents who completed the survey on the google form. About 2% of them did not complete the questionnaire and were excluded from the analysis. The data is then encoded and entered into a computer, using Statistical Package for Social Science (SPSS) program version 22. This study uses a voluntary response sampling method in obtaining the study sample. There are 35 items total in the survey, divided into parts A and B. Respondents' profile, or Part A, includes ten questions about gender, age, educational attainment, race, marital status, staff category, department, years of service, years in PUO, and position category. The dependent and independent variables are measured in Section B. Part A is the respondents' profile consisting of 10 items which are gender, age, educational level, race, marital status, staff category, department, years of service, years of service in PUO and position category. Section B measures the dependent and independent variables. The answer choices for each item used in the instrument were to use a four-point Likert Scale; 1 = Strongly Disagree, 2 = Disagree, 3 = Agree and 4 = Strongly Agree. The study was carried out at the Politeknik Ungku Omar (PUO).

The data was analyzed statistically using descriptive, frequency distribution, and Pearson analysis. Cronbach's Alpha coefficients are used in reliability analysis to determine internal consistency on instrument indices (Cohen and Swerdlik 2002). According to Bryman and Bell (2003), Cronbach's Alpha values ranged from 0 (signifying no internal

reliability) to 1. (indicating internal reliability was perfect). The value of 0.6 and higher used in this study was recommended by Hair et al (2006).

The Pearson correlation coefficient (r) was used in the study to measure the strength of the relationship between the two variables. Values range from -1 to +1. If  $r = 1.0$  or a positive value; there is a perfect positive linear relationship. If  $r = -1.0$  or a negative value, there is a perfect negative linear relationship. No correlation is shown if  $r = 0$ . In determining the strength of the relationship, this study uses the guidelines presented by Hatcher (2003) as described below:

- i. No correlation 0.00
- ii. Weak correlation 0.01 to 0.49
- iii. The correlation is simple 0.50 to 0.79
- iv. Strong correlation 0.80 to 0.99
- v. Perfect correlation 1

## 4. Results and Discussion

### 4.1 Demography

Table 1 displays the respondents' profiles. Male respondents made up 40.2% of the sample, while female respondents made up 59.8%. The majority of people are between the ages of 41 and 50 (41.8%), followed by those between the ages of 31 and 40 (37.3%), 49 and older (19.2%), 26 to 30 (8%) and under 25 (2%). Malays make up the majority (91.8%), followed by Chinese (17%), Indians (30%), and others (2%). The majority of respondents, or 45.5%, have a master's degree. This is followed by bachelor's degrees (30.8%), diplomas (9.6%), SPMs (8.2%), doctoral degrees (3.3%), and SRP/PMR/PT3s (2.5%). The majority of respondents were married which was 89.8%, followed by single 7.3% and others 2.8%. For the academic staff category, the percentage of respondents was 79.3% and support staff was 20.7%. The majority of respondents have served more than 15 years which is 55%, followed by 11 - 15 years of service which is 29.7%, 5 - 10 years of service which is 11.3% and less than 5 years of service is 4%. PUO employees who have worked there for more than ten years make up the majority of respondents (65%) followed by those who have worked there for six to ten years (19%), those who have worked there for less than a year (8.7%), and those who have worked there for one to five years (1-5 years). The majority of respondents are under the DH scheme which is 80.7% and schemes other than DH is 19.3%.

**Table 1. Demography**

|                       | <b>Item</b>           | <b>Frequency</b> | <b>%</b> |
|-----------------------|-----------------------|------------------|----------|
| <b>Gender</b>         | Male                  | 241              | 40.2     |
|                       | Female                | 359              | 59.8     |
| <b>Age</b>            | <25                   | 2                | 0.3      |
|                       | 26-30                 | 8                | 1.3      |
|                       | 31-40                 | 224              | 37.3     |
|                       | 41-50                 | 251              | 41.8     |
|                       | >50                   | 115              | 19.2     |
| <b>Nationality</b>    | Malay                 | 551              | 91.8     |
|                       | Chinese               | 17               | 2.8      |
|                       | Indian                | 30               | 5.0      |
|                       | Others                | 2                | 0.3      |
| <b>Education</b>      | SRP/PMR/PT3           | 15               | 2.5      |
|                       | SPM                   | 49               | 8.2      |
|                       | Diploma               | 58               | 9.6      |
|                       | Degree                | 185              | 30.8     |
| <b>Education</b>      | Masters               | 273              | 45.5     |
|                       | PHD (Doktor Falsafah) | 20               | 3.3      |
| <b>Marital Status</b> | Single                | 44               | 7.3      |
|                       | Married               | 539              | 89.8     |
|                       | Others                | 17               | 2.8      |
| <b>Staff</b>          | Lecturer              | 476              | 79.3     |
|                       | Academic support      | 124              | 20.7     |

| <b>Continuation of Table 1. Demography</b> |                      |                  |          |
|--|----------------------|------------------|----------|
|  | <b>Item</b>          | <b>Frequency</b> | <b>%</b> |
| <b>Department</b>                          | JKA                  | 89               | 14.8     |
|  | JKE                  | 68               | 11.3     |
|  | JKM                  | 93               | 15.5     |
|  | JKP                  | 23               | 3.8      |
|  | JTMK                 | 48               | 8.0      |
|  | JP                   | 65               | 10.8     |
|  | JMSK                 | 40               | 6.7      |
|  | JPA                  | 51               | 8.5      |
|  | JSKK                 | 8                | 1.3      |
|  | JHEP                 | 6                | 1.0      |
|  | UPEP                 | 6                | 1.0      |
|  | UPLI                 | 4                | 0.7      |
|  | ULPL                 | 4                | 0.7      |
|  | UTM                  | 6                | 1.0      |
|  | UIDM                 | 8                | 1.3      |
|  | CISEC                | 2                | 0.3      |
|  | Pentadbiran & Kew.   | 40               | 6.7      |
|  | Unit Perolehan       | 3                | 0.5      |
|  | Unit Perpustakaan    | 7                | 1.2      |
|  | UPPSI                | 2                | 0.3      |
|  | UTK                  | 7                | 1.2      |
|  | UKK                  | 3                | 0.5      |
| UPS  | 8                    | 1.3              |          |
| KAMSIS                                     | 8                    | 1.3              |          |
| Unit Stor                                  | 1                    | 0.2              |          |
| <b>Year of Service</b>                     | < 5 years            | 24               | 4.0      |
|  | 5 – 10 years         | 68               | 11.3     |
|  | 11 – 15 years        | 178              | 29.7     |
|  | > 15 years           | 330              | 55.0     |
| <b>Year of Served at PUO</b>               | < 1 year             | 52               | 8.7      |
|  | 1– 5 years           | 44               | 7.3      |
|  | 6 – 10 years         | 114              | 19.0     |
|  | > 10 years           | 390              | 65.0     |
| <b>Scheme</b>                              | DH Scheme            | 484              | 80.7     |
|  | Other than DH scheme | 116              | 19.3     |

#### **4.2 Reliability Analysis**

Working conditions, promotion opportunities, leadership and management, career advancement, recognition, colleagues, convenience, and job satisfaction are the seven variables for which the reliability analysis is shown in Table 2. According to Table 2 findings, Cronbach Alpha reliability for all variables is greater than 0.6. The value of each Cronbach alpha is in the range of 0.628 to 0.831. The questionnaire in this study had 35 items. Cronbach Alpha for work conditions was 0.809, leadership and management was 0.831, career advancement was 0.818, recognition was 0.856, coworkers 0.654, convenience 0.628 and job satisfaction was 0.803. The results show that the scale for each variable is reliable to measure.

**Table 2. Cronbach's Alpha Coefficients**

| <b>Variables</b>          | <b>Cronbach Alpha</b> |
|---------------------------|-----------------------|
| Working conditions        | 0.809                 |
| Leadership and management | 0.831                 |
| Career Advancement        | 0.818                 |
| Recognition               | 0.856                 |
| Colleagues                | 0.654                 |
| Convenience               | 0.628                 |
| Job satisfaction          | 0.803                 |

### 4.3 Descriptive Analysis

**Table 3. Descriptive Analysis**

| Variable (s)                  | Mean   | Interpretation |
|-------------------------------|--------|----------------|
| <b>Independent Variables</b>  |        |                |
| i. Working Conditions         | 3.0583 | Agree          |
| ii. Leadership and management | 2.9383 | Agree          |
| iii. Career Advancement       | 3.0033 | Agree          |
| iv. Recognitions              | 2.8933 | Agree          |
| v. Colleagues                 | 3.1250 | Agree          |
| vi. Convenience               | 3.0050 | Agree          |
| <b>Dependent Variables</b>    |        |                |
| Job Satisfaction              | 3.0200 | Agree          |

A descriptive analysis was used to analyze the overall mean for each variable. This is shown in Table 3. The majority of respondents agreed that they were satisfied with the working conditions where the overall mean was 3.0583. The overall mean is 2.9383, which is close to agreeing, indicating that respondents are satisfied with leadership and management. For career improvement, the overall mean is 3.0033. This indicates that the majority of respondents agree with career advancement. The overall mean for recognition is 2.8933, which means that respondents almost agree with recognition. Table 10. The majority of respondents agreed that they were satisfied with the recognition where the overall mean was 3.1250. For convenience and job satisfaction overall mean is 3.0050 and 3.0200. This indicates that the majority of respondents agree with convenience and job satisfaction.

### 4.4 Correlation Between Job Satisfaction with Working Conditions, Leadership and Management, Career Advancement, Recognition, Colleagues and Convenience

**Table 4. Summary of Correlational Analysis Findings**

| No Variables                | 1      | 2       | 3       | 4       | 5       | 6       | 7       |
|-----------------------------|--------|---------|---------|---------|---------|---------|---------|
| 1 Working Conditions        | 1      | 0.387** | 0.415** | 0.281** | 0.254** | 0.218** | 0.327** |
| 2 Leadership and Management | .387** | 1       | 0.544** | 0.549** | 0.252** | 0.336** | 0.493** |
| 3 Career Advancement        | .415** | .544**  | 1       | 0.537** | 0.310** | 0.336** | 0.510** |
| 4 Recognition               | .281** | .549**  | .537**  | 1       | 0.255** | 0.300** | 0.562** |
| 5 Colleagues                | .254** | .252**  | .310**  | .255**  | 1       | 0.241** | 0.325** |
| 6 Convenience               | .268** | .336**  | .382**  | .300**  | .241**  | 1       | 0.445** |
| 7 Job Satisfaction          | .327** | .493**  | .510**  | .562**  | .325**  | .445**  | 1       |

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

A Pearson correlation analysis was used in this study to look at the relationship between job satisfaction and work conditions, promotion opportunities, leadership and management, career advancement, recognition, coworkers, convenience and job satisfaction. The results show that there is a weak relationship between working conditions and job satisfaction;  $r = 0.327$ ,  $n = 600$   $p = 0.000 < 0.01$ . It's a positive value. This means that working conditions respondents have a positive relationship with job satisfaction.

The output also shows that leadership and management have moderate and positive relationships;  $r = 0.493$ ,  $n = 600$   $p = 0.000 < 0.01$ . Thus it shows job satisfaction has a positive relationship with leadership and management. The results of the analysis of the relationship between job satisfaction and career advancement show that there is a significant relationship at a moderate and positive level. According to the data ( $r = 0.510$ ,  $n = 600$ ,  $p = 0.000-0.01$ ), job satisfaction is moderately correlated with increased workload.

The results showed that colleagues had significant relationships at low and positive levels. This indicates that job satisfaction has a low correlation with colleagues ( $r = 0.325$ ,  $n = 600$   $p = 0.000 < 0.01$ ).

The findings also show that convenience has a significant relationship at a moderate and positive level. This indicates that job satisfaction has moderate correlation with convenience ( $r = 0.445$ ,  $n = 600$   $p = 0.0001 < 0.01$ ). Overall the findings indicate that the independent variables (working conditions, leadership and management, career advancement, recognition, colleagues and convenience) have a significant relationship with the dependent variables (job satisfaction).

## 5. Conclusion

Job satisfaction is crucial for enabling employees of an institution or organization to make the best contribution to their work. A high level of job satisfaction among employees can help an institution or organization govern efficiently and excellently. Based on the study's findings, the factors which represent the independent variables of this research (work conditions, leadership, and management, career advancement, recognition, recognition, colleagues, and convenience had a positive relationship with the dependent variables (job satisfaction). It also can be said that PUO employees generally have positive feelings about their jobs (scale 3, agree with all statements of job satisfaction). However, there are two factors that are less agreed upon by the respondents, namely, leadership and recognition (average scores of 2.94 & 2.89). These two factors need to be studied further to find the reasons why employees give low average scores.

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## **Leadership Integrity Measurement: One of The Pillars for Supporting Business Resilience**

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### **Abstract**

The supporting factors for business resilience can be explained by various factors. One of the supporting factors is the aspect of leadership integrity. Leadership integrity is an enabler factor in the organization to be used as a reference in business activities. It is necessary to develop a leadership integrity measurement tool as a reference for assessing its contribution to the organization. The aim of this research was to develop a leadership integrity measurement tool based on local elements that were more holistic within the Indonesian context. This study applied both quantitative and qualitative approaches, using interviews for qualitative data collection and questionnaires or surveys for quantitative data gathering. Respondents in this study were Indonesian leaders who have certain characteristics from various organizations across industries. The number of respondents involved in this study was 100 respondents. The results of this integrity measurement tool were 41 questions that can be used as a guide in assessing the perceptual performance of institutional leaders and strengthening the dimension of integrity.

### **Keywords**

Measurement, Leadership, Integrity, and Business Resilience.

### **1. Introduction**

Leadership with integrity will support the creation of ethical leadership and leaders who consider the interests of all stakeholders. Previous studies have shown that there are types of leadership that support ethical leadership. Those types are transformative leadership (Bass, 1999); charismatic leadership (Conger and Kanungo, 1988); and servant leadership (Zehir et al., 2014). Ethical leadership according to Trevino and Brown (2004) is a moral leader who demonstrates good character, honesty, reliability, responsibility, and good work standards. Krisharyuli, Hilman, and Ramdani (2020) state that the construction of ethical leadership is based on three factors: integrity, professionalism, and individual development. To measure ethical leadership, Kalshoven et al. (2011) developed a measurement with seven dimensions, namely people orientation, equity, power sharing, sustainability concerns, ethical orientation, role clarification and integrity. Gardner (2003) argues that leadership types, including charismatic ones, tend to ignore leadership with integrity. Bass (1990) also shows that transformative leaders only strengthen aspects of influence, inspiration, intellectuality, and respect for the individual. Parry and Proctor-Thompson (2002) argue that leaders with aspects of influence do not necessarily have integrity. Integrity leadership must be strengthened in order to create a good social order.

Research Mayasari et al. (2012) showed that integrity is required in leadership because 1) it can help entrepreneurs and individuals in the organization to form good morals, including by avoiding actions that are harmful to the public such as bribery, or the violation of personal interests; 2) to understand all risks and consequences along with the good and bad actions and put forward the view of utilitarianism as a major concern; 3) integrity will guide decisions to avoid corruption; 4) individuals can determine their attitude without being bound by anything that must be done as long as it is in accordance with the consciousness and value of integrity taking into account the emotional and human side. Analyzing the integrity aspect through understanding from various broader aspects will fundamentally support the creation of a leadership system within the organization which at the same time, reinforces important elements. It is important that a leader maintain integrity, because when trust and support from employees are low, it can have negative effects on the organization; on the other hand, if support and confidence in leadership are high, it can increase the productivity of the organization (Wei, O'Neill and Zhou, 2020). In addition, strengthening leadership integrity is manifested in organizational tools including culture, work values, work structures, and systems which will ultimately support a more optimal application of integrity. On the other hand, strengthening the value of integrity in various dimensions will fundamentally create an ethical leader who will have implications for the entire institution. This ethical leader tends to be able to demonstrate consistency between attitudes and actions (Kannan-Narasimhan and Lawrence, 2012; Palanki and Yammarino, 2011; Simmons, 2002; Simmons, 2008; Kalshoven et al. 2011, and Engelbrecht et al., 2015; Liu and Wang, 2014), who will ultimately build stakeholder confidence and demonstrate good institutional performance overall (Eisenbeiss, et al., 2015). In the development of integrity literature, Vargas-Vernandes et al. (2013) also show that integrity can support future leadership, but there must be a holistic measurement to understand integrity.

This holistic measure has eclectic features that include organizational elements and organizational systems that support the effectiveness of leaders in managing an institution that is not based solely on the character of the leader. This measure is important for use as a parameter in assessing the performance of executives and institutions. The research questions in this study are as follows. 1) What elements can form the concept of leadership integrity? 2) How is the integrity of leadership measured? Measuring integrity by observing aspects of an organization's system and understanding psychological aspects will strengthen the integrity dimension. These measurable dimensions of integrity can be used as a guide to assess the performance of the institutions' perception managers. However, this aspect of perception will provide information to improve the performance of leaders to pay more attention to all behavioral consequences. In addition, these integrity dimensions can be achieved in the form of guidelines or guidelines that can become standards and the basis for evaluating employee performance.

## **2. Literature Review**

According to Gosling and Huang (2010), integrity must be linked to community issues. Integrity must have an impact on the environment. The consistency of words, attitudes and actions is not only applied in a limited area, but also in the environmental system in which the individual is located. By making consistent words and actions for a thing in life, on the other hand, this coherence is also applied in life for example in ethical behaviour, by obeying regulations, by avoiding corruption, and by avoiding fraud.

### **2.1 The Definitive Dimensions of Leadership Integrity**

Vargas-Hernández (2013) explains that leadership integrity can be effectively created if supported by a system of organizational management integrity. This capacity integrity system is based on the individual integrity and identity of the organization. The integrity of leadership will be strong if each element supports the other. Integrity literature strengthens the need to support integrity from personal to collective aspects, to organizations and even at the global level (Paine, 1997). Individual and organizational integrity is an interactive attitude because it takes care of the consequences of behaviour on all organizational (private) actors. Therefore, organisations must strive to create leaders who have integrity at all hierarchical levels, one of which is to include integrity criteria as an attribute in their evaluation system (Erkutlu-Chafra, 2020). Meanwhile, Choi, Yoon and Kim (2020) added that the integrity of a leader can have a positive effect on the existing work environment.

### **2.2 Individual Integrity**

The dimensions that support individual integrity are:

- 1) Moral consciousness. This concept is the ability to feel and have sensitivity with regard to ethical issues that are relevant in decisions that have an impact on others. In decision-making, attention must be paid to the voice of people or other aspects of the organisation. The system sometimes blinds the eyes of the heart. However, with the moral sensitivity of the individual, it will lead to decisions that do not deviate from existing rules or code of ethics. The decisions taken will create many benefits for the stakeholders of the organisation.
- 2) Moral deliberation. The second component of process integrity relates to the ability to process and analyse a decision. The analysis of a decision must take into account the long term with regard to all the risks and consequences. This analysis is based on ethical arguments that can be interpreted fairly by all parties concerned.
- 3) Moral characters. Moral considerations become part of the character of an individual who can embrace a number of aspects of the mind, honesty, justice, common good, trust, compassion and aspects of concern to others. This moral character will influence any decision-making process by paying attention to its impact to pay attention to individuals who accept business decisions.
- 4) Moral conduct. Moral acts become something that other individuals can see and use as a reference. Moral acts become a business practice that is always used as a reference by everyone in the organization as a reference.

These four dimensions are to be incorporated into individuals and organizations. The four dimensions are taken into account in a commitment to act in accordance with an ethical framework. Integrity-based business activities will be characterized by good employee performance, a positive perception of the public, loyal customers, loyal investors, and positive financial performance.

### **2.3 Organizational Integrity**

The concept of organizational integrity is rooted in Weber's bureaucratic thinking that there must be universal rules that provide individual certainty to make the job right. Added by Parry, Sarah and Proctor (2002), it is becoming increasingly evident that integrity, which is full of ethical standards, has become an obligation that must exist in an organization because integrity is an absolute requirement that is necessary for the survival of the organization. Therefore, for the future, organizations need leaders who have integrity with extraordinary skills, namely leaders who can read, predict and



anticipate future "complexities", and are able to think about solutions, so that the organization remains relevant, with changes (Metcalf and Benn, 2013).

This concept of integrity strengthens the autonomy, competence, credibility of political institutions and labor efficiency in both public and private enterprises. Organizational integrity is a personal moral standard and relational value to outsiders. Organizational integrity focuses on kindness to others and strengthening the bonds between people in the organization. Organisational integrity creates standards to strengthen cultural cohesion for professional responsibility and competence in dealing with issues within the organization (Vargas-Hernández (2013). Kolthoff (2007) argues that organisational integrity is defined as a code of conduct related to moral values, standards, norms and rules accepted by all members of the organisation and stakeholders and that respect the commitment to provide services to all citizens. This integrity also includes consistency between the principles and actions that have been accepted by the community and that have become a common consensus. Organizational integrity is also strengthened in an ethical culture through open communication, interaction, acceptance of diversity, and dialogue in ethical thought. Organizational integrity also promotes a system that strengthens the fight against corruption.

### **3. Methods**

This study was analysed qualitatively and quantitatively using two approaches. The qualitative research approach consists of interviews with experts to confirm measurement instruments and interviews on the use of these measuring instruments with executives in an institution. There are three experts working in state owned enterprise of Indonesia. The application of a quantitative approach focuses on testing measurement tools in the form of a questionnaire survey that is analysed using statistics. The analysis unit of this research is the individual. Individuals in this study may be leaders, colleagues, and subordinates. The individuals associated with the leader were used for early-stage interviews to confirm the dimensions of leadership integrity; while peer-related and subordinate-related individuals are used to validate indicators for each of the dimensions formulated.

The research conducted an interview with leaders. The leader has held at least the same position for at least 10 years from different industries. The consideration is that the individual can provide experience related to the aspects of integrity that are needed when completing his work, including in dealing with existing labor disputes. In relation to the validation of existing indicators, questionnaires are distributed in this research. The sample used is purposive. The sample selected is person working in one company that have worked more than 5 years. The number of respondents required is 100.

The stages of instrument measurement and analysis in the initial stage are as follows. This research has compiled the main construction specifications for each assessment of leadership integrity dimensions by literature study. The elaboration of construct specifications was carried out through a study of documentation through a series of literatures related to previous research. In detail, the analysis of the development of this measurement instrument follows a series of procedures formulated by Churchill (1979). The procedure is as follows.

- 1) The first stage is to develop an action based on the study of the documentation. The initial stage of this research is aimed at developing a measuring instrument based on a review of the previous literature.
- 2) The second step is to perform purification by testing validity. The next stage, this research conducted a focus group with leaders to confirm the measuring instruments that had been developed in connection with the dimensions of leadership integrity.
- 3) The third stage is data collection through a survey. This stage is related to the distribution of questionnaires containing measurement tools for the dimensions of leadership integrity. The selection of respondents for the data collection of individuals who work in a company has at least 2 years of work in the same company.
- 4) Stage 4, measuring the reliability of the data generated by the survey.
- 5) Stage five, data collection again by means of a survey based on the results of data reliability testing. This stage is related to the analysis of the content of the two-expert questionnaire.
- 6) Stage six, testing the leadership integrity variable with other variables.

The data analysis used in this research consists of two steps:

- 1) Data analysis from the focus group discussions was carried out through a reduction of the data: At this initial stage, researchers had to do two things, identifying units and making coding; b. categorization: this stage directs the researcher's efforts to sort out data that has been previously coded to be grouped according to the similarity of the meanings of the data; and c. Summary: At this stage, the researcher tries to find a link between one category and another.
- 2) Data analysis according to a quantitative approach is carried out by means of confirmatory factor analysis.

For nomological validity tests, a regression analysis is carried out.

#### **4. Results and Discussion**

This integrity also includes consistency between the principles and actions that have been accepted by the community and that have become a common consensus. Organizational integrity is also strengthened in ethical culture through open communication, interaction, acceptance of diversity, and dialogue in the context of ethical thinking. The integrity of the organization also promotes a system that strengthens the fight against corruption.

- 1) What is the role of organizational integrity in raising the integrity of a leader?
- 2) Organizational integrity means that there is an integrity value contained in the vision and mission. The vision has a forward-looking direction that becomes the guide for the development of strategies for stakeholders. The vision should reflect the value of integrity and thus influence all policies formulated by the organization. The mission concerns what the company does and who its customers are. The mission must be based on the integrity aspect. Did this understanding describe the value of organizational integrity in the vision and mission?
- 3) Organizational integrity means developing a code of ethics that has the value of integrity. Organizations must develop an ethical code with the value of integrity. This Code of Ethics can be used as a guide to the day-to-day operations of the organization and is followed by all employees in the organization. Did this understanding describe the value of organizational integrity in the Code of Ethics?
- 4) Organizational integrity means being linked to recruitment policy. To recruit employees, personality tests must be conducted with an emphasis on integrity. Thus, the organization can obtain employees who work with a tendency to have a high value for integrity. Did this understanding describe the value of organizational integrity in recruitment policy?
- 5) Organizational integrity is linked to senior management. The elected leader must have the character of integrity because it will be a model and reference in the actions of employees who are in the management level below them. Did this understanding describe the value of organizational integrity associated with top management?
- 6) Organizational integrity is attached to the creation of a working environment. An integrity-oriented working environment will create a mutually supportive, collaborative working environment and avoid competitive conditions. Has this understanding been able to describe the value of organizational integrity in creating a work climate?
- 7) The value of integrity is associated with training on the value of integrity that must be performed regularly, the purpose of which is to ensure the resolution of ethical issues. This training must be carried out regularly to remind employees to always act ethically. Has this understanding made it possible to describe the value of organizational integrity in the formation of integrity values?
- 8) The value of integrity in the form of an audit of integrity. Each year, the organization carries out an audit to assess and monitor the occurrence of unethical behavior. Thus, there is a control mechanism on business activities. Has this understanding made it possible to describe the value of organizational integrity in the form of an integrity audit?
- 9) The value of integrity is attached to policies that require gender equality. Organizations must implement policies that always consider gender composition. This gender policy will have an impact on equal participation in work and will emphasize the positive values of feminism. Has this understanding made it possible to describe the value of organizational integrity in the gender equality policy?
- 10) Are there other values of organizational integrity that can describe conditions at the state civil apparatus level?

The second step is to perform purification through validity testing and focus on the analysis of the validity of the content. To complete the content validity test, this study conducted interviews with leaders to confirm the measurement tools that have been developed related to the dimensions of leadership integrity. This interview involved five of employees working in banking, petrochemical, government sector, and service companies who occupy managerial levels to be asked for their opinions related to filling out indicators per dimension. The results of the study show that all indicators of each individual and the organizational dimension of leadership integrity meet the validity of the content. Based on the Aiken test, all indicators comply with the content validity. The results of the evaluation of 2 experts on one topic in relation to the extent to which the point represents the construct of leadership integrity.

The third step is to collect data through a survey. This stage is related to the distribution of questionnaires with measuring instruments for the dimensions of leadership integrity. The selection of respondents for data collection of persons working in a company has at least 2 years of work in the same company. The number of respondents in this study was 100. Based on the validity test by exploratory factor analysis (EFA), it is known that data processing produces two factors that can be categorized into two aspects, namely, individuals and organizations. The factor load for each indicator is more than 0.3 in terms of both the dimensions of leadership integrity and the individual and organizational dimensions. Specifically for leadership integrity indicators with individual dimensions.

Step four, measure the reliability of the data generated by the survey. In testing the reliability using the alpha coefficient, the indicators used are only valid indicators. A total of 100 people responded to the study. The respondents who completed this questionnaire were those who worked in different sectors. The results showed that all integrity variables had an alpha coefficient of Cronbach of 0.7. Step five, perform data analysis by inviting experts. These experts

consist of two persons to evaluate each indicator. In this final phase, the researcher examined a valid tool for measuring leadership integrity. This test is related to testing their relationship with other variables, namely relational engagement, trust and accountability. This test aims to analyze the nomological validity tests. Nomological validity is intended to prove the relationship between one variable and another. This study also measures the validity of leadership integrity. The results indicate that from 41 indicators, 3 indicators are not significant.

Gender demographics were collected, as many as 69 respondents or 69% came from the female group, while 31 respondents were from the men's group. As a result, the respondents in this study were dominated by women. An explanation of gender demography.

According to the demographics of the respondents, the age group surveyed shows that the largest number of respondents is 20-29 years old, with a total of 81 respondents or 81%. The second largest age group surveyed is in the 30-39 age group with a total of 15 respondents or 15 per cent. In the last position, four (4) respondents came from the 40-49 age group. From the 50-year-old or older group there are no representatives in the respondents collected. An explanation of the demographics by age is given in the table below.

Based on the demographic domicile of the respondents surveyed according to the domicile recorded on the identity card of the Republic of Indonesia, it was stated that the respondents were mostly from Java & Bali (Bali, East Java, DIY, Central Java, West Java, Banten, DKI Jakarta). The other 3 respondents came from outside Java & Bali. Two (2) respondents were from Sumatra (NAD, North Sumatra, West Sumatra, Bengkulu, Lampung, Riau Islands, Riau, Jambi, South Sumatra). There is one (1) respondent from Nusa Tenggara, Maluku & Papua (Papua, West Papua, Maluku, North Maluku, NTT, NTB). The declaration of domicile demography is attached in the following table. Based on the most recent education, it is stated that the frequency of respondents collected mainly comes from the last education group of Bachelors, which is 48 or 48%. The second group comes from the last school/gymnasium equivalent, with a total of 36 respondents with a total of 36%. The third-largest group came from the Academy/D1/D2/D3/D4/Vocation, namely 11 respondents or 11 percent (inconsistency of using %. Please choose either percent or %). The last group is from the graduate group, only 5 respondents.

**Table 1. The Final Indicator for Leadership Integrity with Individual Dimension**

| No    | Indicators  | Validity Loading |
|-------|---|------------------|
| Ind1  | A leader is someone who has an aspect of sensitivity regarding ethical issues that have an impact on others.  | 0.432            |
| Ind2  | In making decisions, a leader must pay attention to the voice of people or other aspects of the organization. | 0.327            |
| Ind6  | Analysis of a decision must consider the long term with regard to all risks and their consequences.           | 0.629            |
| Ind8  | A leader needs to have a high spirit  | 0.613            |
| Ind9  | A leader needs to have honesty  | 0.332            |
| Ind10 | A leader needs to have a sense of justice   | 0.523            |
| Ind11 | A leader needs to prioritize the common good  | 0.452            |
| Ind12 | A relative leader needs to have compassion for others   | 0.635            |
| Ind13 | A leader needs to have concern for others.  | 0.606            |
| Ind14 | A leader shows trust in others  | 0.662            |
| Ind16 | Moral actions become a business practice that is always used as a reference by everyone in the organization.  | 0.583            |
| Ind17 | Can be a role model for the organization  | 0.768            |

**Table 2. The Final Indicator of Leadership Integrity with Organizational Dimension**

| No    | Indicators  | Validity Loading |
|-------|---|------------------|
| Org1  | Organizations with integrity need the value of integrity contained in the vision and mission.   | 0.705            |
| Org2  | Organizations with integrity need to have a vision of future orientation that will serve as a guide in making strategies for stakeholders.              | 0.726            |
| Org3  | Organizations with integrity need to have a mission related to what the company does and who the company's customers are based on aspects of integrity. | 0.695            |
| Org4  | Organizations must develop a code of ethics with the value of integrity.  | 0.582            |
| Org5  | This code of ethics can be used as a guide in carrying out daily organizational activities  | 0.707            |
| Org6  | The code of ethics needs to be followed by all employees in the organization.   | 0.699            |
| Org7  | Recruitment of employees must be subject to personality testing with a focus on integrity.  | 0.619            |
| Org8  | Organizations are expected to obtain employees who work with a tendency to have a high integrity value.   | 0.654            |
| Org9  | The elected leader must have a character of integrity as a role model.  | 0.724            |
| Org10 | The elected leader must have a character of integrity as a reference in the actions of employees.   | 0.772            |
| Org11 | Leaders show good role models.  | 0.747            |
| Org12 | The work climate of the organization must apply the value of integrity.   | 0.758            |
| Org13 | Working conditions need to support aspects of collaboration between departments.  | 0.706            |
| Org14 | There are times when the work climate supports competition.   | 0.565            |
| Org15 | Integrity value training needs to be done regularly.  | 0.798            |
| Org16 | Training programs need to prepare all employees to be able to solve existing problems.  | 0.832            |
| Org17 | The training program is one way to remind employees to always act according to ethics.  | 0.799            |
| Org18 | Every year the organization conducts an audit to evaluate the occurrence of unethical behavior.   | 0.801            |
| Org19 | Every year the organization conducts an audit to monitor the occurrence of unethical behavior.  | 0.821            |
| Org20 | There is a need for an integrity pact as a control mechanism for business activities.   | 0.817            |
| Org21 | There is a need for quality control and product assurance as a quality assurance mechanism.   | 0.790            |
| Org22 | There needs to be a policy that meets the requirements of gender equality.  | 0.436            |
| Org23 | Gender equality has implications for equal work participation.  | 0.470            |
| Org24 | Gender equality focuses on the positive values of feminism.   | 0.424            |

This study also examines the relationship between leadership integrity and other variables. In this case, the researcher attempts to analyze the relationship between the integrity of leadership and each variable of relational commitment, trust and responsibility. Engelbrecht et al. (2015) analyzed the impact of leadership integrity on confidence. In this case, the measurement of leadership integrity uses the measurements developed in this study. The trust measures used are 1) I have no doubt about the trust of this organization, 2) I trust this organization, 3) I believe this organization can be trusted, and 4) being with this organization gives me a sense of security.

The aspects of accountability are also discussed in this study, especially in relation to leadership integrity. Research Nature et al. (2019) shows that certain aspects of leadership integrity can influence the formation of accountability. Accountability is the responsibility of individuals to account for all activities carried out, accept responsibility and convey work results transparently

According to the Descriptive Statistics Table, the accountability variable shows that the average respondent agrees with the accountability statement. With respect to trust, respondents agreed that they believe in the leader. The leadership integrity correlation table shows that the correlation between variables is significant. This is shown by each correlation of 0.35 between the leadership integrity variable and the individual and trust dimensions and 0.542 between the leadership integrity variable and the organizational dimension.

**Table 3. Correlation of Leadership Integrity and Trust**

|                     |                          | <b>Trust</b> | <b>Individual integrity</b> | <b>Organizational integrity</b> |
|---------------------|--------------------------|--------------|-----------------------------|---------------------------------|
| Pearson Correlation | Trust                    | 1.000        | 0.350                       | 0.542                           |
|                     | Individual integrity     | 0.350        | 1.000                       | 0.690                           |
|                     | Organizational integrity | 0.542        | 0.690                       | 1.000                           |

**Table 4. Correlation of Leadership Integrity and Accountability**

|                     |                          | <b>Accountability</b> | <b>Individual integrity</b> | <b>Organizational integrity</b> |
|---------------------|--------------------------|-----------------------|-----------------------------|---------------------------------|
| Pearson Correlation | Accountability           | 1.000                 | 0.601                       | 0.787                           |
|                     | Individual integrity     | 0.601                 | 1.000                       | 0.690                           |
|                     | Organizational integrity | 0.787                 | 0.690                       | 1.000                           |

The results of this study suggest that the integrity aspect of leadership will fundamentally support the creation of a leadership system in the organization that, at the same time strengthens other important elements. A governance system strengthened by integrity will direct all institutional resources to the extent possible to achieve the organization ' s objectives and ensure that the organization ' s objectives produce positive results for shareholders and stakeholders in general. The integrity of leadership has a holistic measure to understand overall integrity. This holistic measure has eclectic features that include organizational elements and organizational systems that support the effectiveness of leaders in the management of an institution, which is not only based on the character of the leader.

The results of this study point to two main dimensions that make up the measurement of leadership integrity and the development of measurement. A more holistic analysis of the elements will provide a broader understanding of the meaning of the integrity inherent in a leadership. This understanding of the meaning of integrity is strengthened by the development of measurements on each element that defines integrity. The developed measurement should be a parameter of the individual work of the conductor, so that it can become a target performance assessment (rephrase). This is in line with the results of the research conducted by Ete et.al (2022), which states that the integrity of a leader, demonstrated by his consistency in words and actions, has a very positive impact on the organization. It was further added that employees will closely monitor the behavior issued by the leader, and they are even more likely to “adopt” it. To improve the overall performance of the organization, the statement of values, rules and guidelines that are in possession is not sufficient without the ethical behavior of its leaders.

The development of integrity indicators, combined with the individual dimension of integrity, is based on moral awareness, moral deliberation, character, and moral conduct which shows as a balanced consideration, moral development, and a system that supports moral decision making (Petrick & Quinn, 2000). Individual decision-making in organizations will of course ignore subjective decisions. The integrity aspects of individuals will be a compass that will direct the morale of individuals to prioritize the achievement of organizational goals over personal goals.

Associated with leadership integrity indicators from the organizational side, leadership integrity at the organizational level is a personal moral standard and relational value with outsiders (simplify the sentence). This integrity focuses on kindness to others and strengthens the bonds between the people in the organization. The integrity of organizational governance creates standards to strengthen cultural cohesion in terms of professional responsibility and competence in dealing with issues within the organization (Vargas-Hernández (2013)). The integrity of organizational leadership can be supported based on the findings of research by Mayasari et al. (2012). The aspects that shape the integrity of leadership at the organizational level, namely the existence of the value of integrity as stated in the vision and mission; develop a code of ethics that has the value of integrity; the procurement policy; the top management; creating a working environment with priority given to the value of integrity; training on the value of integrity; Integrity checks and policies that always take into account gender composition.

## **5. Conclusion**

This study shows that the integrity of leadership is a variable that has a multidimensional measure. According to Edwards (2001), the use of multidimensional constructions has a virtue, that is, construction has the power of theory to explain a phenomenon more broadly with various dimensions accompanying a construct. In research applications, the application of multidimensional measurements aims at fulfilling criterion-related validity, particularly in the aspect of predictive validity. This application is used to predict overall behavior in the future.

The use of multidimensional variable for leadership integrity is important because you can know several things, namely:

- 1) The relationship between independent variables having multidimensional measurements and dependent variables will have a stronger relationship.
- 2) Measurements with multidimensional constructs show a higher reliability than measurements with one-dimensional dimensions.
- 3) Variables with multidimensional measurements have greater utility in explaining human behaviour than one-dimensional measurements.

As a pillar supporting the resilience of economic organisations, this research shows that the integrity of leadership can be measured multidimensionally by individual aspects and organizational aspects. In data analysis, each dimension can be used to test the leadership integrity variable. The measurement of the variable of leadership integrity in the organization has a formative measurement in which each indicator in each dimension cannot be exchanged because it does not have the same content, the same subject. If the researcher omitted an indicator, it would change the scope of the construct as a whole (Becker et al., 2013). The organization's resilience, supported by integrity aspects of leadership, can provide a first image for further research. The influence of the integrity of leadership in a broader context that applies to a broader industrial or commercial sector should foster a better generalization of research results. In addition, the leadership integrity variable can be analyzed using other variables such as organizational engagement and organizational performance.

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# **Entrepreneurial Munificence of Small Rural Businesses in Malaysia: An Exploratory Factor Analysis (EFA)**

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## **Abstract**

The purpose of this study is to evaluate the elements of entrepreneurial munificence (EM) of small rural businesses using the Exploratory Factor Analysis (EFA) procedure. Furthermore, this study has developed and validated instrument of entrepreneurial munificence in the context of rural businesses in Malaysia. This study utilized cross sectional research design. Quantitative data was collected as feasibility study data from 30 rural businesses in the state of Melaka, Malaysia, using self-administered survey. This study has finalized the instrument to six items with one dimension. This study has discussed the procedure to run EFA analysis for entrepreneurial munificence construct and calculated the value for Cronbach Alpha. The strict scale development and validation procedures employed in this study have assured that the Entrepreneurial Munificence instrument in this study is valid and reliable. It is suggested that future studies to look into different context in examining entrepreneurial munificence construct such as among technology-based family business and small franchise business in Malaysia.

## **Keywords**

Exploratory Factor Analysis (EFA), Entrepreneurial Munificence (EM), Small Rural Business

## **1. Introduction**

Many small rural businesses, especially among the new ventures in technology-based industry failed within the first three years of operations. The awareness level to involve in entrepreneurship activities has increased among the rural business entrepreneurs, however, the ability to administer and sustain the businesses for a long period of time among the rural entrepreneurs were not encouraging (Bernama, 2018; Endi Rekart, 2019; Derweanna Bah Simpong, 2022).

The new ventures early failure was due to their weaknesses in accessing resources, low level of initial capital, low business market, inability to grow the business and lack of skill to develop business networking through online and offline platform with customers and experienced industry players related to their products and services (Ridzwan et al., 2017). This failure was also due to their lack of exposure in utilizing internal and external resources from various sources. Furthermore, they also lack the ability to market their products using the online platform (Hazim, 2021).

The government has given a lot of support and provided financial and non-financial initiatives for the rural entrepreneurs to develop their businesses and improve their livelihood. They need to be given a lot of motivation and to enhance the need of achievement among the entrepreneurs so that they will succeed in their business ventures (Ibrahim Tijjani Sabiu, 2018).

## **2. Literature Review**

Previous researches related to the need for entrepreneurial munificence for businesses, have focused on business munificence environment and how environmental conditions stimulate entrepreneurs' intentionality to start a venture (Putri & Utama, 2019). The study related to the impact of munificent environment on business performance can be traced from the study by Dubini (1989).

According to Dubini (1989), a highly munificent environment is defined as an area characterised by a strong presence of family businesses and role models, a diversified economy in terms of size of companies and industries represented, rich infrastructure and the availability of skilled resources, a solid financial community, and government incentives to start a new business. The study by Indrawati et al. (2015) concluded that environmental munificence has moderation effects on business performance, business success and business sustainability. Environmental munificence is the availability of infrastructures and facilitations that help support the process of new business ventures (Wang and Zhang, 2020). Initiatives to help small businesses are also needed particularly in the digital marketing platform. This would include formulating the right strategies and techniques to ensure their products and services marketed on digital platforms reach targeted consumer groups. Therefore, it is crucial for small businesses, especially in rural areas to reinvent business strategies to overcome these difficult times and minimize losses (Gisip, 2020).



Small businesses especially in the rural areas need to consider the adoption of new technologies, digitalization, and implementing e-commerce solutions to reduce costs, and save time and resources (Sharon, 2020). They need to realize the benefits of adopting digital marketing for their businesses and to overcome skill gaps to fulfill the needs of their customers (New Straits Times, 2020).

The purpose of this study is to evaluate the elements of entrepreneurial munificence (EM) of small rural businesses using the Exploratory Factor Analysis (EFA) procedure. This study has also developed and validated instrument of entrepreneurial munificence in the context of rural businesses in Malaysia.

### 3. Methods

This study used a cross-sectional research design to develop a valid and reliable measure for Entrepreneurial Munificence construct particularly in the context of rural businesses in Malaysia. The target population for this study is the rural business entrepreneurs in Malaysia. The rural business entrepreneurs were selected because this study will examine the effects of entrepreneurial munificence on their business performance. This study then collected survey data from the entrepreneurs near the Rural Community Centers who are willing to participate in this study in the state of Melaka, Malaysia. This study randomly selected 30 rural business entrepreneurs as the pilot study respondents. Data was collected through a self-administered questionnaire.

The items utilized in this study have been adapted and modified from the study by Dubini (1989), Zohreh Hassannezhad (2020), Yoo and Kim (2019), Wang and Zhang (2020), Tang, Rothenberg and Tang (2022). This study examines the elements of the financial and non-financial supports, policy and procedures for new ventures, entrepreneurial developments, media coverage, tax incentives and internet coverage. The items are shown in Table 1 below. 10-point interval scale was used in the questionnaire to measure the response from the respondents of this study.

**Table 1. List of Items Measuring Entrepreneurial Munificence for Rural Entrepreneurs.**

| Item Code | Item   |
|-----------|--|
| EM1       | ● Incentives and support given by local government and related entrepreneurial development agencies. |
| EM2       | ● Bank, financial agencies and venture capitalists are available to help new business start-ups.     |
| EM3       | ● Policy and procedures by government facilitates new entrepreneurs to start their businesses.       |
| EM4       | ● Availability of many successful entrepreneurs in the nearby localities.                            |
| EM5       | ● Online and off line training programs are available to entrepreneurs.                              |
| EM6       | ● Local media are making good media coverage related to local entrepreneurial success.               |
| EM7       | ● Tax incentives and exemptions are available to the companies operating near these localities.      |
| EM8       | ● The internet line is easy to be access in this area.   |

### 4. Results and Discussion

EFA procedure was done using IBM SPSS software in order to evaluate the interrelatedness among the items which measure Entrepreneurial Munificence among rural businesses. EFA is a procedure which should be done before proceeding to Structural Equation Modeling procedure (Hair et al., 2010, Phakiti, 2018). The following section discusses the results of EFA.

The correlation table in Table 2 below shows that the items of Entrepreneurial Munificence are suitable for factor analysis. The correlations between the items of Entrepreneurial Munificence shows positive correlation.

The scree plot in Figure 1 below indicates two dimensions emerged from EFA procedure for this construct. In other words, the EFA procedure has grouped the 8 items into two dimension. There are two components which are extracted from Entrepreneurial Munificence (EM) construct. Items EM4, EM6, EM7 and EM8 are for first component and EM1, EM2, EM3 and EM5 are for second component.

The Exploratory Factor Analysis using extraction method of Principal Component with Varimax (Variation Maximization) Rotation was performed on the 8 items measuring Entrepreneurial Munificence (EM) construct. The results in Table 3 below indicated that the Bartlett's Test of Sphericity is significant (p-value < 0.05). Furthermore, the measure of sampling adequacy by Kaiser-Meyer-Olkin (KMO) is excellent at 0.793 which exceeded the required value of 0.6 (Hadia et al., 2016) and can proceed further for data reduction.

**Table 2. The Correlation Table Between Items of Entrepreneurial Munificence**

|                 |     | Correlation Matrix <sup>a</sup> |       |       |       |       |       |       |       |
|-----------------|-----|---------------------------------|-------|-------|-------|-------|-------|-------|-------|
|                 |     | EM1                             | EM2   | EM3   | EM4   | EM5   | EM6   | EM7   | EM8   |
| Correlation     | EM1 | 1.000                           | .790  | .766  | .487  | .680  | .446  | .377  | .497  |
|                 | EM2 | .790                            | 1.000 | .884  | .458  | .706  | .619  | .460  | .427  |
|                 | EM3 | .766                            | .884  | 1.000 | .659  | .723  | .668  | .628  | .516  |
|                 | EM4 | .487                            | .458  | .659  | 1.000 | .646  | .735  | .871  | .768  |
|                 | EM5 | .680                            | .706  | .723  | .646  | 1.000 | .845  | .529  | .709  |
|                 | EM6 | .446                            | .619  | .668  | .735  | .845  | 1.000 | .680  | .669  |
|                 | EM7 | .377                            | .460  | .628  | .871  | .529  | .680  | 1.000 | .722  |
|                 | EM8 | .497                            | .427  | .516  | .768  | .709  | .669  | .722  | 1.000 |
| Sig. (1-tailed) | EM1 | .000                            | .000  | .000  | .003  | .000  | .007  | .020  | .003  |
|                 | EM2 | .000                            | .000  | .000  | .005  | .000  | .000  | .005  | .009  |
|                 | EM3 | .000                            | .000  | .000  | .000  | .000  | .000  | .000  | .002  |
|                 | EM4 | .003                            | .005  | .000  | .000  | .000  | .000  | .000  | .000  |
|                 | EM5 | .000                            | .000  | .000  | .000  | .000  | .000  | .001  | .000  |
|                 | EM6 | .007                            | .000  | .000  | .000  | .000  | .000  | .000  | .000  |
|                 | EM7 | .020                            | .005  | .000  | .000  | .001  | .000  | .000  | .000  |
|                 | EM8 | .003                            | .009  | .002  | .000  | .000  | .000  | .000  | .000  |

a. Determinant = .000



**Figure 1. Scree Plot from the EFA Procedure**

**Table 3. KMO and Bartlett's Test of Sphericity for Entrepreneurial Munificence Construct**

|  |                    |         |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .793    |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 233.003 |
|  | df                 | 28      |
|  | Sig.               | .000    |

**Table 4. Total Variance Explained for Entrepreneurial Munificence Construct**

| Component | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
|           | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1         | 5.505               | 68.816        | 68.816       | 5.505                               | 68.816        | 68.816       |
| 2         | 1.153               | 14.407        | 83.223       | 1.153                               | 14.407        | 83.223       |
| 3         | .502                | 6.275         | 89.498       |                                     |               |              |
| 4         | .424                | 5.299         | 94.797       |                                     |               |              |
| 5         | .181                | 2.264         | 97.061       |                                     |               |              |
| 6         | .102                | 1.271         | 98.332       |                                     |               |              |
| 7         | .078                | .974          | 99.306       |                                     |               |              |
| 8         | .055                | .694          | 100.000      |                                     |               |              |

The results in Table 4 shows that there are two dimensions emerged from EFA procedure based on the computed Eigenvalue greater than 1.0. The eigenvalue for the first component is 5.505 while the variance explained for this component is 68.816%. The eigenvalue for second component is 1.153 and the variance explained is 14.407%. The total variance explained for measuring Entrepreneurial Munificence is 83.223%. Thus, this component and its respective items are excellent in measuring the Entrepreneurial Munificence construct since its total variance explained exceeded 60% (Gie Yong & Pearce, 2013).

The factor loadings for all items are greater than 0.6. Thus, no item should be deleted since they achieved the minimum requirement for factor loading of 0.6 (O'Rourke & Hatcher, 2014). In other words, all items were useful to measure the latent construct. Based on the rotated component matrix there are two components which are extracted from Entrepreneurial Munificence (EM) construct. Items EM4, EM6, EM7 and EM8 are for first component and EM1, EM2, EM3 and EM5 are for second component. The first component will be named Entrepreneurial Development elements and the second component is named as Entrepreneurial Support elements.

Finally, the study needs to compute the value of Cronbach Alpha for every dimension to assess the Internal Reliability of the respective dimension in measuring the latent construct. The value of Cronbach Alpha should be greater than 0.7 for the items to achieve the Internal Reliability. The Cronbach Alpha for the component measuring Entrepreneurial Munificence construct was 0.933. Thus, the items in this component have achieved the required Internal Reliability since the Cronbach Alpha value is greater than 0.7 (Panayides, 2013).

## 5. Conclusion

This study presented the EFA procedure to analyze the Entrepreneurial Munificence construct, especially focusing on the small rural businesses in Malaysia. Entrepreneurial Munificence examines the elements of the financial and non-financial supports, policy and procedures for new ventures, entrepreneurial developments, media coverage, tax incentives and internet coverage. They are measured using 8 items such as the incentives given by the government in terms of financial and non-financial supports by the banks and other financial institutions, policy and procedures in starting a new venture, the number of entrepreneurs in the area, the availability of trainings for entrepreneurs, the support from the media, tax incentives and easy access to the internet. The reliability measures for the Entrepreneurial Munificence construct have shown high Cronbach Alpha value. The Bartlett's Test result was significant, KMO results was more than 0.6. and factor loadings for all items exceeds 0.6, which is the minimum threshold (Hadia et al., 2016). The strict scale development and validation procedures employed in this study have assured that the Entrepreneurial Munificence instrument in this study is valid and reliable. Future studies should look into different contexts of entrepreneurial munificence such as among technology-based family business and small franchise business in Malaysia.

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## **The Influence of Transformational Leadership Style on Work Engagement in Jakarta Transportation Companies**

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### **Abstract**

This study discusses the implications of transformational leadership on work engagement. Transformational leadership is needed in the business world to increase work engagement. The purpose of the study was to analyze the effect of transformational leadership in increasing work engagement in a transportation service company. The focus of the research was conducted on PT. Transjakarta is a public transportation company for the community. This study uses the Partial Least Square (PLS) method. The sampling approach used purposive method. The process of collecting data using a google form-based questionnaire. The amount of data as many as 77 respondents. The results of the study explain that transformational leadership has a significant effect on work engagement. Transformational leadership can increase work engagement by 67.5%. Transformational leadership is needed to increase work engagement for all employees. Public transportation services require direction, motivation, and innovation from the leadership to provide consumer convenience. The findings raised in this study are reinforcement of the results which show that transformational leadership has a positive effect on work engagement.

### **Keywords**

Transformational Leadership, Work Engagement, Public Transportation

### **1. Introduction**

It is undeniable that transformational leadership style has an important role in organizations (Jiang et al., 2018). This can be inspiring employees towards the achievement of higher organizational goals. This component pays attention to the needs and welfare of employees. The positive effect felt by employees will feel cared for by their leaders is an increase in work engagement (Siangchokyoo et al., 2020). Work productivity will be high and business efficiency will be felt by all business processes. This positive thing is able to give confidence to all employees and their contributions are in line with company expectations. The effectiveness of transformational leaders is needed to grow work professionalism, organizational loyalty, and work engagement to all employees (Farahnak et al., 2020).

PT Transportasi Jakarta is a business entity owned by the Jakarta provincial government that provides a wide selection of transportation products for the people of Jakarta, one of which is Transjakarta. Transjakarta itself is the first Bus Rapid Transit (BRT) transportation system in Southeast and South Asia which has been operating since 2004 in Jakarta, Indonesia. Transjakarta, which initially operated from 05.00 to 22.00, is now operating 24 hours. The number of employees of PT Transportasi Jakarta as of May 19, 2021 is 6,104 people and is divided into 3 main sections, namely K3, Operations and General. The vision of the organization is "to become a world-class transportation company that is the main choice for the mobility of the people of DKI Jakarta". Achievement of the vision through the mission of "providing solutions to overcome the problems of congestion and community mobility in DKI Jakarta. To become a world-class public transportation company that is healthy and contributes positively to shareholders and stakeholders. Building professional people who care and are full of integrity with a strong service and (teamwork) spirit. Implementing a work culture that prioritizes service reliability and customer satisfaction. This company has 6,104 people and is divided into 3 main sections, namely K3, Operations and General with a large number of employees divided into several departments with various employee characteristics and challenges from outside to be able to continue to grow which is one of the determinants of the positive development of a company. company is a leader.

Public organizations need leaders who are able to transform business ideas, dreams, and goals. Service to consumers is a major element in building public trust. Scheduling according to the information so that timeliness becomes very important. Work engagement is a key to the successful implementation of employee duties (Simpson, 2009). This must be assisted by an effective, efficient and effective leadership transformation. Transformational leaders are needed to grow work engagement. Transformational leadership is able to demonstrate distributive justice, procedural justice, and interactional justice (Din et al., 2019). The leadership variable can be used as an impicator so that it can provide a comprehensive explanation. Transformational leadership can give a company clear direction. A leader must be able to organize and define relationships that tend to be effective communication channels. Leaders who have a tendency to form high structures are focused on goals and results.

Transformational leadership is assumed to be able to increase work engagement. Employees who have work engagement can identify themselves psychologically with their work and consider their performance important for themselves, in addition to the organization. More specifically, it defines employee work engagement as positivity, fulfillment, work from the center of the mind characterized by high quality (Schaufeli, 2013). Work engagement or worker engagement is a business management concept which states that employees who have high engagement are employees who are fully involved and have a high enthusiasm for working in their work as well as in matters relating to long-term company activities. In other words, the definition of work engagement refers to the involvement, satisfaction and enthusiasm of employees in working. Work engagement has evolved from various concepts covering motivation, job satisfaction and organizational commitment (Knight et al., 2017).

Several studies have shown that the relationship between transformational leadership has positive implications for work engagement (Monje Amor et al., 2020; Mostafa & Abed El-Motalib, 2020). Transformational leadership leads to change on an organizational scale. The dimensions used to measure transformational leadership consist of idealized influence, individualized consideration, inspirational motivation, and intellectual stimulation (Kroon et al., 2017; Ree & Wiig, 2020). However, there are those who show that transformational leadership has no effect on work engagement which leads to positive implications for the organization's business (Lai et al., 2020; Nurtjahjani et al., 2020; Smit et al., 2021). Leadership or leadership belongs to the group of applied sciences or applied science from the social sciences because the principles and formulations are useful in improving human welfare. As a first step to learn and understand everything related to aspects of leadership and its problems. This study analyzes the positive implications of transformational leadership on work engagement at PT. Transjakarta. The pattern of service to consumers and work engagement become a source of inspiration for employees to contribute positively to the company's business. The service business requires high work engagement. The inspiration came from transformational leadership. This research will be a description of the recommendations that must be given to the company. The position of this research is to complement the research gap which still shows no implications between transformational leadership and work engagement.

This study analyzes the implications of transformational leadership on work engagement. The implications of a transformational leadership are expected to be able to bring the scale of the organization to a higher level on a national scale. Public transportation companies are expected to be able to produce quality business in an innovative, creative, and excellent service to the community. This issue is focused on the leadership aspect with the quality of work engagement by employees. Employee contributions are expected to be able to achieve the company's business targets.

## **2. Literature Review**

### **2.1 Transformational Leadership**

Leadership is an important element in a competitive organization. Some literature on leadership explains that the main element in bringing organizational direction and increasing business scale (Araujo et al., 2021; Nwachukwu & Vu, 2020). There are several approaches to explaining leadership effectiveness that can be used as the main source (Daft & Lane, 2008). First, the approach based on the general personality traits of a leader is greater than that of a non-leader. Second, based on the leader's behavioral approach. Third, based on the possibility (situational) approach. Fourth, the approach returns to the nature or characteristics of a different perspective, namely trying to identify a set of leader traits that others refer to. Trait leadership theory is a theory that looks for the personality, social, physical or intellectual traits that distinguish leaders from non-leaders. Based on this theory, leadership is innate or an innate talent. For example, it was found that there are six kinds of traits that distinguish between leaders and non-leaders, namely ambition and energy, desire to lead, honesty and integrity, self-confidence, intelligence, and work-relevant knowledge.

A leader is someone who can influence others and has managerial authority (Kragt & Guenter, 2018). Leadership is the process of leading a group to achieve its goals. Leadership is a process of one's activities to move others by leading, guiding, influencing others, and doing something to achieve the expected results. Transformational leadership is part of group behavior which is a condition in which followers of a transformational leader feel trust, admiration, loyalty, and respect for the leader. (Robbins & Judge, 2018). This makes employees feel job innovation according to the expectations and expectations of the organization (Yukl, 2013). Transformational leadership is measured through idealized influence, individualized consideration, inspirational motivation, and intellectual stimulation (Kroon et al., 2017; Ree & Wiig, 2020). The essence of transformative leadership is to turn potential into real energy, transforming institutional potential into energy to improve the quality of learning processes and outcomes.

Transformational leaders must have the power to influence subordinates in certain ways (Mincu, 2016). The effectiveness of the implementation of transformational leadership, subordinates will feel trusted, valued, loyal and respect to their leaders. The principle of transformational leadership is to be able to motivate subordinates to do better than what can be done, in other words, to increase the confidence or self-confidence of subordinates which will have an effect on improving performance. So, it can be concluded that transformational leadership must have the ability to persuade a group of individuals as part of the process of achieving organizational goals.

## **2.2 Work Engagement**

Engagement is an attitude shown by employees in an organization or company by involving physically, mentally or cognitively, and emotionally (Colquitt et al., 2019). Personal disengagement is defined as the attitude shown in the world of work by attracting and fortifying oneself physically, cognitively and emotionally during work. In general, employee work engagement can provide positive energy to employees because of the application of human values, where employees feel valued and are directly involved in the work process. Work engagement is a business management concept which states that employees who have high engagement are employees who have full involvement and have high morale in their work as well as in matters relating to long-term company activities. Work engagement is measured through vigor, dedication, and absorption (Faskhodi & Siyyari, 2018; Knight et al., 2017; van der Walt, 2018). These three dimensions are used to measure work engagement carried out by employees.

Work engagement has evolved from various concepts covering motivation, job satisfaction and organizational commitment (Saks, 2019). This basic principle must be possessed by employees in work conceptualized as members of the organization who carry out their work roles, work and express themselves physically, cognitively and emotionally during work. The basic principle of work engagement is the power that can motivate employees to be able to improve performance at a higher level, this energy is in the form of commitment to the organization, a sense of belonging and pride, more effort (time and energy), enthusiasm and interest, commitment in implementing profession (Kuok & Taormina, 2017). The level of employee work engagement results in greater openness to experiences and ideas on how to optimize and change work processes so that they serve as motivation to further develop, maintain and implement innovative ideas. (De Spiegelaere et al., 2012). The indicators used to measure work engagement are vigor, dedication, and absorption (Chen et al., 2020; Oksa et al., 2021). Vigor is spirit refers to a high level of energy and resilience, willingness to try, not easily tired and persistent in the face of adversity. Individuals who have high morale scores have high energy, enthusiasm, enthusiasm, and stamina when working, while those who have low scores have low energy, enthusiasm, and stamina during work. Dedication is a feeling of meaning, enthusiasm, and pride in one's work, and feeling inspired and challenged by it. Absorption is working on concentrating fully and deeply, being immersed in work where time passes quickly and it is difficult to separate oneself from work, thus forgetting everything around it.

## **2.3 Transformational Leadership on Work Engagement**

Transformational leadership is needed to generate job innovation (Kambey et al., 2018). The work process carried out by employees is largely determined by the direction, motivation, and flow of thought from a leader. Business transformation can be carried out properly depending on the perspective of the leader in viewing the quality of work carried out by employees. Engagement is not only for employees, but must also be directed at planning, processes, and workflows. The service process carried out by the company must be carried out properly. This will determine consumer loyalty to the company's business. Several recent studies have shown that transformational leadership has a significant effect on work engagement (Chua & Ayoko, 2021; Ghadi et al., 2013; González-Cruz et al., 2019). Positive transformational leadership has the highest value in leading the company and in directing employees so that employees more easily understand what the organization or company expects. In addition, transformational leaders pay more attention to empowering and encouraging given by leaders to employees so that employees will feel supported by superiors and co-workers and will feel that they are needed in the organization. This increases employee engagement in employees. Although there are studies that show that transformational leaders do not necessarily succeed in increasing the work engagement of all employees (Smit et al., 2021). This research is interested in examining the implications of transformational leadership on work engagement in transportation companies. The existence of this business is determined by service quality, schedule accuracy, and customer satisfaction.

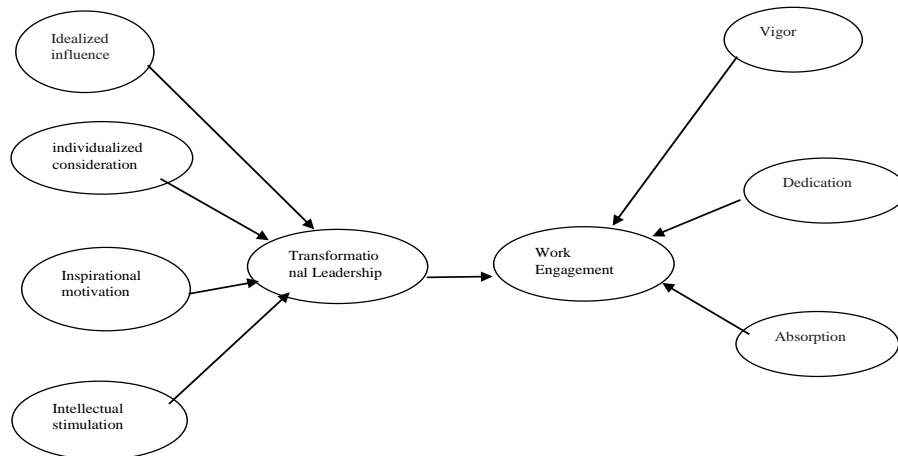
H1: Transformational leadership has a positive effect on work engagement.

## **3. Methods**

This study uses the Partial Least Square (PLS) method. This method is used to analyse the relationship between indicators and variables. The first process is the feasibility of the variable indicator through a minimum outer loading value of 0.7 (Monecke & Leisch, 2012). This value shows a representative indicator of the transformational leadership variable on work engagement. The two tests of validity and reliability of the data include composite reliability, AVE, Rho-A, and Cronbach Alpha. Each variable must meet a minimum value of 0.8 and 0.5 specifically for Average Variance Extracted (AVE). (Cheung & Wang, 2017; Sander & Teh, 2014). The next step is to examine the coefficient of determination with R-Square and test the hypothesis with the T-test. If the T-test p-value is smaller than 0.05 and the T-Statistic is greater than T-Table, then the hypothesis is accepted that there is an influence between transformational leadership on work engagement. (Sarstedt & Cheah, 2019).

The indicators used for transformational leadership consist of idealize influence, individualized consideration, inspirational motivation, and intellectual stimulation. Work engagement using indicators consisting of vigor, dedication and absorption (Liu et al., 2020; Saks & Gruman, 2018). Idealized influence is behavior that evokes strong emotions and

identification from followers of the leader. Individualized consideration is the provision of support, encouragement, and training for followers. Inspirational motivation is conveying an interesting vision, using symbols to focus the efforts of subordinates. Intellectual stimulation is behavior that increases followers' awareness of problems and influences followers to view problems from new perspectives. Vigor is an outpouring of energy and mental strength during work, the courage to try your best to complete a job, and persevere in the face of work difficulties. Also the willingness to invest every effort in a job, and persist in spite of adversity. Dedication is a very strong feeling of involvement in a job and experiencing a sense of meaning, enthusiasm, pride, inspiration and challenge. Absorption is a perspective with a concentrated and serious focus on a job. Below is the framework of the research model as follows:



**Figure 1. Research Model**

The picture above shows the model framework that is used as a research reference. Research indicators are used to formulate a questionnaire to all respondents. The seven indicators in the figure serve as models to analyze the implications of transformational leadership on work engagement. Below is the formulation for the research questionnaire as follows:

**Table 1. Research Questionnaire**

| Variable                    | Indicator   | References                             |
|-----------------------------|---|--|
| Transformational Leadership | Leaders provide motivation for performance improvement.<br>Leaders provide motivation to be confident in carrying out work<br>Leaders foster optimism for employees in achieving work targets<br>Leaders generate work enthusiasm for employees.<br>Leaders communicate clearly about work.<br>Leaders are good role models for all employees<br>The leader gives me instructions on how to get a job done.<br>Leaders instill a sense of pride in employees during the work process<br>My leader earns the respect of the employees.<br>Leaders encourage me to use creativity in getting things done.<br>Leaders encourage me to always be innovative in getting work done.<br>My leader is eager to listen to my ideas.<br>The leader encourages me to solve work problems rationally/logically. | (Kroon et al., 2017; Ree & Wiig, 2020) |



Leaders solve problems from multiple perspectives.  
The leader seeks to improve my self-development.  
The leader treats me as a personal individual, not just as a member of a work group.  
The leader is willing to listen to the difficulties and complaints that I experience.  
The leader gave me advice that was very important for my personal development.  
My leader treats employees as individuals who each have different needs, abilities, and aspirations.

|                 |  |   |
|-----------------|--|---|
| Work Engagement | <p>I'm always excited to go to work.</p> <p>I am passionate about doing work every day. When at work I don't give up easily despite obstacles and difficulties.</p> <p>I can work long hours at any given time.</p> <p>I have a strong mental resilience when working.</p> <p>I feel passionate when doing my job.</p> <p>My work is a source of pride for me.</p> <p>I feel proud when I do a job completely and thoroughly.</p> <p>I am ready to pour my heart and soul into work.</p> <p>I feel the work I do is meaningful and has a purpose.</p> <p>I choose to focus when I'm working.</p> <p>I feel happy when I'm really working.</p> <p>I feel attached to my job.</p> <p>I feel time flies when I'm working.</p> | (Knight et al., 2017; van der Walt, 2018) |
|-----------------|--|---|

In total, all the questions on the research questionnaire were distributed to the respondents. Respondent objects are employees who work in the company at all levels of position. The research approach uses stratified sampling. Data retrieval based on certain criteria is determined by the period of service, level of position, and level of education. The data collection process uses google forms to support the health protocol process. Direct data collection is not possible during the Covid-19 pandemic. The data collection process is used as basic information to see the positive implications presented by transformational leadership on work engagement.

## 4. Results and Discussion

### 4.1 Profile Respondent

This study obtained the number of respondents as many as 77 people. The criteria are taken starting from the level of education, gender, and age. Table 2 is the respondent profiles. The table above explains that the majority at the education level are dominated by the diploma level (29 people), high school seniors (25 people), and bachelors (23 people). Gender is dominated by 48 people and 29 women. The age criteria are dominated by 20-30 years (30 people), 31-40 years (29 people) and the rest over 40 years (18 people). The working period is dominated by 1-5 years (50 people) and over 5 years (27 people). The distribution of data is considered sufficient to serve as a basis for research data analysis. The respondent's profile is dominated by productive age and long working period. This criterion is considered sufficient to see the distribution of data and analyze the influence between transformational leadership variables on work engagement.

**Table 2. Respondent Profile**

| Items     | Criteria           | Numbers |
|-----------|--------------------|---------|
| Education | Senior High School | 25      |
|           | Diploma            | 29      |
|           | Bachelor           | 23      |
| Gender    | Male               | 48      |
|           | Female             | 29      |
| Age       | 20 - 30 Year       | 30      |
|           | 30 - 40 Year       | 29      |
|           | > 40 Year          | 18      |
| Tenure    | 1-5 year           | 50      |
|           | > 5 Year           | 27      |

#### 4.2 Partial Least Square

The initial process of checking the feasibility of the data with the outer loading value on all indicators is at least 0.7. Below, the indicator values for all variables are as follows:

**Table 3. Validity and Reliability Test**

| Variables                   | Cronbach's Alpha | Rho-a  | Composite Reliability | Average Variance Extracted (AVE) |
|-----------------------------|------------------|--------|-----------------------|----------------------------------|
| Transformational Leadership | 0,981            | 0,983  | 0,982                 | 0,757                            |
| Work Engagement             | 0,908            | 0,920' | 0,929                 | 0,687                            |

The table above shows that all indicators used in transformational leadership and work engagement can meet the criteria for data validity and reliability. The Cronbach Alpha, Rho-a, and Composite reliability values are above 0.8. All indicators on both variables meet the aspects of validity and reliability. The Average Variance Extracted value for the two variables is above 0.5. This can be explained that discriminant validity can be met according to the value on the AVE. In the early stages, it has fulfilled the aspects of validity, reliability, and discriminant validity. The next stage is the feasibility of research indicators with a minimum outer loading value of 0.6 and above 0.7. Below is a table of the significance of the variable indicators as follows:

**Table 4. Outer Loading**

| Questionnaire Code | Transformational Leadership | Work Engagement |
|--------------------|-----------------------------|-----------------|
| 10E                |                             | 0,862           |
| 12E                |                             | 0,808           |
| 1B                 | 0,825                       |                 |
| 1C                 | 0,872                       |                 |
| 1D                 | 0,879                       |                 |
| 1E                 |                             | 0,863           |
| 2A                 | 0,904                       |                 |
| 2B                 | 0,864                       |                 |
| 2C                 | 0,874                       |                 |
| 2E                 |                             | 0,876           |
| 3A                 | 0,863                       |                 |
| 3B                 | 0,899                       |                 |
| 3C                 | 0,854                       |                 |
| 3D                 | 0,871                       |                 |
| 4A                 | 0,850'                      |                 |

|    |        |        |
|----|--------|--------|
| 4B | 0,818  |        |
| 4C | 0,880' |        |
| 4D | 0,930' |        |
| 5A | 0,859  |        |
| 5C | 0,844  |        |
| 5D | 0,866  |        |
| 6E |        | 0,853  |
| 8E |        | 0.700' |
| 1A | 0,902  |        |

The table above explains that all indicators used have met the outer loading value above 0.7. The research construct built with indicators on transformational leadership and work engagement variables has met the feasibility of the research model. Each indicator that is used as a representative variable can be used to analyse the relationship between transformational leadership and work engagement. In the next stage, the measurement of determination made by transformational leadership on work engagement is as follows:

**Table 5. R-Square**

| Variable        | R Square | R Square Adjusted |
|-----------------|----------|-------------------|
| Work Engagement | 0,455    | 0,448             |

The table above explains that transformational leadership has a determination scale of 45.5% and the remaining 55% is outside the research model. This means that it can explain that it can still be developed with other variables according to the research problem. The next stage is hypothesis testing as follows:

**Table 6. Hypotheses Testing**

| Hypotheses                                     | Original Sample | T Statistics | P Values |
|--|-----------------|--------------|----------|
| Transformational Leadership on Work Engagement | 0,675           | 10,253       | 0.000    |

The table above explains that the hypothesis between transformational leadership and work engagement is acceptable. These two variables have positive implications between transformational leadership and work engagement. The T-test shows that the p-value is 0.000 which is less than 5% and the T-Statistic (10.253) is greater than the T-Table (1.99). The research hypothesis built on the model concludes that transformational leadership has a significant effect on work engagement. This positive implication can be seen in the significance of transformational leadership in increasing work engagement.

### **4.3 Discussion**

The results of the study explain that transformational leadership has positive implications for work engagement. Transformational leadership can increase work engagement by 67.5%. Several studies explain that transformational leadership has a significant effect on work engagement (Ariyani & Hidayati, 2018; Enwereuzor et al., 2018). The position of this research is to strengthen with several previous journals where transformational leadership is able to increase work engagement of all employees and have positive implications for job innovation. (Jeong et al., 2016; Li et al., 2019). The significance of the results of this study can explain that companies must pay attention to work engagement in improving business processes.

Employees who are involved in their duties and work will have a psychological sense of ownership and this will encourage them to share interests in the decision-making of an organization. The service process and speed are very reliable at PT. Jakarta Transportation. Public services are prioritized to meet consumer needs for convenient, flexible, and punctual transportation. The public transportation business is the mainstay of the community to work and avoid traffic jams in the midst of traffic jams in the city of Jakarta. Creativity and job innovation must be fostered through leadership with strong business transformation. Responsive to change and intellectual with new business idea concepts.

The application of transformational leadership provides employees with high work effectiveness. The amount of increase is very significant to increase work engagement for all employees. Transformational leadership style has a positive influence on employee work engagement. recommendations given to PT. Transportation Jakarta still maintains the existing leadership style and continues to evaluate if there are obstacles and make more creative ways to build

employee work engagement. Strategies that can be used by PT. Transportation in Jakarta to be able to increase employee work engagement is to further improve the leadership style between leaders and employees, so that by spurring a better transformational leadership style, it can be indicated that employee work engagement will increase. Steps that need to be taken such as paying attention to compensation, career development, and a conducive work environment. With a transformational leadership style that always prioritizes the interests and goals of the organization, being open (transparent) can accept constructive input and criticism from subordinates, appearing as a role model for employees, paying attention to the problems faced related to the discussion.

## 5. Conclusion

The results of this study indicate that the impact of the application of transformational leadership style in PT. Jakarta transportation is direct. The expected impact of the application of this transformational leadership style is to improve communication from various directions within the company so as to create a good work environment and also create maximum results at work. Transformational leadership style at PT. Transportation in Jakarta has a direct impact on employee work engagement. In addition to leadership style, there are several things that affect employee work engagement. Transformational leadership enhancement is needed to deal with high business complexity. Business changes accompanied by uncertainty must have leaders with business transformation and adaptation to new work patterns. Work engagement greatly determines the quality of the business processes carried out by employees. All company employees understand well the main duties and responsibilities to achieve organizational goals. It is also influenced by organizational characteristics, such as a reputation for integrity, good internal communication and cultural innovation. This research can be continued with other variables according to the context. Transformational leadership issues will always be discussed with implications for corporate profitability or with change management. Transformational leadership has always been an interesting topic from the aspect of human resources, organization, business strategy, and organizational change. This research is expected to be a reference with existing results according to the context of work engagement.

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## **Confidentiality of Client Information and AMLA Regime Compliance**

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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 the low level of compliance by professional accountants towards the anti-money laundering regime in Malaysia. Professional accountants have been named as one of the reporting institutions under the anti-money laundering regime, where they are required to implement compliance programs (such as Know Your Customer, Clients Due Diligent, Record Keeping) and to submit any suspicious transaction reports encounter to the authorities. This study aims to examine the relationship between confidentiality of client information and compliance of anti-money laundering regime among professional accountants in Malaysia. A questionnaire was development and sent to 1100 professional accountants. However, 275 questionnaires were collected and analyses using regression analysis. This study used Protection Motivation Theory to explain on the relationship between confidentiality of client information and compliance of AMLA regime. Findings from this study have identified that “confidentiality” found to be not significantly related to the level of compliance towards anti-money laundering regime by professional accountants.

### **Keywords**

Anti-Money Laundering Compliance, Predicate Offences, Professional Accountants, Confidentiality, Criminal

### **1. Introduction**

Over the recent years, money laundering cases and their connected predicate offences had been in the media news spotlight every so often than ever. Most recent case was involving Former Prime Minister of Malaysia Dato’ Sri Najib Razak. Many institutions were being penalizes with huge fines for their direct or indirect involvement in the process of cleansing “ill-gotten gains” generated by criminals. The “indirect involvement” is mainly due to the failures of ensuring basic risk-based assessments, such as, customer due diligence and know your customers (KYC). Money laundering offences include virtually all profit-motivated crimes from drug and human trafficking, trade and insurance fraud, prostitution and various illegal profit-motivated crimes derived from bank, securities, arms smuggling, gambling, extortion, and terrorism (Kim & Kwang, 2011).

Due to this latest trend, the Anti-Money Laundering Act (AMLA 2001) has been amended in 2004 to provide specific enhanced provisions in the legislation. The amendments have included, among others, bringing about the DNFBP (Designated Non-Financial Business or Profession) professionals as a reporting institution (AMLA 2001). A reporting institution had included basic compliance responsibilities, among others, to ensure a “know-you-client” assessment, conduct due diligence, to keep proper record and to report any form of suspicious transaction.

The introduction of Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act (AMLATFPUAA 2001<sup>2</sup>) does not only govern financial institutions, but also encompasses a wider range of industries and professions including casino operators, lawyers, notaries, legal professionals and accountants, real estate agents, and also precious metal and stone dealers. Financial institutions are positioned as important gatekeepers to this AMLA regime. Although there are several legislations formulated to curb money laundering offences, the crime continues to increase due to several factors. This includes ineffective implementation of the laws; lack of awareness and understanding of the legal requirements by professionals, the public at large and other stakeholders; low competency level in handling money laundering cases by law enforcement agencies; complexity of the offences itself; and participation of professionals in facilitating offenders to commit the crime. This study aims to identify whether confidentiality of client information was important determinant for the compliance of AMLA2001 among professional accountants.

### **2. Literature Review**

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

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<sup>2</sup> For this study, the Act will only be referred to as AMLA 2001

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). According to Simser (2006), money laundering is a process to transform illegal greedy gains to be legal by hiding its illegal origin from activities like drug, human or weapon trafficking, smuggling of goods and others. This illegal gain should be transformed to avoid any suspicion. In addition, the Central Bank of Malaysia, being a “Competent Authority” in anti-money laundering responsibility, defines money laundering as “all activities and procedures to change the identity of illegally obtained money so that it appears to have originated from a legitimate source” (BNM, 2002, as cited in Hamin, 2014).

The Financial Action Task Force (FATF) defines money laundering as “the conversion or transfer of property, knowing that such property is derived from a criminal offence, for the purpose of concealing or disguising the illicit origin of the property or of assisting any person who is involved in the commission of such an offence or offences to evade the legal consequence of such actions; the concealment or disguise of the true nature, source, location, disposition, movement, rights with respect to, or ownership of property, knowing that such property is derived from a criminal offence; and the acquisition, possession, or use of property, knowing at the time of receipt that such property was derived from a criminal offence or from an act of participation in such offence” (FATF 2001, page 10). Any crime that generates significant profit through extortion, drug trafficking, arms smuggling and some white-collar crime may create a “need” for money laundering activities so that the illegal money is transformed to legal money.

## **2.1 MIA By-Laws**

Since the legislative amendments in 2004, the DNFBPs are also required to comply with the AMLA 2001. Professional accountants as part of DNFBPs are expected to identify and report any suspicious money laundering activities to the FIU. Even though, AMLA was initially gazette in 2001, the requirements enforced on DNFBPs only surfaced after the 2004 amendments. Automatically, accountants 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 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 capitalized 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).

However, the professional accountants or lawyers might use the independence of the profession, lawyer or accountant-client privilege and the duty of confidentiality as the primary justifications, for them not to comply with the imposition of the statutory duty to report any suspicious transactions under the Act laws across the globe (Hamin et al., 2014). By referring to the law enforcement, AMLA 2001 would disregard any law or regulation by the other authorities. Hence, all professional accountants need to comply with the AMLA 2001 simultaneously.

The requirement imposed on professional accountants provided that, they only need to report suspicious transactions pursuant to Section 14(b) Report by Reporting Institutions of the AMLA, together with Section 20 Secrecy Obligations Overridden of AMLA 2001, and Section 24 Protection of Persons Reporting of AMLA 2001. Section 20 AMLA 2001 overrides any other secrecy obligation imposed by any other laws, from the purpose of complying with the provision under Part IV reporting obligation of the AMLA2001. Effective 30<sup>th</sup> September 2005 a new requirement, had mandated professional accountants to identify and verify particulars of clients, maintain records for a minimum period of six years, and implement Part IV Reporting Obligation of the AMLA 2001. In this case, the professional accountants have to conduct “know your customer or KYC” and “client due diligence or CDD” programs. In addition to that, in 2006, any cash transactions exceeding a threshold limit that is more than RM10 000 specified by BNM and pursuant to section 14(a) of the AMLA, need to be reported to FIED (AMLA, 2001).

## **2.2 Confidentiality of Client Information**

All reporting institutions including DNFBP need to report any suspicious transaction according to Section 19 (4) Compliance programme of the AMLA 2001. However, this creates negative reactions among them. In order to report any suspicious transaction, the professional accountants should know enough about the client and the client’s business to recognize whether a transaction, or series of transactions, is unusual. Rahman (2013) discusses the impact of reporting suspicious transactions regimes on Malaysian banks. He argues that although the failure to report suspicious transactions is an offence under the law, reporting suspicious transactions may breach the banks’ duty of confidentiality to their customers. More importantly, it could also undermine their customers’ trust. A similar scenario happens to the professional accountants in Malaysia because they also need to comply with the accountant ethical standard issued by the MIA By-Law. One of the components in the ethical standard is confidentiality. Confidentiality is defined as professional accountants should be refrained from disclosing confidential information outside of the firm or employ organisation’s

confidential information acquired as a result of professional or business relationship without proper or specified authority for their personal advantage or the advantage of the third parties.

### **3. Research Methodology and Analysis**

This study adopts a quantitative research method using a questionnaire as the main instrument to collect data from professional accountants, who are also members of the DNFBP group. The questionnaires were distributed through post and email, targeting members of MIA comprising of audit and tax partners, audit and tax managers, and audit and tax seniors with working experience of at least three years. Of the 275 questionnaires received, only 215 were usable (20% usable response rate) for the analyses. Sekaran (2003) recommend that respondents who answered at least 75% of the questionnaire are considered as a useful completed sample. The constructs were operationalised using the Likert scales which is a common approach used to measure a wide variety of latent constructs (Kent, 2001). In this study, a seven-point Likert scale ranging from strongly agree (7) to strongly disagree (1) was used to assess AML compliance (independent variables). As for the dependent variable referring to competency and training, the scale ranged from strongly implemented (7) to strongly unimplemented (1) for the implementation of AML compliance as stipulated by AMLA 2001 and FATF recommendations were used. This study used three requirements instead of one for AML 2001 compliance, which is CDD, KYC and RK.

This study used SPSS to analyse the data captured from the questionnaire. Some of the statistical procedures undertaken for the study included techniques used to test data normality, data reliability, mean scores, the correlation between variables and linear regression analysis.

## **4. Results and Discussion**

### **4.1 Data Reliability**

Cronbach's alpha is the most commonly used method to assess the reliability (Sekaran, 2003). It is also considered the first method to be used to assess the reliability of a measurement scale (Churchill, 1979; Nunnally, 1978). As different levels of acceptance rates were suggested in the literature, this study accepted 0.60 as the minimum level to indicate the internal consistency of the constructs.

Cronbach's value of 0.6 is the rule of thumb for describing internal consistency, whereby Cronbach's value of greater than 0.6 indicates excellent congruence and composite reliability (Zinbarg et al., 2006). Overall, this study recorded a Cronbach's value of 0.897 that describes the consistency of the data.

### **4.2 Normality Test and Multicollinearity**

Of the 275 responses received, 60 had to be removed because they failed to complete at least 75% of the questionnaire. Finally, this study focused on only 215 respondents, all independent and dependent variables were within the range of skewness and kurtosis between 1.90 and -1.96 indicating normality with a significance level of 0.05. Meanwhile, there was no indication of severe multi-collinearity in the relationship between the variables in the model. All of the variables yielded tolerance values of more than 0.10 and VIFs values of less than 10. Therefore, the results suggested that there was no collinearity in this model.

### **4.3 Correlation Analysis**

The correlation relationship was investigated using the Pearson product-moment correlation coefficient. A moderate correlation coefficient was gauged between  $r = 0.131$  and  $0.537$  with a significance level of  $p < 0.01$ . The results also indicated no evidence of multicollinearity as the correlation between the variable was estimated below 0.9. According to Hair et al. (2010), a high correlation is detected above 0.9.

### **4.4 Multiple Regression Analysis**

The results in Table 1 explain on regression analysis between compliance of AMLA 2001 and confidentiality of client information. Based on the model, it indicates a significant positive relationship between the variables ( $R^2 = .350$ ),  $p = .000$ ). Standardised beta coefficient of .229 of money laundering compliance shows that determinant factors of the compliance make a strong and unique contribution in explaining money laundering compliance. It is hypothesized that there is a significant negative relationship between confidentiality of client information and the compliance with money laundering requirement. However, this study did not support the hypotheses because the significant level is more than 0.000. It shows that there is no relationship between confidentiality of client information with compliance of money laundering requirement.

As professional accountants, there is no secrecy between them and client; they should know all information relating to their client business matters. Any suspicious transaction occurred by the client needs to be informed or reported to the



FIED as soon as possible. The professional accountants cannot be charged for supplying the information to the regulators because the Act has provided the exception to the reporting institution. However, the failure to do as what has been required by the Act may give negative impact to the reporting institution in terms of penalty charges or even imprisonment.

**Table 1. Regression Analysis**

| Variable                    | Coefficients | T stat | P value |
|-----------------------------|--------------|--------|---------|
| <b>Independent variable</b> |              |        |         |
| Confidentiality             | .229         | 2.682  | .008    |
| <b>R square</b>             | .350         |        |         |
| <b>Adjusted r square</b>    | .301         |        |         |

## 5. Conclusion

Confidentiality of client information is becoming another variable for the determinant of compliance. Even though this study failed to confirm that confidentiality of client information is important variable under compliance of AMLA 2001. All reporting institutions including DNFBP still need to report any suspicious transactions under AMLA 2001. In order to report any suspicious transaction, the accountant should have enough knowledge about the client and the client's business in order to recognize any unusual or suspicious transactions. Therefore, in order to comply with the Act, it is crucial for accountant to adopt CDD and KYC policy at hand.

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## **Does ESG Scores have an impact on Financial Performance? A Conceptual Paper**

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### **Abstract**

Environmental, Social, and Governance (hereafter ESG) reporting has gained more popularity among organizations and socially responsible communities. Stakeholders and fund managers believe that firms with high ESG scores yield better operating performance, higher returns, and lower firm-specific risk. But still, abundant inconclusive evidence attracts sustainability scholars to fill concerning sustainability disclosure and performance. The ESG score comprises three aspects of a company's operations: the Environment, Social, and Governance factors. Therefore, this paper examines the need for overall ESG scores and their impact on the firm performance of listed companies. It shows that there are both positive and negative relationships between ESG scores and firm performance. The author intends to continue research by formulating the research hypotheses for analyzing the influence of overall ESG scores on firm performance and proposing a model for analyzing this correlation. The findings of this study will be helpful to investors, policymakers, and other related agencies and widen the scope of literature to examine the impact of overall ESG scores on their accounting performance (ROA and ROE) and market valuations (Tobin's-Q).

### **Keywords**

Environmental, Social, and Governance (ESG), ESG Scores, Firm Performance

### **1. Introduction**

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). According to Serban et al. (2022), the ESG indicator's objective is to highlight that beyond ethical concerns, these practices also lead to superior company performance. 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).

For now, the role of the ESG score is still controversial. 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). 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.

This article is organized as follows. The author first presents an overview of relevant literature on the relationship between ESG scores and firm performance and develops the conceptual framework. Meanwhile, in the last section, the conclusion presents the main contribution and consequences of the findings of this paper.

## **2. Literature Review**

### **2.1 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), the categories of 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 Refinitiv Eikon Datastream - 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 its 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, and a subset of 186 of the most relevant and similar variables for each industry power the process of 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.

## **2.4 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 spend 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 is greater (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 effective 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 between CSR and firm value was found. Additionally, a neutral relationship characterizes the mutual effect between CSR and financial accounting performance.

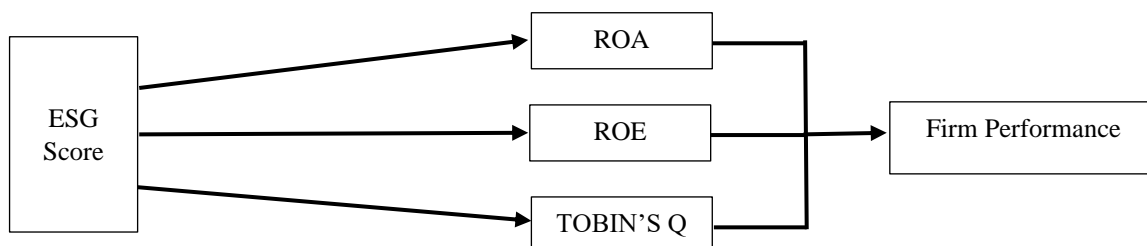
Deswanto and Siregar (2018) used a sample of 211 companies listed on the Indonesian stock exchange between 2012-2014 to investigate the connections between environmental information disclosure and financial performance, environmental performance, and corporate value. According to the study's findings, financial performance is unaffected by environmental disclosure. Additionally, research demonstrates that environmental performance positively impacts environmental information disclosure. However, disclosure of environmental information has no impact on company value and does not 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 that 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.

As far as specific contexts are concerned, what emerges is looking at previous studies focusing on the relationship between ESG and firm 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. Much empirical literature has examined 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.

## **2.5 The Conceptual Framework**

Many existing 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 Tobin's Q) 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 successes impact. The good governance approach, commonly referred to as a stakeholder theory, encourages stakeholder-oriented management that considers all stakeholders and is focused on maximizing 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 described in the literature review, 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. Conclusion

ESG reporting is a way to communicate with stakeholders, such as shareholders, investors, employees, clients, and committees, and to achieve transparency about a company's performance. Such reports are valuable tools for the reporting firm and stakeholders and indicate the importance of ESG issues in a firm. Most studies on ESG scores have so far focused on developed countries, such as the United States and other advanced countries in Europe. Studies concentrating on emerging markets are still limited, and previous literature has studied the effects of ESG scores in different settings. For that reason, different economies would lead to a difference in the outcomes of ESG practices.

Investors, firm managers, and other stakeholders have recently been paying attention to ESG performance due to its well-known and increasing importance in increasing a company's value. Investors and society benefit from ESG data. Most investors purchase additional shares based on ESG-related data, and ESG investing is much like fundamental investing. In ESG, a firm's performance on economics, the environment, social issues, and corporate governance is integrated. An investor aims to earn a profit that positively impacts the environment and community. Firms are giving more attention to educating the public about environmental, social, and governance issues.

However, the ongoing discussion on the link between ESG and the financial performance of the companies remained 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., a positive) or no effect. As a result, there is some disagreement over the direction in which financial successes are linked to ESG outcomes. Therefore, the author proposes a conceptual framework demonstrating the relationship between the overall ESG scores and firm performance.

The next step of the research is to formulate hypotheses for analyzing the influence of overall ESG scores and firm performance and propose a model for analyzing this correlation.

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## Capital Structure and Performance of Malaysian Public Listed Companies during Covid-19 Pandemic

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### Abstract

The purpose of this paper is to study the trend of capital structure and company performance, and to examine whether there is a significant difference between capital structure and company performances before and after the pandemic Covid-19. The study observes the trend of capital structure and performance of 489 Malaysian companies listed in the Main Market of Bursa Malaysia for a period from 2018 to 2021. This study shows that there is a decrease in the company performance which conforms to prior literature on the Covid-19 pandemic. This study also finds a decrease in the level of debt during the Covid-19 pandemic, except for long term debt to assets ratio. These results are further supported by paired mean comparison test analysis which shows only long-term debt to assets and return on assets are statistically different between pandemic and non-pandemic. Future study is needed to confirm the relationship between the level of debt and company performance. This outcome of this research confirms the expectation that company performance suffers during the Covid-19 pandemic. This paper is among the first studies to address the impact of COVID-19 on Malaysian public listed companies' performance and capital structure.

### Keywords

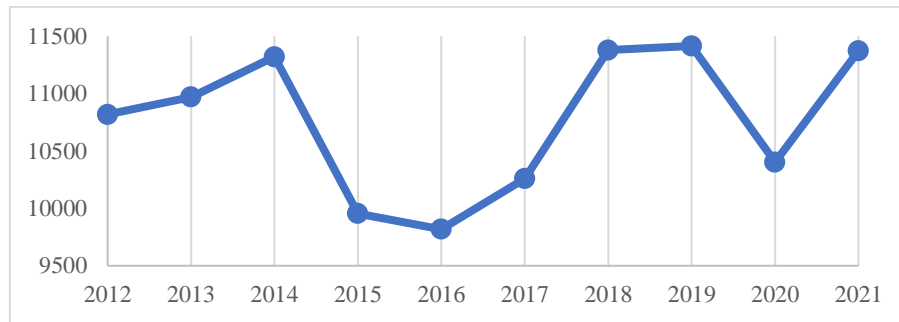
Firm Performance, Leverage, Capital Structure, Malaysia, Pandemic

### 1. Introduction

Covid-19 outbreak hit Malaysia in early 2020 when the Ministry of Health (MOH) confirmed three 2019-nCov cases on 25 January 2020 (Bernama, 2020). Later, the 2019-nCov virus was officially known as Covid-19 on 11 February 2020 (World Health Organization, 2022). In Malaysia, the outbreak, unfortunately, led to a series of quarantines, which was known as Movement Control Order (MCO), imposed by the government as the number of Covid-19 cases raised, with the intention to curb the spread of the outbreak on a national scale. The MCOs was initiated on 18 March 2020 following the declaration of the outbreak as Covid-19 pandemic by the World Health Organization (WHO). The MCOs restricted the movements of people from one state to another, or in a worse situation, from one district to another, and the restriction included the international travels. Any gathering or assembly was also prohibited during the MCOs. In addition, the Malaysian government instructed the businesses, industries, government, and educational institutions to close during the MCOs. The similar measures applied by many other countries too. The world stood still at those moments.

Due to the quarantines on a global scale, the worse recession than Global Financial Crisis 2009 (Gopinath, 2020) was expected to happen in 2020 (The World Bank, 2020). The main reason for the anticipated worse recession to happen in 2020 was because the Covid-19 pandemic was distinct from the previous pandemics in terms of the speed of spread and the size of the spread (Golubeva, 2021). As of 6 September 2022, the Covid-19 total cases were almost 604 million worldwide, with a total death of almost 6.49 million. (Google News, 2022). Furthermore, many businesses traded internationally, and when the world stop during the pandemic due to quarantines, even for a short amount of time, the businesses' supply chain and production were interrupted (Shang et al., 2020). Hence, the businesses could not continue their operation as usual. The business or company performance might be affected by the situation. Generally, the company performance was affected adversely during recession, and eventually affecting the country's tax revenue and fiscal stability.

Malaysian businesses were not spared from the shocks brought upon by the Covid-19 pandemic. Particularly, "*Malaysia is an emerging, export-dependent, ...*" (Ayaz et al., 2021, p. 1108) country which depending mostly on the international trades, and the trades were much interrupted during quarantines. Hence, we believe that most of the businesses in Malaysia to suffer during the period of quarantines. Malaysia's Gross Domestic Production dropped from USD 365 billion in 2019 to USD 337 billion in 2020 (Data Commons, 2022), or from USD 11,414 per capita in 2019 to USD 10,401 per capita in 2020 as per illustrated in Figure 1. Another indication for businesses being financially struggle during the pandemic was the increase in the unemployment rate in Malaysia. In 2020, the unemployment rate jumped from 3.3% in 2019 to 4.5% in 2020, which was equivalent to an additional 202,800 persons being unemployed in 2020 (DOSM, 2021). The unemployment happened because of the job losses as the businesses had to temporarily or permanently close (DOSM, 2021) due to the quarantines.



**Figure 1. Malaysian Gross Domestic Product per capita**

Source: World Bank Data ([data.worldbank.org](http://data.worldbank.org))

To the best of our knowledge, there was lack of study on the Malaysian public listed companies' (PLCs) performance before and after the Covid-19 pandemic. However, we believe that the understanding of Malaysian company performance during pre- and post-Covid-19 pandemic is crucial for the shareholders as well as the stakeholders because it can provide the useful insights into how the Malaysian businesses reacted when they faced the sudden changes in the economic situation.

During the pandemic Covid-19, the Malaysian government was continuously providing support for the households, businesses, healthcare system and educations to ensure that the well-being of the people was being taken care of. IMF (2022) reported that the Malaysian government introduced few fiscal stimulus packages worth billions Ringgit Malaysia for various reasons, in particular for health spending, cash transfers for the households with middle- and low-income categories, incentives for the employers and employees, grants to the businesses and many more. Bank Negara Malaysia (BNM) also responded to the financial crisis faced by the people and businesses during the pandemic by lowering the Overnight Policy Rate (OPR), Statutory Reserve Requirement (SRR), and the temporary facilitation of regulatory and supervisory compliance on banks to help support loan deferment and restructuring. BNM first announced an automatic six-month moratorium on all bank loans, except for credit card balances, on 24 March 2020, followed by an additional three-month moratorium on 29 July 2020 for the people and businesses affected by the pandemic. Due to the temporary change in the fiscal and monetary policies during the pandemic, we believe that the policies would alter the financing decisions or the capital structure of the businesses, which would eventually affect the businesses' profitability or performance.

Based on the discussion above, the following research questions need to be addressed:

- RQ1. What is the trend of the Malaysian PLCs' performance and capital structure before and after the Covid-19 pandemic?
- RQ2. Is there any significant difference in performance and capital structure before and after the Covid-19 pandemic?

Hence, the research objectives of this study are:

- RO1. To study the trend of the Malaysian PLCs' performance before and after the Covid-19 pandemic.
- RO2. To examine whether there is a significant difference between capital structure and company performances before and after the pandemic Covid-19.

The remainder of the article is structured as follows: firstly, we review the literature relevant to the topic and formulate hypotheses. Secondly, we introduce the methodology. Thirdly, we present the results of the study. The concluding part summarises the main outcomes of the study.

## 2. Literature Review

### 2.1 Theoretical background

Generally, there were three famous theories trying to explain the factors affecting the company performance which are the trade-off theory, the agency cost theory, and the pecking order theory.

In a perfect capital market, the financing decision or the capital structure did not affect the company value because equity and debt were perfect substitutes for each other (Modigliani & Miller, 1958). However, the capital market in the real world was full of imperfections. The benefits and the costs of debt, which affecting the company's profitability, created an optimal capital structure that maximizing the company's value (Modigliani & Miller, 1963). Hence, the choice of capital structure becomes an important value-determining factor. Under the agency cost theory, debt financing was perceived as a way to make sure that the managers behaving in a way that would benefit the shareholders (Jensen, 1986) because the debt providers would usually require the company to meet certain standards and requirements to ensure the



company was financially healthy. According to these theories, the capital structure was positively related to the firm's value. The higher the debt, the higher was the company performance. Abundant empirical studies in developed and developing countries confirmed the positive relationship between leverage and company performance (Gill et al., 2011).

However, the pecking order theory introduced by Myers and Majluf (1984) offered interesting explanations for the negative relationship between capital structure and company performance, meaning, the higher the debt, the lower was the company performance. The reason was that the company preferred internal financing compared to external financing, and the company favoured debt over equity. Hence, the order of the financing sources for the company under the pecking order theory was internal capital, debt financing and equity financing. The main factor that determined the order of financing decisions was the transaction or issuance cost involved in obtaining the financing. Similar to trade-off theory and agency cost theory, there were many empirical studies supporting the negative relationship between leverage and company performance (Fama & French, 2002; Le & Phan, 2017; Shaferi et al., 2020).

Thus far, all these theories lent support to the notion that there was a relationship between capital structure and company performance. However, none of the theories was able to fully explain the discovery made in many studies which usually found mix results of the relationship between capital structure and company performance. These existing theories, instead, complemented each other.

## **2.2 Firm Performance during the Covid-19 Pandemic**

Thousands of literatures were discussing the effect of the Covid-19 pandemic. Shang et al. (2020) compared the impact of different pandemics, specifically SARS, H1N1 Swine Flu and Covid-19, on the healthcare, economic and social. From their study, they found that the businesses were slowing down due to disruption in the supply chain, which resulted in job losses, financial losses, and cash flow problems. However, the government aids did help to ease the impact of the pandemics. Golubeva (2021), who employed a data set of 5,730 companies from 13 countries, investigated the impact of firm-, finance- and country-specific indicators to the performance of companies under the COVID-19 outbreak. In Golubeva's (2021) study, loans were positively related to the performance which was measured by labour productivity. The finding of their study also suggested that the banks were willing to grant loan to performing companies despite the Covid-19 pandemic. Shen et al.'s (2020) study suggested that the Covid-19 pandemic was significantly and negatively related to performance of Chinese listed companies. Even though the relationship between leverage and company performance was not being discussed by Shen et al. (2020) in their paper, but there was a strong negative relationship between leverage and company performance during the Covid-19 pandemic. On the other hand, Hu and Zhang (2021), who assessed the impact of COVID-19 on company performance of 107 countries/ economies, found a positive relationship between leverage and company performance.

## **2.3 Empirical evidence: Malaysia**

In Malaysia alone, numerous studies conducted on the relationship between capital structure and company performance. Recently, Ayaz et al. (2021) examined the relationships between leverage and company's performance in Malaysia. They employed fixed effects and system two-steps GMM models to analyse the data of 528 non-financial companies listed on the Bursa Malaysia Stock Exchange for a period of 12 years from 2005 to 2016. They found a positive relationship between leverage and company performance which in accordance with the assumptions of trade-off theory and agency cost theory. However, they also discovered that the positive relationship between leverage and company performance worked for the companies with lower debt to assets ratios only. Once the debt to assets ratios went further than the optimal level of capital structure, a negative relationship between leverage and companies was discovered. They believe that the findings were able to enhance the explanatory power of the existing theories related to the concept of optimal capital structure. Regardless, this study did not cover the period of the Covid-19 pandemic.

Khatib and Nour (2021) acknowledged the limited number of studies in examining the impact of Covid-19 on company performance, as well as how COVID-19 influences the existing relationship between corporate governance and company performance. Unfortunately, they did not find any significant difference between the company performance before and after the pandemic Covid-19 from a sample data of 188 listed firms in the Malaysian stock market for the year 2019 and 2020, which were analysed using a traditional t-test. Still, they highlighted the fact that the company performance was negative during the period of the pandemic which was 2020. Khatib and Nour (2021) were basically focused their study on the relationship between corporate governance and company performance, still, they included the examination of the effect of leverage and other determinants on the company performance. Like company performance, there was no significant difference between the leverage pre- and post-pandemic, but the companies seemed to lower the level of debt during the pandemic. In addition, the results of their regression analysis showed insignificant positive relationship between leverage and performance. They suggested that the future research should consider a larger sample size with a longer period to capture the long-term effect of the Covid-19 pandemic. This study is different from Khatib and Nour (2021) because they emphasised on the effect of corporate governance on performance, but this study focuses

on leverage, with different measures of leverage, considering the changes in fiscal and monetary policy during the Covid-19 pandemic which probably affecting the financing decisions of the companies.

### 3. Methods

The sample includes all Malaysian public companies listed on Bursa Malaysia's Main Market. We exclude companies from finance and insurance sector as well as companies traded in ACE and LEAP markets due to its different characteristics and its own unique regulations. The data for performance variables (ROA, ROE, MTB and PER), capital structure variables (TDEBT, LTDEBT, and TDA), and the control variable (CR, TANG, GROWTH and SIZE) are collected using Thomson Datastream service. The performance variables, which are the dependent variables, represent the companies' accounting performance (ROA and ROE), and the companies' market performance (MTB and PER). The independent and control variables are selected based on the previous literature, and they are found to influence the companies' performance.

The data used is a balanced panel data taken from 2018 until 2021. The period is chosen to provide stable measures of firm performance and capital structure (Abu-Abbas, Alhmod, & Algazo, 2019). We categorise the data from 2018 to 2019 to be as non-pandemic and the data from 2020 to 2021 as pandemic. Companies with incomplete data from 2018 until 2021 are excluded in the final sample. The number of companies that satisfies all the criteria is 489 companies. The summary of final sample is shown in Table 1.

**Table 1. Summary of Data**

|                                  | No of companies | Total Observation |
|----------------------------------|-----------------|-------------------|
| Retrieved number of companies    | 814             | 3256              |
| Less: Finance sector             | 35              | 140               |
| ACE and LEAP Markets             | 164             | 656               |
| Missing values                   | 126             | 504               |
| <b>Final Sample of companies</b> | <b>489</b>      | <b>1956</b>       |

Table 1 shows the summary of data finalised from 2018-2020. Financial sector includes banking and insurance companies. ACE market is a sponsor-driven market designed for companies with growth prospects. It was formerly known as the MESDAQ Market prior to 3 August 2009. LEAP market is an adviser-driven market which aims to provide emerging companies, including small- and medium-sized enterprises with greater fund-raising access and visibility via the capital market. It is accessible only to sophisticated investors. (via [www.bursamalaysia.com](http://www.bursamalaysia.com))

### 4. Results and Discussion

#### 4.1 Descriptive analysis

Table 2 shows the descriptive analysis of balanced panel data that compares companies before pandemic and during pandemic. Panel A and B consists of 978 number of observations each. It is interesting to see that ROA is the only measurement of performance that shows an increase during the pandemic (3.554% as compared to 3.439%) whereas ROE, MTB and PER shows a decline in performance during the pandemic. ROE drops from 4.587% to 3.784%, MTB declines from 1.762 times to 1.758 times, and PER falls from 11.614 times to 11.007 times.

**Table 2. Descriptive analysis**

| Var  | Panel A: Descriptive statistic before pandemic<br>(2018-2019) |        |         |         |         | Panel B: Descriptive statistic after pandemic<br>(2020-2021) |        |         |          |         |
|------|---|--------|---------|---------|---------|--|--------|---------|----------|---------|
|      | Obs   | Mean   | Std Dev | Min     | Max     | Obs  | Mean   | Std Dev | Min      | Max     |
| ROA  | 978   | 3.439  | 8.465   | -44.58  | 46.1    | 978  | 3.554  | 10.115  | -49.99   | 84.04   |
| ROE  | 978   | 4.587  | 23.375  | -161.49 | 258.54  | 978  | 3.784  | 40.21   | -1001.25 | 192.91  |
| MTB  | 978   | 1.762  | 4.705   | 0.11    | 59.02   | 978  | 1.758  | 4.565   | -6.15    | 58.59   |
| PER  | 978   | 11.614 | 43.827  | -303.19 | 1086.14 | 978  | 11.007 | 41.63   | -711.92  | 319.47  |
| DTE  | 978   | 59.429 | 115.117 | 0.00    | 2117.9  | 978  | 60.98  | 124.31  | -696.44  | 1786.88 |
| DTA  | 978   | 20.565 | 16.586  | 0.00    | 87.46   | 978  | 20.662 | 16.684  | 0.00     | 75.37   |
| LTDA | 978   | 0.099  | 0.121   | 0.00    | 0.703   | 978  | 0.106  | 0.123   | 0.00     | 0.659   |

Table 2 shows the descriptive analysis of the variables. DTA is debt-to-asset (total debt/total assets), DTE is debt-to-equity (total debt/common equity) and LTDA is long-term debt-to-asset (long-term debt/total assets). ROA is return on assets (net profit/total assets), ROE is return on equity (net profit/common equity), MTB is market-to-book value and price-earnings ratio.

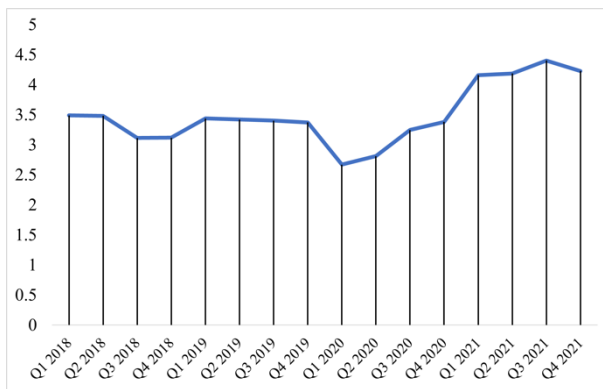
The changes in leverage shows increase in DTE, DTA and LTDA, which suggests the companies are relying more on leverage to finance their operating and investing activities during the pandemic. DTE increases from 59.429% to

60.98%, DTA increases from 20.565% to 20.662% and LDTA rises from 9.9% to 10.6%. For other control variables, TANG, CR and SIZE increase during pandemic period, whereas GROWTH declines.

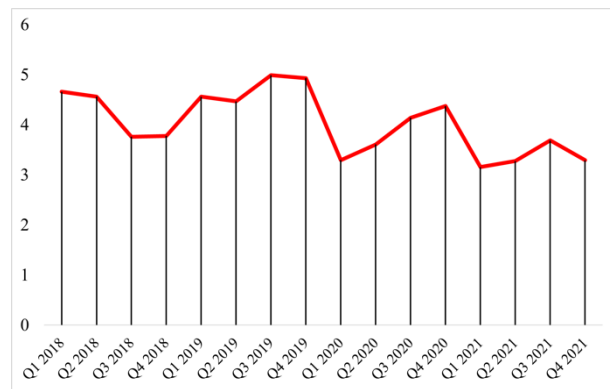
## 4.2 Trend Analysis

### 4.2.1 Companies' Performance

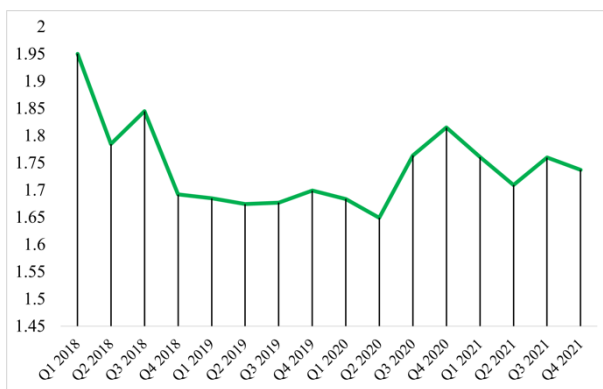
The first objective is to study the trend of capital structure and performance from 2018 until 2021. For more in depth analysis, the study breaks down the data into quarterly figures. Therefore, in Figures 2, 3, 4 and 5, we have plotted trend analysis of the company's performance using the four proxies, which are ROA, ROE, MTB and PER with the purpose of illustrating the trend movement of companies' performance from Q1 2018 until Q4 2021. Across all proxies of performance, the companies experienced a sharp decline in the first quarter of 2020, which was the beginning of the pandemic. Malaysia began to exercise a full, immediate lockdown in March 2020, which had affected the companies' performance in the first quarter. The effect of the sudden halt of economic activities nationwide and the uncertainties that accompanied it, are seen in Figure 2, 3, 4 and 5.



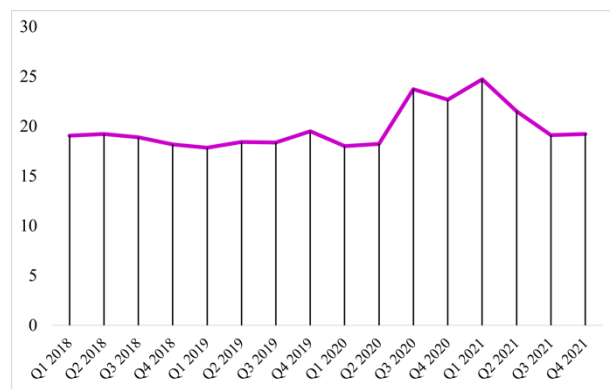
**Figure 2. Trend Analysis of Return on Assets**



**Figure 3. Trend Analysis of Return on Equity**



**Figure 4. Trend Analysis of Market-to-Book Value**



**Figure 5. Trend Analysis of Price-Earnings Ratio**

The companies' performance, however, did not suffer for long. From the second quarter of 2020 until the fourth quarter of 2020 the companies' performance had recovered briefly before once again experiencing a sharp decline in the first quarter of 2021. The event observed is most probably due to the torrent of nationwide governmental aids given in response to the full lockdown in March 2020. The decline in 2021 is due to the gradual cessation of the nationwide governmental aids as the country about to enter the endemic period. In 2021, the government began to focus their pandemic to certain, more vulnerable groups such as B40 individuals and small-medium businesses.

When the first Malaysian case of Covid-19 was detected in early February 2020, the government's reactions had been swift and whole. According to International Monetary Fund (IMF) (2022), the Malaysian government not only offered aids to cover for the companies' operating expenses, such as wages, salaries, insurance expenses, employers' providence fund (EPF) and other fees, but the aids also covered for financial expenses arising from debts. Starting from July 2020, Malaysia Central Bank (Bank Negara Malaysia) announced full loan moratorium that allowed all types of borrowers, individuals, or companies, to temporarily halt their loan obligation payments until September 2020. The loan payment moratorium increases the companies' liquidity and also increases the companies' profitability, which is seen in

Figure 2. Trend Analysis of Return on Assets, which shows steady increase after the sudden decline in first quarter of 2020. The government also allowed tax exemption for stamp duty and real properties gain tax for companies in construction sectors. In addition, numerous grants and subsidies were given to support especially vulnerable companies and small-medium enterprises.

#### 4.2.2 Companies' Capital Structure

As for capital structure, the trend analyses for all proxies of capital structure show a steady increase from the previous recession cycle. What is interesting to note is the stark difference between DTE and DTA with LDTA. Figure 6 and 7 show leverage decrease once the companies enter the pandemic period, but Figure 8 shows that long-term debt remains relatively constant during the pandemic period. It seems that during the pandemic, the companies seem to prefer to focus more on long-term debts as opposed to short-term debts. The total debt is decreased but the long-term debt remains unchanged, suggesting that on average the companies opt for low-risk form of financing during the period of economic uncertainty.

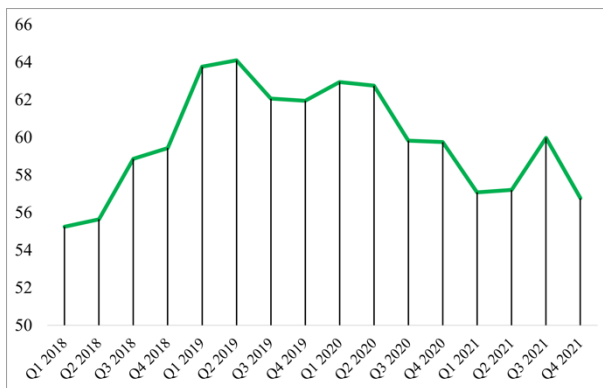


Figure 6. Trend Analysis of Debt-to-Equity

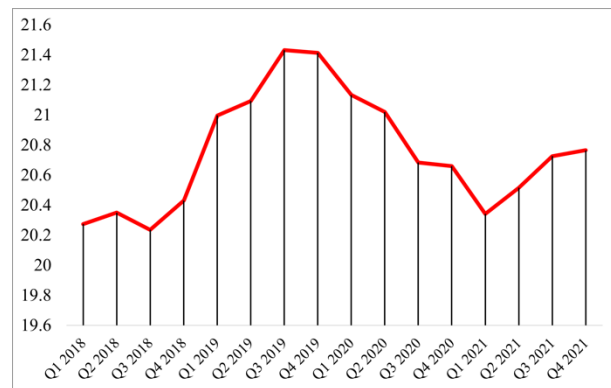


Figure 7. Trend Analysis of Debt-to-Assets

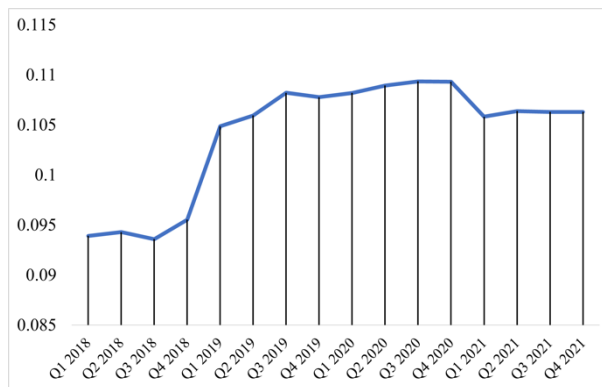


Figure 8. Trend Analysis of Long-term Debt-to-Assets

This also explains the increasing ROA despite being in the period pandemic. Long-term debts promote liquidity and reduces financial risk. The companies also benefit from loan repayment moratorium from banking sector in year 2020, which further reducing operating expenses, increases the liquidity, ultimately contributes to higher ROA despite the high economic uncertainties.

#### 4.2.3 Paired t-test Analysis

The trend observed above is further supported by the paired t-test analysis conducted to see whether the leverage and performance significantly are significantly different when being compared between pandemic and non-pandemic period. Table 3 compares the performance and capital structure of the companies before and during the pandemic period by using the 2018-2019 as non-pandemic period and 2020-2021 as pandemic period. The number of observations for both compared periods are 978 companies. The results shown is split into Panel A for performance and Panel B for capital structure. Using STATA software, we run paired mean comparison test analysis to determine whether the companies' performance and capital structure are statistically different in pandemic period as compared to non-pandemic period.

Panel A shows that companies' performance is lower during pandemic period in both accounting-based performance as well as market performance, with the exception of ROA, which concurs with the Figure 2. However, none of the performance variables show significant result. It suggests that even though there are differences between pandemic and non-pandemic period, the changes are not significant.

Panel B shows the t-test analysis of independent variables, which are the capital structure. On average leverage has increased. During recession, the companies tend borrow more when the economy is healthy and significantly reduce their borrowing after the recession hit the economy (de Jong et al., 2008; Frank & Goyal, 2003). However, this is not in the case of pandemic. Due to the governmental aids given during the pandemic, Panel B shows that companies increase their leverage during pandemic. We can clearly see the DTA, DTE and LDTA are higher during pandemic than during non-pandemic. However, amongst all leverage proxies, only LDTA shows significant different between pandemic and non-pandemic. It suggests that the companies significantly increase their long-term debt during pandemic. This may be due to 1) Central Bank allowing total loan payment moratorium in July 2020 until September 2021 and 2) Central Bank reducing the Overnight Policy Rate (OPR) 3 times on March, May, and July 2020, which leads to cheaper cost of borrowing and thus, increased leverage. The OPR was reduced from 2.75% in January 2020 to 2.50% in March 2020 and then further reduced to 2.00% in May 2020 and 1.75% in July 2020. The OPR was maintained at 1.75% until April 2022 when it was lifted for the first time in two years.

**Table 3. Paired T-test Analysis for 2018 - 2021**

| <b>Panel A: Performance</b>       |            |          |            |          |             |          |            |          |  |
|-----------------------------------|------------|----------|------------|----------|-------------|----------|------------|----------|--|
| <b>Dependent Period</b>           | <b>ROA</b> |          | <b>ROE</b> |          | <b>MTB</b>  |          | <b>PER</b> |          |  |
|                                   | <b>NP</b>  | <b>P</b> | <b>NP</b>  | <b>P</b> | <b>NP</b>   | <b>P</b> | <b>NP</b>  | <b>P</b> |  |
| Mean                              | 3.439      | 3.554    | 4.587      | 3.783    | 1.762       | 1.758    | 11.615     | 11.007   |  |
| Std. Dev.                         | 8.465      | 10.115   | 23.375     | 40.210   | 4.705       | 4.565    | 43.827     | 41.630   |  |
| t-value                           | (0.3709)   |          | 0.6497     |          | 0.0530      |          | 0.3499     |          |  |
| p-value                           | 0.7108     |          | 0.5160     |          | 0.9577      |          | 0.7265     |          |  |
| Obs                               | 978        |          | 978        |          | 978         |          | 978        |          |  |
| <b>Panel B: Capital Structure</b> |            |          |            |          |             |          |            |          |  |
| <b>Dependent Period</b>           | <b>DTE</b> |          | <b>DTA</b> |          | <b>LDTA</b> |          |            |          |  |
|                                   | <b>NP</b>  | <b>P</b> | <b>NP</b>  | <b>P</b> | <b>NP</b>   | <b>P</b> |            |          |  |
| Mean                              | 59.429     | 60.980   | 20.565     | 20.662   | 0.099       | 0.106    |            |          |  |
| Std. Dev.                         | 115.117    | 124.310  | 16.586     | 16.684   | 0.121       | 0.123    |            |          |  |
| t-value                           | (0.4249)   |          | (0.3463)   |          | (3.2659)    |          |            |          |  |
| p-value                           | 0.6710     |          | 0.7292     |          | 0.001***    |          |            |          |  |
| Obs                               | 978        |          | 978        |          | 978         |          |            |          |  |

Table 3 shows the paired t-test measurement for dependent variables of ROA, ROE, MTB and PER and independent variables of DTE, DTA and LDTA between pandemic (P) and non-pandemic (NP) periods from 2018-2020. Non-pandemic period consists of data from 2018-2019, while pandemic period consists of data from 2019-2020.

\*\*\*significant at 1%

The lack of significant results leads to another analysis of paired mean comparison test analysis. This time the study adopts a shorter term of pandemic period, focusing on year 2020 as pandemic year and 2019 as non-pandemic year. The aim is to see whether the effect of the pandemic would be more apparent in shorter period, rather than longer period. Table 4 uses balanced panel data; thus, the number of observations is 489 companies in each year.

In Panel A, there are several differences of result as compared to the previous paired t-test analysis. Firstly, the result shows that ROA declines and it is significant at 10%. This is different than the result shown in Table 3 Panel A, where ROA increase in pandemic period. This suggests, in smaller window of observation, both of companies' ROA and ROE actually suffer during pandemic. Secondly, it is of great interest to see that for market performance, both MTB and PER actually increase during pandemic period. MTB increases from 1.668 to 1.763, while PER increases from 9.524 to 11.948. It seems pandemic doesn't affect investors' confidence in companies' future performance, but it is only for short-term period, because in Table 3, both PER and MTB are lower in pandemic as compared to non-pandemic. Trend analyses shown in Figure 4 and Figure 5 previously indicate that the investors' confidence only lasts for as long as the government aids rolls in. But as the pandemic persists for more than one year, the confidence that investors begin to wane as uncertainties for future economy mounts. However, the results are not significant at any level of significance.

Panel B shows in shorter window of observation, DTE slightly reduced from 63.973% to 63.111%, but the results are not significant. DTA shows an increment, but it is also not significant. LDTA concurs with result shown in Table 3, where the companies increase their LDTA as soon as pandemic hit the economy and the increment is significant at 10%.

During pandemic, the companies rely more on long-term debt and reduce their short-term debt to increase their liquidity and reduce their financial risk, which is seen as their way to survive in the time of frozen economy and acute uncertainty.

**Table 4. Paired t-test analysis for 2019-2020**

| <b>Panel A: Performance</b> |            |          |            |          |            |          |            |          |
|-----------------------------|------------|----------|------------|----------|------------|----------|------------|----------|
| <b>Dependent Period</b>     | <b>ROA</b> |          | <b>ROE</b> |          | <b>MTB</b> |          | <b>PER</b> |          |
|                             | <b>NP</b>  | <b>P</b> | <b>NP</b>  | <b>P</b> | <b>NP</b>  | <b>P</b> | <b>NP</b>  | <b>P</b> |
| Mean                        | 3.344      | 2.713    | 4.392      | 3.369    | 1.668      | 1.763    | 9.524      | 11.948   |
| Std. Dev.                   | 8.099      | 8.472    | 21.466     | 22.335   | 4.786      | 4.882    | 33.085     | 45.892   |
| t-value                     | 1.9134     |          | 1.0733     |          | (1.1578)   |          | (1.0450)   |          |
| p-value                     | 0.0563*    |          | 0.2837     |          | 0.2475     |          | 0.2965     |          |
| Obs                         | 489        |          | 489        |          | 489        |          | 489        |          |

| <b>Panel B: Capital Structure</b> |            |          |            |          |             |          |
|-----------------------------------|------------|----------|------------|----------|-------------|----------|
| <b>Dependent Period</b>           | <b>DTE</b> |          | <b>DTA</b> |          | <b>LDTA</b> |          |
|                                   | <b>NP</b>  | <b>P</b> | <b>NP</b>  | <b>P</b> | <b>NP</b>   | <b>P</b> |
| Mean                              | 63.973     | 63.111   | 20.925     | 21.195   | 0.104       | 0.108    |
| Std. Dev.                         | 137.272    | 52.475   | 16.900     | 16.980   | 0.124       | 0.125    |
| t-value                           | 0.1791     |          | (0.9449)   |          | (1.6728)    |          |
| p-value                           | 0.8579     |          | 0.3452     |          | 0.0950*     |          |
| Obs                               | 489        |          | 489        |          | 489         |          |

Table 4 shows the paired t-test measurement for dependent variables of ROA, ROE, MTB and PER and independent variables of DTE, DTA and LDTA between pandemic (P) and non-pandemic (NP) periods from 2018-2020. Non-pandemic period consists of data from 2018-2019, while pandemic period consists of data from 2019-2020.

\*Significant at 10%

## 5. Conclusion

As the Covid-19 pandemic struck the Malaysian economy, the Malaysian government responded accordingly. However, due to the prevention measures taken by the Malaysia government to restrict the spread of Covid-19 virus, the businesses in Malaysia were badly affected by the quarantines orders which were being extended for quite some time. The current study seeks to study the trend or pattern of Malaysian PLCs' performance and capital structure during the Covid-19 pandemic. From the trends presented in this paper, there is a decline in the company performance which in line with the prior literature. This study also discovers that there is a downward trend for the level of debt of Malaysian PLCs, except for long-term debt to assets ratio which could suggest that the companies resorted to long-term debt in the event of the pandemic or financial crisis. Unlike the study by Khatib and Nour (2021), this study finds a significant difference between performances before and after the Covid-19 pandemic, but only after the analysis was shorten the window of observation which the company's performance were free from the influence of governmental aid (Hu & Zhang, 2021). The increasing of capital structure during pandemic as compared to non-pandemic concurs the study by Haque and Varghese (2021) and Mohd Azhari et al. (2022) which also find companies' capital structure increase during pandemic. The findings of this study may assume that there is a positive relationship between the capital structure and company performance, however, future study needs to be conducted to confirm the relationship.

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## **Web Quality Index (WQI) On Malaysian Destination Marketing Organisation (DMO) Website: Sabah Tourism and Langkawi Tourism Website**

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### **Abstract**

Destination Marketing Organizations (DMOs) serve an important role in the travel industry by promoting, marketing, and regulating their respective destinations through various platforms. One of the most essential platforms is the official DMO website, which must be monitored in order to maintain the quality and efficiency that will ensure the destination's competitive edge is consistently improved. Scholars have proposed several ways on evaluating websites, one of which is the Web Quality Index (WQI), which uses 12 factors constructed by 127 indicators. Home Page, Content Quantity and Quality, Information Architecture, Usability and Accessibility, Web Positioning, Marketing, Languages, Branding, Discourse Analysis, Interactivity, Social Web, and Mobile Communication are the 12 factors. Destination Marketing Organizations (DMOs) serve an important role in the travel industry by promoting, marketing, and regulating their respective destinations through various platforms. The aim of this research is to examine the WQI method as a tool for assessing the quality of Sabah tourism and Langkawi tourism website and its effectiveness. This study examines the 12 parameters and considers if the evaluation is appropriate for both of the DMO website. The study's findings emphasise the concept of website effectiveness and suggest modifications or improvisations to WQI.

### **Keywords**

Destination Marketing Organisation, Website, Web Quality Index, E-Tourism, Tourism Website

### **1. Introduction**

In July 2022, there are more than 5.03 billion global internet users and 92.1 percent of the users access the internet via mobile phones (Datareportal, 2022). The number of internet users is growing at a 3.7 percent by year-on-year change, which equates to 178,000 new users this year (Datareportal, 2022). The internet has become the main instrument for tourists to gather information (Vila et al., 2018) about their trips before embarking on them (Han & Mills, 2006). Burger et al., (1997) and Clyde and Landfried (1995) are two of the numerous early scholars who highlighted the internet's importance for tourist organizations since its inception. Tourism enterprises have progressed through stages of growth, originating with brick and mortar and progressing with an internet platform known as a website. Today's website has evolved into a more functionally complicated platform, particularly for marketing and commercial activities, as well as a means of interaction between suppliers and consumers (Buhalis & Law, 2008; Ho & Lee, 2007; Lehto et al., 2006; Buhalis, 2003; Dorren and Frew, 1997).

The internet has transformed consumer information search, which is a crucial element of the purchasing decision process (Buhalis & Law, 2008). It has resulted in new business models, greater consumer choice, and more information (Benson & Standing, 2008). As a result, the travel and tourism industry was among the first to be impacted by the internet, with airlines selling tickets directly to consumers via the internet (Standing et al., 2014). Then, with the help of web 2.0, there is a shift in content development where users contribute material in the form of travel blogs, reviews (Huang et al., 2010), and other social media platforms such as Facebook, Instagram and Tiktok.

A destination marketing organisation (DMO) is a tourism organisation that generates content for consumers through the internet. DMO's official website is regarded as a critical platform for conducting business and generating positive images. The relevance of an official website is found not only in its ability to provide products and services, but also in identifying its strengths and limitations using website assessment tools (Kumar & Rakhykul, 2020). As a result, it is critical for DMOs to regularly update and develop their website in order to meet the needs of tourists and maintain their competitive advantage. As a result, a website review tailored specifically to the DMO's website is required to assure its effectiveness.

#### **1.1 Sabah Tourism Board (STB) and Langkawi Development Authority (LADA) Official Tourism Website**

The Sabah Tourism Board, or generally known as Sabah Tourism, is an agency of the Sabah State Government that operates under the Ministry of Tourism, Culture, and Environment (Sabah Tourism Board, 2021) while Langkawi

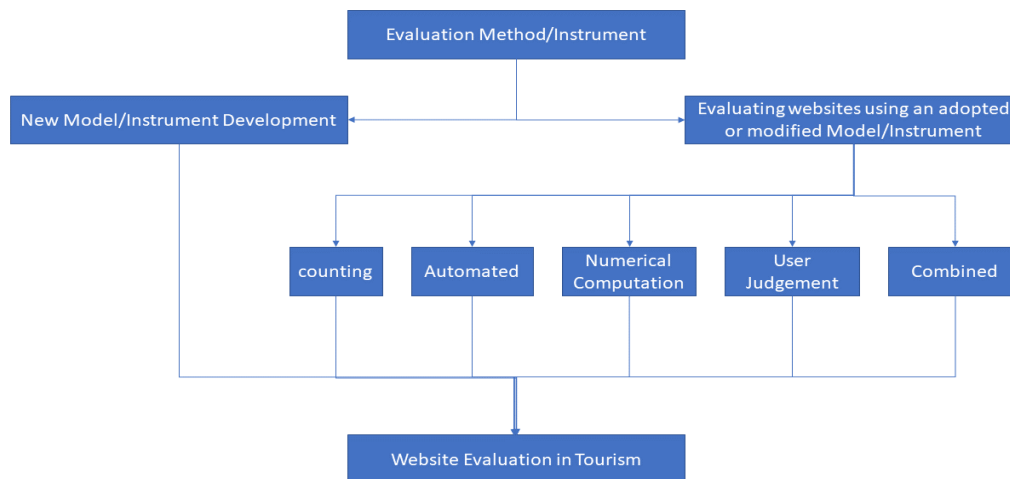


Development Authority (LADA) is the local government agency in charge of promoting and facilitating tourism development in Langkawi by encouraging and implementing economic restructuring from low-to-high productivity sectors. LADA is also in charge of attracting international investors to the region by using the existing tourism products and services. Both of the organisation has their own official website, namely sabahtourism.com and naturallylangkawi.my. Both of the website is chosen to be studied because of the “best website” award they obtained from Internationale Tourismus-Borse (ITB) Asia 2019. The ITB Asia is a travel industry trade exhibition and convention held annually by Messe Berlin (Singapore) and supported by the Singapore Exhibition and Convention Bureau. It is a flagship meeting place for international exhibitors from all sectors of the travel-value chain commerce, bringing together Asia Pacific's leading travel companies as well as emerging small and medium-sized enterprises with international buyers from the MICE, Leisure Travel, Corporate Travel, and Travel Technology markets (ITB-Asia, 2021). In Addition, Sabah did also win an award from Travelmole, a travel trade Asia Pacific newswire, in which 65,000 Travelmole’s subscribers placed their votes (Sabah Tourism Board, 2019).

Tourist arrivals in Sabah received exponential growth 50 times the total of tourist arrivals since 1990 from 80,000 tourist arrivals in 1990 to 4,195,903 tourist arrivals in 2019 (Sabah Tourism Board, 2021). The tourism industry is the third largest economic contributor in Sabah which supported more than 80,000 jobs (Sabah Tourism Board, 2021) while tourist arrival in Langkawi grows by 6% from 3,679,158 tourist arrivals in 2017 to 3,924,326 tourist arrivals in 2019 (Langkawi Development Authority, 2022). The rising trend of tourist arrivals to both place shows that it is gaining more attention as a destination choice for tourists. Hence, it is important to maintain the destinations website to fulfil current trends and needs of consumers. Though both destinations have witnessed increasing tourist arrivals, their official tourism website have not been assessed using any method of assessment, especially not WQI. Only Kuala Lumpur’s official website, the capital city of Malaysia was assessed in a study done by Kumar and Rakhymkul (2020).

## 2. Literature Review

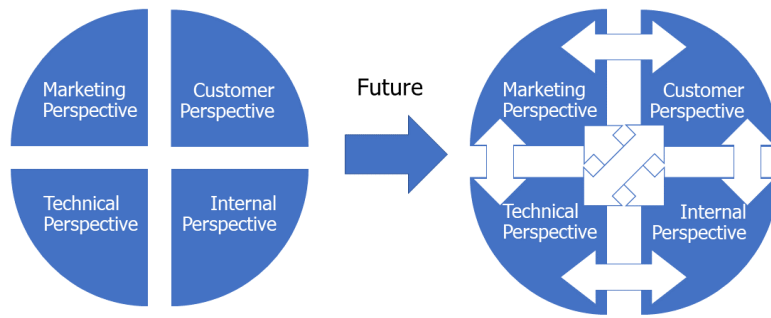
Murphy et al. (1996) were the first researchers to explore website evaluation in the context of the hospitality industry, particularly hotel websites. Park and Gretzel discovered in 2007 that 38 success indicators were incorporated in website evaluation studies from 1997 to 2006. They then divided their findings into tourism and non-tourism industries, with the most commonly used factors for the tourism industry being 1) information quality, 2) ease of use, 3) security/privacy, 4) responsiveness, 5) customer service, 6) customer service, 7) interactivity, 8) accessibility, 9) navigation, 10) visual appearance, 11) personalization, 12) trust, 13) brand/reputation and incentive. Park and Gretzel (2007) revealed that many website evaluation attempts are centered to feature ratings and do not integrate to result metrics.



**Figure 1. Methodological Approach for The Evaluation of Websites**

Buhalis and Law (2008) identified a pattern in the structure of assessment instruments for tourism website evaluation, progressing from a mono approach to a mix approach, and finally to a more sophisticated approach. Law, Qi, and Buhalis (2010) classified the approaches into five groups: 1) Counting; 2) Automated; 3) Numerical computation; 4) User judgement; and 5) Method Combination The counting method is used to tally the quantity of features and information available on a website. The automated method uses software tools to track data from website visitors such as page views, clicks, and bounce rates. W3C Link Checker, TAWdis, and Webpage Analyzer are examples of automated technique tools. The numerical computation approach uses equations or mathematical modelling to calculate or forecast the output of a website's findings. The user judging method comprises collecting input from customers and measuring their levels of

satisfaction with a Likert scale. Finally, the hybrid technique incorporates more than one strategy simultaneously (Law et al., 2010).



**Figure 2. Extended Framework Based on Reviewed Website Evaluation Articles From 2000 to 2015**

Sun, Fung, Law, and He (2017) analysed publications on website evaluation in the hospitality and tourism domains published between 2000 and 2015 and classified them as 1) Hospitality centred, 2) Tourism centred, or 3) both Hospitality and Tourism centred. They observed that the research did not examine the detailed effects of website evaluation and, to some extent, disregarded the relationships between suppliers and consumers. As a result, it is critical to integrate all four views in website evaluation and assessment: marketing, customer, technical, and internal. As a result, a more comprehensive approach of assessment and evaluation will be developed.

### 3. Data and Method

This study examined several website evaluation methodologies from previous studies. E-Qual model, Modified Balanced Scorecard (BSC), Perceived Airline Website Quality Instrument (PAWQI), Hotel Website Service Quality (HWebSQ), and Website Quality Index (WQI) are among the evaluation methodologies examined. The most relevant website evaluation or assessment relating to the official DMO website that adheres to the most recent recommendations of Sun, Fung, Law, and He (2017) is chosen. This study examined several website evaluation methodologies from previous studies. E-Qual model, Modified Balanced Scorecard (BSC), Perceived Airline Website Quality Instrument (PAWQI), Hotel Website Service Quality (HWebSQ), and Website Quality Index (WQI) are among the evaluation methods examined. The most relevant website evaluation or assessment relating to the official DMO website that adheres to the most recent recommendations from Sun, Fung, Law, and He (2017) is chosen.

**Table 1. Website Evaluation Models Based on Previous Studies**

| Evaluation model                                     | Authors                        | Measurements   | Industry / website owners                |
|--|--------------------------------|--|--|
| E-Qual   | Kaynama and Black (2000)       | Content and purpose, accessibility, navigation, design and presentation, responsiveness, background, personalisation and customization   | Online Travel Agencies                   |
| Perceived Airline Website Quality Instrument (PAWQI) | Shchiglik and Barnes (2004)    | Site quality, information quality, interaction quality, and airline-specific quality   | Airlines                                 |
| Website Quality Index (WQI)                          | Fernández-Cavia et al., (2014) | Home page, content amount and quality, information architecture, usability and accessibility, web positioning, marketing, languages, branding, discourse analysis. interactivity, social web, mobile communication | Destination Marketing Organisation (DMO) |
| Hotel Website Service Quality (HWebSQ)               | Le et al., (2020)              | Website functionality, website design, response time, ease of use, information quality, interactivity and security   | Hoteliers                                |
| Web-Marketing Mix (WMM)                              | Chiou et al., (2010)           | Product, promotion, price, place, and customer relationship  |  |
| Modified Balance Scorecard (BSC)                     | (Amy) So and Morrison (2004)   | <u>Technical criteria:</u>   | National Tourism Organization            |

|  |                           |   |                                    |
|--|---------------------------|---|------------------------------------|
|  |                           | <p>Link checks, html checks, browser compatibility, load time, spelling check, register it-readiness, link popularity</p> <p><u>Marketing criteria:</u><br/>Globalization, market segmentation and target marketing, branding, Tangibilizing destination, relationship marketing, marketing research and database, partnership</p> <p><u>Customer perspective criteria:</u><br/>Ease of contact, ease of navigation, special customer needs, added value to customer</p> <p><u>Destination information perspective:</u><br/>General travel information, shopping area, accommodations, attractions, restaurants, transportation, embassy/consulate information, pricing, corporate information, meeting planning, added value to meeting planners</p> |                                    |
| <b>Modified Heuristic Usability Criteria</b> | Qi <i>et al.</i> , (2008) | Language, website layout, information architecture, user interface and navigation, general  | Destination Marketing Organisation |

Following preliminary assessment of evaluation methods, this study discovered that Modified BSC and WQI were particularly applied to evaluate and assess DMO website. A comparison of both models is performed in order to determine which is more appropriate and robust in terms of measurements. Then, in this study, researches employing WQI are assembled to analyse the use of WQI in each research. This study gathered nine studies that employed WQI as its assessment method from 2014 to 2020. The WQI variables in each study are extracted to discover the most frequently utilised variables. Following preliminary assessment of evaluation methods, this study discovered that Modified BSC and WQI were particularly applied to evaluate and assess DMO website. A comparison of both models is performed in order to determine which is more appropriate and robust in terms of measurements. Then, in this study, researches applying WQI are gathered to analyse the use of WQI in each research. This study gathered six studies that employed WQI as its assessment method from 2014 to 2020. The WQI variables in each study are extracted to discover the most frequently used variables.

**Table 2. Website Quality Index Models Based on Previous Studies**

| Author   | Purpose  | Measurements   |
|--|--|--|
| <b>Kumar and Rakhymkul (2020)</b>                    | Using the Web Quality Index (WQI) Assessment Model to Analyze Kazakhstani National Tourism Portals                   | 12 parameters of homepage, content amount and quality, information architecture, usability and accessibility, web positioning, marketing, languages, branding, discourse analysis, interactivity, social web, mobile communication   |
| <b>Bonjisse and Paulo Morais (2017)</b>              | The research attempted to understand and improve website evaluation based on models related to the tourism websites. | Proposed a new model based on previous studies: -<br>1) WQI method, Cavia (2014)<br>2) Kim (2006)<br>3) Housing Tourism Website, Azevedo (2009)<br>4) ISO9126 model<br>Standardization of the language, Vilella (2003)               |
| <b>Míguez-González &amp; Fernández-Cavia, (2015)</b> | To assess the interactivity and social web in official destination websites  | Using as a basis the analysis model introduced by Fernández-Cavia et al. (2014), in relation to an analysis of interactivity, 12 indicators, linked to the three forms of interaction identified by Cho and Cheon (2005)             |
| <b>Del Vasto-Terrientes et al., (2015)</b>           | Proposing a more sophisticated method of analysis from the data analysed through WQI, named ELECTRE-III-H            | 12 parameters are home page, content amount and quality, information architecture, Usability and accessibility, Web positioning, Marketing, Languages, Branding, Discourse Analysis. Interactivity, Social Web, Mobile Communication |

|                     |  |  |
|---------------------|--|--|
| <b>Hefny (2020)</b> | To evaluate official online channels for branding of a tourism destination | A combination of: -<br>1- Luna & Hyman, 2012 (Assess destination website features through 26 variables)<br>2- Fernandez-Cavia et al, 2014 (adopted WQI method from relational aspect of social media and interactivity)<br>3- Scolari & Fernandez-Cavia, 2014 (Evaluate Tourism Mobile Applications through 5 variables) |
| <b>Gela (2020)</b>  | Assessing the quality of Tour Operator firm's website                      | 12 parameters of home page, content amount and quality, information architecture, usability and accessibility, web positioning, marketing, languages, branding, discourse analysis. interactivity, social web, mobile communication  |

## 4. Results

### 4.1 Evaluation models

This study discovered that only modified BSC and WQI evaluation methods and models meet the purpose of this research, which is an evaluation or assessment approach for the Official DMO website. This is due to the fact that both Modified BSC and WQI are constructed specifically to evaluate and assess DMO websites. The Modified BSC and WQI are then compared to determine which is more prominent in terms of metrics constructed. This study discovered that WQI contains the majority of the metrics used in the Modified BSC model. As a result, WQI is selected as a more appropriate website for this study.

### 4.2 Website Quality Index researches

This study discovered that three of the six studies used all of the original WQI variables, while other studies integrated portions of WQI variables with other models to propose a new model or to focus on specific area of official DMO website. For example, research done by Miguez-Gonzalez and Fernandez-Cavia (2015) assess DMO website interactivity through the interactivity parameters to assess the presence strength of a DMO website on social media platforms. This shows that the WQI measurement is comprehensive and adequate for the official DMO website on overall assessment while it could also be constructed with other assessments for specific purposes.

## 5. Conclusion

DMOs play an important role in promoting and informing tourists about their locations. To remain relevant and competitive, DMOs must regularly assess and enhance their websites. As a result, a model that can analyse and evaluate DMO's website holistically is required. Although there are numerous models and frameworks for DMO websites, there is no widely acknowledged methodological assessment tool due to scholars' differing scope and purpose of research. According to the findings of this study, the Website Quality Index (WQI) is a suitable website assessment established specifically to assess and sustain the effectiveness of DMO websites. Furthermore, because WQI is holistic and flexible, it can be used to meet the needs of the evaluator.

This study has several limitations in which the paper selected are limited to a certain search term only and future research could address this limitation by gathering larger sample in a broader timeline. It would be interesting to see how the assessments is compared to each other using the same evaluator and website. Furthermore, a comparison or a mix of all the five methods, which is Numerical, automated, user judgement, counting and mix method would be a good test of a measurement for an assessment.

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## **Determinants of Accounting Students' Satisfaction in Online Distance Learning: Role of Interactions and Self-Efficacy**

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### **Abstract**

Due to an increase in COVID-19 cases in Malaysia, the Ministry of Higher Education has decided to postpone the university's reopening in October 2020. Universities have no choice but to continue with online distance learning (ODL) to assure learning continuity. Even though ODL implementation is not a new experience, the absence of first-time face-to-face interactions poses a challenge. Thus, this study aims to investigate the influence of online learning self-efficacy, learner-content interaction, learner-instructor interaction, and learner-learner interaction on student satisfaction. An online questionnaire of 321 diploma accounting students was used to obtain data for this purpose. Based on the results, only self-efficacy, learner-content interaction, and learner-learner interaction were shown to be significant predictors. The study also discovered that the strongest predictor of student satisfaction was learner-content interaction. However, learner-instructor interaction did not show to be a significant predictor of the dependent variables. These results could aid educators in developing instructional strategies and delivery methods that are suitable for online learning. It is vital because student satisfaction has the potential to influence academic achievement and mental health.

### **Keywords**

Student Satisfaction, Online Distance Learning, Interaction, Self-Efficacy, and Accounting

### **1. Introduction**

The pandemic of COVID-19 has pushed every academic institution towards online distance learning (ODL), although nobody was ready for this transition. During the periods of closure, all the face-to-face lectures, seminars, practical demonstrations, laboratory exercises, written examinations, and oral exams had to be conducted virtually (Svatos et al., 2022). Therefore, most academic institutions have faced a significant challenge in terms of preparedness, both in terms of mechanisms and infrastructure, as a result of an abrupt switch from traditional physical learning to online learning in this pandemic moment to adapt to the new norm. This has led to concerns about the eventual quality of learning outcomes (Yan-Li et al., 2022). According to Callo and Yazon (2020), learner familiarity, capability, preparedness, device and access connectivity, self-efficacy, and expertise with technology are elements influencing students' satisfaction with technology during ODL. The lack of privacy and inability to focus and actively engage in online classes while isolated at home due to household duties or caregiving obligations makes it difficult for students to learn (Sharaievska et al., 2022). On the other hand, students could experience a loss of their traditional semester pattern due to the absence of field trips, study groups, library access, and other crucial learning activities that are not readily available online. As a result, it could lead to unpleasant emotions, such as decreased motivation for ODL tasks and feelings of frustration, boredom, anxiety, and uncertainty (Sharaievska et al., 2022; Aristovnik et al., 2020). In the same vein, Allam et al. (2020) also observed that a lack of interaction with lecturers and peers causes a lack of self-confidence, an increase in procrastination, and a fear of achieving higher performance for the course enrolled.

The abovementioned problems could lessen student's academic satisfaction. Prior research has shown that self-efficacy, learner-content interaction, learner-instructor interaction, and learner-learner interaction, can predict student satisfaction and perceived learning (Alqurashi, 2017). According to Baber (2020), students' perceptions of their learning and satisfaction are significantly influenced by factors such as classroom interaction, student involvement, course structure, educator expertise, and facilitation. Another study by Becirovic et al. (2022) investigated 210 high school students in Bosnia and Herzegovina's satisfaction, interactions, internet self-efficacy, and self-regulated learning. In the Malaysia setting, Karim et al. (2021) explore the factor that affects students' satisfaction with distance learning apps, but they only focus on three variables: perceived utility, perceived ease of use, and technology self-efficacy. As far as we are concerned, no study is currently being conducted that examines how self-efficacy and interaction (learner-content, learner-instructor, and learner-learner) affect student satisfaction in ODL, particularly for diploma accounting students during the COVID-19 pandemic. Accounting students were chosen due to the requirements of the accounting profession, which include completing higher education coursework and passing a competency exam (Peleias et al. 2017). Furthermore, a growing number of students are choosing to major in accounting, which has also been acknowledged as one of the top professions in terms of career chances (Bakar et al., 2017). Since student satisfaction is a significant outcome of online

learning, the factors influencing this variable should be carefully considered. Thus, this study aims to investigate the effects of online learning self-efficacy, learner-content interaction, learner-instructor interaction, and learner-learner interaction on student satisfaction. This study is imperative for educators and academic institutions to ensure that the current teaching and learning approaches can fulfill and satisfy the needs of the students in the context of online learning.

## **2. Literature Review**

Distance learning was first developed in the 1800s, and as technology advanced in the late 1990s, it gained popularity. It initially began with mail delivery, and then moved on to radio, television, and finally online learning (Kentnor, 2015). It is also known as e-learning, blended learning, online learning, and virtual learning (Allam et al., 2020). With the aid of video conferencing tools like Google Meet, Zoom, Jitsi, Microsoft Team, Cisco Webex, and others, educators can virtually impart knowledge to students using the synchronous approach (Saidi et al., 2021). The Learning Management System (LMS) is used in asynchronous settings to let students download course materials like lecture videos, PowerPoint slides, notes, or e-books at their own pace (Abou Hashish et al., 2022; Rindaningsih et al., 2021). To date, there are several platforms available for online learning, including Edmodo, Litmos, Canvas, Moodle, Google Classroom, Schoology, and Docebo. Some universities also develop their own LMS systems, like uFuture, Blackboard, and Spectrum (Karim et al., 2021; Md Saidi et al., 2021). For students to interact with peers and educators when face-to-face interaction is not possible due to the pandemic, chat apps like WhatsApp, Telegram, Email, Facebook, Instagram, and Twitter are also available. It is recommended that instructors should use synchronous and asynchronous approaches to improve student motivation, encourage learning, and foster engagement during the learning process (Zeng & Wang, 2021).

Student satisfaction is defined as the degree to which a person is satisfied with their educational experience, services, and facilities (Elshami et al., 2021). In the context of online learning, the convenience, flexibility, and cost-saving features of online learning increase student satisfaction (Dinh et al., 2022; Elshami et al., 2021). However, factors including the quality of online instruction, network concerns, improper study environments, and an electricity shortage could reduce students' satisfaction with online learning (Iqbal et al., 2022). According to Eom et al. (2006), the satisfaction of Midwestern university students is significantly affected by the course structure, self-motivation, learning styles, instructor expertise and facilitation, interaction, and instructor feedback. In another study, Kuo et al. (2014) found that learner-content interaction and learner-instructor interaction have the strongest and weakest relationships with student satisfaction, respectively. While, Internet self-efficacy, learner-to-learner interaction, and self-regulated learning did not significantly predict student satisfaction. As we turn to the pandemic scenario, Aristovnik et al. (2020) found that majority of the students from 62 nations were satisfied with the role played by their teaching staff and universities' public relations in assuring that online learning was still available throughout the pandemic. Karim et al. (2021) found that self-efficacy and perceived ease of use have a direct relationship with student satisfaction, but perceived usefulness had no significant correlation. Inconsistent with the earlier study, Dinh et al. (2022) discovered that self-efficacy and self-regulated learning influence student satisfaction, which results in positive academic outcomes and results. Another surprising finding is that Yan-Li et al. (2022) found that more than 60% of the students were dissatisfied with their online learning courses due to low levels of readiness for online learning in terms of preference, direction, self-efficacy, and hardware-soft skill support.

Self-efficacy was first defined by Bandura (1986, p. 391) as "people's judgments of their capacities to plan and carry out a course of action necessary to achieve specific types of performances." To have high self-efficacy in online learning, students need to be proficient in at least three aspects which are learning, technology, and social interaction (Shen et al., 2013). Online distance learners with high levels of self-efficacy had stronger information-seeking and information-manipulation skills (Tang & Tseng, 2013). While Ulfatun et al. (2021) found a significant positive relationship between students' online self-efficacy and online self-regulated learning. According to study done by Karim et al. (2021), students are more likely to adopt technology when they believe it to be beneficial, straightforward, and uncomplicated. Based on findings by Dinh et al. (2022) and Aldhahi et al. (2022), students who have strong online learning self-efficacy are more likely to be satisfied and enhance their academic performance. She et al. (2021) reported that the correlation between interaction and online learning satisfaction was partially mediated by academic self-efficacy and student engagement. As moderating variable, self-efficacy moderates the relationship between learner-content interactions and perceived learning (Prabhu et al., 2022). A different study by Abdul Latip et al. (2022) found that performance expectancy and social influence are moderated by self-efficacy toward acceptance of e-learning among undergraduate and postgraduate levels in Malaysian higher education institutions during the COVID-19 pandemic.

The present study examines three types of interaction: learner-content, learner-instructor, and learner-learner. Learner-content interaction is the interaction between the learner and the content to be learned presented in the form of text, audio, video, graphs, and graphics (Arbaugh & Benbunan-Fich, 2007). Prior research has shown that the strongest and most significant predictor of student satisfaction is the interaction between the learner with the content (Kuo et al., 2014; Alqurashi, 2017). While Kim et al. (2021) discovered that self-directed learning benefits from the modest transactional distance between learners and the content. Recently, Prabhu et al. (2022) stated that learner-content interaction is the most important predictor of perceived learning for students majoring in hospitality. Learner-instructor

interaction is another type of interaction that can be understood by the synchronous or asynchronous online communication between the student and the instructor during a course (Alqurashi, 2017). The previous study's findings demonstrated a strong relationship between learner-instructor interaction and higher perceived learning (Arbaugh & Benbunan-Fich, 2007; Prabhu et al., 2022). It is interesting to note that O'Leary and Quinlan (2007) investigated learner-instructor phone calls and their effect on online students' achievement and satisfaction. Based on the reported level of satisfaction and the student's grades, no significant influence was found. Alqurashi (2017) further confirmed the results of Kuo et al. (2014) who found that learner-instructor interactions had a significant but weak impact on student satisfaction. This could be due to the result of a negative learning experience through assessments of students' work, discussions about grades, and other learning activities. Finally, the sharing of information, opinions, and ideas among course members is referred to as learner-learner interaction. It was found that learner-learner interaction had no significant effect on students' perceptions of their learning (Arbaugh & Benbunan-Fich (2007). In contrast, Alqurashi (2017) showed that learner-learner contact had the least impact on predicting both online student satisfaction and perceived learning. Similar to this, Prabhu et al. (2022) found that among hospitality students, learner-learner interaction is the element that contributes the least to perceived learning. This demonstrates that the likelihood of having satisfied students increases with the emphasis placed on learner-content and learner-instructor interaction.

### **3. Research Methodology**

#### **3.1 Research population and rationale**

This study used a questionnaire-based research approach and regression analysis to examine how self-efficacy and interaction influence student satisfaction in ODL. The population of this research comprises UiTM Tapah's accounting students, who, in comparison to other PFI campuses, represent a sizable proportion of those pursuing accountancy diplomas. The students from the two programs: Diploma in Accountancy and Diploma in Accounting Information Systems were given access to online surveys created with Google Forms from March 8 to March 26, 2021. The sample is drawn from a group of 1,893 students who enrolled in university between October 2020 and February 2021. The Ministry of Higher Learning postponed intentions to reopen the institution owing to an increase in COVID-19 cases, thus this semester was chosen since it is the first semester without a first-time physical class and the students experienced 100% ODL throughout the semester. The students were selected using a simple random sampling technique that gives every student in the sample frame an equal chance of taking part in the study. A total of 321 valid responses were gathered, which is more than the minimum sample size requirement of 320 responses for the 1900 population (Sekaran & Bougie, 2013).

#### **3.2 Measures**

Alqurashi's (2017) earlier research survey questions were used and then suitably adapted for the setting of accounting students at UiTM Tapah. The participant's personal information, including the courses they had completed, their current semester, the devices they used, and their favorite e-learning tools, were all questioned in Section 1 of the survey. Eight self-efficacy questions in Section 2 are used to assess respondents' degree of confidence in their ability to execute certain coursework. Section 3 contained a total of 18 interaction-related questions, including 4, 6, and 8 questions on learner-content, learner-instructor, and learner-learner relationships, respectively. Section 4 of the survey includes two questions on student satisfaction. Self-efficacy responses were collected on 5-point Likert-scaled items, ranging from "cannot do at all" to "highly confidence can do." Students are asked to tick the box next to each item that best summarizes their opinions on a 5-point Likert scale, with 1 signifying a strongly disagree and 5 denoting a strongly agree, for interaction and student satisfaction.

#### **3.3 Data Analysis**

SPSS was used for statistical analysis. The responses to the scales under study were analyzed using descriptive statistics. The internal consistency of the items on each scale was evaluated using Cronbach's alpha reliability test. A multiple regression analysis was performed to investigate the effects of online learning self-efficacy and interaction on student satisfaction in ODL during the COVID-19 pandemic.

### **4. Results and Discussion**

#### **4.1 Descriptive Analysis and Reliability**

Table 1 provides the descriptive statistics and reliability information for the instruments used to measure the variables in this study. The minimum and maximum values of each variable are between 1 and 5. Each subscale had an average score higher than the relevant scale's midpoint (3). This result illustrates that accounting students experienced all these factors, which in turn, influenced their satisfaction. The internal consistency of the scales was examined using the

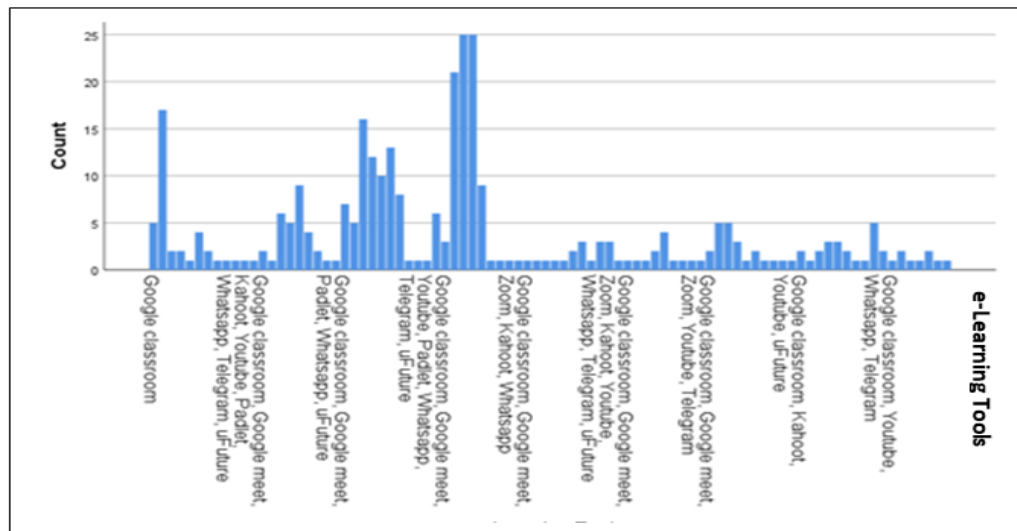


reliability test, and it was discovered that all five dimensions display consistency since all of the subscales were greater than 0.7.

**Table 1. Data Measurements**

| Subscales            | Items | Mean | Standard Deviation | Cronbach's Alpha |
|----------------------|-------|------|--------------------|------------------|
| Self-efficacy        | 8     | 3.79 | .732               | .868             |
| Learner-content      | 4     | 3.70 | .835               | .804             |
| Learner-instructor   | 6     | 3.90 | .783               | .803             |
| Learner-learner      | 8     | 3.90 | .851               | .890             |
| Student Satisfaction | 2     | 3.67 | .871               | .858             |

According to Figure 1 below, most students (7.8%) are likely to prefer using Google Classroom, Google Meet, YouTube, WhatsApp, and Telegram as their learning tools.



**Figure 1. Student Preference for e-Learning Tools**

#### 4.2 Regression Analysis

A Multiple Linear Regression was employed to predict student satisfaction within an online learning environment based on four predictor variables: self-efficacy, learner-content interaction, learner-instructor interaction, and learner-learner interaction. A summary of model (Table 2), ANOVA table (Table 3), and regression coefficients (Table 4) are presented. As depicted in Table 2 and 3, a significant regression equation was found  $F(4, 307) = 66.724, p < 0.000$ , with an overall adjusted  $R^2$  of 0.458. This value indicates that only 45.8% of the total variation in the student satisfaction within an online learning environment can be explained by these four predictor variables. The results for each predictor's coefficient used to predict student satisfaction in the online environment are displayed in Table 4 above. Self-efficacy ( $t=4.997, p<0.05$ ), learner-content interaction ( $t=5.867, p<0.05$ ), and learner-learner interaction ( $t=5.645, p<0.05$ ) were shown to be significant predictors of student satisfaction. Interaction between the learner and the instructor, however, was not a significant predictor ( $t=-0.869, p>0.05$ ). For self-efficacy, the results of the study are consistent with prior studies conducted by Karim et al. (2021), Dinh et al. (2022), and Aldhahi et al. (2022). This study confirmed that students with high self-efficacy are confident in their ability to accomplish any task, regardless of how difficult it could be, thus leading to an increase in satisfaction.

**Table 2. Model Summary with four predictors and satisfaction as an outcome variable**

| R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Standard error of estimate | Durbin Watson |
|-------------------|----------------|-------------------------|----------------------------|---------------|
| .682 <sup>a</sup> | .465           | .458                    | .55542                     | 2.056         |

In terms of interaction, the study discovered that only learner-content and learner-learner interaction predict student satisfaction. This result lent support to studies by O'Leary and Quinlan (2007). In contrast, Kuo et al. (2014) and Alqurashi (2017) found that learner-content and learner-instructor interaction have a significant positive relationship with student satisfaction. The surprising finding shows that students are becoming more independent as they can utilize lecture

recordings, slide presentations, and notes that have been shared via Google Classroom, uFuture, Telegram, WhatsApp Groups, or YouTube for revision purposes as evidenced in Figure 1.

**Table 3. ANOVA with Four Predictors and Satisfaction as an Outcome Variable**

| Source of variation | Sum of squares | Degrees of freedom<br>(df) | Mean Square | F-value | P-value           |
|---------------------|----------------|----------------------------|-------------|---------|-------------------|
| Regression          | 82.333         | 4                          | 20.583      | 66.724  | .000 <sup>b</sup> |
| Residual            | 94.705         | 307                        | 0.308       |         |                   |
| Total               | 177.038        | 311                        |             |         |                   |

**Table 4. Multiple Regression Analysis between Four Predictors and Student Satisfaction**

| Model |                                | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|--------------------------------|-----------------------------|------------|---------------------------|--------|------|
|       |                                | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)                     | -.501                       | .277       |                           | -1.808 | .072 |
|       | Self-efficacy                  | .424                        | .085       | .278                      | 4.977  | .000 |
|       | Learner-content interaction    | .359                        | .061       | .299                      | 5.867  | .000 |
|       | Learner-instructor interaction | -.068                       | .076       | -.049                     | -.896  | .371 |
|       | Learner-learner interaction    | .387                        | .068       | .301                      | 5.645  | .000 |

*a. Dependent Variable: Student Satisfaction*

Peer interaction also aids students in resolving problems with misunderstanding, incorrect interpretation, or incorrect calculation of figures in any accounting course they take. In line with Kuo et al. (2014) and Alqurashi (2017), this study also indicated that learner-content interaction (Beta=0.299) was the most important predictor of student satisfaction. This finding offers helpful insight into factors that should be considered in enhancing student satisfaction in situations where educators play a crucial role in developing high-quality learning materials that can help students stay on track even with little assistance from educators. (Kim et al., 2021). This study portrays the result of emergency distance learning due to COVID-19. As a result, the results are inconsistent with what Alqurashi (2017) observed, especially the impact that instructors and peers have in the online learning environment since learner interaction with the two parties played no and least significant role respectively as shown in Table 4. In light of the fact that switching from physical to online classes overnight adds to the hectic schedule of the educator, the educator ought to alert the student to their presence by giving prompt feedback and timely attention (Prabhu et al., 2022).

## 5. Conclusion

This study looked into how student satisfaction in online learning during the COVID-19 pandemic was affected by self-efficacy, learner-content interaction, learner-instructor interaction, and learner-learner interaction. Based on the presented results, only self-efficacy, learner-content interaction, and learner-learner interaction were found to be predictive of study satisfaction. The results highlighted the significance of self-efficacy and interaction in determining student satisfaction. The academic institution should regularly assess the degree of student satisfaction because it is a critical indicator of the quality of the course taken and the effectiveness of the learning process. Additionally, having satisfied students will increase the institution's reputation and students' loyalty (Latip et al., 2020). Moving towards the educators' role, they should constantly exhort students to maintain their resilience and health and demonstrate compassion for those in need and affected by COVID-19. Educators should undergo pedagogy training for them to provide engaging, intriguing, and interactive online courses with substantial course material. To improve learner-learner interaction, educators should instill a feeling of community in the online environment that emphasizes the student's contribution to the learning process, for instance practicing discussion-based lectures or assigning pair and group work (She et al., 2021). It is advised that academic institutions and educators take the initiative to improve students' self-efficacy in all areas, including computer, internet, information searching, and Learning Management System (LMS), so they would be more willing to engage in a distant learning-based approach (Aldhahi et al., 2021).

This study is not without its limitations. The small sample size does not represent all diploma accounting students. Future research should broaden the sample size to include students from different campuses or samples from other public and private universities to improve the representativeness of the findings. Future research should use different forms of sampling, such as the stratified sampling technique, as opposed to the simple random sampling used in the current study. Future studies also should explore other variables such as age, gender, self-regulated learning, perceived ease of use, academic stress, burnout, and any other variable that potentially predict student satisfaction in the online learning setting. The researcher might also look at other possible outcomes, including academic achievement, and incorporate any

mediating or moderating variables in the relationship between antecedents and effects of online learning. Finally, the future researcher should employ alternative analytical techniques such as longitudinal, qualitative, or mixed-method approaches.

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## **The Impact of COVID-19 and IFRS Adoption on Earnings Quality**

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### **Abstract**

The coronavirus (COVID-19) pandemic is considered the largest global health, economic and social crisis. It created a lot of uncertainty in the corporate world as well as in small and medium businesses. Managers, therefore, play an important role in ensuring the survival of their business, and their discretion during a crisis in financial reporting becomes an interesting area to be studied. Meanwhile, the adoption of the International Financial Reporting Standard (IFRS) to the Malaysian Financial Reporting Standard (MFRS) in Malaysia is supposed to improve the earnings quality in financial reporting. Therefore, this study aims to investigate the relationship between the adoption of the IFRS and the impact of COVID-19 on the earnings quality among Malaysian public listed companies, particularly in the construction sector. This study employed two measurements of earnings management (which is a proxy for earnings quality) which are Accrual Earnings Management (AEM) and Real Earnings Management (REM). The sample of this study covers the period after the implementation of MFRS 111 for Construction companies in the year 2017 until the latest COVID-19 outbreak up to the year 2021. This study found that the figures for earnings management are significant during the COVID-19 outbreak. In addition, the results indicate that board composition (board size, board female, audit committee, audit committee with expertise) and firms characteristics (size, leverage, profitability, growth, and liquidity) are factors that affect firms' decisions to manage their earnings, either on an accrual or real earnings management basis.

### **Keywords**

Earnings management, COVID-19, IFRS, MFRS, Earnings Quality

### **1. Introduction**

One of the most common topics being researched by academics in the accounting area is the relationship between corporate governance and financial reporting quality. A key corporate governance instrument, the board of directors is responsible for managing and guiding a company organisation and defending the interests of all stakeholders (Fama & Jensen, 1983, Jensen & Meckling, 2019). To reduce information asymmetry, control insiders' opportunism, and mitigate managerial incentives in earnings management practices and thereby contribute to the integrity of the financial reporting, the board of directors assumes a key role for the corporation in ensuring effective corporate governance (Chen et al., 2011; Chi et al., 2015; Khalil & Ozkan, 2016; Peasnell et al., 2005).

As a result, the goal of this study is to investigate how earnings management has changed since IFRS was implemented as well as how COVID-19 has affected companies listed on Bursa Malaysia, notably in the construction industry with unique nature of business (Wan Abdullah et al., 2018). Additionally, this study looks into how the qualities of a corporate board (board size, female directors, board independence, audit committee, and audit committee with expertise) affect the quality of financial reporting. This research employs accruals earnings management (AEM) and real earnings management (REM) as proxies for the quality of earnings reported in financial statements, which is consistent with earlier studies. The analysis discovers that the presence of female directors on boards has a significant negative relationship with EM from the year 2017 to the latest 2021. The remaining sections of the paper are structured as follows. The creation of study hypotheses and existing literature on the implementation of IFRS, COVID-19, corporate boards, and EM are all included in Section 2. The research design and data methodology are explained in Section 3. The findings are presented and discussed in Section 4, and the summary and conclusion are presented in Section 5.0.

### **2. Literature Review**

Schipper (1989) defined earnings management (EM) as a deliberate intervention in the external financial reporting process to achieve some sort of personal gain. Healy & Wahlen (1999) claim that managers use discretion in financial reporting and transaction structuring to change financial reports, either to deceive some stakeholders about the company's true economic performance or to influence the terms of contracts that depend on the reported accounting numbers. In addition, Sun & Rath (2008) define EM as managers using their judgment to conceal true performance to either affect stock performance, profit from the contractual obligations between the firm and the managers, or influence regulatory decisions. According to earlier research, EM is thus characterised as a situation in which managers can manipulate financial reporting to highlight the best aspects of their company. The likelihood that the enterprises would attract stakeholders' attention

increased as their performance was portrayed. In essence, EM can be divided into two groups: real earnings management (REM) and accrual earnings management (AEM). AEM takes place when managers are permitted to use their discretion under GAAP to conceal the true state of the company (Dechow et al., 1995). REM, on the other hand, happens when managers are successful in altering reported earnings by modifying the timing or structuring of an operation, investment, or financing transaction to affect the output of the accounting system.

Meanwhile, the Financial Reporting Act of 1997 established two independent organisations, the Malaysian Accounting Standard Board (MASB) and the Financial Reporting Foundation (FRF), to create and publish accounting and financial reporting standards in Malaysia to improve the quality of financial statement reporting. The MASB regulated the financial reporting standards by periodically enhancing them through the standard's obligatory application and revision procedure. The International Financial Reporting Standard (IFRS), now known as the International Accounting Standards (IAS), was closely followed by Malaysia's accounting standard (IFRS). The implementation of the Malaysian Financial Reporting Standard was released by the Malaysian Accounting Standard Board (MASB) in November 2011. (MFRS). The entire convergence will be in place as of January 1, 2012. MFRS 111 Construction Contracts, which focuses on construction companies, is one of the standards.

The construction sectors have unique financial reporting requirements due to their distinctive traits and type of corporate activities. The managers have more opportunities to control the profits of their companies as a result of this distinctiveness. Here are a few examples of managers who exploit the advantages provided by the traits of the construction company: First, since the construction activity requires more than one accounting period to complete, managers can choose when to manage their earnings. Due to the inherent uncertainties in revenue recognition because it is dependent on estimation throughout the construction period, the manager can manage earnings (MASB 2007). Additionally, based on the third characteristic, the result of a building project cannot be predicted in the early stages of the project. Last but not least, this industry has a lot of current assets, especially in the area of materials and non-current assets, which indirectly provide great opportunities to manage discretionary accruals through accounts payable, accounts receivable, and depreciation, while the nature of the property industry's sales process has an impact on the recognition and measurement of revenues and expenses (Wan Abdullah, 2012). Therefore, the Construction industry is chosen as a sample company to measure earnings management in this study.

Previous studies have demonstrated that they could explain the connection between the implementation of IFRS and earnings management (Mongrut & Winkelried, 2019, Malofeeva, 2018, Wardhani & Anggraeni, 2017, Ferentinou & Anagnostopoulou, 2016, Ahmed et al., 2013). Prior research, however, came to varying conclusions regarding the relationship between these two variables: it can be either positively or negatively correlated, and some studies produced dubious findings. The strong correlation between IFRS adoption and earnings management suggests that IFRS adoption significantly improved or, to put it another way, did not change the level of earnings management. This was demonstrated in a study conducted in a variety of Latin American nations, including Argentina, Brazil, Chile, Colombia, Mexico, and Peru (Mongrut & Winkelried, 2019), Indonesia (Setiawan et al., 2019), and Russia (Malofeeva, 2018), Greek (Ferentinou & Anagnostopoulou, 2016) and Europe (Callao, S. & Jarne, 2010). For instance, studies conducted by Malofeeva (2018), Ahmed et al. (2013), and Callao & Jarne (2010), who used AEM as a measurement of EM, discovered that the IFRS variable has a strong positive influence on the result of discretionary accruals, demonstrating that earnings management is intensified after IFRS implementation. In a different study, (Ferentinou & Anagnostopoulou, 2016) employed six sample Asian countries—China, Hong Kong, Indonesia, Malaysia, Philippines, and Sri Lanka—to examine the relationship between the adoption of IFRS and EM, which is measured by REM. They concluded that IFRS has a favourable impact on EM in developed nations and those with weak governance. Additionally, Setiawan et al., (2019) used a sample of 1,127 firm-year data from the Indonesia Stock Exchange to conduct their study.

IFRS adoption and EM have a positive association, according to empirical findings, however, there is also older literature that holds the opposite opinion. As an illustration, Wijayana, S. & Gray (2019) found that IFRS convergence is associated with lower levels of earnings management, particularly in recent years as IFRS has been gradually adopted by publicly traded firms in the region. The study involved a sample of 17 countries in the Asia-Pacific region. Setiawan et al. (2019) and Anggraeni & Wardhani (2017) employed REM as a measure for EM in the other studies, and they both argued on the negative significant result between the two variables. Additionally, they further highlighted that IFRS has a substantial negative result. In Bangladesh, a developing economy, Hasan & Abdul Rahman (2020) look into the connection between IFRS adoption and accruals earnings management (AEM), discretionary accruals (DA), and real earnings management (REM). Additionally, the study looks at how corporate governance (CG) strength affects EM as well as the moderating effect CG strength has on the relationship between IFRS adoption and EM. The findings indicate a strong inverse link between IFRS and CGI and EM. Additionally, it has been shown that CG strength modifies the link between IFRS and REM considerably. It means that having a strong CG could aid in achieving the goals of IFRS adoption.

In a study conducted by Khaldoun et al., (2019), the authors examined the impact of International Financial Reporting Standards (IFRS) adoption on earning management in China by taking into account the importance of board size and board independence. According to the empirical findings, earning management improved with the adoption of

IFRS. Board independence has greatly reduced earnings management in China after the adoption of IFRS, although there is no association between board size and earnings management before and after the adoption of IFRS.

However, some research found no connection between the adoption of MFRS and EM. Said (2019), for instance, conducted research using panel data from 2000 to 2018 of the 19,869 firm-year observations from 791 Canadian enterprises, using AEM as a metric for EM. He suggested that adopting IFRS has no direct effect on earnings management among publicly listed enterprises in his sample, even though the aggregate result appeared to be negative but was minor. The researcher's findings are in line with evidence from Ferentinou & Anagnostopoulou, (2016), who found no significant relationship between IFRS adoption and REM, particularly in developing nations, nations with sound governance, and nations that adopted the big-bang strategy, meaning they already had sound accounting standards and practices before the IFRS were adopted (for example Hong Kong and Philippines). Therefore, it is usually established from the literature that EM is unlikely to be impacted before or after the years of IFRS adoption.

The global COVID-19 pandemic is regarded as the greatest social, economic, and health problem of the twenty-first century. The COVID-19 pandemic has delayed economic activity worldwide in addition to causing human deaths and the sickness itself because of its unusual effects and the steps taken by governments to stop it from spreading. Unprecedented levels of widespread unemployment, a decline in economic activity, and erratic price swings across numerous financial markets have all been brought on by the pandemic. The effects of COVID-19 have already been felt by the business (Barai & Dhar, 2021). The COVID-19 outbreak affected the output and profitability of most businesses because most of their operations were halted during the nationwide lockdown enforced by numerous governments, which resulted in the cancellation of flights and a decline in demand. During a crisis and presumably a pandemic, businesses may employ accounting procedures to improve worsening balance sheets and income statements (Ozili, 2021). Accounting information measurements are becoming more unreliable due to the current economic climate, and opportunistic accounting decisions are becoming more alluring for individuals looking for quick advantages (Ryu & Chae, 2022).

According to Lassoued & Khanchel (2021) analysis of a sample of 2,031 businesses from 15 different European nations, the European businesses were better equipped to control their revenues during the pandemic than they had been during the years before. Further investigation revealed strong income-increasing earnings management for 2020, indicating a chance of reporting losses at an acceptable level. This suggests that the financial reports were less trustworthy during the COVID-19 pandemic. In addition, Ryu & Chae, (2022) investigated whether distribution and service companies in Korea were still able to give reliable information and preserve the quality of their accounting records. According to their findings, distribution and service companies managed their earnings more in the post-COVID-19 era than they did in the prior period, a sign that they were mindful of the uncertainty of future business success while the pandemic persisted.

Meanwhile, Xiao & Xi (2021) investigated the relationship between the COVID-19 outbreak and the Chinese listed firms' earnings management practices. In enterprises in the most badly affected regions, the study's findings showed a rise in accrual-based earnings management (AEM) and a sharp fall in real activity-based earnings management (REM). Furthermore, Liang, (2022) provides evidence that following the COVID-19 pandemic, earnings management of listed businesses in China considerably increased. In the sample with a greater asset-liability ratio, stronger growth, and higher profitability, this effect is more noticeable. According to further analysis, COVID-19's effects on high financing limits will cause listed businesses to control their earnings to a greater extent. According to research done in Croatia by Šušak (2020), changes in the regulatory framework during the extraordinary pandemic circumstances had a statistically significant positive effect on the relationship between earnings management and financial reporting delay, suggesting that financial reporting delays following regulatory changes during the pandemic could be attributed to earnings management activities.

It is important to draw attention to some earlier studies conducted in Malaysia because the goal of the current study is to examine the level of earnings management following the adoption of IFRS and the COVID-19 pandemic, thereby indicating a sign of having controlled earnings management activities. As an illustration, Ayedh et al. (2019) used a final sample of 1,170 firm-years listed on Bursa Malaysia in their study. Examining EM behaviour in Malaysia during the 2008 financial crisis and determining whether or not IFRS adoption had an impact on EM during the time of the global financial crisis are the key goals of this project. The implementation of IFRS, they indicated at the study's conclusion, may be able to lessen the use of EM practices during a financial crisis. In a recent study, Garrett et al., (2020) investigate whether the adoption of IFRS in Malaysia had any impact on Earnings Management procedures. Their findings revealed that, following the full convergence of IFRS, there had been a downward tendency in earnings management across the Malaysian industrial sector. Furthermore, Wan Ismail et al. (2013) had already endorsed the idea that earnings declared during the time following the implementation of IFRS are linked to lower earnings management and higher value relevance. Nevertheless, until this point in time, there is limited literature concerning the impact of COVID-19 and IFRS adoption on earnings management in the Malaysian capital market. Additionally, prior studies provide different evidence

on the relationship between board composition and earnings management (Kalantonis et al., 2021; Wan Mohammad et al., 2018; Hassan & Ahmed, 2012; Liu & Tsai, 2015; Abbadi et al., 2016; Chen et al., 2015)

To address the above arguments, this study proposes the following hypotheses:

H1: There is a significant difference between earnings management practices in Malaysia after the adoption of IFRS and the COVID-19 pandemic.

H2: There is a significant relationship between corporate board composition and earning management practices in Malaysia

### 3. Research Methodology

The most recent sample of construction firms listed on Bursa Malaysia between 2017 and 2021 was investigated in this study. Companies with inadequate data are excluded from this study. A total of 350 firm-year observations make up the final sample. Data about the board of directors are taken from annual reports of each company that are available on the Bursa Malaysia website, while financial data is taken from the Thomson Reuters Eikon database. Panel data regression analysis is employed in this study.

#### 3.1 Measurement for Dependent Variable: Accruals Earnings Management

This study used a well-known earnings management model, the Modified Jones Model by Dechow et al. (1995), to investigate the level of earnings management of Malaysian construction enterprises during the time after the introduction of MFRS and the period of the COVID-19 pandemic.

$$TACCit = NIit - CFFOit \quad (1)$$

$$NDACit = \alpha_i [1/TAit-1] + \beta_1 [(\Delta REVit - \Delta RECit)/TAit-1] + \beta_2 PPEit/TAit-1 \quad (2)$$

$$TACCit/TAit-1 = \alpha_i [1/TAit-1] + \beta_1 [(\Delta REVit - \Delta RECit)/TAit-1] + \beta_2 PPEit/TAit-1 + \varepsilon it \quad (3)$$

$$DACCit = \varepsilon it = TACCit/TAit-1 - NDACit \quad (4)$$

Where *DACCit* is the discretionary accruals in year t, *TACCit* is the total accruals in year t, *NDACit* is the nondiscretionary accruals in year t, *TAit-1* is the total assets in year t-1, *NIit* is the net income in year t, *CFFOit* is the net cash flow from operations in year t, *εit* is the error term in year t, and *i* is the individual firm in year t. The coefficients in equation 2 for each year are applied in equation 3 for each company accordingly. *DACC* is the error term in equation 3.

#### 3.2 Measurement for Dependent Variable: Real Earnings Management

Companies that manage earnings upwards are likely to experience one or more of the following accounting consequences, according to Roychowdhury (2006) and Cohen & Zarowin, (2008): (i) unusually low cash flow from operations as a result of expanding price concessions or granting lenient credit terms to speed up sales for the current period; (ii) unusually low discretionary expenses as a result of aggressively cutting back on R&D, advertising, and SG&A costs to improve earnings for the current period; and (iii) unusually high production costs as a result of lowering Cost of Goods Sold (COGS) to raise operating margin for the current period. In line with earlier studies, this study uses three measures to assess REM, including abnormal cash flow from operations (REM CFO), abnormal production costs (REM PROD), and abnormal discretionary expenses (REM DISEXP). The study estimates REM CFO, REM PROD, and REM DISEXP as the residual from the following models, respectively, in accordance with Roychowdhury (2006) and Cohen and Zarowin (2010).

##### 3.2.1 Model for REM CFO

$$CFOit / Ait-1 = \beta_1 [1/A it-1] + \beta_2 [Salesit / Ait-1] + \beta_3 [\Delta Salesit / Ait-1] + \varepsilon it \quad (1)$$

where CFO it is Cash flow from the operation of firm i in period t, Ait-1 is Total assets of firm i in year t-1; Salesit is Sales of firm i in year t, ΔSalesit is Sales of firm i in year t less Sales of firm i in year t-1; εit is a residual term that captures the level of abnormal cash flow of firm i in year t.

##### 3.2.2 Model for REM PROD

$$PRODit/Ait-1 = \beta_1 [1/Ait-1] + \beta_2 [Salesit / Ait-1] + \beta_3 [\Delta Salesit / Ait-1] + \beta_4 [\Delta Salesit -1 / Ait-1] + \varepsilon it \quad (2)$$

where PRODit is the sum of the cost of goods sold and change in inventory of firm i in year t; ΔSalesit-1 is Sales of firm i in year t-1 less sales of firm i in year t-2, and all other variables are as previously defined.

##### 3.2.3 Model for REM DISEXP

$$DISEXPit/Ait-1 = \beta_1 [1/Ait-1] + \beta_2 [Salesit -1 / Ait-1] + \varepsilon it \quad (3)$$

where DISEXPit is the sum of Research and Development (R&D) expenses and Selling, General & Administrative (SG&A) expenses of firm i in year t; and all other variables are as previously defined.



To combine the three real activities manipulation measures into a single proxy, REM, their sums are calculated as follows:  
 $REM = REM\ CFO + REM\ PROD + REM\ DISEXP$  (4)

### 3.3 Measurement for Independent Variables

Contrarily, there are arguments for and against the beneficial and negative associations between corporate governance mechanisms and EM. The current study hypothesizes that the corporate board composition mitigates EM. To test the hypothesis, the empirical models are estimated and presented as follows:

$$AEM = \alpha + \beta_1 BSIZE + \beta_2 BFEMALE + \beta_3 BIND + \beta_4 AC + \beta_5 ACE + \beta_6 SIZE + \beta_7 LEV + \beta_8 ROA + \beta_9 MTB + \beta_{10} LIQ + e \quad (1)$$

$$REM = \alpha + \beta_1 BSIZE + \beta_2 BFEMALE + \beta_3 BIND + \beta_4 AC + \beta_5 ACE + \beta_6 SIZE + \beta_7 LEV + \beta_8 ROA + \beta_9 MTB + \beta_{10} LIQ + e \quad (2)$$

Where:

AEM is Accruals Earnings Management proxy by Discretionary Accruals figure; REM is Real Earnings Management for real activities of earnings management, for control variables; BSIZE is the number of directors on boards; BFEMALE is the number of female directors on boards, BIND is the number of Independence Directors on board, AC is the number of director on Audit Committee, ACE is the number of director on Audit Committee that has the expertise, SIZE is the firm size measured by log Total Assets; LEV is debt to equity ratio proxy for debt covenant, ROA is a return on asset proxy for firm performance calculated by dividing net income with total equity, MTB is the market to book value as a proxy for growth, and LIQ is the liquidity level of the firm calculated by dividing current assets over current liability.

## 4. Results And Discussion

**Table 1. Descriptive Statistics**

|                 | AEM     | REM      | BSIZE  | BFE   | BIND   | AC     | ACE    | SIZE   | LEV     | ROA     | MTB    | LIQ     |
|-----------------|---------|----------|--------|-------|--------|--------|--------|--------|---------|---------|--------|---------|
| <b>Min</b>      | -5.4871 | -15.2377 | 4.00   | 0.00  | 1.00   | 1.00   | 0.00   | 3.9984 | 3.9984  | -181.51 | -.7800 | .2300   |
| <b>Max</b>      | 2.3386  | 2.8499   | 11.00  | 3.00  | 8.00   | 5.00   | 2.00   | 7.3620 | 2117.9  | 37.620  | 4.2700 | 271.540 |
| <b>Mean</b>     | -.2525  | -1.0569  | 6.8314 | .7571 | 3.4514 | 3.2514 | 1.2429 | 5.6739 | 89.6340 | -.1461  | .7805  | 3.4570  |
| <b>Std Dev</b>  | .4498   | 1.4149   | 1.4979 | .7873 | .93127 | .59094 | .49744 | .6365  | 196.161 | 12.0673 | .5870  | 14.9711 |
| <b>Skew</b>     | -4.3860 | -3.6530  | .2800  | .8130 | .9130  | 1.4590 | .4000  | .2600  | 5.4120  | -10.328 | 1.8540 | 16.6980 |
| <b>Kurtosis</b> | 55.816  | 30.213   | -0.460 | 0.106 | 3.978  | 2.2150 | -0.234 | 0.154  | 40.304  | 149.171 | 5.461  | 297.113 |

*Note:*

This table presents the descriptive statistics of both AEM and REM models for a final sample of 340 firm-year observations. All the variables with Skewness and Kurtosis higher than positive 1 and lower than negative 1 had been transformed to achieve the assumption of Normality for multiple linear regression analysis.

Descriptive statistics are provided for all variables considered from 2017 to 2021 in Table 1. Accruals Earnings Management (AEM) and Real Earnings Management (REM), EM metrics, and the composition of the board of directors in terms of size, gender, independence, audit committee, and experience are all included. Additionally, control variables firm characteristics, such as size, leverage, performance, growth, and liquidity, are reported in the data. The average AEM and REM values of -0.2525 and -1.0569 respectively suggest that the majority of businesses use income decreasing accruals to manage their earnings. These findings suggest that accrual-based accounting is prevalent and trending in some Malaysian businesses, where some managers have incentives to manipulate corporate profitability both up and down for purposes, such as managers' compensation and income tax savings. The findings support the evidence provided by Xiao & Xi, (2021); Ryu & Chae (2022); Lassoued & Khanchel (2021); Ayedh et al., (2019); Liang, 2022 and Šušak (2020). Values for skewness and kurtosis must range from -2 to 2. All abnormal variables have been transformed to fall inside this range, where they are all regarded as normal

**Table 2. Yearly Descriptive Statistics**

|                | AEM<br>2017 | AEM<br>2018 | AEM<br>2019 | AEM<br>2020 | AEM<br>2021 | REM<br>2017 | REM<br>2018 | REM<br>2019 | REM<br>2020 | REM<br>2021 |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Min</b>     | -1.2662     | -5.4871     | -1.0353     | -1.0008     | -2.3547     | -6.6962     | -7.8460     | -4.4344     | -3.3050     | -15.2377    |
| <b>Max</b>     | .3926       | .3551       | .7658       | 2.3386      | .6102       | .4924       | .9847       | .5665       | 1.8430      | 2.8499      |
| <b>Mean</b>    | -.262978    | -.310156    | -.253023    | -.168452    | -.268016    | -1.298380   | -1.321948   | -1.097361   | -.661766    | -.905239    |
| <b>Std Dev</b> | .300445     | .695244     | .3068299    | .417373     | .413268     | 1.288971    | 1.358269    | 1.018312    | .947645     | 2.09086     |

*Note:*

This table presents the yearly descriptive statistics of both AEM and REM models for a final sample of 350 firm-year observations.

Tables 2 present the yearly descriptive statistics for all the earnings management variables used from the year 2017–2021. The results indicate that the mean for AEM and REM are decreasing from the year 2017 to 2018. This shows that after the period of IFRS adoption in Malaysia, the mean figures for EM are decreasing from year to year. This indicates that the adoption of IFRS mitigates earnings management. Unfortunately, in the year 2020 when the COVID-19 outbreak hit globally, both the mean for AEM and REM increased and the results for One sample T-test confirm that both figures are significantly different from zero. However, the results are increasing from the year 2020 onwards. This suggests that earnings management appears to be associated with the period of the financial crisis. The trend for these situations is presented in the following figure 1.

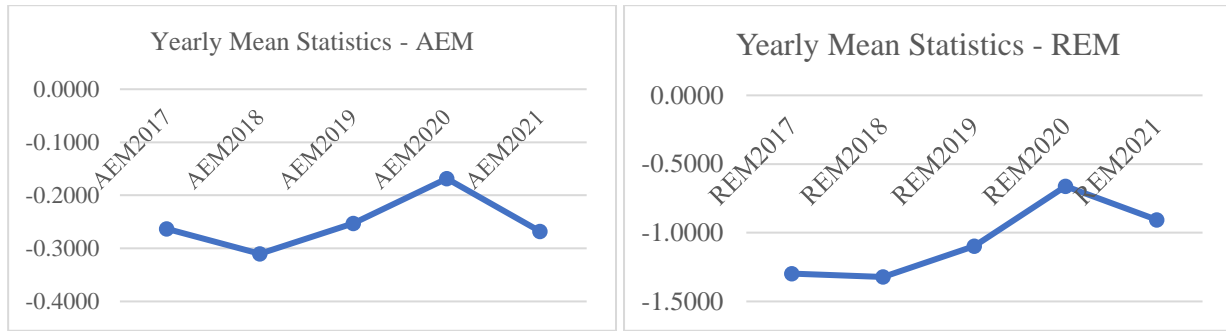


Figure 1. Yearly Mean Statistics

The pair-wise Pearson correlation parameters and p-values for all the variables used in this study are shown in Table 3. Panel A of the table shows that there is a significant correlation between AEM and BSIZE, BIND, AC, and ACE. This implies that there is a correlation between AEM and the appointment of female directors, which may have an impact on EM activities by firms. All control variables are correlated with EM. The correlation results for REM with all of the variables are shown in panel B. Significant negative correlations exist between BSIZE, BIND, ACE, and REM. Additionally, there is a negative correlation between REM and SIZE, ROA, and MTB. To verify the relationship, multiple linear regression analyses are carried out and shown in the following table 4.

Table 3. Pearson Correlation

| Panel A |         |         |          |          |         |         |          |          |         |       |       |
|---------|---------|---------|----------|----------|---------|---------|----------|----------|---------|-------|-------|
|         | AEM     | BSIZE   | BFE      | BIND     | AC      | ACE     | SIZE     | LEV      | ROA     | MTB   | LIQ   |
| AEM     | 1.000   |         |          |          |         |         |          |          |         |       |       |
| BIZE    | .073*   | 1.000   |          |          |         |         |          |          |         |       |       |
| BFE     | -.029   | .412*** | 1.000    |          |         |         |          |          |         |       |       |
| BIND    | .122**  | .476*** | .224     | 1.000    |         |         |          |          |         |       |       |
| AC      | .116**  | .229**  | .045     | .355***  | 1.000   |         |          |          |         |       |       |
| ACE     | .072*   | .097*** | -.010*** | .060     | -.004   | 1.000   |          |          |         |       |       |
| SIZE    | .225*** | .385*** | .258***  | .327***  | .147*** | .131*** | 1.000    |          |         |       |       |
| LEV     | .147*** | .329*** | .052     | .320***  | .118**  | .084*   | .534***  | 1.000    |         |       |       |
| ROA     | .157*** | .199    | .131***  | .096**   | .097**  | .122**  | .309***  | .058     | 1.000   |       |       |
| MTB     | .113**  | -.030   | -.122**  | .038     | .060    | .125*** | -.121**  | .129***  | .148*** | 1.000 |       |
| LIQ     | .156*** | -.042   | .068     | -.154*** | .044    | .054    | -.228*** | -.546*** | .125*** | .052  | 1.000 |

| Panel B |          |         |         |          |         |         |          |          |         |       |       |
|---------|----------|---------|---------|----------|---------|---------|----------|----------|---------|-------|-------|
|         | REM      | BSIZE   | BFE     | BIND     | AC      | ACE     | SIZE     | LEV      | ROA     | MTB   | LIQ   |
| REM     | 1.000    |         |         |          |         |         |          |          |         |       |       |
| BIZE    | -.132*** | 1.000   |         |          |         |         |          |          |         |       |       |
| BFE     | .037     | .412*** | 1.000   |          |         |         |          |          |         |       |       |
| BIND    | .101**   | .476*** | .224*** | 1.000    |         |         |          |          |         |       |       |
| AC      | -.016    | .229*** | .045    | .355***  | 1.000   |         |          |          |         |       |       |
| ACE     | -.214*** | .097**  | -.010   | .060     | -.004   | 1.000   |          |          |         |       |       |
| SIZE    | -.070*   | .385*** | .258*** | .327***  | .147*** | .131*** | 1.000    |          |         |       |       |
| LEV     | -.035    | .329*** | .052    | .320***  | .118**  | .084*   | .534***  | 1.000    |         |       |       |
| ROA     | -.505*** | .199*** | .131*** | .096**   | .097**  | .122**  | .309**   | .058***  | 1.000   |       |       |
| MTB     | -.220*** | -.030   | -.122** | .038     | .060    | .125*** | -.121*** | .129***  | .148*** | 1.000 |       |
| LIQ     | -.016    | -.042   | .068    | -.154*** | .044    | .054    | -.228*** | -.546*** | .125*** | .052  | 1.000 |

Note: This table shows the results of correlation analysis for all models for a sample of 350 firm-year observations. There is no multi-collinearity problem for all the variables examined in this study and met the assumption of multi-regression analysis. \*\*\*Significant at the 1% level, \*\*Significant at the 5% level, \*Significant at the 10% level

Table 4 presents the results of regression analysis between AEM and REM with all the variables measured in this study from the year 2017 to 2021. The results indicate that AEM is negatively related to BFEMALE at a 10% significant

level which is consistent with Gull et al., (2018), Thiruvadi and Huang (2011), Orazalin (2020), Triki Damak (2018), Saona et al. (2019), Kyaw et al., (2015) and Arun et al. (2015). Meanwhile, there is a negative relationship between AEM and ACE, but not significant. In addition, there is a significant positive relationship between AEM with SIZE, LEVERAGE, and LIQUIDITY. Besides, there is no significant relationship between AEM and other variables. The second column of table 4.3 presents the regression results between REM and all the variables measured in this study. The results indicate a significant negative relationship between REM with BSIZE, ACE, ROA, and MTB. However, there is a significant positive relationship between REM with BIND and LIQUIDITY.

**Table 4. Regression results**

| Variables         | AEM       | REM       |
|-------------------|-----------|-----------|
| Constant          | -1.228*** | -1.219    |
| BSIZE             | -0.067    | -.198***  |
| BFEMALE           | -0.103*   | .086      |
| BIND              | 0.075     | .226***   |
| AC                | 0.033     | -.020     |
| ACE               | -0.003    | -.150*    |
| SIZE              | 0.209***  | .079      |
| LEVERAGE          | 0.195***  | .039      |
| ROA               | 0.048     | -.501***  |
| MTB               | 0.070     | -.132***  |
| LIQUIDITY         | 0.316***  | .122**    |
| R-square          | 0.151     | 0.358     |
| Adjusted R-square | 0.126     | 0.339     |
| F-statistics      | 6.002***  | 18.767*** |

**Note:**

This table shows the model summary of each Earnings Management value for a sample of 345 firm-year observations. R-square is the regression coefficient determination. Adjusted R-square is the adjusted regression coefficient determination. F-statistics is the indication of how much variation is explained by the regression equation. AEM is Accruals Earnings Management proxy by Discretionary Accruals figure; REM is Real Earnings Management for real activities of earnings management, for control variables; BSIZE is the number of directors on boards; BFEMALE is the number of female directors on boards, BIND is the number of Independence Directors on board, AC is the number of director on Audit Committee, ACE is the number of director on Audit Committee that has the expertise, SIZE is the firm size measured by log Total Assets; LEV is debt to equity ratio proxy for debt covenant, ROA is a return on asset proxy for firm performance calculated by dividing net income with total equity, MTB is the market to book value as a proxy for growth, and LIQ is the liquidity level of the firm calculated by dividing current assets over current liability. \*\*\*Significant at the 1% level, \*\*Significant at the 5% level, \*Significant at the 10% level

Furthermore, it is found that EM as a proxy for financial reporting quality has a strong negative association with board size, the percentage of female directors, the audit committee, and the level of expertise of audit committee members. This suggests that one effective way of EM mitigation in Malaysia is to have female directors on business boards. Increasing the number of audit committee members, especially those with experience in accounting and financial reporting, also reduces EM. Meanwhile, for control variables, SIZE, LEVERAGE, and LIQUIDITY are found to have a significant positive relationship with AEM at a 1% level. The findings imply that a firm's tendency to control its earnings increases with firm size, debt-to-equity ratio, and liquidity levels. Additionally, the REM decreases in proportion to market to book ratio and return on assets %.

The adjusted R-squared and adjusted R-squared for the AEM linear regression model are 15.1% and 12.6% respectively. The F-statistics value is 6.002 and it is significant at the 1% level. Furthermore, the REM linear regression models are 35.8% and 33.9% respectively. The F-statistics is 18.767, and it is also significant at the 1% level. The F-statistics significant value indicates that the alternative hypothesis and the observed data are consistent.

## 5. Conclusion

The objective of this study is to investigate how earnings management has changed since MFRS was implemented as well as how COVID-19 has affected companies listed in the construction industry on Bursa Malaysia. Additionally, this study examines how the qualities of a corporate board (board size, female directors, board independence, audit committee, and audit committee with expertise) affect how well financial reporting. Based on the findings, it can be concluded that the level of earnings management will significantly alter in 2020, the year of the global COVID-19 pandemic. As a result, it implies that COVID-19 has impacted both company performance and earnings management. Additionally, it is determined that board size, the proportion of female directors, the audit committee, and the level of experience of audit committee members have a significant negative relationship with the degree of EM as a proxy for financial reporting quality. This implies that having female directors on corporate boards is a practical method of EM mitigation in Malaysia.

Adding more members to the audit committee, particularly those with knowledge in accounting and financial reporting, also helps to lower EM. This suggests that a viable strategy for EM mitigation in Malaysia is having female directors on corporate boards. Additionally, increasing the number of members on the audit committee and the number of them with experience in accounting and financial reporting aids in reducing EM.

This study provides additional insight into the significance of having a larger board with a female director and more audit committee members with relevant experience. These factors may positively impact management choices and the caliber of financial reporting. Therefore, the H1 and H2 hypotheses are accepted in this investigation. In the meantime, there is a strong correlation between EM and the control variables for firm characteristics, including size, leverage, profitability, growth, and liquidity. This research adds to the body of knowledge indicating women are more risk-averse, cautious, and ethical than men, which is consistent with earlier research. The results so highlight and further illuminate the significance of having women on corporate boards and the benefits that are connected with it. Therefore, it is important to underline the importance of gender diversity on the board because having more women on it could boost public confidence. In addition to using the most recent and thus most relevant data, the study improves on previous research on the factors that will reduce earnings management, which would subsequently improve the quality of financial reports. This study adds to the body of literature and knowledge by concentrating on accruals and real earnings management in construction businesses. Construction companies have a very unusual business structure, which gives managers greater options to manage their companies' earnings. To maintain excellent governance, quality, and dependability of reported financial reporting in Malaysia, regulatory bodies in Malaysia must constantly evaluate rules and regulations and enforce them.

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## **Internal Control (IC) System Practices of SMEs in the Manufacturing Sector in Sabah**

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### **Abstract**

SMEs have been recognised as the backbone of the Malaysian economy; thus, ensuring their long-term survival becomes crucial. The main focus of this paper is on investigating the competitiveness of the Malaysian SMEs through the implementation of a sound IC systems. In exploring the current IC practices of SMEs, the discussion is based on the five key elements of the Malaysian IC framework released by the Institute of Internal Auditors Malaysia 2005. The five key elements are (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, and (5) monitoring. A qualitative research strategy was adopted, and in-depth interviews with 16 SME owners, 14 key employees of SMEs and two external auditors were conducted. It is evident that SME owners have implemented IC systems in their businesses. However, the fact that almost all SMEs in this study are privately-owned by family has a major impact on the effectiveness of the IC systems. While the creation of family culture has developed a sense of trust among people in SMEs, which is significant in encouraging them to be more responsible in performing their duties, this study recognises that this aspect has caused IC practices not to be performed effectively and objectively. The significance of this study will add knowledge about the competitiveness of SMEs in Malaysia from the IC system perspective.

### **Keywords**

Internal control, Manufacturing, Sabah, SMEs

### **1. Introduction**

SMEs are regarded as important agents for economic growth, and poverty reduction (Asare et al., 2015). Globally, SMEs represent 90% of business establishments and provide 60% of employment opportunities (Munro, 2013). Similar trends also can be found in the Malaysian economy in which it was reported that SMEs represent 98.5% of the total establishments and account for 48.4% of employment in 2019 (SME Corp., 2021). SMEs are also the main users of domestic resources, both human and natural. They also act as a strategy for Malaysian broad-based growth, due to their resilience in the face of the economic downturn, and thus are essential to a successful and well-balanced economy. However, with the increase of uncertainty and competition in today's business environment, it becomes more challenging for SMEs to remain competitive. While various business-related factors such as lack of innovation and competitiveness, limited financial and human resources, as well as inadequate access to up-to-date technology and skilled labour have been discussed as constraining the competitiveness of SMEs (Mustafa & Yaakub, 2018), there is a lack of research that focuses on the influence of a sound internal system in facilitating the sustainability of SMEs (Wang et al., 2019). Within this context, there is a growing interest that emphasizes the importance of internal control systems for improving the performance of SMEs (e.g., Adegboyegun et al., 2020; Nyakundi et al., 2014). The concept of internal control is widely used in operational perspective as part of management efforts in ensuring the efficiency, effectiveness and reliability of business conducts (Provasi & Riva, 2015). Since the operation of an organisation is influenced by both external and internal factors such as the economic environment and human-related problems, the need to ensure the efficiency of its operation becomes crucial. As such, it is suggested that the key of minimising the unfavourable outcomes of an organisation's operation is through systematic procedures that focuses on the governance and control of the organisation (Vaassen et al., 2009). This control system involves methods and measures that are exercised by the management of an organisation to ensure the effectiveness of its operations (Shanmugam et al., 2012). By continuously checking on the procedures and processes involved in business operations, it helps businesses to remain focus on their business objectives and to ensure the implementation process is timely and cost-effective (Mary et al., 2014). Despite the numerous definitions of IC offered by various professional bodies (e.g., COSO, CoCo, and ICAEW), these bodies concur that the implementation of IC systems in organisations is important in delivering reasonable assurance with regard to the accomplishment of three goals: "safeguarding of assets, the integrity and reliability of financial and operational information, and compliance with rules and regulations" (Siwangaza et al., 2014, pp. 166). To achieve these objectives, IC systems are built based on three fundamental concepts: IC as a process, IC is influenced by people and IC provides reasonable assurance (Institute of Internal Auditors Malaysia [IIAM], 2012).

The application of IC systems in organizations requires a coherent framework. The framework helps in clarifying the issue of adequacy of IC in organizations and in determining the extent to which the management has fulfilled its obligations pertaining to the implementation of IC (Gauthier, 2006). Three IC frameworks - the COSO, the Turnbull Report and the CoCo that were published in the US, UK and Canada respectively serve as the basis for IC discussions nowadays, albeit the COSO IC framework is the most widely used worldwide (Missioura, 2014). Being the first comprehensive framework to be formed may have influenced other nations to adopt this framework. In the Malaysian context, the IC framework was developed based on a combination of different frameworks which includes the Turnbull report, the COSO as well as the Basle Committee on Banking Supervision and the International Standards on Auditing (IIAM, 2012). A Statement on Internal Control: Guidance for Directors of Public Listed Companies was released by the Institute of Internal Auditors Malaysia to assist companies in making disclosure on the state of their internal control systems. There are five key elements that are highlighted in the guideline to determine the soundness of the IC system in Malaysian companies: control environment, risk assessment, control activities, information and communication and monitoring (IIAM, 2012) and these elements will be the basis for the discussion in this paper. The subsequent section discusses about the literature review pertaining to internal control system in the context of SMEs and followed by a discussion on the methodological aspect of this paper. The results of this study are presented in the next section. The paper ends with a conclusion.

## **2. Literature Review**

### **2.1 Control Environment**

Control environment sets the overall tone of an organisation and influences the control consciousness of its people. It outlines a set of standards, processes, and structures that serve as the foundation for implementing IC throughout the entire organisation (Committee of Sponsoring Organisation of the Treadway Commission [COSO], 2013). It is believed that the extent to which IC system is implemented in an organisation will be depending largely on the control environment created by the top management of the organisation, a situation that is known as the tone at the top (Hunton et al., 2011). Tone at the top refers to a situation of how the top management of an organisation delivers strong messages about their positive working attitudes to its employees, customers and stakeholders and inculcates appropriate business culture throughout the organisation (Bruinsma & Wemmenhove, 2009). However, most SME owners are lack of IC knowledge (Sankoloba & Swami, 2014), thus affecting their abilities to set the tone in creating awareness and commitment towards IC. In addition, a good control environment is expressed explicitly and formally through organisational aspects such as management style, organisation culture, code of ethics as well as policies and procedures in human resources (Nicolescu, 2009). On the contrary, many organisational aspects of SMEs such as their ethical policies are typically conveyed implicitly rather than formally through written codes (Moore & Spence, 2006). Given that SME owners have considerable control over the operational aspects of their companies, it is worthwhile to investigate the extent to which these owners establish a control environment for the IC system implementation.

### **2.2 Risk Assessment**

Risk assessment helps management of an organisation and its auditors to remain in control by being able to identify and react in a timely manner to any conditions that are related to both internal and external risks (COSO, 2013). For SMEs, fraud turns to be one of the critical risks that can cause severe financial hardship (Azende, 2012). It is argued that the success of implementing a risk assessment process depends largely on the approach taken and the assessment carried out by an organisation's management (Rubasundram, 2014). The use of a particular mechanism in identifying and analysing risks is relevant to the achievement of an organisation's objectives (COSO, 2013). An effective IC system includes mechanisms to assess and control risks from occurring. For example, in investigating the effect of IC systems and fraud prevention on banks in Ghana, Agyemang (2020) highlights those preventive controls help to prevent risk of errors, and this include the design of preventive controls in various aspects of businesses, followed by the implementation of detective controls. He further argues that effective supervision is crucial in the process. In this sense, it can be argued that the effectiveness of risk component of the IC systems of SMEs is depending largely on the ability of SME owners and employees to design and implement strategies in assessing and managing risk. However, previous research has shown that SMEs have less involved in managing risks (Siwangaza et al., 2014). Some of the reasons highlighted in previous literature are lack of ability of owners to recognise source of risks (Stawasz & Ropega, 2014), the absence of internal auditors or internal audit function (Mahzan & Yan, 2014) and lack of competent human resources who are capable of identifying risks and engaging in strategies to protect their firms against risks (Iopev & Kwanum, 2012). Without the presence of internal auditor and the internal audit function or without hired-professional managers and the lack of owner-managers' competencies in assessing risk, the risk assessment process as part of the IC system in SMEs could be ineffective. As such, further exploration is needed to determine the mechanisms used by SMEs in managing their business risks as part of their IC system implementation.

### **2.3 Control Activities**

Having identified the relevant risks that affect the achievement of an organisation's objectives, the next stage in the IC process is to establish control activities. Control activities are established to help organisations decide whether to share, avoid, reduce, or accept the identified risks (Dickins et al., 2011). In executing the options, specific policies and procedures are needed and this usually involves actions such as "authorisation, properly designed records, security of assets and records, segregation of incompatible duties, reconciliations, verifications and analytical review" (Gauthier, 2006, pp. 13). These measures are designed to prevent activities like fraud and theft, and it is argued that small businesses are more vulnerable to fraud than their larger counterparts (Association of Certified Fraud Examiners [ACFE], 2014; Shanmugam et al., 2012). As such, it is not surprising that control activities emerged as a prevalent component in SMEs' IC systems (Bukonya & Kinatta, 2012). However, there are concerns about the efficiency of control activities in SMEs. On one aspect, most SMEs are run and controlled by their owners, which allow them to enjoy private benefits of control (Wang et al., 2019). This situation causes an override issue which exposes SMEs to sustainability risks (Siwangaza et al., 2014). In addition, it is evident that some SME owners are reluctant to delegate their managerial power (Karadag, 2015) due to their perception that they are more capable than employees in handling confidential information, and by not delegating there will be no issue of errors and monitoring (Ghejan & Gal, 2017). Meanwhile, segregation of duties which is considered as a crucial component of effective internal control, is often ignored in SMEs, making them vulnerable to fraud (ACFE, 2014). For instance, despite the fact that reconciliation processes assist firms in identifying issues and preventing errors (Kanu & Idume, 2015), SMEs will find it challenging to assess the accountability of employees, which can lead to errors or fraud, in the absence of segregation of roles (Ernst & Young, 2010). The fact that SMEs have lack of segregation of duties due to the informal structure of their organisations may result in control deficiencies. In addition, control activities include proper record keeping, which is carried out both manually and through a computerised accounting system (Aladejebi & Oladimeji, 2019). Again, common weaknesses found in SMEs with regard to record keeping include lack of knowledge and understanding of SME owner managers on the importance of maintaining good business records (Musah & Ibrahim, 2014), a lack of competent employees (Ibrahim, 2015), and errors and mistakes of recording as the recording process was done manually (Zotorvie, 2017). Besides, IC systems include various control activities to safeguard assets (Hutter, 2016). Therefore, the extent to which control activities have been carried out objectively in SMEs requires further investigation.

### **2.4 Information and Communication**

Information refers to relevant and quality information to support other components of IC systems whereas communication is the process of how the information is obtained, provided, and distributed at all levels of an organisation (COSO, 2013). It is argued that an organisation can ensure risks have been identified, appropriate control activities have been established, and information is communicated throughout the organisation with the help of an effective information and communication component, enabling those assigned with IC responsibilities to carry out their tasks efficiently (Dickins et al., 2011). While information can come from both internal and external sources, communication can occur through internal or external channels. For SMEs, internal sources of information are commonly referred to superiors, subordinates, and internal documents. Within this context, the significance of employees in providing valuable information has been highlighted in previous research particularly because they are directly interacting with customers (Vivek, 2009). It is argued that information provided by employees able to change business internal processes and policies (Allen, 2005) that are significant for the success of corporate sustainability initiatives (Smerecnik & Anderson, 2011). Additionally, SMEs can obtain information from external sources such as from customers, suppliers, competitors, government agencies or regulators and external documents (Jorosi, 2006). In this respect, one of the relevant external sources of information for SMEs is government agencies particularly to ensure that they comply with regulations and fulfil their responsibility to government (Yongming & Yini, 2017). Furthermore, management should communicate clearly to employees regarding their control responsibilities (Quall, 2004), so that they understand the relationship between the role of IC and their work (Pickett & Pickett, 2005). The communication process can be delivered through face-to-face communication, phone calls, digital communication including emails and text messaging (Ruppel & Burke, 2014) and social media (Sanina et al., 2017). It is argued that face-to-face meeting are still preferred for internal communication because the information can be delivered and understood easily by recipients (Mishra et al., 2014) and the richness of information can also be obtained through non-verbal communication such as body language and posture and eye contact (Daft, 2007). However, research by Sanina et al. (2017) found that the most effective internal communication channels for small business are telephone conversations and social networks. She further stated that the most preferable external communication channel between small business and government are telephone calls. It is argued that the effectiveness of the information and communication aspect of the IC system will be influenced by "the way information is authorised, registered, reviewed and monitored", thus requiring the implementation of 'information-based systems' (Arwinge, 2013, pp. 48). It is highlighted that these systems should be integrated in the operational activities (e.g., just-in-time inventory system) with the use of appropriate technology (i.e., electronic data interchange) which help an organisation to process and report



information that is useful in controlling the organisation’s activities (COSO, 1992). In contrast, smaller entities such as privately held SMEs are characterised as having little control documentation. This practice could affect the amount and quality of control information captured and distributed to the whole entity. As such, due to the difference between large organisations and SMEs in terms of their management approach, it can be argued that the effectiveness of the information and communication aspect of IC system is more complicated in SMEs than in large organisations. In this respect, an investigation into the practice of the information and communication aspect would help to identify the effectiveness of SMEs’ IC systems.

## 2.5 Monitoring

Once all four components of the IC system are in place, ongoing monitoring and evaluation activities should be carried out in order to ensure the effectiveness and efficiency of the system (Dickins et al., 2011). The focus of the monitoring process is to determine the extent to which the policies and procedures designed and implemented by an organisation’s management are being conducted effectively by its employees as well as to identify and rectify any control deficiency (Oseifuah & Gyekye, 2013). Therefore, any risks or defects found throughout the monitoring process should be reported and communicated to the responsible employee so that corrective actions can be taken in a timely manner (Aladejebi, 2017). There are two main approaches in the monitoring process: ongoing and separate evaluations. The former refers to ongoing monitoring of the business operation performance, whereas the later refers to periodic evaluation (COSO, 2013). Most importantly, monitoring of performance must be measured based on the defined key performance indicators (KPIs) (Kankaraš et al., 2018). Although deficiencies from monitoring procedures can be easily communicated in smaller entities due to the limitation of their organisation structures, it may not always be apparent as to who is responsible for determining the cause of problems and taking corrective action (COSO, 1992). One explanation could be that it is more likely in SMEs that a significant number of managers are members of the controlling group or that the majority of shareholders are members of the same family (Umrani et al., 2015). Due to their excessive involvement in daily operations, owner-managers may view monitoring procedures as unimportant and have no family trust issues. Consequently, the monitoring process could be taken for granted in SMEs. For example, in determining the soundness of ICs in SMEs in Uganda and the extent to which IC practices are significant in accessing commercial loan financing, Bukenya and Kinatta (2012) found that monitoring is viewed as one of the predictors that is insignificant. The finding revealed that the monitoring component is not given substantial attention as recommended by best practice. Although the outcomes of the monitoring process should be communicated to those who are accountable for internal control, there will be an issue whether the monitoring process is conducted objectively. Therefore, an investigation into the conduct of the monitoring component would help to provide insights into the effectiveness of the IC system in SMEs.

## 3. Methods

**Table 1. Participants’ Demographic Characteristics**

| SMEs | Age   |          | Education   |             |                         |                         |
|------|-------|----------|-------------|-------------|-------------------------|-------------------------|
|      | Owner | Employee | Level       |             | Specialisation          |                         |
|      |       |          | Owner       | Employee    | Owner                   | Employee                |
| 1    | 50+   | 26       | Diploma     | Degree      | Agriculture             | International business  |
| 2    | 45    | 25       | Diploma     | Diploma     | Business                | Medical laboratory      |
| 3    | 48    | 25       | Degree      | Diploma     | English literature      | Business studies        |
| 4    | 48    | 48       | Diploma     | Certificate | Business                | Secondary school        |
| 5    | 36    | -        | Diploma     | -           | Accountancy             | -                       |
| 6    | 67    | -        | Diploma     | -           | Arts                    | -                       |
| 7    | 40    | 19       | Degree      | Certificate | Business                | Secondary school        |
| 8    | 30    | 28       | Certificate | Degree      | Civil engineering       | Marketing               |
| 9    | 49    | 34       | Diploma     | Degree      | Food science            | Fashion design          |
| 10   | 50    | 26       | Certificate | Certificate | Secondary school        | Business administration |
| 11   | 54    | 28       | Diploma     | Degree      | Public administration   | Biotechnology           |
| 12   | 63    | 29       | Certificate | Degree      | Secondary school        | Accountancy             |
| 13   | 30    | 23       | Degree      | Certificate | Education               | Secondary school        |
| 14   | 28    | 24       | Degree      | Certificate | Electrical              | Computer system         |
| 15   | 41    | 38       | Diploma     | Certificate | Public administration   | Secondary school        |
| 16   | 60    | 28       | Degree      | Certificate | Business administration | Secondary school        |

The inductive methodology that corresponds with the qualitative method is adopted in this study to gain insights into the internal control system of SMEs in the manufacturing sector in Malaysia. By employing a qualitative method in this

study, the phenomenon of IC system of SMEs in the manufacturing sector in Malaysia can be studied in its natural setting, thus allowing for the exploration of variables that are not clearly understood. Furthermore, it has long been debated that the strength of qualitative techniques is that they generate valid, detailed, and rich data that normally leave research participants' perspectives intact (Steckler et al., 1992). In addition, previous research on IC has highlighted that the qualitative research method is useful in identifying the effectiveness of IC systems in SMEs as it allows for the in-depth exploration of the topic (Rubasundram, 2014). Therefore, an interpretative approach that capitalises on in-depth interviews (Creswell, 2014) were adopted as the approach allows for the exploration of participants' views on IC system. In order to investigate the implementation of IC systems in SMEs in the manufacturing sector in Malaysia, this study employs a qualitative research strategy and capitalises on in-depth interviews with 16 SME owners, 14 SME key employees, and two external auditors. Table 1 presents some demographic information of SME owners and employees who participated in this study.

All 32 recorded interviews were transcribed and analysed under the Braun and Clarke's (2006) model of thematic analysis, involving six stages of recursive process. The data analysis starts with some a priori themes; identification of themes in advance. There are some issues that have been discussed in the literature that describe the nature of the implementation of IC systems in SMEs, such as the inadequacy of internal control. Therefore, this theme is expected to arise in the data. However, throughout the analysis, the pre-identified codes or themes may be modified to suit the issues that emerge from the data.

#### **4. Results and Discussion**

The research findings show that SMEs have implemented IC system in their business operation as illustrated in Table 2 below. The IC system's components, however, have been implemented to varying degrees. The positive indication means that SMEs have implemented IC components, and vice versa.

The study's findings, which are presented in Table 2, suggest that SME owner managers have created control environment to support the IC system in their companies. It was found that SME owner managers have been practicing leadership by example, which helps to foster a culture of good work ethics throughout their organisations (Bruinsma & Wemmenhove, 2009). In this sense, this practice helps to shape a good working behaviour of employees such as by being fair, open, unity and honest and this has helped SMEs to strengthen the control environment. Despite having strong tone at the top, the data revealed that commitment to integrity and ethical values in SMEs is communicated verbally and without a written code of conduct. This research demonstrates that the long-standing argument over the lack of ethical policies in the control environment of SMEs (Moore & Spence, 2006) is still relevant today. In addition, the findings also reveal that the authoritative and responsibility structure of SMEs in this study are not clearly defined. For example, it was found that organisational structure is not being displayed in the open space of business premises and the majority of SMEs in this study do not provide formal and detailed written job descriptions. Job descriptions were more likely to be informed to employees verbally during the job interview or on the first day of work. These findings conform to the earlier conclusion on the informal practices found in SMEs (Nicolescu, 2009).

The data revealed that SMEs had a weak component for risk assessment. Although SMEs have established their business objectives, risk identification and analysis process were not formally carried out and it was conducted based on the previous experience on risks. Even if SMEs have implemented some strategies in managing operational risks, the strategies did not fall into categories of control activities that are frequently discussed in the IC literature. This study discovered that fraud is one of the risks that occurs in SMEs particularly in terms of assets misappropriation and fraudulent statements. Only one SME appears to implement anti-fraud controls that consist of both preventive (e.g., segregation of duties and authorisation and verification of activities) and detective strategies (e.g., reviews of performance and physical inventories count procedures). The use of both strategies in assessing risk is consistent with the argument that highlights the importance of these strategies to discover threat or irregularities that already exist and to prevent potential threats from occurring (Agyemang, 2020). The finding shows that SMEs have no systematic approach in assessing risk and this finding is in line with the previous arguments that SMEs are less likely to involve in managing risks (Siwangaza et al., 2014). Nonetheless, SMEs have taken some measures to analyse risk by utilising their previous experience.

This study discovered that SMEs have some common weaknesses of control activities as highlighted in the IC literature. First, it was found that SME owner managers are reluctant to delegate their managerial power (Karadag, 2015). The data shows that due to the high degree of trust that SME owners have for their family members and staff, tasks and obligations are occasionally assigned to employees who are not qualified as well as to family members. This situation can be regarded as a source of fraud and error. In addition, this study discovered the lack of segregation of duties in SMEs particularly due to their limited number of human resources. In most situations, one employee or key employee is responsible for completing all the related activities which include the primary or major duties. Again, this situation increases the possibility of errors, irregularities, and fraud, thus exposing SMEs to financial as well as operational risks. These findings are consistent with previous research (ACFE, 2014) that found small businesses are vulnerable to fraud because of the ineffectiveness of IC systems that is resulted from the lack of segregation of duties. The data also showed

that SMEs has kept solid records and prepared sufficient supporting paperwork for their business transactions, however this practise was more common in larger SMEs than smaller ones. This situation is caused by the lack of competent employees in handling proper recording system, an issue that was highlighted in previous research (Ibrahim, 2015). The data revealed that review and reconciliation process does take place in SMEs. The critical analysis of the data showed that the review and reconciliation process was conducted in ensuring the accuracy of information in the operational and financial aspects such as customer credit balance, payroll, invoices, bank/cash statements and stock taking. These findings agree with the view that performing reconciliation regularly enable manager to identify problems and preventing error and fraudulent activities (Kanu & Idume, 2015). However, the review and reconciliation process were conducted by the same person and no specific procedures were established and no documentation was prepared for the process.

**Table 2. Current Practices of IC in SMEs**

|   | Positive | Negative |
|---|----------|----------|
| <b>Control Environment</b>  |          |          |
| Leadership by example   | /        |          |
| Environment for ethical values- Fair, open, responsible & honest                        | /        |          |
| Written ethical policies  |          | /        |
| Authoritative and responsibility structure: Organisation structure and job descriptions |          | /        |
| Appropriate authorities and responsibilities  |          | /        |
| Benefits and incentives   | /        |          |
| IC training programmes  |          | /        |
| Internal audit function   |          | /        |
| <b>Risk Assessment</b>  |          |          |
| IC as part of business objectives   |          | /        |
| Formal risk identification process  |          | /        |
| Formal risk analysis process  |          | /        |
| Formal fraud risk assessment  |          | /        |
| <b>Control Activities</b>   |          |          |
| Delegation of authority   |          | /        |
| Segregation of duties   |          | /        |
| Record keeping  | /        |          |
| Proper financial records  |          | /        |
| Review and reconciliation process   | /        |          |
| Specific process and procedure for review and reconciliation                            |          | /        |
| Physical security   | /        |          |
| <b>Information And Communication</b>  |          |          |
| External sources of information-government organisations/customers                      | /        |          |
| Internal sources of information – employees   | /        |          |
| Application of accounting software system   | /        |          |
| Face-to-face meetings   | /        |          |
| Telephone conversations and social media  | /        |          |
| Written documentation   | /        |          |
| <b>Monitoring</b>   |          |          |
| Ongoing evaluations   | /        |          |
| Separate evaluations-external auditors  | /        |          |
| Separate evaluations-government organisations   | /        |          |
| Reporting control deficiencies  | /        |          |
| Monitoring process to employees   | /        |          |
| Monitoring process to family members  |          | /        |

This study discovered that an employee who have gained trust from SME owner managers will carry out the process of recording and reconciling of stock-taking activities. This practice has caused theft of goods in SMEs. This finding conforms to Ernst and Young's work (2010) which found that it will be challenging to establish employee accountability without segregation of duties, which may lead to error and employee fraud. It is evident that SMEs have designed physical security control activities to safeguard their assets. Some of the procedures that were captured from the data of this study are: cash receipts are deposited regularly on daily basis, petty cash is kept in the safety box, inventories are kept in locked storerooms and financial records are restricted to authorise people. These are some common practices

of physical controls as highlighted by Hutter (2016). SMEs, on the other hand, were discovered to be less concerned with securing fixed assets, as evidenced by the fact that the assets are not tagged.

This study identified the existence of sound IC systems' information and communication components in SMEs, as illustrated in Table 2. It becomes apparent that SMEs acquire pertinent information from both external and internal sources. Government agencies end up being the most often used of external information sources, especially when it comes to information about legislation and regulations, as previously highlighted by researchers (e.g., Yongming & Yini, 2017). Meanwhile, this study revealed that employees are the main internal sources of information. For example, information was obtained from the sales team and recorded in a database on a daily basis. In another situation, it was found that owner managers often double-check financial information with the finance staff to verify accuracy and prevent fraud. This finding is consistent with the argument that information provided by employees can influence internal business procedures and policies that are crucial to the accomplishment of corporate sustainability initiatives (Smerecnik & Anderson, 2011). Additionally, it is clear that SMEs use accounting software to record financial data, allowing for easy access to reliable information. The majority of SME owner managers involved directly in the communication process through face-to-face daily meeting due its effectiveness (Mishra et al., 2014). This method helps SME owner managers in making sure that employees understand their roles in IC system (Pickett & Pickett, 2005). Alternatively, SMEs are also relying on telephone calls and written documentation as medium of communication with government organisations. It was also found that SMEs have utilised social media applications to disseminate information within their organisations. SMEs view this communication channel as reliable, safe, user-friendly, and quick.

The last component in the IC systems of SMEs is the monitoring and evaluation. The data revealed that an ongoing and separate evaluations have been implemented by SMEs. An ongoing evaluation is used in monitoring sales, purchases, production, marketing, and financial activities. For example, closed-circuit television (CCTV), specific forms and reports and stock records are used to monitor the production control. Other monitoring process was conducted on petty cash expenses, transaction and recording of financial expenses, and cash received. In this respect, the ongoing evaluation process helps SME owner managers determine whether the IC practices have been implemented as intended (Dickins et al. 2011). The focus of ongoing evaluations approach in SMEs was mostly related to one perspective only which is financial business performance. However, key performance indicators (KPIs) were not used to evaluate the business performance of SMEs. Instead, SME owner managers rely on their own personal judgement informed by prior experience. This finding is in contrast with the suggestion made by Kankaraš et al. (2018), that the business performance should be measured according to KPIs that are categorised as financial, development, customers, suppliers, and competition. The use of KPIs is to help SMEs to know the performance threshold and subsequently receive the feedback or outcomes for evaluation purposes. Meanwhile, only few SMEs have implemented separate evaluations that were carried out by government officials and internal or external auditors. Government officials serving as evaluators is a common practise because the majority of the SMEs in this study had received some type of entrepreneurial support from governmental organisations. On the other hand, SMEs are less likely to engage with auditors for monitoring process. The study also revealed that any control deficiency that was identified during the monitoring process was communicated to responsible employees. Usually, picture(s) will be taken for any identified deficiency and sent to employees through WhatsApp application. By using the social media approach, the information of control deficiency and direct instruction for corrective actions can be delivered immediately. In addition, the data revealed that the identification of IC deficiencies was reported by external auditors and government officials during their field visits to SMEs. Any deficiencies that were identified by the external auditors and government officials will be discussed in a meeting. These approaches indicate the efforts initiated by SMEs in identifying and rectifying any control deficiency as highlighted by Aladejebi (2017). However, although it is evident that monitoring process has been conducted in SMEs, the data also revealed that no monitoring process was conducted on family members. In this respect, the monitoring process only apply to all employees other than family members. As such, it can be questioned whether the monitoring process was conducted objectively or not. This finding is in line with previous argument on the issue of the effectiveness of monitoring of IC systems in privately held companies (Umrani et al., 2015).

## **5. Conclusion**

This paper focuses on investigating the current state of IC system practices in SME in the manufacturing sector in Malaysia by referring to five key elements IC system: control environment, risk assessment, control activities, information and communication and monitoring. Control environment is the first part of an IC system. The findings show the existence of a tone at the top in all SMEs, demonstrating the full commitment of SME owner managers to fostering work ethics in their organisations. However, it is apparent that SMEs have given less consideration in relation to organizational structure and the appropriate authorities and responsibilities as well as in providing initiatives to attract, develop and maintaining competent employees. The majority of SMEs adopt informal organisational structure with no clear delegation of tasks and authority while also providing no incentives that can increase the performance and productivity of employees. Training programmes are conducted informally through on-the-job training and no training

that is related to IC system has been provided. In relation to risk assessment, the study showed that SMEs had identified their company goals and that the majority of them saw the financial or economic goals as essential ones. The results, however, demonstrate that no strategy or approach to systematically analyse risk has been used. Risk will typically be evaluated based on prior knowledge of specific internal and external situations. For instance, SME owner managers concur that in the past, they have dealt with both internal and external challenges, including high levels of competitiveness, a lack of raw materials, employee negligence, bad debts, and difficulty receiving a reprimand from family members. The third component of IC system is control activities. Control activities emerged as a prevalent component in SMEs. However, the amount of control activities that are accessible to SMEs will vary according to their size. In this regard, SMEs are more likely to adopt various control activities as their size increases and vice versa. All SMEs have adopted two components of control activities: first, access to financial records is restricted to authorised individuals, and second, record-keeping and documentation relevant to government policies and procedures are maintained. The findings, however, showed that SMEs do not undertake a variety of control actions. Delegation of authority, approval and verification, segregation of duties, record-keeping, review, and reconciliation, physical security, and adherence to rules and procedures are a few examples of the problems. The fourth element of IC system is information and communication. The information and communication system's fourth component. The results showed that SMEs had adopted good practises for communicating with internal and external partners as well as for disseminating information internally and externally. For instance, it is clear that market data was gathered daily from the sales staff and entered into a database that is routinely updated. This survey discovered that the majority of SME owner managers participate directly in the communication system through daily face-to-face meetings. It is obvious that SMEs have an efficient communication system. The fifth element of IC system is monitoring. The information showed that SMEs conduct independent, continuing evaluations. These actions are, however, taken on an informal basis. As a result, it is debatable whether the monitoring procedure was carried out objectively.

It is not uncommon that research into IC systems has been conducted on large organisations with the assumption that what is good for large businesses is equally appropriate and applicable to SMEs (Barnes, 2007). As such, by conducting this study on SMEs in a Malaysian context, it has shifted the focus away from researching IC systems only on large organisations, thus providing further evidence on the significance of developing IC systems framework for SMEs. The findings of this study are useful in providing knowledge to practitioners on the weaknesses of the IC system implementation in SMEs as well as the benefits gained from exercising the system. This knowledge would help the professional body, particularly in the Malaysian context to design the IC system framework that is suitable for SMEs. In this respect, this study provides evidence that the application of the 'one-size-fits-all' IC systems framework that was developed based on the experience of large organisations is not relevant to SMEs. At this point, the gap in the IC's literature in relation to the specific IC system for SMEs and the issue of scarcity of publications about IC systems in SMEs are addressed (Shanmugam et al., 2012). However, the findings of this study also reveal that the sense of trust of SME owner managers to employees and family members has negative impact on the effectiveness of IC system. In this sense, too much trust has caused ineffectiveness of IC system implementation particularly on the absence of check and balance activities.

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# **Understanding Digital Consumer Sentiments Around Online Cart Abandonment**

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## **Abstract**

Shopping cart abandonment has grown alongside e-commerce sales even though most people have turned to online shopping more than ever before after the pandemic. The customer's mindset has shifted in tandem with the adoption of internet purchasing. Therefore, the objective of this paper is to ascertain the variables that influence online consumers in neglecting their online shopping carts. This study was conducted in Malaysia using an online questionnaire that was distributed via a social media platform. For this study, a quantitative research approach was employed to analyse data from 242 respondents who had previously abandoned their shopping carts when doing online shopping. The result showed that organizational purpose is the most prominent factor influencing the consumer to abandon items in their shopping cart. It also emphasised that the risk of online shopping does not deter them from purchasing items online. Based on this finding, online retailers can manipulate these areas to prevent shopping cart abandonment and contribute to the literature of online shopping behaviour in Malaysia.

## **Keywords**

Shopping cart abandonment, Online shopping, Consumer behavior, Digital consumer, and E-commerce

## **1. Introduction**

Statista projects that in 2022, Asia and America will have the biggest growth in e-commerce sales. With online sales up more than 25% in each of the top two countries—the Philippines and India—Malaysia came in seventh with an 18.3% increase (Coppola, 2022). With 88.7% of Malaysia's population utilising the internet and 64.2% of them shopping online, the country's e-commerce market has a promising future (Malaysian Communications and Multimedia Commission, 2020). Despite the potential offered by the e-commerce market, online business owners must deal with one of their biggest nemeses: shopping cart abandonment.

According to data collected by the Baymard Institute, they discovered that the rate of shopping cart abandonment reached 69.99% for the year 2022. This indicates that nearly 7 out of 10 shopping carts were abandoned without a purchase. Since 2014, this number has slowly climbed, illustrating the challenge faced by online businesses in turning website visits into buyers (Pasquali, 2022). When an online shopper neglects their shopping cart, it costs billions of dollars to business owners every year. For year 2021, it is estimated \$4 trillion worth of merchandise to be abandon in shopping cart (Flynn, 2021).

People choose to leave their shopping carts for a variety of reasons. Understanding why these consumers initially decide to leave is crucial for achieving a higher completed purchase. This study was carried out to identify the causes. Hence, the objective of this paper is to ascertain whether organizational purpose, entertainment purpose, perceived costs, perceived risks and transaction inconvenience can be the factors leading to shopping cart abandonment. The results of this study may provide insight into the causes of online shopping cart abandonment. Therefore, it can provide a direction for online business owners to reduce online shopping cart abandonment.

## **2. Literature Review**

### **2.1 Shopping Cart Abandonment**

Shopping cart abandonment was defined as the consumer's action of filling their cart with all the items they intend to buy but then leaving the cart without completing it (Rewick, 2000). The changes from offline store to online store purchasing due to the pandemic caused a rise in the statistics of cart abandonment. Earlier studies by Moore and Mathews (2008) found that perceived risk is one of the factors that contribute to shoppers' cart abandonment. Besides, Kukar-Kinney and Close (2010) have listed three factors, which are price promotion, information gathering, and entertainment purpose. This finding is similar to the result of a study by Mad, Omar, and Sarudin (2021) that found that the shopping cart abandonment among young adults was caused by organizational tools, entertainment value, and perceived cost. While the recent study



by Yusuf, Tamara and Setiadi (2021) highlighted that personal information sensitivity also contributes to cart abandonment.

## **2.2 Organizational Purpose**

According to Forsythe and Shi (2003), shoppers tend to use the platform to gather information about the items they intend to buy. Instead of making a purchase, shoppers gather the information to shortlist the potential items by comparing the values of the items (Bloch, Sherrell, and Ridgway, 1986). As they do a lot of research, Strack and Deutsch (2006) find that the action has decreased the possibility of buying among consumers. As a result of that, Mad et al. (2021), Scheinbaum, Kukar-Kinney and Benusa (2012), and Benson and Nodoro (2022) discovered that organizational purpose is one of the significant factors of shopping cart abandonment.

## **2.3 Entertainment Purpose**

Shopping was generally regarded as an escapism activity by some consumers, particularly women. Because of that, some studies find that some consumers put the items in the cart only to satisfy themselves (Mathwicki, Malhotra, and Rigdon, 2001; Wolfenbarger and Gilly, 2001). Arul and Krithika (2019) stated that hedonic clients use online shopping platforms as a form of entertainment and found a significant connection with the rate of cart abandonment. Luo (2002) also mentioned that the online experience gave more satisfaction for consumers as it could relieve their boredom. Besides, Kukar-Kinney and Close (2010), Scheinbaum et al. (2012), Arumugam and Parasuraman (2017), and Yusuf et al. (2021) share the same finding in their studies, as both studies stated that entertainment purposes have been positively related to shopping cart abandonment.

## **2.4 Perceived Costs**

Cost is considered a remarkable factor in cart abandonment as the transition to an online store has led to higher expectations from consumers. According to Maxwell and Maxwell (2001), online shoppers expect a lower price compared to what they get from an offline shop. Postage costs that are paid by the buyer are one of the elements that will affect the consumer's decision before buying a product (Li and Chatterjee, 2006). The other costs, such as shipping, taxes, and other fees, are also important in the eyes of the online shopper (Kukar-Kinney and Close, 2010). Additionally, some consumers have allocated a certain budget for shopping (Sondhi, 2017), and for that reason, they tend to wait for a discount or sale before completing the purchase (Nelson, Cohen, and Rasmussen, 2007).

## **2.5 Perceived Risks**

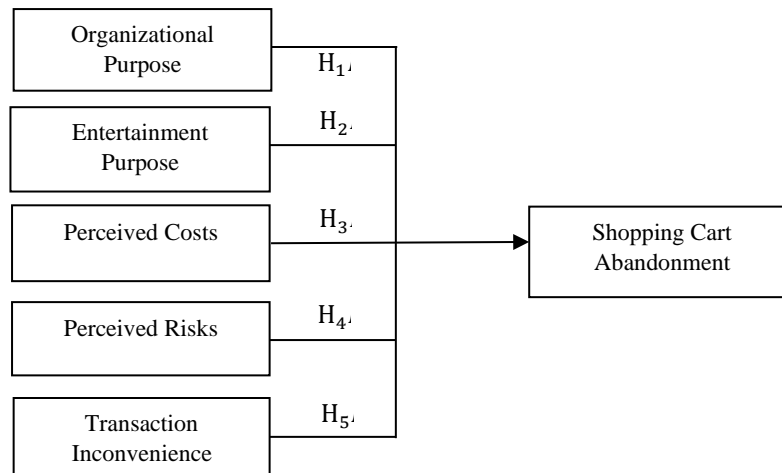
Past research has highlighted the risks that exist in online retail. For instance, Myazaki and Fernandez (2001) have listed concerns about online stores' privacy infringement and security systems. Some consumers were contacted by strangers due to the leaking of personal information to third parties, and some goods did not reach the consumers. A weak security system of online shopping platforms has become a major concern among consumers, as reported by Park, Lennon, and Stoel (2005) and Zhou, Dai, and Zhang (2007). Besides, online businesses are urged to reassure their customers about the security of the personal details provided at the time of the transaction stage (Krithika and Rajini, 2018). As consumers become more careful, they tend to neglect the cart (Rajamma, Paswan, and Hossain, 2009).

## **2.6 Transaction Inconvenience**

Before making a purchase on an online shopping platform, customers are usually required to log in and register. Since it involves a lengthy and complicated procedure, some consumers find that it is an inconvenience (Harrison-Walker, 2002). Srinivasan, Anderson, and Ponnayolu (2002) and Rajamma et al. (2009) showed that transaction inconvenience is a significant factor in cart abandonment. Cho et al. (2006) stated that consumers do not prefer a complicated checkout and they lose interest in the site for that reason alone. This statement is supported by Rajamma et al. (2009), who stated that sellers should try to make the checkout process as easy as possible. Besides, Yusuf et al. (2021) discussed the importance of taking less information as consumers are not really happy with it and it might lead to cart abandonment.

## **2.7 Conceptual Framework and Hypotheses Development**

The conceptual framework of this research is to find the relationship that might exist between organizational purpose, entertainment purpose, perceived costs, perceived risks, transaction inconvenience, and shopping cart abandonment. Even though there has been much past research on this subject, there is always space for improvement, as suggested by Yusuf et al. (2021), who stated the limitation in samples in the past research. By referring to the Theory of Buyer Behaviour by Howard and Sheth (1969) and findings from past studies, this study has come up with the conceptual framework and listed the possible hypotheses as presented in Figure 1.



**Figure 1. Conceptual Framework of Variables Affecting Shopping Cart Abandonment**

- H<sub>1</sub>:** There is a significant relationship between organizational purpose and shopping cart abandonment.  
**H<sub>2</sub>:** There is a significant relationship between entertainment purpose and shopping cart abandonment.  
**H<sub>3</sub>:** There is a significant relationship between perceived costs and shopping cart abandonment.  
**H<sub>4</sub>:** There is a significant relationship between perceived risks and shopping cart abandonment.  
**H<sub>5</sub>:** There is a significant relationship between transaction inconvenience and shopping cart abandonment.

### 3. Methods

The objective of this study was to identify the elements that can tempt shoppers to abandon their shopping carts before checking out. The primary data was gathered through an online questionnaire that was distributed randomly using social media platforms like Facebook Messenger, Telegram, and WhatsApp. This survey involved 242 internet shoppers in total who had previously abandoned their shopping carts when doing online shopping. A sample size of at least 204 is sufficient to achieve a  $\pm 7\%$  precision level where the confidence level is 95% and  $P = .5$  for a population of more than 100,000 (Israel, 1992).

There are 7 parts and 33 total questions in the questionnaire. Since all the questions in the survey were compulsory to answer, no questionnaire was excluded. SPSS 22 was used to statistically test and analyze all the data. The first section is to collect demographic information of the respondent (4 questions), followed by shopping cart abandonment (3 questions), organizational purpose (4 questions), entertainment purpose (3 questions), perceived costs (6 questions), perceived risks (6 questions), and lastly, transaction inconvenience (7 questions). This questionnaire was developed based on previous research by Erdil (2018); Kukar-Kinney and Close (2010); and Yusuf et al. (2021). To explore these factors, respondents will answer questions on a 5-point likert scale ranging from 1–strongly disagree to 5–strongly agree. Data was collected in July-August 2022.

## 4. Results and Discussion

### 4.1 Sample Profile

**Table 3. Socio-Demographic Information of Respondents**

| Respondent's Information |                 | Frequency | Percent |
|--------------------------|-----------------|-----------|---------|
| <b>Gender</b>            | Male            | 59        | 24.4    |
|                          | Female          | 183       | 75.6    |
|                          | Total           | 242       | 100.0   |
| <b>Age</b>               | Under 18        | 1         | 0.40    |
|                          | 18-30           | 168       | 69.4    |
|                          | 31-40           | 65        | 26.9    |
|                          | 41-50           | 6         | 2.50    |
|                          | 51-60           | 2         | 0.80    |
|                          | Total           | 242       | 100.0   |
| <b>Employment Status</b> | Student         | 142       | 58.7    |
|                          | Salaried worker | 82        | 33.9    |

|               |                        |     |       |
|---------------|------------------------|-----|-------|
|               | Self-employed/business | 10  | 4.10  |
|               | Unemployed             | 8   | 3.30  |
|               | Total                  | 242 | 100.0 |
| <b>Income</b> | ≤1500                  | 149 | 61.6  |
|               | 1501-3000              | 24  | 9.9   |
|               | 3001-4500              | 24  | 9.9   |
|               | 3001-4500              | 18  | 7.4   |
|               | 6001-7500              | 9   | 3.7   |
|               | >7500                  | 18  | 7.4   |
|               | Total                  | 242 | 100.0 |

The analysis of the respondents' information shows that the majority of those answering this questionnaire are female respondents (75.6%). Of the 242 respondents, 69.4% are young adults, ranging from 18 to 30 years old. For that reason, most of them are students with less than RM1,500 monthly income. Besides, this survey also involved 38% of respondents with different ranges of income. The detailed analysis of the information is shown in Table 1.

#### 4.2 Descriptive Analysis

The descriptive statistics of the six research variables in this study are shown in Table 2. The respondents found that organizational purpose was the main reason for them to use the shopping cart with the highest mean (4.1198) and lowest standard deviation (0.62087). In contrast to that, perceived risks recorded the lowest mean (2.7899) with a standard deviation of 0.82203. These values indicate that shoppers used the shopping cart frequently to gather information and that any inconvenience events during the purchase process can contribute to cart abandonment. Besides, risks are not the main reason for shoppers to neglect their carts, and they also rarely use them for entertainment purpose. This paper interprets the mean of the variables based on Pimentel (2010). The Likert Scale was used in the following manner: 1. Strongly Disagree, 2. Disagree, 3. Neutral, 4. Agree and 5. Strongly Agree. Using the suggested interval of means, this paper is able to give interpretations for the weighted mean as shown in Table 2a. The result showed that the respondents have a neutral opinion on perceived risks and entertainment purpose but agreed that the other three variables contribute to the shopping cart abandonment.

**Table 2. Descriptive Statistics of Research Variables**

| No | Variable                  | Number of Questions | Mean   | Standard Deviation |
|----|---------------------------|---------------------|--------|--------------------|
| 1  | Organizational Purpose    | 4                   | 4.1198 | 0.62087            |
| 2  | Entertainment Purpose     | 3                   | 2.8774 | 1.11204            |
| 3  | Perceived Costs           | 6                   | 3.7114 | 0.70249            |
| 4  | Perceived Risks           | 6                   | 2.7899 | 0.82203            |
| 5  | Transaction Inconvenience | 7                   | 4.0520 | 0.63435            |
| 6  | Shopping Cart Abandonment | 3                   | 3.9628 | 0.79417            |

**Table 2a. The Responses on The Variables Affecting Shopping Cart Abandonment**

| No | Variable                  | Mean   | Standard Deviation | Description Mean |
|----|---------------------------|--------|--------------------|------------------|
| 1  | Perceived Risks           | 2.7899 | 0.82203            | Neutral          |
| 2  | Entertainment Purpose     | 2.8774 | 1.11204            | Neutral          |
| 3  | Perceived Costs           | 3.7114 | 0.70249            | Agree            |
| 4  | Transaction Inconvenience | 4.0520 | 0.63435            | Agree            |
| 5  | Organizational Purpose    | 4.1198 | 0.62087            | Agree            |

#### 4.3 Reliability Analysis

This study involved a set of questionnaires (or surveys) that are made of Likert-scales, so it is important to assess the reliability of listed variables. As suggested by Creswell (2010), this paper used Cronbach's Alpha to determine the degree of reliability of the variables. Based on the results shown in Table 3, four of the research variables recorded a value of Cronbach's Alpha above 0.8, which is very good. It is similar to the suggestion by Sekaran (2003), who stated that the measuring variable is more reliable as the value of Cronbach's Alpha approaches 1. Besides that, another two research

variables were recorded with a slightly lower value of Cronbach's Alpha which were 0.683 and 0.703. Despite that, both of the variables are still within the range of 0.60 to 0.80, which is considered moderate and acceptable (Pallant, 2001).

**Table 3. Cronbach's Alpha Value of Research Variables**

| No | Variable                  | Number of Questions | Cronbach's Alpha |
|----|---------------------------|---------------------|------------------|
| 1  | Organizational Purpose    | 4                   | 0.683            |
| 2  | Entertainment Purpose     | 3                   | 0.892            |
| 3  | Perceived Costs           | 6                   | 0.809            |
| 4  | Perceived Risks           | 6                   | 0.894            |
| 5  | Transaction Inconvenience | 7                   | 0.862            |
| 6  | Shopping Cart Abandonment | 3                   | 0.703            |

#### 4.4 Correlation Analysis

**Table 4. Correlations Table**

|                              |                        | Shopping<br>Cart<br>Abandonment | Organizational<br>Purpose | Entertainment<br>Purpose | Perceived<br>Costs | Perceived<br>Risks | Transaction<br>Inconvenience |
|------------------------------|------------------------|---------------------------------|---------------------------|--------------------------|--------------------|--------------------|------------------------------|
| Shopping Cart<br>Abandonment | Pearson<br>Correlation | 1                               |                           |                          |                    |                    |                              |
|                              | Sig. (2-<br>tailed)    |                                 |                           |                          |                    |                    |                              |
|                              | N                      | 242                             |                           |                          |                    |                    |                              |
| Organizational<br>Purpose    | Pearson<br>Correlation | 0.449**                         | 1                         |                          |                    |                    |                              |
|                              | Sig. (2-<br>tailed)    | 0.000                           |                           |                          |                    |                    |                              |
|                              | N                      | 242                             | 242                       |                          |                    |                    |                              |
| Entertainment<br>Purpose     | Pearson<br>Correlation | 0.295**                         | 0.251**                   | 1                        |                    |                    |                              |
|                              | Sig. (2-<br>tailed)    | 0.000                           | 0.000                     |                          |                    |                    |                              |
|                              | N                      | 242                             | 242                       | 242                      |                    |                    |                              |
| Perceived<br>Costs           | Pearson<br>Correlation | 0.332**                         | 0.449**                   | 0.384**                  | 1                  |                    |                              |
|                              | Sig. (2-<br>tailed)    | 0.000                           | 0.000                     | 0.000                    |                    |                    |                              |
|                              | N                      | 242                             | 242                       | 242                      | 242                |                    |                              |
| Perceived<br>Risks           | Pearson<br>Correlation | -0.030                          | 0.086                     | 0.303**                  | 0.400**            | 1                  |                              |
|                              | Sig. (2-<br>tailed)    | 0.638                           | 0.180                     | 0.000                    | 0.000              |                    |                              |
|                              | N                      | 242                             | 242                       | 242                      | 242                | 242                |                              |
| Transaction<br>Inconvenience | Pearson<br>Correlation | 0.232**                         | 0.309**                   | 0.149*                   | 0.383**            | 0.221**            | 1                            |
|                              | Sig. (2-<br>tailed)    | 0.000                           | 0.000                     | 0.020                    | 0.000              | 0.001              |                              |
|                              | N                      | 242                             | 242                       | 242                      | 242                | 242                | 242                          |

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

\**. Correlation is significant at the 0.05 level (2-tailed).*

This analysis was conducted to determine the relationship between the highlighted research variables and shopping cart abandonment. The research variables in this study are organizational purpose, entertainment purpose, perceived costs, perceived risks, and transaction inconvenience. Table 4 shows the brief analysis of the variables, and Table 4a and Table 4b both indicate the interpretation of Pearson's correlation values and the significance (2-tailed) values. The degree of correlation for each research variable in Table 4a was based on previous studies by Sugiyono (2013) and Napitupulu et al. (2018).

Based on the result, perceived risks do not fulfil the 5% significance level, and the Pearson's correlation values show a very weak negative correlation. While the other four variables were able to fulfil the 95% confidence interval with

a 0.000 significant value. Out of those four, only organizational purpose has a moderate positive correlation and the other three have a weak positive correlation. For that reason, only organizational purpose is included in the regression analysis as it is significant and has a Pearson coefficient value greater or less than 0.4/-0.4 (at least a moderate relationship). In this case, only organizational purpose (independent variable) is qualified for further regression analysis with shopping cart abandonment (dependent variable).

**Table 4a. Interpretation of Pearson's correlation values**

| Independent Variable Name | Pearson Correlation Value | Result                         |
|---------------------------|---------------------------|--------------------------------|
| Organizational Purpose    | 0.449                     | Moderate positive correlation  |
| Entertainment Purpose     | 0.295                     | Weak positive correlation      |
| Perceived Costs           | 0.332                     | Weak positive correlation      |
| Perceived Risks           | -0.030                    | Very weak negative correlation |
| Transaction Inconvenience | 0.232                     | Weak positive correlation      |

**Table 4b. Interpretation of Significance (2-tailed) values**

| Independent Variable Name | Significance (2-tailed) Values | Result (at 95% confidence level) |
|---------------------------|--------------------------------|----------------------------------|
| Organizational Purpose    | 0.000                          | Acceptable                       |
| Entertainment Purpose     | 0.000                          | Acceptable                       |
| Perceived Costs           | 0.000                          | Acceptable                       |
| Perceived Risks           | 0.638                          | Not acceptable                   |
| Transaction Inconvenience | 0.000                          | Acceptable                       |

#### 4.5 Regression Analysis

Regression analysis is a technique used for modelling the values of a dependent variable (shopping cart abandonment) and of one or more independent variables (organizational purpose, entertainment purpose, perceived costs, perceived risks, and transaction inconvenience). In accordance with the correlation analysis, this paper only considered one independent variable for the regression analysis as it has a Pearson coefficient value greater or less than 0.4/-0.4 (at least a moderate relationship) and the model summary was demonstrated in Table 5. As the R-value represents the correlation between shopping cart abandonment and organizational purpose, a value of 0.449 is acceptable for further analysis. The value of R-square shows that model 1 explains 20.1% of the variance in shopping cart abandonment. Although it is quite low, in many social science settings, an R-square of 9% is already accepted (Itaoka, 2012). Besides, the value of adjusted R-square is 0.198, not far from the value of R-square, which is good.

**Table 5. Model Summary**

| Model | R                  | R Square | Adjusted R Square | Standard Error of the Estimate |
|-------|--------------------|----------|-------------------|--------------------------------|
| 1     | 0.449 <sup>a</sup> | 0.201    | 0.198             | 0.71118                        |

An ANOVA table is used to determine the significance of the model in evaluating the outcome. The p-value is commonly based on the 95% confidence level, and it should be less than 0.05. The result shown in table 6 indicates that the result is significant as the value is 0.000. To validate the result, the value of the F-ratio is 60.527, which represents a good model.

**Table 6. ANOVA**

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.               |
|-------|------------|----------------|-----|-------------|--------|--------------------|
| 1     | Regression | 30.613         | 1   | 30.613      | 60.527 | 0.000 <sup>b</sup> |
|       | Residual   | 121.386        | 240 | .506        |        |                    |
|       | Total      | 151.999        | 241 |             |        |                    |

The coefficient table represents the strength of the relationship between independent variables and dependent variables. In Table 7, the only important value is the significant value that is stated in the last column. It is because this value will determine whether the hypothesis is rejected or not rejected. The last column reported that organizational purpose had an impact, as the significant value was less than 0.05. This analysis suggests that organizational purpose has a significant relationship with shopping cart abandonment and that with a 1% increase in organizational purpose among

shoppers, the shopping cart abandonment will increase by 0.574. Thus, only H1 is accepted, whereas H2, H3, H4, and H5 are not supported.

**Table 7. Coefficients**

| Model |                        | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig.  |
|-------|------------------------|-----------------------------|------------|---------------------------|-------|-------|
|       |                        | B                           | Std. Error | Beta                      |       |       |
| 1     | Constant               | 1.598                       | 0.307      |                           | 5.198 | 0.000 |
|       | Organizational Purpose | 0.574                       | 0.074      | 0.449                     | 7.780 | 0.000 |

## 5. Conclusion

Most of our activities—including shopping—are now influenced by the advancement of technology. In the growth of the e-commerce market, shopping cart abandonment is one of the reasons holding back online businesses. The results of this study may provide light on what motivates online buyers to abandon their shopping carts. This study's analysis shows that organizational purpose is the factor that influences most respondents to leave items in their cart without completing their purchase. This result is consistent with earlier research by Kukar-Kinney and Close (2010), Xu and Huang (2015), and Erdil (2018). It demonstrates that most respondents put items in their carts for the purpose of finding information, comparing prices, or merely as a wish list. Additionally, entertainment purpose, perceived risk, and transaction inconvenience showed evidence that this factor has an influence on customers to neglect their shopping cart. However, the extent of the relationship is weak.

Practically, this finding may have implications for online retailers looking to convert online visitors to online buyers. As organizational purpose has a significant impact on shopping cart abandonment, online retailers may use remarketing strategies such as email reminders or social media remarketing to remind customers about items in their cart and capture the aspirational qualities of products that initially drew them in. Furthermore, they also must pay attention to the price and element of cost charged to the customer, transaction inconveniences occur due to complicated checkout process and website performance issues as these elements can also influence customers to leave their cart.

While this study offers contributions to the literature of online customer behavior, especially for the Malaysian setting, it has a limitation. Future studies should be conducted with more respondent as larger sample size can offer a better statistically consistency in finding and ability to generalize the findings.

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## **Students' Perceptions Toward Corruption: Malaysian Evidence**

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### **Abstract**

Corruption devastates society and the country, stifling economic growth and increasing poverty. As the nation's hope, university students play a vital role in the fight against corruption. However, prior studies on the perceptions of students against corruption especially in the Malaysian context are very limited. Thus, this study aims to investigate perceptions toward corruption among students of higher education institutions in Malaysia. Using questionnaire survey of 115 undergraduate program students, the findings indicate that most of them aware of corruption especially on the legal impact of the corruption activities. However, the results reveal that most of students recognize a corrupt act when such activities involve a considerable sum of money or expenditures. Receiving amusement fees, gifts, and kickbacks to increase transaction efficiency are still acceptable. Findings of this study shed light to policymakers and university administrators who have a keen interest in mitigating corruption in higher education institutions.

### **Keywords**

Corruption, Malaysia, Student, Perception

### **1. Introduction**

Corruption is a phenomenon that is prevalent across the globe. Indeed, according to report issued by Association of Certified Fraud Examiner (2022), corruption represents the main occupational fraud with an average of 50% of fraud cases across industries and is considered as an important obstacle against social progress. It could create damages on the development of the organization and society as corruption is like a virus which could lead into organization distrust. This could lead to destructive impact on the bureaucratic system; thus, corruption weakens the society and should be prevented and curbed.

Similar to other countries, Malaysia has encountered many corruption cases involving renowned politicians, government officials, private and government company executives, white collar professionals, blue collar workers, and the normal public. Examples include the Bumiputra Malaysia Finance scandal in 1983, Pan-Electric Industries scandal in 1985, Deposit-taking co-operative scandal in 1986, Perwaja Steel scandal in 1980s, Maminco-Makuwasa scandal in 1980s, Forex scandal in 1992-1993, Malaysian Airlines (MAS) financial scandal in 1994-2001, Port Klang Free Zone (PKFZ) scandal in 2007-2008, National Feedlot Corporation (NFC) scandal in 2010, 1Malaysia Development Bhd (1MDB) scandal in 2010, and the Felda Global Ventures scandal in 2017. (Durairaja et al, 2019)

In response, Malaysian government has made tremendous efforts to mitigate corruption in the country. For example, the government has launched the National Anti-Corruption Plan (NACP) 2019-2023, with the goal of making the country free of corruption by 2023. The NACP was developed with practical goals based on the initiatives done by government and private agencies to address issues around corruption, integrity and governance for the coming five years. Despite the government's effort to fighting corruption in the country, Malaysia was ranked 61st out of 180 countries in the 2021 Corruption Perception Index (CPI), with a score of 52 out of 100 (Transparency International ,2022). The CPI index measures the public's opinion of official corruption in a given country. The lower the CPI score, the greater the public view of the chance of Malaysian public officials being involved in corruption.

Isa and Abdullah (2021) stress the importance of corruption study on future workforce in the higher learning institutions in the hope of eradicating the tradition of accepting and providing bribes. It is because higher learning institutions are the backbone of the nation. It is the place where our future leaders are trained and developed. Ethical sensitivity needs to be nurtured early on in life and not only when the individual joins the workforce. Given that, this study is undertaken as an attempt to examine the perception of corruption among undergraduate students at higher learning institution in Malaysia.

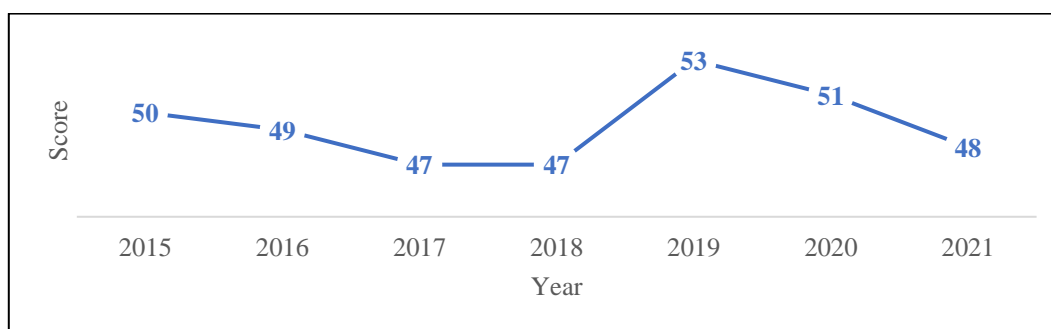
The remainder of the paper is presented as follows. The following section reviews the relevant literature on corruption perception. Third section provides a discussion on the research method. Meanwhile, the fourth section lays out the findings and empirical results. The last section concludes the study.



## 2. Literature Review

Corruption is the act of giving or receiving of any gratification or reward in the form of cash or in-kind of high value for performing a task in relation to his/her job description (MACC, 2022). The term corruption represents inappropriate behavior such as bribery, nepotism, theft, and embezzlement. According to the MACC Act 2009 (Act 694), corruption can be classified into four main offences: soliciting/receiving gratification (bribe), offering/giving gratification (bribe), intending to deceive (false claim), and using office or position for gratification (bribe) (abuse of power or position). In addition, Juraev (2018) categories corruption into two main groups; grand corruption and petty corruption. Grand corruption is frequently connected with high-ranking public figures who might be detrimental to an economy's long-term health. For example, the influence of high-level position over the awarding of government contracts for the construction of new school may result in unqualified companies controlled by high-level public official cronies receiving these contracts. Petty corruption, often known as bureaucratic corruption, involves low-level public officials who cause public benefit to be distorted. Example of petty corruption include bribery, embezzlement, and favoritism

In general, one measurement of corruption that widely accepted is the corruption perception index (CPI). The CPI uses a score from zero to 100 to rank countries based on how corrupt each country's public sector is perceived to be. A value of zero means that a country is perceived as highly corrupt a score of 100 means that a country is perceived as very clean. Furthermore, a country's rank indicates its position relative to the other countries included in the index. Since 2015, Malaysia's score has been dropping every year. In 2015, Malaysia was ranked 54 among 168 countries, with a score of 50, while in 2019; Malaysia was ranked 51 among 180 countries, with a score of 53. In 2020, Malaysia has scored 51 points down one place in the overall ranking of 179 countries to 57th place. Malaysia was ranked 62 among 180 countries in 2021, with a score of 48.



**Figure 1. Corruption Perceptions Index - Malaysia**

*Source: Transparency International, 2020*

Prior studies document various factors influencing student perceptions on corruption including demographic (Wotring, 2007), personality traits (De Bruin & Rudnick, 2007), and cultural attributes (Smithee, 2009). For example, Yahya et al (2015) examine the impact of organizational culture, and religious on corruption among 110 youth in public organization setting. Using instrument introduced by Jiang et.al, (2012), the findings show that organizational culture and religious, positive and significantly affect corruption. Toleikienė, et al. (2020) aims to examine the perception and attitudes of the Lithuanian youth towards the corruption. The findings reveal that the status of occupation, gender, the social status of the family and the civil and political activity significantly affect corruption intention. In Indonesia, Sihombing (2018) examines youth perceptions toward corruption and integrity. Data were collected among Indonesian youth through an open-ended questionnaire and in-depth interviews. The results showed that Indonesian youth defined corruption as taking away the rights of others. They pointed out that taking away others money is an example of corruption.

## 3. Research Methodology

This study gathered data from questionnaires survey. The questionnaire attempted to gather perceptions on corruption from the students' perspective. The results yielded were grouped into several main segments or themes supported by the respondents' perception for each theme in order to reflect the study. The questionnaires were personally administered to undergraduate accounting students from one public university in Malaysia during the second semester of 2022 academic year. The administration of the questionnaires took place after explaining to the students the purpose of the study. To ensure voluntary participation and honest responses from the students, the students were assured of confidentiality and that their responses were to be used solely for this research. Out of a total of 300 questionnaires administered, 115 valid responses were used for the analysis, representing a response rate of 38.33 per cent.

The questionnaire consists of five parts. Part One gathered information on demographic characteristics of the respondents including gender, age and academic performance. Meanwhile, other parts (Part Two to Five) measure

respondents' perception on corruption. Following Tian (2008), Part Two gathered information on perceptions toward bribery, kickbacks and gift giving. For Part Three to Part Five, the study adopted corruption perception attributes from Jiang et al (2013). In particular, Part Three measures corruption perception by the respondents on the moral and negative nature of censure of corruption directly or indirectly. Next, Part Four and Part Five of the questionnaire examines respondent perception on the bureaucratic form of the censure of corruption and status degradation of the censured respectively. To measure the corruption perception, the questionnaire using Likert scale. Likert scale of 1 to 5 is used to measure the responses; 1: Strongly Disagree, 2: Disagree, 3: Moderately Disagree, 4: Agree and 5: Strongly Agree.

SPSS analyses the data using descriptive statistic and factor analysis; and the results were interpreted accordingly. The questionnaire is tested on their reliability to ensure its consistency. The results, with Cronbach's Alpha of >0.7, showed that the questionnaire is consistent, as follows:

**Table 1. Questionnaire's Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based<br>on Standardized Items | Number of Items |
|------------------|---|-----------------|
| .907             | .905  | 27              |

## 4. Data Analysis and Findings

### 4.1 Demographic of Respondents

Personal data of the respondents are not gathered to respect their privacy as well as to encourage participation in the study and this fact is made aware to all potential respondents. 83.9% (103) of the respondents are female and 16.1% (12) are male. This somewhat reflective of the gender in the accounting programme, even though the respondents are mostly female. Majority of the respondents are from semester three and four accounting students, and this fact is also reflected the population of the students selected for the study.

### 4.2 Perceptions Toward Bribery, Kickbacks and Gift Giving

**Table 2. Perceptions On Bribery, Kickbacks and Gift Giving**

|   | Mean  | Std. Deviation |
|---|-------|----------------|
| Bribery has its reason to exist in business transactions  | 2.339 | 1.2668         |
| Bribery is violation of laws and corrosive  | 4.387 | .9810          |
| I hate briber givers  | 4.258 | 1.1865         |
| I hate briber takers  | 4.113 | 1.1888         |
| Kickbacks (illicit payment) are in fact a burden to consumers and will increase transaction cost.   | 3.871 | .9664          |
| Kickbacks (illicit payment) can raise the efficiency of transaction and promote business development.   | 2.871 | 1.3118         |
| Almost all firms promote their products by paying the 'benefits fee' to sales companies; this rule can't be boycotted because of its widespread existence | 3.500 | 1.0041         |
| If I'm the decision maker of the transaction, I'll not refuse accepting gifts, whether I am wealthy or not.   | 2.774 | 1.4645         |
| I'll accept the lodging, transportation, entertainment, travel, or other similar free entertainments provided by the firms because of my decision right   | 3.210 | 1.2948         |
| I will send gifts to customer companies occasionally to keep their orders   | 2.952 | 1.1794         |

The study asked the respondents views on bribery, kickbacks and gift giving. This is to analyse the respondents' opinion and their understanding on corruption including bribery, kickbacks and gift giving.

From the survey, most students perceived the act of bribery is violation of laws and corrosive which ranked first (4.387). As depicted in Table 2, most students disliked briber givers and briber takers which ranked second (4.258) and second (4.113) respectively. Most students perceived kickbacks is a burden to consumers and will increase transaction cost which ranked forth (3.871) of the survey. However, bribery as the 'benefit fees' in promoting firms' products is accepted by most students which ranked fifth (3.500). it is also shows that the 'benefits fee' is acceptable because of its widespread existence.

### 4.3 The Moral and Negative Nature of The Censure of Corruption

The purpose of Part 3 of the survey is to examine students' perceptions on the moral and negative nature of corruption. Table 3 presents the findings. As expected, most students shared the same personal views on the moral and negative nature of corruption, like the findings in Table 2. The views of hating corrupt behaviour (4.548) ranked first, do not want to be named as a corrupt official (4.452) ranked second and disliked people soliciting bribes (4.452) ranked third from the survey.

**Table 3. The Moral and Negative Nature of The Censure of Corruption**

|   | Mean  | Std. Deviation |
|---|-------|----------------|
| I wouldn't like to have a colleague under investigation for corruption.         | 3.758 | 1.1830         |
| I wouldn't like to be named as a corrupt official.                              | 4.468 | 0.7622         |
| I wouldn't like to make friends with people under investigation for corruption. | 4.129 | 0.9318         |
| I hate corrupt behaviour.   | 4.548 | 0.7395         |
| I hate people soliciting bribes.  | 4.452 | 0.7395         |
| Description of corrupt officials on TV is negative.                             | 3.742 | 1.1443         |
| Description of corrupt officials on the Internet is negative.                   | 3.726 | 1.1618         |
| Description of corrupt behaviour on TV is negative.                             | 3.742 | 1.1865         |
| Description of corrupt behaviour on the Internet is negative.                   | 3.742 | 1.1726         |

### 4.4 The Bureaucratic Form of The Censure of Corruption

Part 4 measures the bureaucratic form of the censure of corruption. The censure of corruption is achieved in a formal and official manner through the government machinery. The Malaysian Anti-Corruption Commission (MACC) is established with the purpose to detect, investigate, and prosecute any corruption activities in Malaysia.

The consistent findings from this area with the average mean of 4.30, shows that most students aware of the legal impact to the corruptor such as being reported to MACC, investigated, prosecuted, faced trial in court and sentenced to imprisonment. The possible reason of this finding due to the widely publicised mega scandal cases includes 1Malaysia Development Berhad (1MDB) funds.

**Table 4. The Bureaucratic Form of The Censure of Corruption**

|  | Mean  | Std. Deviation |
|--|-------|----------------|
| Corrupt officials will be reported to the Malaysian Anti-Corruption Commission (MACC). | 4.355 | 0.7703         |
| Corrupt officials will be requested to confess at a designated place and time.         | 4.306 | 0.7807         |
| Corrupt officials will be investigated by the procurator.                              | 4.306 | 0.7807         |
| Corrupt officials will be prosecuted by the procurator.                                | 4.306 | 0.6675         |
| Corrupt officials will face trial in court.  | 4.387 | 0.7543         |
| Corrupt officials will be sentenced to imprisonment.                                   | 4.290 | 0.7764         |

### 4.5 Status Degradation of The Censured

Part 5 examines the status degradation of the censured towards corrupt official. The findings that most students agreed that the negative label of corruption have significant impact on the status of the corrupt official. The illegal income will be confiscated ranked first (4.419) and losing position ranked second (4.403). They may subject to lose their salary which rank third (4.387). These results are consistent with the finding from Table 4 due to the effects from the bureaucratic form of the censure of corruption.

**Table 5. Status Degradation of The Censured**

|  | Mean  | Std. Deviation |
|--|-------|----------------|
| Convicted corrupt officials will lose their position.              | 4.403 | 0.7780         |
| Convicted corrupt officials will lose their original salary level. | 4.387 | 0.7758         |
| Convicted corrupt officials will not be respected.                 | 4.145 | 0.9026         |
| Illegal income of convicted corrupt officials will be confiscated. | 4.419 | 0.7140         |

## 5. Conclusion

This study aims to examine students' perceptions on corruption. The significant findings are found in the perceptions on bribery, kickbacks and gift giving. These findings can be categorised into three aspects consist of law, personal view, and transaction costs.

Most students perceived corruptions in respect of bribery is against the law. This finding is consistent with other parts of the survey. The reason for this finding is due the impact of highly publicised mega corruptions scandal such as

IMDB. The effect of law violated due to corruption such as court trial and imprisonment and negative publicity towards corrupt officials may increase the violation awareness among students. Personal views related to detestation towards briber givers and takers are two significant findings after the law violation. These personal views may be resulted from the negative publicity in the media, directly creates the resentment towards the corruptor. Lastly, most students agree that the corruption activities will create extra costs such as transactions costs and the benefits fee, that will become a burden to the public.

From these findings, it can be concluded that most students aware on the legal impact on the corruption activities which relate to the negative personal views on the corruptor. However, these finding also indicates that students recognise the act of corruption when the activities involve the significant amount of money or costs. Other insignificant type of corruption acts such receiving entertainment fees, gifts, and kickbacks to promote efficiency in transactions are still acceptable.

This study is not without limitations. The limitation of this study is small size of sampling. Only one public university in Malaysia participated as the respondents in this research. Therefore, these findings might be unsuitable to be generalized to the whole population. For future research, it is expected to overcome this limitation.

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## **The Roles and Influences of social media Towards Voting Intention in 15th General Election Among Voters in Selangor Darul Ehsan, Malaysia**

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### **Abstract**

Young people can increasingly turn to social media for information and political news. Social media apps such as Twitter, Facebook, Telegram, WhatsApp, Instagram, and a few other networked media platforms offer more political opportunities. This study explored the roles and influences of social media towards voting intention in 15th general election (GE15) among voters in Selangor Darul Ehsan, Malaysia. This is because in the 14th general election, the opposition coalition Pakatan Harapan has won. One of the most important weapons at this historic turning point is the social media platform, which serves to inspire confidence and optimism in the citizens. This study interviewed a total of 10 informants who are Malaysians and registered voters in Selangor, will vote in the next GE15 in Selangor, active users of social media and voted in previous general election in Selangor. The results of the study showed that future Selangor voters will vote in Selangor in GE15 when social media is used for different roles and influences. This makes it clear that social media is the most accessible platform for all politicians to reach future voters, and that politicians need to use this platform to spread manifestos and generally bring about positive changes for people.

### **Keywords**

Roles, Influences, social media, Voting Intention and General Election.

### **1. Introduction**

Social networks are something that we no longer must explain in detail, as it is generally known. In addition to many users around the world, it is used in various ways in our everyday lives, such as in the context of entertainment, education and a source of information, among others. The truth is that social media has a significant impact on the lives of every individual in our day. Social media applications such as Twitter, Facebook, Telegram, WhatsApp, Instagram, and a few other networked media platforms offer more opportunities in the political field. Over time, social media has come to play a more important role in the political sectors, especially when politicians choose to participate and use social networks as a component of their political plan.

According to Chinnasamy and Azmi (2018), this concept is not new because it has been used for some time in Western countries. In Malaysia, however, it has been observed that this political online campaign has been widely used since the 13th general election (GE) in 2013, when most leading Malaysian politicians, including Najib Razak, Anwar Ibrahim, Lim Kit Siang, and others, were active on Twitter. The result is that they can attract the attention of the general population seeking another choice for their political survival. Chinnasamy and Azmi (2018) firmly states that the previous 13th general election marked the beginning of Malaysia's "first elections on social media" with the participation of social media with the aim of engaging the public through blogs, Facebook, Twitter, and other online platforms as well as through traditional media.

The Malaysian elections were held under a parliamentary democracy under the rule of a constitutional monarch. People have the right to elect their future leader and the political position of the candidate. Chin and Welsh (2018) briefly explain that during the 14th general election, although the entire electoral mechanism was on the government side, it was nevertheless defeated by the opposing coalition, Pakatan Harapan, even though all the election apparatus backed with the government. One of the most important weapons at this historic turning point is the social media platform, which serves to instill confidence and optimism in the citizens. In line with this phenomenon, this research will examine the role and influences of social media in Selangor alone. Due to the high population density in Selangor, the topic is confined to voters only in this state.

#### **1.1 Problem Statement**

Young people have increasingly turn to social media for political information and news. Social communication around news is becoming increasingly private, as messaging applications continue to grow everywhere. WhatsApp has become a main network for discussion and information sharing in non-Western countries such as Brazil (53%), Malaysia (50%), and South Africa (49%). Most WhatsApp users in Turkey (65%), Spain (40%), Malaysia (60%), and Brazil (58%) use groups to interact with people they do not know (Reuters, 2019).

A group of researchers (Gilardi et al., 2022) validated and applied supervised machine learning classifiers to categorize 2.78 million articles published in 84 newspapers, 6,500 tweets posted on official party accounts, and 210,000 tweets posted by politicians on their own accounts from January 2018 to December 2019. The results show that not only the traditional media agenda, the social media agenda of parties, and the social media agenda of politicians influence one another but, overall, no agenda leads the others more than it is led by them. There is one important exception: for the environmental issue, the social media agenda of the parties is more predictive of the traditional media agenda than vice versa. These findings underline how closely different agendas are linked, but also show that advocacy campaigns can play an important role in both restricting and facilitating parties' advancing their specific agendas. This was studied in the Swiss context.

Researchers such as Sobieraj et al. (2020) see the need to balance publicity and transparency online. They even expect and encourage politicians to be public online by using the digital space to publicise their views and articulate policy positions. And they also want politicians to have a certain level of transparency by being open and honestly receptive to the online electorate. It was agreed, however, that there should be a certain means to prevent politicians from viciousness disproportionately targeting women and people of colour online, even if blocking is not the cure-all.

Santamaria (2021) analyzes the intimate space of politicians at home during the COVID-19 lockdown through their personal Instagram accounts, using both live stories, posts and captions. More specifically, it focuses on two young women politicians who have become iconic for left-wing movements around the world. They are Ada Colau, Mayor of Barcelona (Spain), and Alexandria Ocasio-Cortez (AOC), representative for New York's 14th congressional district (USA). As previous political outsiders who belong to a left-wing populist wave, AOC and Colau interact with their supporters "in an authentic way", often displaying very intimate and seemingly uncurated images of their daily lives. The data reveal that the posts of the politicians of intimate moments at home revolve around the notions of intimate and emotional connections with their publics (an element of people-centrism), and anti-elitism. By presenting themselves as hard-working politicians who are part of normal, ordinary people, both Ocasio-Cortez and Colau construct their intimate selves as approachable and unpretentious. The performances of authenticity during the COVID-19 lockdown allow them to connect emotionally with their followers from home through the notions of comfort, security and familiarity that are played against the uncertainty of the unknown. Being at home is seen as a unique opportunity to look at politicians' most intimate space and the way they build their professional and personal ethos to seem more authentic, how they emotionally connect to their followers (pathos), and, finally, how the rhetoric of place (topos) and time (kairos) are revealed in the personal material they share with followers.

The main idea concludes that Ocasio-Cortez and Colau perform a complex code-switching between their political and personal self, always focused on progressive and inclusive ideas. Examples of these are the idea of leaving no one behind, but also their tasteful performances, with references to simple habits and popular (rather than elitist) culture. This is achieved by emphasising social injustice, but also through a mother-like ethos that emphasises collective caretaking in the face of individualism during the crisis. This corresponds to their efforts to connect emotionally with their followers in times of social distancing through online questions and answers, creating spaces for sharing personal experiences and emotions. This is something that can only be achieved through a sincere (performanceal) approach to their own personal lives: their joyful moments of rest, their leisure time, but also a recognition of their own vulnerabilities in unbearable personal and professional moments. Finally, the data show that sharing their personal space and time with their followers allows leaders to exercise a sense of virtual ubiquity that makes them more accessible to citizens, and to those who need their care.

However, according to Elsayed (2020), the use of social media also varies, especially in times of crisis. For example, it seems that Facebook is the preferred social network for Rohingya refugees because of its perceived ease of communicating internally with the members of the community and externally with international identities. Facebook's success in bringing together families who have lost some of their members because of the crisis demonstrated its effectiveness as a social media platform and has increased its popularity more than any other social media platform. Rohingya considered Twitter a network for highly educated and famous people, not for most of them. Some Rohingya activists have launched support hashtags and asked celebrities to share it and retweet it to benefit from their fame. The use of YouTube is very limited to watch Rohingya Vision news channel. Almost all videos on the Rohingya crisis have been produced by external media channels or agencies and reflect their editorial policies. Most Rohingyas use smartphones but have limited knowledge of its advanced features. IMO and WhatsApp are the preferred audiovisual applications for different communication purposes. However, they have very limited knowledge of the multiple mobile apps produced by The United Nations (UN) and non-governmental organizations (NGOs) to facilitate their lives and provide guidance for accessing the necessary services in times of risk and crisis.

A study by Marquart et al. (2020) shows that the quantity of politicians involved in social media is important for political behaviour, but the quality of these ties can be equally important. The results show that when it comes to young citizens' campaign participation and civic messaging, the source of political information messages on social media makes a difference. Tested individually, the study finds that posts by politicians and friends lead to greater campaign engagement.

Ali et al. (2020) adopted the literature review approach, and randomly selected a sample of  $n=33$  peer reviewed research papers published from 2011 to 2019, witnessing the role of new media in the dissemination of political information. To further validate the phenomenon, the researchers also cited the examples of Egyptian Revolution (2011), Arab Spring (2010), BlackLivesMatter (2013), Iranian Presidential Election Protests (2009), and the others. The study concluded that social media platforms play an important role in disseminating political information to the masses. This process is bilateral in nature, as social networks facilitate the receipt of information and the exchange of feedback. In addition, political entities also prefer to use these online platforms for political communication efforts. This not only informs the public about political events, but also encourages them to participate actively in online and offline political activities. This results in people making better political decisions on their own, which contributes more to strengthening democracy.

Voting is important for young people because their opinions on the current situation are relevant and their participation in elections enables them to have an impact on the results of the election. Since social media is the most accessible means of reaching out to young people, they are likely to be most affected by them. As a result, Chinnasamy and Azmi (2018) suggest in their article that young voters be encouraged and informed to participate actively in the election day by providing incentives and understanding of their rights. Political awareness is the first step in raising the political awareness of people in general on various political issues, and it is an essential instrument for the effective implementation of democracy. The public must be aware that voting is apolitical and that educating the public through a campaign is an appropriate strategy to encourage young voters to participate in an election. Chinnasamy and Azmi (2018) believe that the government should not be held responsible for this. On the contrary, civil society and non-governmental organisations (NGOs) must play a role in raising youth awareness of the system.

An investigation into how social media affects election results in the United States using variation in the number of Twitter users by Fujiwara et al. (2021) found that their election is unique in the sense that it has a high prevalence of mail voting and early voting due to the COVID-19 pandemic. Due to the pandemic, Twitter was used to provide information on how to vote by mail and to share information with those who could not physically attend a meeting or gathering. In the United States, about one-quarter of individuals use Twitter, and experts believe that the number of Twitter users in a county has an impact on election results by taking advantage of a sustainable network effect created by Twitter itself.

From the above discussion, it can be concluded as social media platforms have been established as legitimate channels of political communication, with political parties and politicians interested in using this new medium. Hamid & Rahman (2018) concur with this social media voting trend and see it as a tool for the public sphere that can play a variety of roles and have an impact on political contexts in Malaysia as well. It is a crucial component for the political community as the space for politicians and public in voicing their views to influence the political institutions of society in Malaysia. Nizah & Bakar (2019) also present evidence that WhatsApp used in political and agenda setting contents plays a major role in persuading citizens to change the government because of the election outcome as compared to Facebook political and agenda setting content.

Thus, as this study has reviewed social media and its usage in political activities abroad, the next goal is to explore the roles and influences of social media towards voting intention in the 15th general election among voters in Selangor Darul Ehsan, Malaysia.

## **2. Literature Review**

### **2.1 The Social Media Landscape in Malaysia**

According to online research, most Malaysians are urbanized and educated, with an urbanization rate of 76%. As a result, there was a high degree of Internet use. Currently, 83% of Malaysians are online, and 81% use social media every day. According to statistic research from AsiaPatDigital.com, Malaysians are socially media-dependent, with 100% of users using social networks in December 2019 and 91% actively engaging with or contributing to social networks. They now have an average of 9.7 social media profiles. According to these data, Malaysian netizens spend a significant amount of time with media every day compared to other parts of Southeast Asia. Its average online usage is about 8 hours, with 2 hours 45 minutes spent on social media and 2 hours 59 minutes spent on video. Every month, 98% of Malaysian netizens watch videos online, while 70% use music streaming services. Malaysians are interested in video material, and this could be a viable strategy to reach target audiences in Malaysia.

Taibi and Na (2020) conclude that the Internet, in particular social networks, have pushed already established newsrooms to provide information. It is frequently regarded as a more free and unrestricted media environment. It serves to strengthen engagement in a democratic society, particularly in political communication, as well as to improve the flow of information and access to communication. This led to the Internet being called the "fifth estate", which implies that it serves as a watchdog, surveillance systems and policies on behalf of the public, while at the same time having the ability to change society. The Internet has generated citizen journalism, as people constantly need up-to-date information. This

has had a significant impact on traditional print media, as they were unable to post news as quickly as Internet information portals or other social media platforms. This trend has forced established media to modify their business models, including the introduction of an online edition of the newspaper and the provision of electronic paper to readers who prefer digital to printed format. Their results show how the social media environment promotes citizen journalism by allowing regular people to publish, share, discuss and discuss news and stories with others globally. Although some may view this movement as a beneficial means of disseminating information, citizen journalism has come under fire as individuals question their legitimacy with respect to the sources of information and the code of ethical conduct they follow when collecting information.

## **2.2 The social media and Election Landscape in Malaysia**

A major body of past research on voting behaviour focused mostly on ethnicity and party credentials, administration and administration-related topics, class studies, middle-class issues, and other approaches. According to Hamid and Rahman (2018), Malaysia's most popular social media platforms were Facebook, YouTube, Twitter, Pinterest, Instagram and Tumblr until May 2018. Facebook is the most popular social media platform in the country, as well as in the United States, especially for political campaigns. The use of social media and the electoral landscape in Malaysia dates to Malaysia's 12th General Election, when election information such as posters, political rallies and small-group debates were among the commonalities that were shared over the Internet. However, about political information, the trend has shifted to Facebook and Twitter. In Malaysia's 12th general election, the Internet was used to disseminate political information to the public for the first time. Moving on to the 13th Malaysia General Election, Malaysia's ex-prime minister stated that the 2013 general election will be the first election on social media. He acknowledged that the growing popularity of social media not only leads to greater transparency but can also be a double-edged sword for his party (UMNO). At that time, the Internet was undoubtedly the most powerful means of communication among urban residents, young voters and Internet literate voters.

Sern and Zanuddin (2014) revealed that Facebook generally played a key role in Malaysia's 13th General Election. Positive relations between political parties and the public can be achieved if social networks are used correctly, and all positive effects show that political parties can quickly influence the public by leveraging the growing growth of social networks in elections. The use of social media for the electoral landscape continues during the 14th general election in Malaysia, as BBC News reported on May 9th, 2018, the opposition, Pakatan Harapan, secured a historic victory, ending the 60-year reign of the Barisan Nasional coalition on the general election scene in Malaysia. According to politicians and data experts, social media has made a significant contribution to this. Among all the social media platforms used, Facebook was the key platform that had a significant impact on the triumph that year. In their study, Hamid and Rahman (2018) claim that political parties on both sides regularly used messaging technologies in the dissemination of political campaigns. WhatsApp and Facebook are the most widely used and successful messaging services, where individuals receive messages and videos about elections almost every day and share them with their friends and family chat groups. In short, the use of social media has not only decreased the cost of communicating with the public but has also changed the terrain of political campaigns compared to the past. It has proven to be a much less costly approach to carrying out the campaign. According to the Malaysian general elections of 2008, 2013 and 2018, many lessons have been learned from the use of social media and the distribution of information.

## **3. Methods**

This study uses a qualitative method research design using thematic analysis. A number of 10 informants was approached for this study. The population of the study is Malaysia, and the sample size was proposed by Creswell (1998), who said that the small sample number between four and ten people is used when in-depth cases need to be reported. All 10 informants were Malaysians and a registered voter in Selangor, will vote in the next GE15 in Selangor, active users of social media (except 1 Informant) and has voted in previous general election in Selangor. These informants were interviewed in semi-structured interview sessions, and their responses were identified, evaluated, and documented to create patterns (or "themes") that were subsequently be categorised as the roles and influences of social media towards voting intention in the 15th general election among voters in Selangor Darul Ehsan, Malaysia.

## **4. Results and Discussion**

### **4.1 The Roles of social media Towards Voting Intention in 15th General Election Among Voters in Selangor**

The informants pointed out that their intention to vote for a politician depends on the politician using his/her social media accounts for specific purposes, such as presenting an excellent manifesto, sharing all political activities, gaining people's support and confidence, informing people of their rights, and sharing their political emotions. The informants claimed



that their intention to vote for a politician will be determined by whether the politician used their social media accounts for specific roles.

#### **4.1.1 Social-Media as a Platform to Present Politician's Personality and Their Manifestos**

Politicians constantly post their portfolios on social media with wonderful manifestos when elections are held; they are like marketers. According to Informant 2, the frequency with which politicians publish manifestos in his district is understandable. Informant 3 stated that 2018 is the most crucial election since everyone is aware that anything may happen; when she opens social media, she sees candidates uploading wonderful manifestos that she has seen. According to Informant 6, she knows her constituency candidate because of their hard work and dedication, but she always follows them on social media to see their personality and manifestos. Informant 10 noted that she opens to see a variety of manifestos, even though she already knew for which party she wanted to vote.

#### **4.1.2 Social-Media as a Platform to Share All Political Activities**

When elections are held, social media is a means of communication that the public can quickly follow. Although news websites have their own social media platforms, they cannot offer all the latest political news. The social media platforms provide a quick and easy way to communicate information about all their political activity. According to Informant 1, social networks are being used as a platform for politicians to capture images of morning activities with voters and demonstrate that they are accessible and pleasant to the public. Informant 5 agreed that potential voters would be exposed daily to the actions of their future elected representatives. This is the day when future elected officials will carry out as many activities as possible and post on social networks to get the support of potential voters. Informant 9 stated that there are politicians who often publish live videos on social media to demonstrate what they are doing. They understand that they want young people to vote and that social networks are the best way to get to them.

#### **4.1.3 Social-Media to Win People's Support and Trust**

Politicians will do their utmost to use social media to gain the support and confidence of the public, especially young people who have recently voted and those who have voted for a long time, as well as those who participated in previous elections. Informant 2 claims that even though he has just recently voted, he is aware that the social media accounts of politicians have a significant influence on his vote. Informant 6 stated that social media is used by politicians to gain support and trust from the public, including potential voters, especially among younger demographics. In addition, Informant 8 stated that the goal of social media politicians is to gain the support and confidence of potential voters, and as we can see now, social media has the ability to change the course of the country. According to Informant 10, social media is a platform to which she pays attention to, and all social media candidates are required to garner support, trust, and compassion from the public to be elected.

#### **4.1.4 Social-Media to Share Politician's Emotions**

Emotions can have an impact on anyone, regardless of their field of activity, even on politics. According to Informant 3, Tun Mahathir's viral video of him sobbing touched her heart. Informant 4 reported that when Twitter was checked that morning, the sobbing video was a heated debate, and the comments convinced Informant 4 to vote. Informant 5 said that she is a political junkie, but she did not anticipate politicians crying for publicity. She is aware that this is for getting support. Informant 9 stated that she watched the video when Tun Mahathir uploaded it to social media, noting that many people expressed their support in tears.

### **4.2 The Influence of social media Towards Voting Intention in 15th General Election Among Voters in Selangor**

Majority of the informants said that whether they intend to vote for the politician would depend on the politician has used their social media accounts for various influences, such as influencing voters to change the country's leaders, encouraging citizens to participate in the voting process by using visual video stories, and influencing voters by emphasizing the failure of manifestos and previous leaders.

#### **4.2.1 Influencing Future Voters to Change the Leaders of The Country**

Every political party's social media channel of every political party will do everything in their power to convince voters to vote for them. According to informant 2, the main goal of the candidate on social media is to encourage voters to vote for the incumbent or the new administration, which is natural. According to Informant 4, politicians use social media to encourage people to continue to support members of the government or opposition as a whole. Politics resembles the choice of a class leader in school when either one replaces or chooses the old terrible ones. According to Informer 10, the candidate's presence on social networks was probably the main factor in the change of the current leaders of the country.

That's exactly what they're trying to do. As a spectator, the informant saw a difference in mood on social media during the 2018 general election; all wanted a change, and they were able to do it by crossing from Barisan Nasional to Pakatan Harapan. Admittedly, social media had an important role at that time.

**4.2.2 Influencing Future Voters to Come Out to Vote**

The main objectives of politicians on social media are to solicit and appeal to all citizens as their fate is in their hands. According to Informant 1, it is not surprising that the politician begs their social media fans to come forward and vote for change. Informant 3 indicated that it was natural for a candidate to promote themselves for votes. This is the main objective and impact of their social media platforms. Informant 7 claimed that the influence of politicians on social media was intended to mobilise voters in addition to instilling a desire for change. One of the most critical efforts is to be willing to create a video asking for votes.

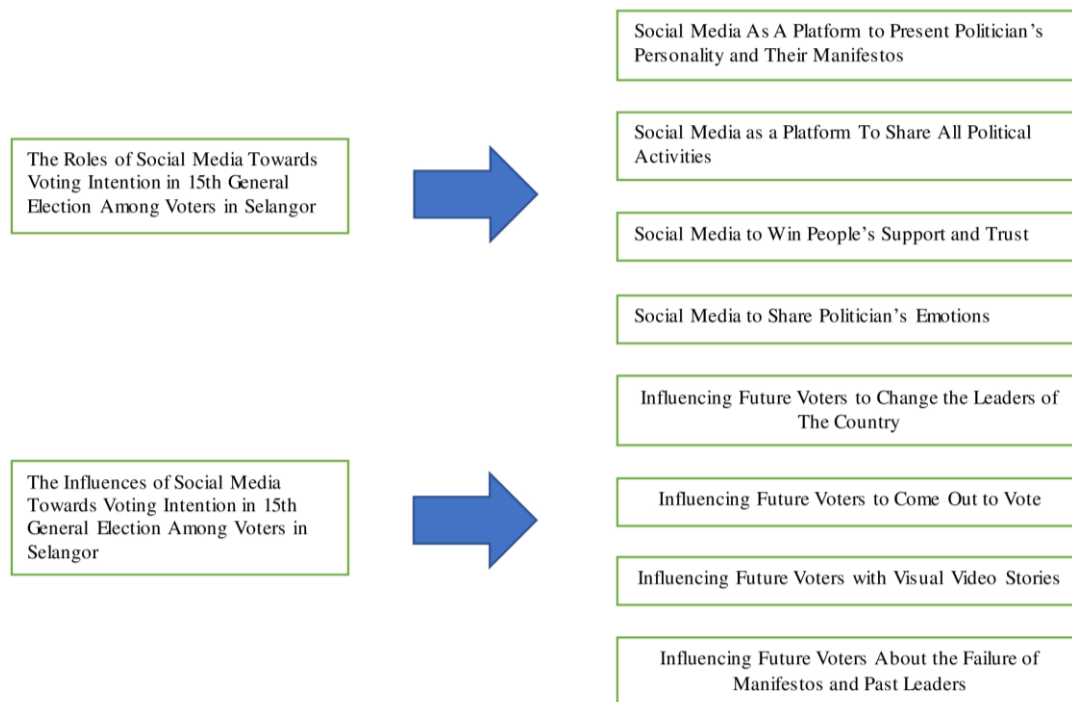
**4.2.3 Influencing Future Voters with Visual Video Stories**

Informant 4 and Informant 8 agree that technology has a significant effect. According to Informant 4, technology such as visual video stories had a significant influence on political campaigns. As an avid user of social media, the informant enjoys watching videos and images of politicians on the move. These candidates show that they have worked not only during but also before, the GE. This is an excellent winning approach. According to Informant 8, visual video commercials are similar in their ability to elicit emotional reactions from potential voters. For example, the video of Tun Mahathir sobbing. When something is shared and propagated like a forest fire, it has a massive influence. When it is shared and viralized, it has an enormous effect on young voters.

**4.2.4 Influencing Future Voters About the Failure of Manifestos and Past Leaders**

Opposing politicians' social media platforms will highlight the shortcomings and loopholes of their competition's manifestos, even if their own manifestos have not yet been executed. This effect can be the difference between a winning party and a losing party. According to Informant 4, alleged wrongdoing, and failure, as exposed by opposition politicians, had significant implications for the opposition winning the last GE. Before that, it is widely recognized that Tun Mahathir was an extraordinary leader. Informant 10 indicated that Pakatan Harapan's presence on social media has increased considerably.

The study's findings summary on the contributions and influences of social media on Selangor voters' intentions to cast ballots in the 15th general election is provided below. There are four primary roles and influences for each of the two main elements.



**Figure 1. Findings of The Study**

## 5. Conclusion

The results of the study showed that future Selangor voters will vote in Selangor in GE15 when social media is used for different roles and influences. The results of the study also show that social media is the most powerful means available today. Social media is increasingly seen as a source of political information, according to Salman et al. (2018). Social media also contribute significantly to improving the image of candidates and political parties offering their online presence. This shows that society is increasingly accepting politicians on social media. However, any policy-related material needs to be checked to ensure that it does not cause issues, particularly in terms of unity between races (among other issues).

Based on the results of this study, it can be concluded that social media accounts of politicians play a decisive role and have a significant impact on the victory of a candidate standing for election, particularly in the General Election of 2018. In recent years, the emergence of social media has had a big influence on the political development of the country, as well as newspapers and television news becoming popular means of informing people about politicians and their platforms in the past. The emergence of social media today is beneficial for politicians and elections because it makes it easier for people to recognize and testify to the activity of politicians in their own locality. Citizens can use social media to make informed decisions and think critically about who they want to be their leaders based on what they see.

Future voters, especially in Selangor, are the ones involved in social media. The informants in this study understand and know who the candidates are and which party they support due to their frequent use of social media. This clearly shows that social media is the most accessible platform for all politicians to reach future voters, and that politicians must use this platform to spread manifestos and generally bring positive changes to people. This will, of course, create a better Malaysia, which will not only lead the way to becoming a developed country, but also excel in all areas in the future.

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## **Parental Financial Support and Undergraduates' Motivation in Open and Distance Learning (ODL) During Pandemic Crisis of Covid 19**

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### **Abstract**

It is undeniable that the COVID-19 pandemic has enormously strong implications to the educational systems worldwide causing many universities to make a transition to open and distance learning (ODL), including Malaysia. At that time, students were learning from home with their family members where both parents and affected students themselves faced considerably unexpected constraints to adapt and cope with ODL. Parental involvement is one of the many factors that are affecting students' academic performance. Low parental involvement is said to impede the efforts towards a quality education. Thus, this study aimed to investigate students' experience over parental involvement on financial support and students' motivation in the ODL session at home. Using 342 data collected through an e-survey passed randomly to undergraduates of Diploma of Accountancy, a score of family involvement was constructed. The study found that majority of respondents scored average to agree to all questions regarding parental involvement financial support received from parents, despite the pandemic crisis. However, students' academic performance (CGPA) is found to be not significantly related to their parents' financial supports and their motivation to study during the ODL session is found to be significantly weak to moderate relationship with parents' financial support. Meanwhile, there was a significant weak positive relationship between students' academic performance and their motivation to study during ODL session.

### **Keywords**

Accountancy, Education, Parents' Financial Support, Motivations, Open and Distance Learning

### **1. Introduction**

The pandemic crisis of Covid-19 has caused many new norms worldwide including Malaysia. At that time, many sectors were heavily relying on the online activities to replace or at least minimise face-to-face interactions in daily activities. Higher learning institutions had also adopted this new norm. Here, the Malaysian government has instructed all higher learning institutions to replace the face-to-face learning sessions with open and distance learning (ODL). The reasons for this prompt action were twofold. Firstly, it was to reduce the spread of the deadly virus as suggested by UNESCO. Secondly, the implementation of ODL was to avoid disruption in undergraduates' studies such as Baccalaureate, A-Level and other modes of studies. For instance, during that day public university in Malaysia had also postponed their face-to-face learning mode immediately following the government order and shifted to ODL to curb the pandemic.

As the pandemic is not expected at all, the stakeholders either have very little or no preparation at all for the prompt implementation of ODL. This was highlighted by the Academic Affairs of targeted public university of this study, where it reported that during the initial phase of adapting to ODL session, 47 undergraduates were adversely affected both financially and mentally. Out of this, 8 students applied for a special leave while the balance of 39 students quit from their studies. This number is surprisingly large as compared to the number of dropouts or applications for special leave prior to the pandemic. The plausible explanation for this issue is the students' family involvement in their studies. This includes whether the environment at home is conducive for learning or not; and whether their parents provide financial support to them. Financial support from parents and family are vital for the continuance of students' learning in higher education. This support will help enhance students' motivations to study and do well in their exam.

Therefore, this study is carried out in order to investigate these matters and hence provide suggestions to the university in order to avoid a large number of drops out and application of special leave in the future if ODL is rather continued to be implemented or even for the sake of moving towards hybrid learning experience in the future.

### **2. Literature Review**

#### **2.1 Parental Involvement in Education**

In general, parents are supposed to provide for their children's basic needs such as safe and comfortable home environments, nutritious food and clothes. Additionally, parents normally support their children financially until they have completed their studies. They also should provide love and affection to their children. Not only that parent should have nurture and educate children on to be independent since they will soon be an adult and have to manage their own live.

They will start to endure this journey in their higher education live in university, which is in the campus. However, since the Covid-19 struck, these students were unable to feel and experience the journey of to an at least managing their campus life. This situation has impeded these students lives phase development. Here comes the parents' role in blending the supposedly life in campus but to be experienced in their own home. Different parent's styles in educating students yield different outcomes on student's development.

Several studies showed that student who were rear with authoritative parenting style performed better academically rather than student whose parents adopted authoritarian or pessimist parenting style (Talib et al, 2011; Ishak et al, 2012; and Chen, 2014). The possible explanation is that an authoritative parenting style provides attention and warmth to the student, sets boundaries and provides achievable aims. Due to these traits, student of authoritative parenting style would have a higher self-efficacy including a higher self-confidence. A number of studies on parenting style and student's academic performance showed that different parental styles are adopted in the western and eastern cultures. In Malaysia setting, Keshavarz and Baharudin (2009) reported that Malaysian parents from all the three major ethnic groups practiced authoritarian parenting styles which is high in demand but low in responsiveness and warmth to their children.

Parents are believed to have change their parenting styles and strategies to best adopt the situation of having their children undergoing online studies due to the pandemic, despite having to deal with their own emotional or mental health in that situation. Prior studies long before the pandemic showed that the association between parents' mental health and their children's emotional and behavioural good condition is facilitated by positive parenting approaches (Giallo et al., 2014). Moreover, parenting self- may serve as an intermediary between environmental variables or psychological conditions related to an external situation that is the stress related to the pandemic. It is vital for parents to have a well parenting self-efficacy in order to show a positive and good parenting strategies amongst these students or children of their own who were undergoing higher educational studies in their own home, in order to foster dynamic functioning and emotion regulation in these students in adapting to that pandemic situation.

## **2.2 Loss of Parents' Financial Security**

The Covid-19 outbreak has a negative impact on the economy globally including Malaysia. The most adversely affected sectors are tourism, aviation, restaurants and retail sectors (Tan Sri Munir Majid, March 17, 2020). Many employees have been retrenched and fresh graduates are unable to be employed. The prolonged movement control orders during that time have also caused burnt out and disruptive financial abilities among many parents. Due to this, the mental health of many people was at risk.

Though distance learning minimizes the spending priority of the family in terms of students' allowances if they were to be in college, online learning has actually given additional financial burden for the family from the connection to the internet as it increases the use of electricity. Due to this phenomenon, many parents are now unable to provide means for their families including facilities needed for online learning. Drane, Vernon and O'Shea (2020) stated that students living in financially disadvantaged or low socioeconomic status encounter a range of barriers and/or risks including long-term educational disengagement, digital exclusion, poor technology management, and increased psychosocial challenges. Similar to findings of Griffith, 2020; Suryaman et. al, (2020) and Pesiero et. al, (2020) reported that financial constraint had caused the limited use of the internet and computers, hence disrupting online learning as priority was provided for other basics such as food and shelter. This could have led to the rise of students' drop-out rate in higher learning institutions especially during the ODL session.

## **2.3 Motivation Towards Adapting to the ODL**

During that time all countries globally adopted movement control orders as one of their strategies to curb the spread of Covid-19. Staying more at home has proven to be advantageous back then. Family members spent more time together and this promoted emotional closeness (Suryaman et al, 2020 and Gambin, 2020). MCO urged literally everything to go online. Online learning is a type of distance learning in which students and lecturers are in different locations but may still communicate over the Internet (Bartley and Golek, 2004). Instead of providing a flexible teaching and learning environment, online learning, on the other hand, has several challenges that students encounter because they were at home. This leads to unfavourable new norms such as physical isolation. Apart from that, since students were unable to attend schools, parents now have an additional role which is to involve more in their children's learning (Keaton and Gilbert, 2020). This includes planning, monitoring and motivating their children to learn (Gambin et al, 2020; Garbe et al, 2020; Griffith, 2020; and Suryaman et al, 2020). The extra responsibility finally causes burnt-out among the parents out of all the possible other problems they were facing during the MCO. In return, the parents normally turn to their older children to help their younger siblings with their homework (Pensiero et al, 2020) and other house chores. This situation of adapting to the new norms definitely would bring some effects towards students' motivation in continuing their educational journey. Mohd Isa et al (2021), in their study found that ODL has causes burnout among students as they felt strained, overwhelmed, and exhausted to face another day of online session.

## 2.4 Issue

Due to MCO, students were required to follow open and distance learning (ODL) while staying at home with their families. During the first ODL session the university's staff received a number of complaints from the undergraduates due to burnt out and uncondusive environment for learning at homes. A further probe to academic affairs department showed higher cases of dropouts and applications for special leave as compared to the pre-pandemic academic session. These undergraduates' experience had caused the university to be unable to reach the Grade-On-Time Policy (GOT) in which certain percentage of students should be able to complete their studies within its stipulated period. Therefore, the research objective of this study is to explore undergraduates' experience in relation to their parental involvement specifically on financial support on online distance learning during the pandemic of Covid-19 and students' motivation in continuing their studies during the pandemic.

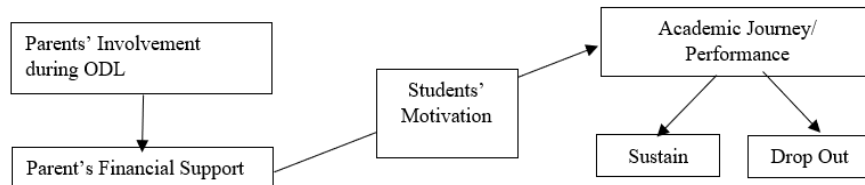


Figure 1. Research Framework

## 3. Research Methodology

This study utilises the quantitative method to examine the under graduates' experiences on parental involvement in open and distant learning (ODL) during pandemic COVID-19. Quantitative research as a rule underscores measurement in the collection and analysis of data. A structured design online questions based from recent literature is used for this study. This questionnaire is developed while taking parental involvement in open and distant learning (ODL) as major explanatory variables.

The participants in this study are Diploma in Accountancy students who enrolled at a public university. The populations are the students who registered for the course from first to fifth semesters. This study collects data from a total of 342 participants from total 1495 students who took part in this survey during the ODL session. Each participant was required to answer the questions on an online survey form. The survey instrument consists of four (4) sections: Section 1 - Demographic; Section 2 - ODL Information; Section 3 - Perception about parental financial involvement during ODL and Section 4 - ODL Motivation. The respondents were asked to respond by choosing the most appropriate answer to a series of questions using a Likert scale ranging from 1 - Strongly Disagree to 5 -Strongly Agree. The data was then analysed using frequency statistics.

## 4. Analysis and Discussion

Table 1. Demographic analysis

|                   |                         | Frequency | Percentage |
|-------------------|-------------------------|-----------|------------|
| Total respondents |                         | 342       | 100        |
| Current place     | At home                 | 332       | 97.1       |
| Internet access   | Fixed line (unifi, etc) | 187       | 54.7       |
| Devices           | Laptop, smartphone      | 271       | 79.2       |

Demographic analysis shown in table 1 shows a total of 342 students took part where majority of them were from part 3 students which constitutes 36.3% of total sample. Further information was related to the majority responses, which were currently at home during that ODL session. Most of them which comprise of 79% of total sample were using laptop and smartphone and they were having great internet access with 54.7% are using fixed line internet access.

ODL information analysis is shown in table 2 where majority of respondents (74.9%) stated that the time allocated to do all the ODL assignments or tutorial is during the night. Students do sometimes o feel difficult to adapt to ODL session (43.9%) with 55.3% sometimes feel distracted during ODL. From the reason of possible distraction listed, the top 3 reason are; problem to concentrate, helping parents doing house chores and always feel sleepy. Those reasons can be seen as interrelated. Even they do their ODL work in own room, they got distracted when parents called them to help in doing house chores. To cater for the missed time of completing ODL work, they chose to do it at night to avoid further distraction. However, doing work until late at night will lead students to feel sleepy the next day and hard for them to focus on online classes.

**Table 2. ODL Information**

|                                       |  | Frequency % |      |
|---------------------------------------|--|-------------|------|
| Time doing ODL assignment             | At night   | 256         | 74.9 |
| Difficult to adapt to ODL             | Sometimes  | 150         | 43.9 |
| Feeling of distraction during ODL     | Sometimes  | 130         | 55.3 |
| Things distracted the most during ODL | Problem to concentrate, help parents doing house chores,<br>always feel sleepy | 78          | 25.1 |

**Table 3. Students' Experiences Over Parental Financial Involvement**

|  | Mean | SD    |
|--|------|-------|
| 1. My parents support me financially in my study during ODL                      | 4.14 | 1.015 |
| 2. My parents can give me enough money for my projects and activities during ODL | 4.08 | 0.971 |
| 3. I am satisfied with my daily allowance during ODL                             | 3.79 | 1.170 |
| 4. My parents give me extra money for my personal needs during ODL               | 3.62 | 1.121 |
| 5. My parents give me money immediately when I asked for it during ODL           | 3.52 | 1.168 |
| 6. I can save money from my monthly allowance during ODL                         | 3.44 | 1.286 |
| 7. I do not need to borrow money from my classmates/ friends during ODL          | 4.33 | 0.957 |
| 8. I can buy a complete requirement for my study during ODL                      | 3.95 | 1.021 |
| 9. I can spend my extra allowance to my wants and needs during ODL               | 3.53 | 1.185 |

Valid N (listwise): 342

Table 3 shows students experience over parental financial involvement in their ODL session. The mean score for item 1, 2 and item 7 were slightly the same among each other as they adopted Agree to strongly Agree for the experience. This showed that students were not really having financial difficulties as their parents were providing enough of financial supports during the ODL session. Parents supported them in specifically in their studies (item 1) when they gave enough money for students in completing their assignments (item 2) and definitely they won't have to borrow from their friends (item 7). Though parents provide satisfactorily in their ODL studies the rest of the items, the participated students scored Neutral to Agree for all the experiences. Asking for more allowances or extra allowances, or to spend extra allowances were somehow scored lower as they might have to save more during the pandemic crisis.

This study also seeks to discover student's motivation despite having to undergo the ODL session in order to curb the pandemic crisis. Table 4 below showed the results of student's motivation during the ODL. Despite having to experience stress and anxiety in completing their assignments (item 2) which they scored Agree to Strongly Agree, they still have the high motivation that they will be successful throughout the ODL if they work hard and focus on their abilities and talents (item 3) which they scored the same. For the rest of the items, students scored nearly to Agree for all the motivation attributes asked in the survey sent to them. This proves that pandemic crisis didn't hinder students to accumulate their inner strength and built-up strong motivation to achieve success throughout the ODL journey which definitely was a hard one.

**Table 4. Student's Motivation During ODL**

|   | Mean | SD    |
|---|------|-------|
| 1. I seek opportunities to excel during ODL   | 3.94 | 0.786 |
| 2. I worry about deadlines and getting things done, which causes stress and anxiety during ODL                | 4.25 | 0.875 |
| 3. I believe that if I work hard and apply my abilities and talents, I will be successful throughout this ODL | 4.28 | 0.782 |
| 4. I think positive about setting goals and making sure my needs are met during ODL                           | 3.99 | 0.830 |
| 5. I set goals and objectives in annual basis to achieve what I aspire for life throughout this ODL           | 3.86 | 0.870 |
| 6. I reward myself when accomplishing significant goals throughout this ODL                                   | 3.89 | 1.051 |
| 7. I set challenging goals for myself throughout this ODL   | 3.67 | 0.931 |
| 8. I am motivated to learn despite the challenges throughout this ODL   | 3.54 | 0.955 |
| 9. I know my strength during ODL  | 3.67 | 1.021 |
| 10. I try to keep myself focused on my goals during ODL   | 3.83 | 0.851 |

Valid N (listwise): 342

The result in Table 5 below showed that there was a significant weak positive relationship between CGPA (education performance) and motivation ( $r=0.158$ ,  $p<0.05$ ). This proved that these participated students' motivation

during the ODL session was not the direct contributor to their educational performances throughout the ODL semesters. Other contributing factors might have been the elements of their educational performances. As for the financial support ( $r=0.094$ ,  $p>0.05$ ) was found not significantly related to CGPA. Financial support from parents during ODL was also not the contributing element of students' performance in their study. While motivation was found significantly moderate to weak relationship with financial ( $r=0.537$ ,  $p<0.01$ ). Even though the relationship is not conclusive, there was a relationship between financial support from parents towards student's motivation during ODL sessions.

**Table 5. Descriptive Statistics (Correlation)**

|            | CGPA | Motivation | Financial |
|------------|------|------------|-----------|
| CGPA       | 1    | 0.158*     | 0.094     |
| Motivation |      | 1          | 0.537**   |
| Financial  |      |            | 1         |

## 5. Conclusion

In order to 'flatten the curve' as what has been urged by the ministry of health, movement control order was imposed by the government. This has enforced the closure of many businesses as well as schools and universities until further announcement that it is safe to re-open. This situation has forced not only students but also parents to instantaneously adapt to ODL session. Students need support and involvement from their parents on ODL which it is found that the financial support or involvement from parents were fairly enough for them to continue their study well during this ODL but it did not have the significant relationship towards the successful performance of their study. Nevertheless, parental involvement is believed to be at least of some contributing element for a better academic achievement if not directly. Student's motivation to study during ODL is found not to be related to the financial support from their parents. They will continue doing their best and sustain throughout the ODL despite the financial support from their parents and didn't lead them to drop out from their study. Their motivations also were also not directly contributing to their academic performance but it is found positively though weak relationship. Other contributing elements towards students' performance in ODL might be of another attention in future study.

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## **Survival of Micro-Entrepreneurs in Terengganu in Time of Pandemic**

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### **Abstract**

The Covid-19 pandemic has triggered the emergence of multiple constraints to the business entities despite the size of the entities though many studies found that small size entities are normally affected more during any crisis. For micro-enterprises, being small is always associated with several challenges such as a lack of resources in terms of financial, manpower, or internal competences, especially during crises. However, with adaptive resilience characteristics inherent to entrepreneurs, the small size may serve as an advantage for the entity to survive and bounce back. The purpose of this paper is to elucidate the differential recovery of micro-entrepreneurs under Amanah Ikhtiar Malaysia (AIM) in Terengganu after being hit by the Covid-19 pandemic and how the smallness of size contributes to the survival of the entity. The study follows a mixed-method approach; a survey of AIM participants and a semi-structured interview with a selected group of participants who survive the crisis successfully. The study captures the differential recovery methods adapted by entrepreneurs to withstand this crisis which includes freezing operations, exploiting demand and key resources, acquiring new capabilities and skills, and venturing into online marketing. The findings demonstrate how the micro-businesses in Terengganu adapt to the new situation that allows them to survive the pandemic despite being small.

### **Keywords**

Covid-19, micro-entrepreneur, business recovery, Amanah Ikhtiar Malaysia

### **1. Introduction**

The Covid-19 pandemic has brought unprecedented challenges to the global economy. Although support packages and fiscal stimulus are offered to lessen the burden on business entities and entrepreneurs, many were unable to cope. The mandatory lockdown, especially in the early period of the pandemic, significantly reduced physical business activity since restrictions such as social distancing, work-from-home, or two-person-per-car were implemented. To make matter worse, the option for online services were not a norm at that time and the number of runners was limited. Although many studies found that small size is normally affected more by any crisis (Quacoe et al., 2018; Mayr et al. 2017) but the Covid-19 pandemic has triggered the emergence of multiple constraints to the business entities regardless of the size of the entities, big or small alike. Although Malaysia's economic performance in the fourth quarter of 2021 showed a recovery momentum with a growth of 3.1 percent as compared to a decline of 5.6 percent in 2020, the performance in 2021 is still below its pre-pandemic level in 2019 (DOSM, 2022b).

The Covid-19 pandemic evidently has challenged many business entities and entrepreneurs to review, modify and strengthen their business plans and management styles to survive (Purnomo et al., 2021; Salam et al., 2020; Ratten, 2020; Durst, 2020). Many of these entrepreneurs manage to turn and devise the emergent constraints into sound opportunities by being innovative in the marketplace. Purnomo et al. (2021) uncover a few strategies taken by Indonesian small and medium-sized enterprises (SMEs) in navigating the Covid-19 crisis for survival, continuity, and growth of their businesses. Strategies such as bricolage; effectuation through experimentation, collaboration, and network building; acquiring new capabilities; expanding key resources; and scaling up by resource exploration, diversification, and social contribution were able to navigate the business to diverge from the heat of the pandemic. In Pakistan, mandatory lockdown forced SMEs in the retail sector which operated purely in physical shops, to explore alternative means to reach their customers such as online and social media marketing (Salam et al., 2020). This pandemic has highlighted digital transformation as one of the most sought tools in the business world that organisations must embrace to be competitive or to remain relevant (Butt, 2020).

Most of the previous studies on managing crises were focused on the two components of SMEs, namely the small and medium enterprises, while the third component, the micro-enterprises receive considerable little attention although the latter form about 80% of the total SMEs. This paper elucidates the differential recovery of micro-entrepreneurs under Amanah Ikhtiar Malaysia (AIM) in Terengganu after being hit by the Covid-19 pandemic, the resilience characteristics adapted, and how the smallness of size contributes to the survival of the entity. Operating under limited resources, being financial, number of staff, materials and supplies, and time, these micro-entrepreneurs exercised their adaptive

characteristics to navigate between opportunities and constraints. The findings demonstrate how the micro-businesses in Terengganu adapt to the new situation that allows them to survive the pandemic despite being small.

The rest of this paper is organised as follows. The relevant literature is reviewed in the next section on the concept of entrepreneur resilience and adaptive resilience, and how the resilience features relate to the success of business entities. It is followed by a discussion on micro-enterprises and their smallness of size. The chosen methodology was discussed next and ended with a discussion of the findings and conclusions of the study.

## **2. Literature Review**

### **2.1 Entrepreneur Resilience**

The ability of an entrepreneur to adapt to change portrays his resiliency (Salisu et al., 2020) as resilience is associated with the ability of an individual to bounce back after a disruptive condition and cope with challenges to obtain positive results (Fatoki, 2018). Thus, resilience is an important characteristic that influences an entrepreneur to be prepared in times of crisis to enable him to navigate and survive better as compared to less resilient individuals (Ratten, 2020). Santoro et al, (2021) reveal that an entrepreneur's resilience attitude helps to exploit employee-level resilience to improve the overall performance that eventually contributes to organisational success. Alonso and Bressan (2014) emphasized that resilience can be instilled by mentoring and networking in which an individual can learn from others who have built resilience through previous adversities. Thus, receiving critical feedback and harsh but constructive comments from other individuals can also contribute to the development of resilience. Earlier studies conclude that factors that can modify the negative effects of adverse life situations, in general, are related to the concept of resilience. Hence, having relationships that provide care and support, create trust, and offer encouragement, both within and outside the family may contribute to strengthening resilience during a crisis (Hedner, 2011), especially among micro-entrepreneurs who are family oriented.

In defining the construct of entrepreneur resilience, Korber and McNaughton (2018) have performed a systematic literature review and identified six concepts that promote the resilience attributes in an entrepreneur. Four of the constructs are related to inherent or predicted resilience while the other two constructs are adaptive resilience as a response or adjustment to an actual crisis. The inherent resilience is factors that enhance the intrinsic resilience or entrepreneur's psychological traits which include vulnerability, preparedness, coping ability, risk mitigation, self-efficacy, optimism, adaptability, and transformability which can predict the strength of entrepreneurial intentions and the survival or growth of the entrepreneur's entity. In response to the actual crisis, the adaptive resilient entrepreneur displays the ability to rebound quickly and efficiently by being sturdiness and persistent.

What distinguishes the failure and the survival of a firm when facing a crisis is the adaptive resilience characteristic employed in facing the real situation (Korber & McNaughton, 2018). When facing a crisis or dealing with the aftermath of destruction such as the Covid-19 pandemic, the entrepreneur responds by adapting to the new situation in many forms such as mass layoffs, temporary and permanent closures, digitalization engagement, and strategic alliances (Klein & Todesco, 2021). Castro and Zermeno (2020) performed a systematic literature review on the resiliency of entrepreneurs who had the experience of being hit by crises such as financial crises, recessions, natural disasters, and interstate conflict. Through the review, they observed how resilient companies were created from opportunities generated by crises, proactively make changes, learn from their experiences and collaborate in the social and regional spheres. Certain characteristics of entrepreneurs appear to be dominant when facing difficult situations; flexibility in creating new strategies, opportunities, and networks (Kuckertz et al., 2020), adaptability and innovation (Purnomo et al., 2021), and proactive attitude in learning new skills (Klein & Todesco, 2021).

Adaptive resilience involves a process of continuous transformation and learning in dealing with disruptions (Martin, 2012; Weinhardt & Bartosch, 2020; Alonso & Bressan, 2014) and innovation which lowers their vulnerability to future disruptions (Dahles & Susilowati, 2015). Klein and Todesco (2021) noticed the increase in digital transformation resulting from the Covid-19 pandemic that change customer behaviour, demanding the business to react to address the gap. Similarly, total lockdown and movement control orders altered business dealing methods that disallowed physical contact, to seek an alternative in the digital world to reach their customers such as by using social media platforms and online transactions and banking (Salam et al., 2020). Innovation was used as an important weapon to reach customers by one of the respondents in Purnomo et al. (2021) when decided to can the food for storability and portability, thus catering to the in-house dining customers, especially during movement control orders. The Covid-19 pandemic was a land of opportunity to another respondent in the same study when he took advantage of the demand for healthy food products boosted by the pandemic. The production of healthy cereal expanded to a new manufacturing site with significantly larger capacities and hired many new employees. Adaptive resilience characteristics adopted by the entrepreneurs allowed them to explore and learn new strategies that assist them to transform in response to disruptions for survival and growth (Salam et al., 2020; Ratten, 2020).

### **2.2 Micro-Enterprises and The Liability of Smallness**

Micro-enterprises are formed through sole proprietorships, partnerships, or family businesses. A majority of them are founded by women and family-owned with family members working in the business (Larson & Shaw, 2001). Many micro-enterprises have encountered multiple start-ups and failures and operated on a small-scale basis with low-income earnings and a driving force of survivability (Ahmad et al, 2016). These small establishments suffer the liability of smallness and hence face a higher risk of bankruptcy and failure (Quacoe et al., 2018; Mayr et al. 2017). The liability of smallness states that small firms face a high mortality rate and are more likely to fall than their larger counterparts as small firms are more likely to face financial difficulties and limited access to external financing (Carreira & Silva, 2010). Difficulties in accessing finance influence the ability of a small business to cope in a time of economic crisis (Power et al., 2019), however, the liability of smallness is less noticeable in more mature firms (Fackler et al., 2013). A study by Power et al. (2019) on the survivability of financial crisis (2006-2010) found that the vast majority of exits throughout the crisis were micro-size businesses, and the death of the businesses was more visible in the urban area as compared to the rural area.

When the Covid-19 pandemic has affected the financial health of companies worldwide, the liability of smallness inherent to SMEs such as scarcity of financial resources, limited managerial capacity, and lack of knowledge management makes them more vulnerable (Klein & Todesco, 2021; Bartik et al., 2020). Micro-enterprises suffer from a human capital deficiency with a low level of education, insufficient human capacity for development, and gaps in specialized knowledge making it difficult for them to respond to the challenges posed by the COVID-19 crisis. The liability of smallness is always accompanied by the liability of poorness, a multi-dimensional construct that includes literacy issues, a scarcity mentality, intense non-business pressures, and the lack of any sort of safety margin (Morris et al., 2022). This fact is inevitable since many micro-businesses are formed by lower-income groups in an effort to fight poverty and survival. In most cases, micro-enterprises have to rely on internal funding from family members, friends, and their savings.

Due to the severe resource constraints in micro-enterprises, knowledge acquisition through learning may be a critical element as they require to absorb information and knowledge quickly to reasonably assure continued survival (Pett et al., 2012). As the entrepreneurial orientation of the micro-enterprise is a key contributor to business success, proper management training programs for the owner-manager should be implemented to assist micro-entrepreneurs to innovate, take risks, and pursue proactive action to ensure the survival of their businesses (Munoz et al., 2014). Contrary to expectations, Powel et al. (2019), found that the liability of smallness among the exited firms is more pronounced for more mature micro-enterprises than for younger counterparts which supports the liability of aging.

The liability of smallness, although posed as a threat, does not eliminate the competent entrepreneurs to strive for their business continuity. There are also some positive sides to being small. The smallness in size enables micro-enterprises to be much more flexible and responsive to market and customer demands. Micro-enterprises also provide more affordable goods and services to the community because they are usually lower in price due to favorable cost structures (Munoz et al., 2014); they hire a small number of staff among family members and the locals, use local materials and no management fee to be paid. Running in a small team allows micro-entrepreneurs to keep low overhead costs by saving money on many business expenses, such as salaries and benefits, workspace, and supplies, thus focusing on profit.

In Malaysia, micro-enterprises are typically small business establishments with less than five employees or with annual sales of less than RM300,000 (Smecorp, 2015). In 2021, Malaysia was reported to have 964,495 (78.6%) micro-enterprises, 242,540 (19.8%) small enterprises, and 19,459 (1.6%) medium enterprises constituting 97.4 percent of the total business establishments (DOSM, 2022a). Although micro-enterprises constitute the biggest percentage of SMEs, their contribution to the country's GDP is the smallest.

Evidence shows that micro-enterprises in Malaysia have hardly received considerable funding from financing institutions, which consider micro-enterprises as risky businesses that lack collateral, have insufficient documents to support loan applications, and have no financial track record (Thaker & Mohamed, 2013), display constraints that attached to the liability of smallness. However, there are institutions supported by the government of Malaysia to assist micro-entrepreneurs such as Amanah Ikhtiar Malaysia and Tabung Ekonomi Kumpulan Usaha Niaga (TEKUN). Although the amount of loans is small but helpful as starting capital for micro-entrepreneurs.

### **3. Methods**

The study follows a mixed-method approach; a survey and a semi-structured interview with a group of participants who survive the crisis selected from the survey respondents. A questionnaire for the survey was designed to capture the condition of micro-enterprises before and during the pandemic measured by the revenue and type of business activities as declared by the respondents. This instrument also instigates the method adopted that helps micro-businesses survive the unprecedented challenges of the Covid-19 pandemic. Two time-frames were used in the questionnaire; before the Covid-19 pandemic (before 18 March 2020) and during the Covid-19 pandemic restriction order (18 March 2020 – 31 December 2021). The period during the Covid-19 pandemic includes all stages of movement control orders (MCO) and the four-

phase national recovery plan that ended on 31 December 2021. The changes in business methods used are identified in these two time-frames.

The respondents for this study were recipients of the loan given by Amanah Ikhtiar Malaysia (AIM). AIM was established in 1986 as a programme to eradicate poverty for poor households in Malaysia, following the success of the Grameen Bank model in Bangladesh. The main objective of AIM is to give out small loans to poor households for financing their income-generating activities or their micro-businesses (Ramli, 2001). The recipients have to repay loans on a weekly payment basis and they can apply for larger loans once the current loan is fully repaid. Most of the AIM recipients are women that generate income from micro-activities to support their families, thus helping them to move out from the poverty group.

The data was collected throughout the month of April 2022, which happened to be the fasting month of Ramadhan. The sampling technique was non-probability purposive sampling. Questionnaires were distributed to the AIM recipients at 20 different weekly meetings between the AIM officer and the recipients throughout the state of Terengganu. These were periodically meetings where the loan is paid either through cash payment or an online facility. There were only a small number of participants attended the meeting as the restrictions due to the pandemic were still applied; only the group's leaders attended the meeting. The questionnaires were administered by the researcher who also attended the meetings, with AIM permission, while observing the safety protocols for COVID-19, including social distancing and mask-wearing.

For the semi-structured interview, this study adopted a narrative inquiry approach and life story interview used by Purnomo et al. (2021) to understand the way businesses cope with the pandemic Covid-19. While Purnomo et al. (2021) studied the resilience of small and medium businesses, this study focused on the micro-enterprises which were left out by Purnomo et al. (2021). The narrative inquiry and life story interview allow the respondents to tell their stories based on their real experiences during the pandemic Covid-19; the interviewer listens closely to what the interviewee shares and uses probing techniques only when further explanations are needed. This process encourages participants to become observers of themselves in stories they never expressed openly, much less interpreted as significant (Russel, 2022; Purnomo et al., 2021; Atkinson, 2007 & 1998).

The respondents for the semi-structured interview were chosen after the questionnaire session was completed. The respondents were asked for their consent verbally and face-to-face. Being together with the AIM's officer from the beginning of their meeting provided room for the researcher to know the participants and vice-versa which create some sense of understanding and trust as required before the session started (Atkinson, 2007 & 1998).

## **4. Results and Discussion**

### **4.1 The Survey – Background of Respondents**

There were 160 questionnaires distributed during the meetings between AIM officers and the respondents, and 148 were useful for further analyses after deducting seven small firms (more than 5 workers or annual revenue of more than RM300,000), and six questionnaires with major incomplete information. Within these 148 useable questionnaires, the data shows that only 18 (12.2%) micro-enterprises were identified to be successfully navigating the crisis and managed to accelerate their revenue during the trouble periods. While the other 21 (14.2%) enterprises remained unaffected, the rest of 109 (73.6%) micro-enterprises showed a significant decrease in revenue with some of the respondents deciding to close their operations temporarily until the economy fully recovered. However, none of the respondents has stopped or intended to stop their operation permanently. The high percentage of micro-enterprises affected reveals the vulnerability and difficulties facing the Covid-19 crisis, thus supporting the liability of smallness. The background of the respondents is shown in Table 1.

All of the respondents in this study are female. This phenomenon in which women are the majority who venture into micro-enterprises is true in all countries where micro-enterprises existed (Larson & Shaw, 2001). In Malaysia, the targeted groups of AIM recipients are women from poor households who have the desire to escape from poverty reflected in this scenario. A majority (62.2%) of them aged above 40 years old; half of them are above 50 years old. The young micro-enterprises, in operation for less than 3 years, constitute 13.2% of the sample while another 52.8% have been in operation between 4 to 10 years. Only 19.4% of these micro-enterprises fall under mature businesses after being in operation for more than 15 years. About 65.5% of these micro-entrepreneurs have a high school education background while 4.9% are degree holders.

Many of them work alone or with their spouses and the majority (53.4%) involve in food-related activities such as managing restaurants and cafés, making food for sale from home, making *keropok*, operating food stalls including at night markets, and selling cakes and pastries from home. About 10.1 percent of them are involved in agriculture activities such as planting chilies, melons, lemon grass and vegetables for sale, or small-scale palm oil and rubber tree farmers. Among other business activities are tailors, sundry shop operators, drop shippers, and motorcycle workshop operators. The

background information of the respondents depicts the characteristics of micro-enterprises that are operated by the majority of women on a small-scale basis with low-income earnings and mostly from home

**Table 1. Background of Respondents**

| Item                          | Number (%) |
|-------------------------------|------------|
| <b>Gender</b>                 |            |
| <i>Female</i>                 | 148 (100)  |
| <i>Male</i>                   | -          |
| <b>Age</b>                    |            |
| <i>Less than 20 years old</i> | 1 (0.7)    |
| <i>20 – 29 years old</i>      | 15 (10.7)  |
| <i>30 – 39 years old</i>      | 37 (26.4)  |
| <i>40 – 49 years old</i>      | 43 (30.7)  |
| <i>Above 50 years old</i>     | 44 (31.5)  |
| <b>Education</b>              |            |
| <i>Secondary school</i>       | 16 (11.3)  |
| <i>SRP / SPM</i>              | 93 (65.5)  |
| <i>Certificate / Diploma</i>  | 26 (18.3)  |
| <i>Degree and above</i>       | 7 (4.9)    |
| <b>Period of operation</b>    |            |
| <i>3 years and less</i>       | 19 (13.2)  |
| <i>4 – 10 years</i>           | 76 (52.8)  |
| <i>11- 15 years</i>           | 21 (14.6)  |
| <i>More than 15 years</i>     | 28 (19.4)  |
| <b>Workers / staffs</b>       |            |
| <i>Alone / spouse</i>         | 108 (77.1) |
| <i>Family members</i>         | 26 (18.6)  |
| <i>Friends/others</i>         | 6 (4.5)    |
| <b>Type of business</b>       |            |
| <i>Food-related</i>           | 79 (53.4)  |
| <i>Agriculture</i>            | 15 (10.1)  |
| <i>Others</i>                 | 54 (36.5)  |

#### 4.2 The Semi-Structured Interview

The following discussion focuses on the semi-structured interviews with micro-entrepreneurs selected and agreed to interview. Out of the 18 successful micro-enterprises identified in the survey, only five were willing to be interviewed with three respondents providing reasonable information for this study. A background summary of the three micro-entrepreneurs for the qualitative inquiry is presented in Table 2.

**Table 2. Background of Micro-entrepreneur under Qualitative Study Method**

| Name  | Age | Education | Type of business                        | Years in operation | Number of staffs | Increase in revenue |
|---|-----|-----------|---|--------------------|------------------|---------------------|
| Ayu   | 33  | SPM       | Beauty salon/food processing            | 11                 | 3                | 60%                 |
| Husna   | 30  | PMR       | Restaurant                              | 12                 | 4                | 45%                 |
| <b>Continuation of Table 2. Background of Micro-entrepreneur under Qualitative Study Method</b> |     |           |   |                    |                  |                     |
| Name  | Age | Education | Type of business                        | Years in operation | Number of staffs | Increase in revenue |
| Anis  | 33  | Degree    | Café owner/drop shipper/food processing | 6                  | 2                | 50%                 |

#### Interviewee 1: Ayu – Salon Owner

Ayu owned a beauty salon and was successfully managing it for almost 10 years when Covid-19 suddenly appeared. Her salon had many loyal clients, the majority were working during the daytime. To attend to her clients, Ayu and her three staff provided their services from 2 pm in the afternoon until 10 pm at night. Unlike other crises, this Covid-19 pandemic required MCOs, social distancing, and mask-wearing. During the first MCO, all houses of worship and business premises

would be closed, except for supermarkets, public markets, grocery stores, and convenience stores selling everyday necessities. Thus, Ayu closed her salon entirely and stayed at home as required. Ayu accepted the decision heartfully and expressed her feeling faithfully as a Muslim:

*"Maybe Allah wants me to rest and be with my family. I have been working so hard for all these years. This is just a temporary break."*

Since that, the MCO had been extended three times. When the government announced the new stage of MCO, known as the Conditional Movement Control Order (CMCO) which allowed certain business sectors to resume operations, salon operation was not one of them. The nature of salon services required closed contact such as facial treatment, haircut, and body massage were the reason why this type of service was disallowed as not abide by social distancing measures. The salon was out of operation for more than three months, and Ayu, being the breadwinner in the family, was looking out for alternative as her savings was running low. Ayu voiced out her concern:

*"I am lucky I don't have to pay rent. My salon is an extension of my house. But I still have to pay utility bills and salary to my staff. We are just like family, cannot let them go. We have to do something fast. They might extend this CMCO again. We still cannot operate since we need to touch our clients. No social distancing."*

Fully aware that the nature of her current business had become a constraint, Ayu decided to try something different that seemed promising. Being in Terengganu, it is being said much too often that one cannot live without fish crackers or *keropok*. During MCO, the supply of *keropok* was very limited. Many *keropok* makers closed their operations due to a limited supply of raw fish meat, the main ingredient in *keropok* making. Although the order allowed all activities concerning agricultural and fishing industries to be in operation, many fishermen took the advantage to stay home which almost stopped the supply of seafood. Knowing this situation, Ayu contacted fishermen and fish mongers to search for raw materials and found her solution. Ayu expressed the process of setting up her new business as follows:

*"Once I know I can get the supply of fish meat; I am sure I can make it happen. I searched for used equipment I needed online. I found someone who wanted to sell, he then led me to another seller, then to the other. It was easier than the time I started up my salon. I can even pay by installment."*

Ayu started her production as quickly as possible to take advantage of and cater to the desperate market of *keropok*. She worked with her salon staff to produce two types of *keropoks*, *keropok lekor*, and dried slice *keropok*. After about two weeks in operation, she had to hire two more workers to catch up with high orders. The new business provides her with 60 percent more revenue than her salon business. On the day of the interview, her salon is still not in operation. Once the economy resumes back to normal, Malaysia is hit by a labor shortage.

### **Interviewee 2: Husna – Restaurant Owner**

Husna, 30 years old, managed a restaurant with her husband and four staff where they provide freshly-cooked Thai-based food. She has been seeing the operation of this restaurant from kitchen to customer service for about 12 years. In the early phase of MCO, restaurants can only be operated from 8 AM till 8 PM, Husna decided to operate her restaurant at a minimal scale when in-dining was disallowed. She expressed her decision as follows:

*"This is a family restaurant. People come with family to eat here. Not many will pack their food. I am afraid if we close the operation, our customers will move to other shops. We have to stay open and provide a few menus for take-away customers."*

The restaurant operated by following the standard of procedures (SOP) closely. As many restaurants in her location closed down, Husna has been getting more and more customers. The restaurant received many orders from sponsors, such as to be distributed to frontliners at the nearby clinic or to university students stranded at their hostels. Husna also added more menus to cater to customers' needs. Although the restaurant had to close down for about two weeks due to the Covid-19 positive status of one of her workers, the operation during the period of the pandemic was busier and merrier than the period before the pandemic, causing Husna to hire three more workers. Husna believed that the pandemic was an opportunity for her to look back at her operation, upgraded her services, and appreciated her workers and customers. She engaged herself in social media to advertise her restaurant and invested in a new method of delivery services; foodpanda and GrabFood. During the pandemic period, the restaurant was able to generate about 45% more revenue than before. She expressed her gratitude as follows:

*"I am so blessed. Alhamdulillah. I think I didn't do much. I just follow the flow. As long as my restaurant is open to my customers, I think we can survive. I never think that we can be this busy."*

### **Interviewee 3: Anis – Café Owner**

Anis is one of the younger members of AIM. She joined AIM about three years ago when a friend introduced her to the AIM facility as she needed more capital to start her café. After graduating from a local university, Anis started her career as a drop shipping agent for a few products. As a drop shipping agent, Anis could start her own business with low capital since this type of business is run without having to keep stock on hand. With her savings and a small loan from AIM,

Anis was able to start her own café. While running her café with three of her staff, Anis continued with her drop shipping job. These two jobs rely heavily on social media for promotion, which has eased some of Anis's work. According to Anis:

*“Drop shipping is actually an online business. Everything is online. While online, I promote my café too. I use everything I can. WhatsApp, Instagram, Facebook, friends, a lot of friends, my parents' friends...”*

The café had just started its operation when Covid-19 was declared a pandemic in Malaysia. During the pandemic, Anis's café stopped operation a few times; once during the first MCO when in-dining was not allowed, and two times when Anis and her staff tested positive for Covid-19. The café was running at a low capacity with very low revenue. On the other hand, the demand for her drop shipping activities has increased significantly. Since movement was limited and people could not go out easily to find things they want, they switched to online shopping. Anis was thinking about whether to close down her café or to do something drastic to minimize loss as she still had to pay rent, utilities, and salaries to her staff. Anis expressed her thinking as follows:

*“I was thinking and thinking and thinking. I asked my parents, my best friends, and a few people that I trusted. What should I do to my café? Then my mom said, why don't you sell our delicious 'dendeng' online? Just like you sell other products? That was the answer.”*

To operationalise the thinking was rather smooth since most of the equipment needed was already in the café. She now has a new cook; her mother. She took some time to learn the method used to keep food from spoiling without using preservatives. Anis and her mother were totally against the use of chemicals in the food. Their motto is to sell what they eat at home. They also took some time to master the production of their new product. Anis then added her own product together with the list of other products under her drop shipping line. The new product was doing so well; they had more demand than they could supply. Through these three activities (café, drop shipping agent, and new product sold online), Anis was able to increase 50% revenue than what she had before the pandemic.

### 4.3 The Adaptive Resilience of the Micro-entrepreneurs

The Covid-19 pandemic evidently has brought unprecedented challenges to the micro-entrepreneurs to review their current operation; the pandemic could be a constraint to some but an opportunity to others. To survive, the entrepreneurs exercised their adaptive capabilities to modify and strengthen their business plans and management styles. Table 3 presents the strategies adopted by the three respondents in the semi-structured interview and their related adaptive resilience types.

For the salon owner, the Covid-19 pandemic posed a constraint to her business operation for an unknown period while the SOPs were imposed due to the nature of her business. Rather than waiting for the situation to recover, she chose to freeze the operation and moved on with a new activity that had the potential to succeed. Her proactive attitude and willingness to learn new skills demonstrated her adaptive resiliency in facing crises (Klein & Todesco, 2021). In the case of the restaurant owner, the crisis brought along the opportunity to expand her market. When many bigger restaurants and cafés had to close down their premises or marginalise their operations by staff layoffs, the restaurant owner in this study chose to stay open and took advantage of the emergent demand for cooked food. She ventured into something new, social media, to let people know of her operations. To reach her customers and vice versa, she engaged in delivery services via foodpanda and GrabFood. She expanded her network not only to individual customers but also to private and public institutions. Her ability to grab opportunities with new strategies and networks portrayed her adaptive resilience character to survive the pandemic (Kuckertz et al., 2020).

The pandemic posed as a constraint to the café owner but as an opportunity to her drop shipping activities. In adapting to the crisis, the café owner tried and learned new capabilities to minimize losses of the café operation by combining her drop shipping skill. Similar to a case study by Purnomo et al. (2021), the café owner demonstrated her adaptive reliance by her ability to adapt to the crisis and being innovative.

**Table 3. Strategies and Adaptive Resilience**

| Case             | Pandemic posed as          | Strategy to cope                     | Adaptive Resilience type                    |
|------------------|----------------------------|--------------------------------------|---|
| Salon owner      | Constraint                 | Freeze operation / acquire new skill | Proactive attitude in learning new skills   |
| Restaurant owner | Opportunity                | Exploit demand                       | New strategies, opportunities, and networks |
| Café owner       | Constraint and opportunity | Acquire new capabilities             | Adaptability and innovation                 |

### 4.3 The Advantages of Smallness

During the semi-structured interview, the respondents were asked whether the size of their operations affect their ability to bounce back and survive the Covid-19 pandemic. The first issue pointed out by all the respondents was overhead costs. Both the salon owner and the restaurant owner operated either from home or from their own property, thus incurring no

rental expense. As most businesses experienced a fall in sales or no sales at all, the respondents did not face the pressure to pay the rent or to pay back their loans. Following the government order, AIM also deferred the loan repayment by its members. The second issue pointed out was the availability of staff in the business operation. Many bigger businesses had to reduce the number of their workers and later had difficulty finding new workers due to the problem of labour shortage. Working with family members and the locals, labour shortage was not a major problem for all of the respondents in this study. The last issue pointed out was the flexibility in organizing their activities since the respondents were not bound by any official rules and regulations. The liability of smallness inherent to small-size entities such as scarcity of financial resources, limited managerial capacity, and lack of knowledge management that makes small entrepreneurs more vulnerable did not pose as a threat to these micro-entrepreneurs.

## **5. Conclusion and Limitation**

The study captures the differential survival methods adapted by micro-entrepreneurs in Terengganu during the Covid-19 pandemic. Representing more than 80 percent of the total SMEs, micro-enterprises receive considerable little attention from the researchers. The finding of this study supports the liability of smallness inherent by the micro-enterprises in which nearly 75 percent of the micro-enterprises in the survey indicate declining performance and hence face a higher risk of failure.

With a closer look into three successful cases, the processes through which micro-entrepreneurs respond to the Covid-19 pandemic were identified. As most micro-entrepreneurs experienced a decrease in revenue, especially at the beginning of the pandemic, the entrepreneurs display their adaptive resilience characteristics to bounce back from adversity and survive the pandemic. Although they perceived the crisis as a constraint, they find alternatives either by being proactive to learn a new skill, experimenting with a new strategy, or developing strong networking. To adapt to the new and uncertain environment, they make their decisions diligently with a positive mindset to survive the pandemic. They took some drastic decisions such as freezing operations when they found no beneficial solution or venturing into something new when they saw the opportunities in the emerging demand. All the measures taken by these micro-entrepreneurs demonstrated their adaptive resilience; their ability to bounce back after a disruptive condition and cope with challenges to obtain positive results.

While small in size is associated with the liability of smallness, the study finds that in these successful cases, smallness appears as an advantage to these micro-entrepreneurs. When the bigger businesses suffer high overhead costs and had to lay off workers, these micro-entrepreneurs were able to continue operations with minor changes since their overhead is relatively low. They worked with family members and the locals and mostly operated from home without high-tech equipment. They did not abide by specific rules or regulations that make their activities more flexible in which they could be in operation regardless of time. However, this finding is limited to the Covid-19 pandemic

Similar to other studies, some limitations are also pertinent to this study. The narrative inquiry approach to only three micro-entrepreneurs in Terengganu permits limited generalizability. The advantage of smallness to the micro-enterprises might be applicable only to the Covid-19 pandemic since no crisis is alike. The difficulty to get more respondents to agree for interviewed especially from different age groups also posed a limitation to this study.

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## **Assessing Corporate Governance Influence to Firm Performance During COVID-19 Pandemic: Evidence from Malaysian Public Listed Construction Firms**

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### **Abstract**

Corporate governance of companies has been the subject of increasing interest following the COVID-19 pandemic. Despite the claim that corporate governance is a tool that may help companies sustain its business performance during the pandemic, the number of empirical research studying this unprecedented scenario is still limited. Thus, this study aimed at examining the impact of corporate governance mechanisms (board size, board independence and gender diversity) to the firm performance of Malaysian public listed construction firms during the COVID-19 pandemic's bitter period. This study adopts quantitative research approach wherein by employing secondary data. The data sample of this study are the audited financial statements for the year ended 2020 from 53 Malaysian public listed construction firms. The findings from the examinations revealed that, the board independence is positively significant associated to the firm performance. In interval, the board size and gender diversity are found to be insignificant associated to the firm performance. This study contributes to the policy makers that give a current insight in setting up better corporate governance mechanisms which are capable of meeting challenges in such a grave economic situation. The outcome of this study benefits to the organisation by way of providing them tested solutions in their planning and decision making, and as well as to the academicians for future research on the subject related to this area.

### **Keywords**

Firm performance, corporate governance, Covid-19 pandemic, Construction industry, Malaysia

### **1. Introduction**

The COVID-19 pandemic has affected the economy in majority of countries around the world (Marques, Serrasqueiro & Nogueira, 2021). In the midst of COVID-19 pandemic, many of the organisations across the world have been affected and which some are still struggling to survive in order to remain relevance in the industry. Taking it to the worst, the situation may lead to recession and possible economic depression. The Malaysian Ministry of Finance (MOF) had highlighted that throughout the pandemic, the moment when the government had decided to put on total full lockdown, it had badly affected the Malaysia's GDP, where the country had lost RM2.4 billion per day on its GDP. Thus, it is important for a business to gain on the ground of the firm performance of the business to ensure that they are still remain relevant in the industry. Firm performance is the measure to determine the success of firms in their social, political and economic development hence in order for them to survive in competitive business environment, firms have to improve their performance from time to time (Taouab & Issor, 2019).

One of the industries that badly affected by the COVID-19 pandemic in Malaysia is the construction industry. Construction industry in Malaysia had been developed ever since the country achieved its independence. Amponsah and Frimpong (2020), forwarded that in order to ensure the economy of any country to be well functioning, the construction industry has to be in priority. In addition, Ofori (2015) stated that to achieve national goals, construction industry is an important player where it will complete all the aspects of physical, social and economic. Construction industry is considered as the main industry that comes into the highlight and attention of the government when compared to other industries (e.g., manufacturing and agriculture). It can be seen from the initiatives that had been drafted by the Malaysian government to set better provisions on the development of the construction industry in Malaysia. During the COVID-19 pandemic, the construction industry productivity of the worldwide had also been in dire state (Kazeem, 2020). The implementation of partial and full lockdown in each country had made it worse. Due to this situation, there are few projects had been delayed and thus affect the progress of the economy (Construction Covid-19 Response Task Team, 2020). It is reported that there are 2 million people affected by the COVID-19 pandemic worldwide and amounted to over 138,000 deaths recorded while the vaccine is being developed to curb the disease by 18 months (Brown et. al.,2020). This situation

had strongly pushed companies especially those within the construction industry to formulate few initiatives to curb the downturn of the economy and to bounce back to recover from the pandemic.

As a solution to the current unprecedented issue, the mechanisms of corporate governance of a business are crucial to reduce the economic run-down impact of the pandemic. Malaysian Code on Corporate Governance (2012) defined corporate governance as the framework and process applied to provide direction and the manner on managing business matters of the company whilst taken into consideration the shareholders' values and interests. By implementing good corporate governance, a company have a better chance to sustain in the industry. Furthermore, it has been highlighted by La Porta, Lopez-De-Silanes, Shleifer, and Vishny (1998) that specific good governance of firm and country, such as board independent, separation of management functions and legal protection of stakeholders, will increase the corporate value in any course of events. In recent years, considerable attention had been made to the impact of corporate governance on firm performance in economic and financial literature during the time of crisis. The Asian financial crisis of 1997/1998 which had severely affected the majority of Asian countries and had changed the landscape of the corporate governance practices in many countries, including Malaysia, had led to this increase of focus.

To sustain the firm performance of the construction industry during the economic downturn, particularly during the COVID-19 pandemic, few initiatives had been made to cater with the current economic situation. One of the initiatives is by the implementation of an effective and efficient corporate governance mechanisms in the firm within the construction industry. In recent times, there had been noteworthy attention made to the relationship between corporate governance and business performance. The subject matter went into the world's limelight especially after the financial scandals of well-established organisations in the US economy, such as the collapse of WorldCom and Enron, and much more in the face of abuses of power by their board of directors (IFAC, 2003). Current literatures that focusing on the impact of corporate governance mechanisms to the firms' performance in the construction industry particularly during the COVID-19 pandemic is still lacking. Therefore, the current study was conducted to fill the knowledge gap in this area of research. The primary objective of this study is to examine how corporate governance mechanisms have an effect on the firm performance of construction industry in Malaysia. Specifically, this study examined the relationship between corporate governance mechanisms that are (i) board size, (ii) board independence, and (iii) gender diversity, on the firm performance of Malaysian public listed construction firms during COVID-19 pandemic.

## **2. Literature Review, Conceptual Framework and Hypotheses Development**

### **2.1 Construction Industry in Malaysia**

The development of construction industry in Malaysia had started in the early 1900s as evident by the few mega projects that had been set up by the government. The Government had established an ambitious benchmark through the introduction of Vision 2020. Whereby year 2020, Malaysia is envisaged to become a fully industrialised country. Therefore, in alignment with the vision, the government had invested in development of mega infrastructure in the vicinity of Kuala Lumpur city area. Within the years passed, Malaysia had undergone rapid development in the construction industry. Construction industry is important to the country as it contributes to social and economic infrastructure enhancement of industrial production. Therefore, more mega projects have been rapidly developed from year to year by the government as an initiative to a better infrastructure for economic growth. Table 2.1 below shows the current major government projects in Malaysia.

In ensuring that the construction industry is well regulated, there are two main administrative bodies being responsible in Malaysia. The two main bodies, namely, the Construction Industry Development Board (CIDB) and the Department of Statistics Malaysia (DOSM) (Gholamreza et al., 2021). CIDB has been established since 1994 under the Malaysian Work Ministry, with the main responsibility to ensure the quality and to promote safety in the construction industry. On the other hand, DOSM had been established since 1949 under the Department of the Prime Minister, in which the primary responsibility of the department is to observed the economic and social development based on the latest statistics that had been collected and analysed. In the nutshell, construction industry is the main industry that contributes to the Malaysia's GDP after manufacturing and agriculture industry. According to DOSM (2021), there are five main industries that contribute to the Malaysia's GDP, which are; construction, agriculture, mining & quarrying, manufacturing and services. Therefore, construction industry can be classified as one of the key areas that support the acceleration of the country's GDP.

**Table 2.1. Major Government Projects in Malaysia (2020-2030)**

| Major Government Project    | Years | RM (billion) |
|-----------------------------|-------|--------------|
| River of Life, Kuala Lumpur | 2024  | 4.40         |
| Central Spine Road          | 2026  | 7.30         |
| Pan Borneo Highway          | 2024  | 15.27        |
| Merdeka 118                 | 2021  | 5.00         |
| <b>TOTAL</b>                |       | <b>31.97</b> |

*Source: Construction Industry Development Board, 2020*

## 2.2 Corporate Governance Framework and Firm Performance

Corporate governance is defined as the structure and process being applied to manage and direct any business-related issue of an organisation in order to improve the business growth whilst taking into account the stakeholder's wealth (High Level Finance Committee Report on Corporate Governance, 1999). Corporate governance plays an important role in development of a firm and in ensuring the firm is competitive enough in the global industry (Ehikioya, 2009; Iwasaki, 2008). Gupta and Sharma (2014) stated that by applying good corporate governance, it will reflect the excellent reputation of the company and increase the trust of the investors and the shareholders. It has been proven in a study by Wijethilake, Ekanayake et al., (2015) which stated that from the investor's perspective, the organisation that implemented good corporate governance will have better credibility and better performance. In the same note, it has been supported by another study in which it was found that by implementing good corporate governance, it will ensure the shareholders' right, increase the corporate transparency and provide better disclosure of financial and non-financial information (Black et al., 2015; Abdifatah, 2014; Munisi and Randey, 2013; Duk-Ho, Kim et al., 2013).

It was discovered that the collapse of many high-profile companies during the Asian financial crisis 1997 is due to the failure of the corporate governance of the company itself (Sulong and Nor, 2008). In a few studies that had been done, the researchers had found that specific factors contributed to the collapse of big companies during Asian financial crisis 1997 are due to inadequate financial disclosure, lack of corporate transparency and weakness of corporate governance of the organisation (Gupta and Sharma, 2014; Duk-Ho et al., 2013). Due to this alarming situation, many countries worldwide have taken initiatives on introducing and improving their corporate governance structures, such as South Korea had changed the conglomerates or Chaebouls system, Singapore implement new corporate governance code in 2001 and Sri Lanka implement new Code of Best Practice in 2008 (Duk-Ho et al., 2013; Nguyen et al., 2014; Guo and Kga, 2012). Within the same premises, the Malaysian government has taken an initiative to introduce corporate governance frameworks, namely the Malaysian Code of Corporate Governance (MCCG 2000, 2007, 2012, 2017 and 2021) which is in alignment with the Principles of Good Corporate Governance and Best Practice Recommendations in Australia (ASX 2003 and 2007), Sarbanes-Oxley Act in United States of America (SOX 2002) and Combine Code on Corporate Governance 2003 in United Kingdom.

In order to promote sound and efficient corporate governance mechanism in Malaysia, the government had first introduced the Malaysian Code on Corporate Governance in the year 2000 (MCCG 2000). Furthermore, to increase the strength of the responsibilities and roles of the board committee, board of directors and internal audit function, a revised version of MCCG through the Malaysian Code on Corporate Governance 2007 (MCCG 2007) was introduced. Later, based on the current framework namely Corporate Governance Blueprint 2011 to strengthen the board composition and structure, the Malaysian Code on Corporate Governance 2012 (MCCG 2012) was introduced by the government. Public listed companies were required to reflect in their annual reports their compliance towards the recommendations of MCCG 2012, while other than public listed companies are encouraged to voluntarily report such disclosure. In 2017, the government had once again revised the MCCG. The main objective of the revised MCCG is to promote greater internalisation of corporate governance culture (MCCG, 2017). There are few differences between the outlined of the corporate governance elements in MCCG 2012 and MCCG 2017. The first difference outlined is the element of gender diversity. In MCCG 2012, there is no standards implemented on the existence of women directors within the board, but in MCCG 2017, additional standard had been included which make it a compulsory requirement for large companies to hold at least 30% of woman directors within their company's board (MCCG, 2012; MCCG, 2017). The element of CEO duality is the second difference outlined in the MCGG 2017. In MCCG 2012, the standards stated that the positions of CEO and chairman should be held by different individuals, where the chairman must be non-executive member of the board. However, in MCCG 2017, the standards had set that the positions of CEO and chairman are held by different individuals despite he is executive or nonexecutive members (MCCG, 2012; MCCG, 2017). The third difference being the element of board independence. In MCCG 2012, the practices set indicated that the board must comprises of a majority of independent directors, where the chairman is not an independent director. However, in MCCG 2017, the practices set specified that the independent directors must be at least half of the board, which large companies must have majority

independent directors within the board. All in all, corporate governance framework helps in strengthen the firm performance and the corporate credibility of the company.

### 2.3 Conceptual Framework

The conceptual framework of this study is developed based on agency theory (Fama & Jensen, 1983; Jensen & Meckling, 1976; Subramaniam, 2006). This framework identifies variables from the theory in order to understand corporate governance mechanisms effect to the firm performance. Based on the Figure 2.1 below, an illustration on the relationship and linkage between the independent variables of this research that is corporate governance mechanisms measured by the board size, the board independence and the gender diversity, with the dependent variable which is the firm performance proxied by return on asset (ROA) of construction firms in Malaysia during COVID-19 pandemic.

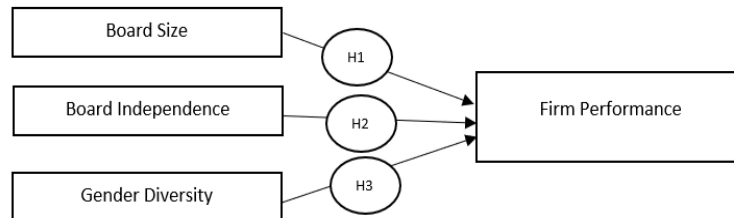


Figure 2.1: The Conceptual Framework

### 2.4 Hypotheses Development

#### 2.4.1 The Board Size and The Firm performance

Board size has been defined as the number of directors who are presiding over the board (Cheng, 2008). Within the same premise, board size has been defined as the overall number of directors that are able to influence the corporate governance of a company as well as their performance (Yermack, 1996). The board size is an important element to the board structure (Noor and Fadzil, 2013). The optimal number of board size will enhance the company's performance (Wijethilake et al., 2015; Romano and Guerrini, 2013). Prior research findings on the optimal number of board size or the ideal board size vary across the countries. The study conducted by Peng et al. (2015) had found that the average board size in China's company is 11, while the average board size in British's company is 13. Board size is found to be the crucial elements of corporate governance that will determine the board functionality (Nguyen et al., 2014). It is argued that boards of directors with small numbers of directors' benefit from low levels of communication breakdown and good coordination, resulting in better monitoring and control of management (Ahmed et al., 2006; Dey, 2008; Jizi, 2017). Furthermore, high responsibilities and duties might impact the directors' performances, which might hinder their monitoring role if there is a limited number of board members (Beiner et al., 2004; Jizi, 2017).

Previous study had examined that as board size increase, conflict of interest will arise, as well as communication obstacles, which ultimately deteriorate the firm's performance (Shukeri et al., 2012). There was study which claimed that larger board is harder to control between members and better monitoring on firm financial performance and the study also argued that larger board size has more outsider linkage, ability to extract critical resources such as funding, and expertise or experience in running the business and these attributes could lead to higher performance (Druckeriv, 1992). Coles et al., (2008) findings show that larger firms will derive greater firm value from having larger boards. Thus, with the presence of bigger board size, proper management and control will be emphasised and support to improve the company's financial and non-financial performance. In addition, previous literatures agreed that board size has positive relationship with the firm performance (see i.e., Tulung and Ramdani, 2018; Merendino and Melville, 2019; Allam, 2018; Brahma et al., 2021; Ahmadi et al., 2018; Qadorah & Fadzil, 2018). Therefore, the hypothesis can be described as follow:

*H1: There is a positive relationship between the board size and firm performance of Malaysian public listed construction firms during COVID-19 pandemic.*

#### 2.4.2 The Board Independence and The Firm performance

Board independence has been defined as non-executive director of the corporation and do not have any business interest related to the corporation that can influence their independent judgment (Bursa Malaysia, 2003). Agrawal and Knoeber (1996) defined independent directors as the one with no relation or interest with the management of the company, thus the independent directors are less likely to get involved with the management decision and are based only on their personal opinion. The number of directors is consisting of independent and non-independent directors. According to Malaysian Code of Corporate Governance 2017 (MCCG 2017), the corporate governance framework requires company to have independent directors 50% more of the board, hence the company need to established nominating committees chaired by

an independent director to ensure the thorough independence of the board. If a company has higher number of the board of directors, the number of independent directors is higher than non-independent directors. Herein, the study will look into whether the board independent element plays an important role or give positive impacts on the firm performance.

Jensen et al. (1976) forwarded that according to agency theory, firms may reduce the agency conflict and to increase the firm performance through effective monitoring by the Independent Directors. Moreover, Jensen et al. (1976) also stated that boards consist of more numbers of external directors will provide more value than internal directors. Therefore, to reduce the agency costs, firm has to include a higher number of independent directors in the company (Mobbs, 2013). Previous studies showed mixed findings on the relationship between firm performance and board independent (Daily & Dalton, 1992). There were studies which found a positive relationship between board independent and firm performance when referred to the board monitoring role and experiences. On the other hand, previous studies had found that there is negative relationship between board independent and firm performance in when taken into consideration that the board may not be entirely independent (Daily & Dalton, 1992). A study by Muniandy and Hillier (2015) had found a positive impact between board independence and other variables in determining firm performance. Furthermore, Shaukat et al., (2015) also found a positive relationship between board independent and firm performance which related to environment and society. Independent directors reflect better independency and objectivity in their decision making on the management of the firm. Thus, based on findings from the previous studies, the hypothesis that can be developed is as follow:

*H2: There is a positive relationship between the board independence and firm performance of Malaysian public listed construction firms during COVID-19 pandemic.*

#### **2.4.3 The Gender Diversity and The Firm performance**

Gender diversity refers to the presence of female directors in the firm's board (Agyemang-Mintah & Schadewitz, 2017). Previous study had found that company which practice diversity in the board composition will result in better creativity, revenue and contentment (Milliken and Martins, 1996). This is due to different personality and attitudes towards risk assessment between male and female directors (Adam and Ferreira, 2009). Having female directors as part of the corporate decision making is vital, as being recognised by the policy makers. The Malaysian Code on Corporate Governance 2017 (MCCG 2017) had highlighted that the board is required to have a minimum of 30% female members in large companies. The trend of having female directors on board as part of the decision-making process had increased.

There were various studies conducted to examine the effect of gender diversity on the firm's performance that show mixed result. Research by Gul et al., (2011) discovered that having a high number of female directors increases the board monitoring and control process. It also acts as a substitute mechanism which could increase the firm's performance. Having female directors can help more in understanding the customers' needs and thus having the knowledge on the right measures that need to be implemented in order to meet the customer's expectations (Brennan & McCafferty, 1997). Furthermore, having female directors on board will increase the firms' diversity and legitimacy (Assenga et al., 2018). Moreover, female directors are able to minimize agency costs as they can make comprehensive decisions. Zhang (2020) highlighted that female director facilitate in open and detail discussion in which they contribute various solutions and knowledge to improve the efficiency and effectiveness of the firm. Brahma et.al. (2021) believes that gender diversity will help in reducing the level of risk that firm will be faced. Ahmadi et.al. (2018) pointed out that female directors on board will increase the knowledge creativity and innovation thus complement the element of competitive advantage. However, Randoy et al., (2006) had observed that no significant relationship between gender diversity and firm performance. Gender diversity in a board set up does not give an effect on the firm's profitability and stock market valuation. Nevertheless, Khan et al., (2017), had found a positive relationship between gender diversity and firm performance. Therefore, the following hypothesis is proposed:

*H3: There is a positive relationship between the gender diversity and firm performance of Malaysian public listed construction firms during COVID-19 pandemic.*

### **3. Methodology**

#### **3.1 Sampling and Data Collection**

This study obtained secondary data to operationalise dependent variable; Firm Performance which measured by Return on Asset (ROA) and independent variables proxied by board size, board independence, and gender diversity. In this study, public listed construction companies in Malaysia have been chosen as the population. The reason for public listed construction companies been chosen is because all of these listed companies regulated under few listing requirements set by the regulator bodies in such that they have to disclose their financial books where the information can be access by the public and other users. Therefore, data collected will be more sufficient, reliable and valid. The sampling method applied in this study is the simple random sampling technique. Simple random sampling will randomly select subset of a population (Sekaran and Bougie, 2010). The concept of simple random sampling is each sample has an equal probability

of being selected. This sampling technique more straightforward and reflects high internal and external validity. According to Bursa Malaysia (2021), there are total of 61 public listed construction companies in Malaysia. As referring to the sampling by Sekaran and Bougie (2010), sample size of 53 public listed construction companies has been selected. Data was extracted from 53 sample firms' financial statement that are available on Bursa Malaysia Berhad website's database. This is a cross sectional study where the data obtained focus only on the year of COVID-19 pandemic in which the time frame is from 1st of January 2020 to 31st December 2020.

### 3.2 Variable Measurement

#### 3.2.1 Dependent Variable

In this study, firm performance is the dependent variable which is measured using Return on Asset (ROA). ROA is a measurement on how beneficial an organisation is compared with its overall asset or in other words it is the indicator of how profitable a firm is in relation to its total assets. Through ROA, it assists internal and external stakeholders of the firm to get an idea on how efficiently a firm generates their earnings by using their assets. ROA is measured by dividing total income with total assets (Donadelli et al., 2014).

#### 3.2.2 Independent Variables

**Table 3.1. Measurement of Variables**

| Variables                 | Measurement   | Citation                 |
|---------------------------|---|--------------------------|
| Return on Asset (ROA)     | Total Revenue/Total Asset   | Donadelli et. al. (2014) |
| Board Size (BSIZE)        | Number of board members   | Cheng (2008)             |
| Board Independence (BIND) | Number of independent board members   | Pan et. al. (2016)       |
| Gender Diversity (GDIV)   | Using dummy measurement:<br>0 –no female director<br>1 –has female director | Rashid (2018)            |

In this study, the three independent variables are, the board size, board independence and gender diversity. Board size refers to the number of directors who are presiding over the board (Cheng, 2008). This includes outside directors, executive directors and non- executive directors. Board size is measured by the total number of directors in the board (Cheng, 2008). Board independence refers to the condition in which the majority or all of the members of a board of directors do not have a relationship (being independent) with the company except as directors (Donadelli et al., 2014). For example, the members of the board cannot be relatives of the company's personnel, cannot be the key players or the employees of the company. Board independence is measured by the number of independent directors in the board (Pan et al., 2016). Gender diversity refers to the presence of female directors in the firm. Gender diversity is measured by using dummy measurement, one (1) indicates at least one female director exist in the board while zero (0) indicates no female director exist in the board (Rashid, 2018). The table 3.1 below summarized the measurement of dependent and independent variables of the study.

## 4. Results and Discussion

### 4.1 Descriptive Analysis

This analysis used to examine the quality of data collected before more advance analysis such regression analysis is conducted. Descriptive analysis will determine the normality of the data whether the collected data falls within the trends or in other words the patterns might fulfil every condition of the data. In addition, the descriptive analysis will help to detect if there are any outliers within the data, the variable similarities and provide conclusion from the data distribution.

**Table 4.1. Descriptive Statistics**

|       | N  | Minimum | Maximum | Mean  | Standard<br>Deviation | Variance |
|-------|----|---------|---------|-------|-----------------------|----------|
| ROA   | 53 | 2.53    | 137.11  | 41.05 | 28.618                | 819.017  |
| BSIZE | 53 | 4       | 11      | 7.49  | 1.694                 | 2.870    |
| BIND  | 53 | 0.30    | 1.00    | 0.52  | 0.139                 | 0.019    |
| GDIV  | 53 | 0       | 1       | 0.75  | 0.434                 | 0.189    |

*ROA (Return on Asset), BSIZE (Board Size), BIND (Board Independence), GDIV (Gender Diversity)*

The Table 4.1 above shows the result of descriptive statistics of dependent variable that is firm performance measured by Return on Asset (ROA), independent variables consist of corporate governance mechanisms which are proxied by Board Size (BSIZE), Board Independence (BIND) and Gender Diversity (GDIV). In this study, the elements of the descriptive statistics were calculated based on the data for the year of 2020 and total of 53 public listed construction companies

Based on the analysis, the mean value explains the average number of each variable being calculated from total of 53 public listed construction companies. First of all, from the mean value, the average performance of 53 public listed construction companies (ROA) is 41.05%. Next, the average number of board size (BSIZE) is 7.49 which means that the 53 public listed companies have average of 7 members in their board. Next, the average number of board independence (BIND) is 0.52 which means that the 53 public listed companies consist of average ratio of 0.52 independent directors to total directors in their board. Next, the average number of gender diversity (GDIV) is 0.75. This finding shows that 40 companies from the total sample of 53 public listed companies have female director in their board ( $0.75 \times 53 = 39.75 @ 40$ ). Furthermore, the minimum and maximum value of the data collected from 53 public listed construction companies shows that the ROA has maximum value of 137.11 and minimum value of 2.53, the board size has maximum value of 11 and minimum value of 4, the board independence has maximum value of 1.00 and minimum value of 0.30, the gender diversity has maximum value of 1 and minimum value of 0.

## 4.2 Normality Test

The normality of data can be explained by observing at the skewness and kurtosis tests. Thus, the tests for each variable in this study are; firm performance of construction companies (ROA), Board Size (BSIZE), Board Independence (BIND), and Gender Diversity (GDIV) are being presented in Table 4.2. If the skewness value is close to zero, whereas the kurtosis value does not exceed 3.0, a normal distribution of data is assumed. As the following Table 4.2 indicates, the range of skewness value is from - 1.219 to 1.321, whereas all the variables' kurtosis range between -0.536 to 1.751. As such, all the variables are having a slight skewness as well as kurtosis. This is because the values of skewness and kurtosis fall within the acceptable range. As a result, a normal distribution of data is assumed.

**Table 4.2. Normality Test**

|       | Mean  | Standard Deviation | Skewness | Kurtosis |
|-------|-------|--------------------|----------|----------|
| ROA   | 41.05 | 28.618             | 1.321    | 1.751    |
| BSIZE | 7.49  | 1.694              | 0.165    | -0.706   |
| BIND  | 3.85  | 1.045              | 0.667    | 1.691    |
| GDIV  | 0.75  | 0.434              | -1.219   | -0.536   |

*ROA (Return on Asset), BSIZE (Board Size), BIND (Board Independence), GDIV (Gender Diversity)*

## 4.3 Regression Analysis

An analysis of multiple regression is carried out to examine the relationship between corporate governance mechanisms that are the board size, the board independence and the gender diversity (independent variables) and firm performance (dependent variable). In other words, this analysis tested the hypotheses developed earlier as discussed in Section Two. Table 4.3 displays this study's overall regression analysis findings.

The value of adjusted R<sup>2</sup> shown in the table is 0.045, which indicates that 4.5% of the variation within the firm performance could be described by the board size, the board independence and gender diversity. In addition, the Durbin Watson value shows that it is close to 2 which is 2.053, indicating non-problematic correlations of the residual, especially multicollinearity problem.

The first objective aimed in this study, which is to examine the relationship between the board size and the firm performance of Malaysian public listed construction firms during COVID-19 pandemic. In this regard, H1 proposed that there is a positive relationship between the board size and firm performance, implying that with more members on board will increase the firm performance of the company. From the analysis in Table 4.3, the board size indicates an insignificant negative relationship with firm performance when the coefficient for Board size is -0.046,  $t = -0.282$ ,  $p = 0.780$ . As a result, H1 is not being supported. Accordingly, this study evidenced that the board size does not significantly affect performance of the companies that help to maintain firm performance of Malaysian public listed construction firms during COVID-19 pandemic. The result implies that if a board has higher number of members, the performance of the company will decrease thus resulted in the bad firm performance of the company. This finding is consistent with previous study that found out high number of members in the board will resulted in ineffective firm performance. This is due to the CEO can easily perform on his personal interest rather than shareholders' interest (Alqatan et al., 2019). Furthermore, Merendino and Melville (2019) stated that larger board is ineffective as the new ideas are difficult to be brought forward in a large number of directors and the monitoring process will be less functioning. The possible explanation of the negative association between the board size and the firm performance is that the larger number and the diversity of the board of



directors will increase the issue of coordination and communication (Merendino and Melville, 2019). Not only that, the poor coordination among directors will result to a passive decision-making process and delay in transfer of information. In addition, Assenga et al. (2018) suggested for small board size in which it will strengthen the effectiveness of the decision making.

**Table 4.3. Multiple Regression**

| Variables                                 | Standardised<br>coefficient | Std.<br>Error | t-stat | p-value |
|---|-----------------------------|---------------|--------|---------|
| Constant                                  |                             | 10.754        | 1.881  | 0.066   |
| B <sub>SIZE</sub>                         | -0.007                      | 2.753         | -0.282 | 0.780   |
| B <sub>IND</sub>                          | 0.267                       | 0.059         | 1.713  | 0.093*  |
| G <sub>DIV</sub>                          | 0.201                       | 1.315         | 1.482  | 0.145   |
| R   | 0.369 <sup>a</sup>          |               |        |         |
| R <sup>2</sup> (Adjusted R <sup>2</sup> ) | 0.045                       |               |        |         |
| F-statistic (p-value)                     | 0.213                       |               |        |         |
| Durbin Watson statistic                   | 2.053                       |               |        |         |

*Dependent Variable: Firm performance (ROA)*

*Note: Significant at 10% (\*)*

The second objective of this study is to investigate the relationship between the board independence and the firm performance of Malaysian public listed construction firms during COVID-19 pandemic. Thus, H<sub>2</sub> proposed that there is a positive relationship between board independence and firm performance, implying that the high number of independent directors in the board will indicate high performance of the company. The result shows that board independence has a significant positive relationship with the firm performance since the coefficient value is 0.267,  $t = 1.713$ ,  $p = 0.093$ . Thus, H<sub>2</sub> is supported. This finding is consistent with prior literature such as the study by Huang et al., (2008) indicate a significantly positive reactions to the appointment of outside directors that are evidenced by cumulative abnormal returns reaching 4.776 percent when examining stock market reactions to the announcement of outside director appointments in Taiwan. Meanwhile, a study by Uzun et al., (2004) shows that firms with a higher proportion of non-executive directors have better governance in terms of having fewer fraud allegations and firm performance. Furthermore, Hussain et al., (2018) stated that a greater portion of independent directors on a BOD is associated with higher environmental and social performances.

The third objective is to analyse the relationship between the gender diversity and the firm performance of Malaysian public listed construction firms during COVID-19 pandemic. It is proposed in H<sub>3</sub> that there is a positive relationship between gender diversity and firm performance, meaning that existence of female directors will increase performance of the company. Findings of the current study provide empirical evidence of H<sub>3</sub>. Gender diversity reveals a weak positive insignificant relationship with firm performance with the coefficient value of 0.201,  $t = 1.482$ ,  $p = 0.145$ . This had therefore not supported H<sub>3</sub>. This finding supported Burgess and Tharenou (2002) stated that board should recruit female directors in order to diversified views and opinions in the board and to complement the incompetent male directors. Matsa and Miller (2013) found that female directors give less attention towards power and achievement, but female directors are more concern to issue related to stakeholders' wealth. There are few past studies that supported the notion of gender diversity in which involvement of female directors on board has positive relationship with the performance of the company (see e.g., Adam and Ferreira, 2009; Canyon and He, 2016). In addition, Adam and Ferreira (2009) highlighted that female director have significant effect towards the board's corporate governance. This is because female directors put extra effort in monitoring process of the company as compared to male directors. In contrast, there are few studies justified on the insignificant relationship between gender diversity and firm performance (Brahma et al., 2021; Ahmadi et al., 2018; Charles et al., 2018). Board with more gender diversity resulted in increasing the agency costs thus reduce the firms' performance (Brahma et al., 2021). A study by Ahmadi et al. (2018) found out that female directors will generate lower outputs as compared to male directors. Furthermore, board that implements the gender diversity concept found out that it is more difficult to solve few issues and time consuming to come out with solutions thus make it less efficient (Charles et al., 2018).

## 5. Conclusion

All in all, the insignificant relationship between the corporate governance mechanisms (board size and gender diversity) and the firm performance of Malaysian public listed construction firms during COVID-19 pandemic portray that corporate governance mechanisms do not have significant influence towards the firm performance of Malaysian public

listed construction firms during the pandemic. This is because the COVID-19 pandemic is an unprecedented situation which cause a sudden economic crisis that happen without being predicted in which most of the industries has been badly affected. Thus, the current measurements of corporate governance mechanisms unable to demonstrate the influence of corporate governance to the firm performance of Malaysian public listed construction firms during pandemic COVID-19. Therefore, Khatib and Nour (2021) has suggested that firms have to improve the corporate governance mechanisms and invent new programs to mitigate the current crisis. In example, firm recommended to design new technologies, executive compensation plans and other possible initiatives relevant to new business reality.

Findings of this study therefore is beneficial for the government, organisations and academicians. Government body such as the Securities Commission Malaysia (SC) which is dedicated towards promoting the internalisation of good governance amongst companies in Malaysia may benefit from findings of the current study. This study provides empirical evidence on the corporate governance mechanisms that affect firm's performance particularly during the COVID-19 pandemic. Therefore, the SC could identify the corporate governance mechanisms that give impact to the construction firms' performance during the pandemic and thus, suggest for the revision of the Malaysian Code on Corporate Governance (MCCG) in order to make it relevant based on the current economic condition and fit to the other global corporate governance framework. In the other hand, based on the finding of this study, organisations use them as a monitor, assess and improve their current corporate governance practise of their company. As referred to the result of the study in its specific, organisations may look into each mechanism of corporate governance which are the board size, the board independence and the gender diversity. Finally, the findings of the study will give benefit to the academicians in which it will assist and complement the current literatures for future research. It will also increase the understanding on the relation on how corporate governance mechanisms may help and affect the firm performance.

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## **Disclosure of Intellectual Capital in Sustainability Reports: Legitimacy Theory Perspectives**

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### **Abstract**

The growth of the knowledge-based economy has triggered much concern in the accounting community about the importance of firms disclosing intellectual capital (IC) information. However, studies demonstrated that IC disclosure is currently done voluntarily by large firms, at low levels of disclosure. Given the very limited disclosure of intangible items in the financial statements, the appropriateness of its disclosure in sustainability reports is gaining more attention. This paper aims to discuss the importance of disclosing IC information from the perspective of legitimacy theory. Consistent with this theory, the main purpose of firms disclosing IC in sustainability reports is to increase transparency, legitimize status and enhance reputation. Among knowledge-based firms in particular, ICs are the most important resource that determines their sustainability. These firms are therefore accountable to their stakeholders to ensure that IC resources are managed efficiently and effectively by disclosing IC information transparently to them. The firm's transparency in communicating intellectual capital management information helps stakeholders evaluate the company's performance in creating their wealth, which in turn can enhance the firm's reputation. This paper is expected to provide a clearer understanding of the importance of firms disclosing IC information to stakeholders. It is hoped that the discussions that have been highlighted will help the researchers to pursue relevant studies in the future.

### **Keywords**

Intellectual Capital, Sustainability Reports, Legitimacy Theory and Knowledge-based Firms.

### **1. Introduction**

The growth of the knowledge-based economy has increased the importance of Intellectual Capital (IC) in the value creation process of management business (Singal, Gupta & Gupta, 2022). The economy requires high investment in IC or knowledge assets such as information technology, internet business, brands, patents and copyrights (Seetharaman et al., 2002; Dean & Kretschmer, 2007). Therefore, IC disclosures are essential for efficient valuation of companies (Abhayawansa & Guthrie, 2016). The disclosure of intellectual capital information is important for companies to gain investor confidence because it provides evidence of their true value and their wealth-creating capabilities, which in turn can improve the company's reputation (Rahim, Atan & Kamaluddin, 2011).

Despite its importance, the inadequacy of information on IC in financial statements has sparked criticism in the accounting community about the firms' capabilities to disclose intellectual capital information to stakeholders (Holland, 2004; Wyatt, 2005; Solikhah, 2020). As a result, new alternative reporting forms such as sustainability reports need to be added to improve the quality of information disclosed, fill possible information gaps, and further meet the knowledge needs of stakeholders (Bronzetti, Mazzotta, Sicoli & Baldini, 2013). Sustainability reports are becoming an increasingly important voluntary disclosure medium worldwide (Oliveira, Rodrigues & Craig, 2010).

Studies have demonstrated that firms disclose low level of intellectual capital information due to the absence of an established intellectual capital reporting framework and a lack of proactive firm behaviour in measuring and externally reporting intellectual capital information (Guthrie & Petty, 2000; Striukova et al., 2008). Therefore, it is very important for companies to understand the importance of IC disclosure for the benefit of the company and its stakeholders, thereby improving the level and quality of their IC disclosure. Since there has not been much discussion about the disclosure of intellectual capital information in sustainability reports, this study aims to improve the understanding of the importance of IC disclosure from the perspective of legitimacy theory.

## **2. Literature Review**

### **2.1 IC disclosure in sustainability reports**

Roos et al. (1997) defined IC as “all the processes and the assets which are not normally shown on the balance sheet, as well as all the intangible assets which modern accounting methods consider” (p. 24). In this research, we follow this definition of IC which means IC is more than only intangible assets. Even though the nature of IC is intangible and non-monetary, it is resourceful to generate future economic benefits. Therefore, IC disclosures are essential for efficient valuation of companies (Abhayawansa & Guthrie, 2016). Despite its importance, the majority of IC disclosures are voluntary as financial reports cannot capture many types of IC. Most empirical studies of IC disclosures have focused on annual reports (Bozzolan et al., 2003; Guthrie et al., 2006; Oliveira et al., 2006).

Nowadays, sustainability reports have become an increasingly important medium for company disclosure. Oliveira, et al. (2010) state that disclosure of information about IC is more likely found in sustainability reports of companies that have a higher level of application of the Global Reporting Initiative framework, and are popular among listed companies. Shahzad, et al. (2022) highlight that corporate social responsibility (CSR) has a significant effect on firm performance. In particular, the findings reveal that CSR has a link with IC, indirectly affecting a firm performance, and the association between CSR and firm performance is partially mediated by intellectual capital efficiency.

Bakry (2022) finds Egyptian companies that are active in using IC have more tendency to engage in CSR practices. In addition, it is shown that HCE positively influences CSR practices, while SCE has a negative association with such social activities, and CEE has no significant relationship with CSR activities. In another study, Nirino, et al. (2020) mention that the implementation of corporate social responsibility strategies has a positive effect on the development of companies' IC, which in turn enhances companies' competitive advantage and superior long-term financial performance. The findings of Taurigana (2021) suggest that lack of expertise, lack of training and negative attitudes/beliefs towards sustainability reporting (SR) are significant and negative determinants of the adoption of SR. Additionally, resources, free training and support and positive attitudes/beliefs towards SR are significantly and positively associated with the likelihood of the adoption of SR.

### **2.2 Legitimacy Theory**

The principles of legitimacy theory are based on the existence of a "social contract" between business and the society in which it operates (Shocker & Sethi, 1973; Mathew, 1993; Deegan, 2002b). According to Dowling & Pfeffer (1975), one of the resources on which an organisation depends for survival is legitimacy. The survival of the organisation is under threat if the society believes that the organisation has breached the social contract (Deegan, 2002). According to legitimacy theory, organisations must constantly maintain and ensure that their operations are within the bounds and norms of their respective societies. Thus, if management believes that such activities are expected by society, organisations will voluntarily disclose them in their reports (Cormier & Gordon, 2001; Deegan, 2002).

A social contract governs how any social institution or business operates in a society (directly or indirectly). As a result, its survival and growth are predicated on the achievement of some socially desirable ends for that society, as well as the distribution of economic, social, or political benefits to the parties from which it derives its power (Shocker & Sethi, 1973). The social contract is used to represent a variety of societal expectations about how an organisation should operate (Mathew, 1993; Craig Deegan, 2002). If the society is not satisfied with the organisation operations (not in a legitimate manner), it will withdraw the organisation's 'contract' to continue its operations (Deegan & Rankin, 1997). The social contract can be explicit or implicit, and it is not binding. As a result, it is difficult to define precisely. Furthermore, different managers will have different perspectives on the contract's various "terms" (O'Donovan, 2002). Legal requirements are the contract's explicit terms, while other non-legislated societal prospects are the contract's implicit terms (Gray, Owen, & Adams, 1996).

Societal expectations are not fixed and shift over time. As a result, the organisation must make appropriate disclosures. With the impacts of perceived violations of the social contract, it is important for the organisation to examine the possible corrective actions (Guthrie, Cuganesan, & Ward, 2007) that they need to undertake in order for them to remain legitimate. Legitimacy theory frequently focuses on legitimacy gaps, such as when business activities do not meet societal expectations. Lindblom (1994) defines the 'legitimacy gap' as the difference between what the 'relevant publics' expect an organisation to do and what the organisation actually does.

According to legitimacy theory, managers will pursue strategies to ensure the continued supply of specific resources whenever they believe that the supply of the resource is essential to the survival of the organisation. Some of the strategies include targeted disclosures, as well as possibly controlling or collaborating with other parties who are considered legitimate by themselves (Deegan, 2002; Fiedler & Deegan, 2002).

According to Lindblom (1994), in legitimacy theory, business managers will apply different strategies when a legitimacy gap exists. Among the strategies included are: modifying their organization's behaviour to match society's desires; changing society's perception of the organization's behaviour, but not the behaviour itself; transforming society's

perception of their behaviour, manipulating, deceiving, or simply distracting its attention; and/or educating society in order to modify their expectations and accommodate them to the organization's goals. When managers believe that the organization's operations are not in accordance with the "social contract," the organisation may take corrective action to become legitimate (Dowling & Pfeffer, 1975). Because the theory is based on perceptions, organisations must broadcast their actions (publicised disclosure) to ensure that the corrective action affects the external parties via annual reports or other publicly available documents (Cormier & Gordon, 2001; Deegan, 2002; Deegan, Rankin, & Voght, 2002).

### **2.3 IC Disclosure from the Perspective of Legitimacy Theory**

According to legitimacy theory, organisations will ensure that they operate within the limits and standards of the societies in which they operate. Using the legitimacy theory, a company would voluntarily report on its activities if management believed that the specific activities were expected by the communities in which it operates. As a result, legitimacy theory encourages organisations to voluntarily disclose intellectual capital information for societal benefit (Neysi, Mazraeh, & Mousavi, 2012)

Industries that rely on IC disclose more IC information. This is an important signal to investors, indicating the importance of IC for some companies (and industries). This information is important for investment decisions and other stakeholders in industries where IC is a key value driver. As a result, for a thorough analysis, investors and other stakeholders must thoroughly examine the content of IC disclosures in industries where IC disclosure is common (Brüggen, Vergauwen, & Dao, 2009). According to Rahim, Atan, & Kamaluddin (2011), the technology industry discloses the most external capital compared to human capital and internal capital. In terms of intellectual capital disclosure, there is not much of a difference between the Main Market and the Ace Market. However, in the technology industry, firm characteristics have no relationship with the extent of intellectual capital reporting.

Malaysia's overall level of IC disclosures is rising over time. Amin, Saringat, Hassan, & Ismail (2013) discovers that different industries disclose in disparate ways, with the telecommunications industry disclosing the most about IC and the plantation industry disclosing the least. Sustainability reports are currently rarely read by company stakeholders (employees, customers, and financial market participants) because they are not regarded as reliable documents (Cinquini, Passetti, Tenucci, & Frey, 2012)

Despite of several back draws, sustainability reports appear to be an advantageous and synergistic medium for IC disclosures. The creation of regulatory guidelines for a single report integrating IC and social and environmental accountability practices appears to be beneficial. This appears to be especially true as a strategic tool for firms seeking to manage stakeholder relationships, legitimise themselves, improve corporate reputation, and optimise use of corporate resources. The development of a more comprehensive and integrated approach to reporting would be desirable. This strategy should incorporate information on corporate financial performance, corporate governance, corporate social responsibility, and intellectual capital into a spectrum of corporate disclosure responsibilities capable of providing completer and more integrated overview of firm activities, characteristics, and performance. According to Ismah (2020), regulations may be required to develop best practice guidelines for intellectual capital disclosure and to encourage Shari'ah compliance with such guidelines in order to improve intellectual capital disclosure in annual reports

## **3. Discussion and Conclusion**

Add methods here (10 font) Undeniably the firms that disclosed more information will benefits from its transparency in a longer period (Shahar et al., 2020; Salin et al., 2019). ICD also no exclusion, as many firms are started to give due importance to have more information on intellectual capital of their organizations (Hatane & Kurniawan, 2022). Prior research shows that ICD can bridge that gap of the information asymmetry among the internal and external stakeholders of the company. As a result, company that has more ICD signaling their better transparency and accountability which reflected in an increase company's stock price (Kamath, 2017). From business point of view, more information on ICD will lead company to a better competitive advantage position and gaining potential investor confidence to put more capital on the company regardless in what industry the company operate (Astuti et al., 2020; Pasban & Nojedeh, 2016; Widarjo et al., 2020).

Besides, IC-related information also can increase a company's long-term value, which is essential for sustainability. This is true particularly in promoting economic development and people's welfare in accordance with Sustainable Development Growth (Alvino et al., 2021). As a source for value creation (Lerro et al., 2014), disclosure of intellectual capital information is important as the companies can align themselves with market expectations (Caputo et al., 2016) and hence, lead to healthy growth (Lerro et al., 2014) which contributes to good economic performance of business and human well-being (Jardon et al., 2019). Other scholars such as de Leaniz et al. (2013) suggest that investing more money in intangible assets like intellectual capital will increase the tendency of the company to beat their competitor and better survival chances on the fierce market competition. de Castro et al. (2004) on the other hand proposed that intellectual capital such as human capital, structural capital and relational capital contributes to the creation of reputation value of the company. This trend sparks the interest of the market to move from traditional financial based reporting to non-financial

based reporting that emphasis on intellectual, social and environment elements, popularly known as sustainability reporting (Dumay, 2016).

In contrast, low level or no disclosure of intellectual capital is detrimental to the company. This can be due to lack of accounting and financial standards requires company to disclose such information. Consequently, there is a growing concern on a wider information asymmetry or gap between companies and users of financial statements (Bruggen et al., 2009). For example, lack of ICD in the area of human capital may signal the lack of serious efforts by the management to develop human resources in their company. This will push investor away from the company and as a result, company may have to find other alternative capital which is more expensive and increase the company cost of capital (Yau et al, 2009).

Future research can be conducted to determine the factors that influence ICD among the companies such as ownership structure, governance practices, regulations requirements and market forces. The analysis also can be done on the specific industry or comparing the disclosure among the industry, by examine the reason for differences. In addition, comparing the disclosure among the countries also beneficials as the researcher can examine the country-level characteristics and how these unique characteristics will influence the ICD of the company in that country.

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## **Covid-19 Pandemic and Online Fraud: Malaysia Experience**

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### **Abstract**

The main objective of this study is to examine how the Covid-19 outbreak has affected online fraud in Malaysia. In particular, this study aims to provide a conceptual discussion as well as a comparison analysis of online fraud patterns prior to and during the Covid-19 outbreak. It is a descriptive study to examine the impact of Covid-19 and its measures on online fraud. This study uses police recorded online fraud data to provide comparison between pre and during the Covid-19 pandemic. This study period is 2018-2019 and 2020-2021. Results indicate that most of online fraud categories increased dramatically during the Covid-19 outbreak. In particular, the number of online frauds associated with e-commerce and online investment, which are the most common online fraud categories in Malaysia, have seen the largest increasing rates between the two periods. There are few studies examining Covid-19's impact on online fraud in developing countries. Thus, this study aims to shed light on how Covid-19 and its associated measures affect online fraud patterns in one of developing countries, Malaysia.

### **Keywords**

Malaysia, Online Fraud, Cybercrime, Covid-19 Pandemic

### **1. Introduction**

Covid-19, designated a global pandemic by the WHO on March 11, 2020, has affected society and the economy. Most governments have ordered countrywide lockdowns to stem the spread of Covid-19, which has restricted civilian mobility and daily activities. The shift from an offline to an online paradigm has changed employment patterns, mobility, shopping, and social contact, increasing the use of digital technologies. According to the Malaysian Department of Statistics, more Malaysians are using the Internet to order goods or services, seek health information, make online financial transactions, take informal or formal online courses, and access government information. The restriction movement order failed to prevent cybercrime during the pandemic, albeit deterring physical crime. Smartphones, laptops, tablets, desktop computers, and smart televisions have increased internet fraud, scams, invasions, and security breaches. The pandemic has created an insecure environment, Jamil et al. (2021) claim, allowing fraudsters to employ modern technologies to commit crimes. Hamid (2020) reported 4,596 cybercrime instances in Malaysia in April 2020, a 42% rise. Hawdon, Parti, and Dearden (2020) note that Covid-19 affects different cybercrimes differently. Examining the pandemic's impact on cyber-enabled frauds, or online fraud in Malaysia, is especially significant. Covid-19 could affect e-commerce fraud, Macau fraud, online investment fraud, online loan fraud, and love fraud. This study aims to better understand how Covid-19 and its measures effect online fraud. It also compares online fraud patterns before and during Malaysia's Covid-19 epidemic. Section 2 of this study examines the literature on Covid-19 and online fraud. Section 3 summarizes the study's data and preliminary comparison. Section 4 concludes with a discussion of the findings and closing remarks.

### **2. Literature Review**

#### **2.1 Prior studies on online fraud during the Covid-19 pandemic**

Internet and related technologies have made cyber-fraud a global issue (Button & Cross, 2017; Pandey & Pal, 2020). Cyber-enabled frauds, sometimes called online fraud, use internet services or software with internet connectivity to swindle or exploit victims (Longe et al., 2009). The change in communication and information technologies has offered new and effective routes for fraudsters to commit large-scale, low-cost frauds within and outside the fraudster's country. It's elevated the likelihood of victimization for people who weren't targeted before. Online fraud threatens global financial and overall well-being. Prior study has shown the financial and non-financial costs of internet fraud victims (Whitty, 2018; Whitty & Buchanan, 2012; Alam, Dhillon & Oliveira, 2021). Some had lost all their superannuation, needed to repay loans, and lost life savings from selling vehicles, houses, and property. Prior study shows that online victims endure emotional and psychological effects.

#### **2.2 Online frauds in Malaysia during the Covid-19 pandemic**

Covid-19 epidemic affects online fraud in Malaysia, like other countries. In general, there are five most common types of

online fraud namely E-commerce fraud, Macau fraud, online investment fraud, online loan fraud, and love fraud are the most widespread in the country.

### **2.2.1 E-commerce Fraud**

As a result of the Covid-19 epidemic, most retail stores in Malaysia closed, boosting e-commerce. Because citizens are more likely to take precautions against the virus and shutdown, most choose to buy daily requirements online. Hasanat et al. (2020) report that the use of online retail apps and e-commerce mobile apps has increased since the MCO enacted. iPrice Group survey data shows Lazada and Shopee have witnessed an increase in online traffic. Shopee had 81.82 million first-quarter 2020 visitors, while Lazada had 36.96 million (Kwang Zhe, 2020). Malaysia is the world's 35th largest e-commerce market, with \$6 billion expected in 2021. (ecommerceDB, 2022).

### **2.2.2 Online Love Fraud**

A love scam, or romance scam, exploits a relationship for financial benefit online (Whitty & Buchanan, 2012). Scammers profess to love their victims to win their trust and money. Love scams are more personal than other online frauds because they focus on romance. Fraudsters want money, but victims want to maintain a relationship. Love scams such as newspaper dating classifieds existed before the Internet, but social networking sites have become popular in recent years.

### **2.2.3 Macau fraud**

Macau's fraud involves telecommunications. The hoax began in Taiwan and China and has spread to Malaysia. The scam usually begins with a phone call from someone posing as a bank, insurance, IRB, police, immigration, or debt collection officer. The caller convinces the victim to hand over a large sum of money by claiming they owe money, have an overdue fee, or have been accused of a crime. Impersonating a bank officer, the caller may pretend the victim hasn't paid their credit card bills. The fraudster tells the victim that unless he or she transfers money within a short time, the victim's bank account would be frozen or blacklisted. The victim transfers money to the scammer to avoid being blacklisted or having their bank accounts closed.

### **2.2.4 Online Loan Fraud**

Online lending scams were common during Covid-19. The Covid-19 pandemic and its measures, MCO, caused many people to lose their jobs and hurt the business sector. Public and commercial financial troubles, along with tight requirements for licensed financial institutions to grant loans, present a significant opportunity for non-existent money lending syndicates to promote low interest rates, quick approval, and easy terms to recruit victims.

### **2.2.5 Online Investment fraud**

Online investment fraud uses email, websites, Facebook, and telegram to interact, communicate, and transact with the public. Unlicensed or unregistered businesses or individuals scam the public by promising investing advice on schemes, securities, or futures.

## **3. Research Methods**

It is a descriptive study to examine how the Covid-19 outbreak and its countermeasures have affected Malaysia's online fraud patterns. This study uses police reported online fraud data from 2018-2019 to 2020-2021. The main objective of this study is to make a comparison analysis on online fraud patterns before (2018-2019) and during the Covid-19 pandemic (2020-2021). This study divides online fraud incidents in Malaysia into five categories based on Royal Malaysia Police reports: e-commerce fraud, Macau fraud, online investment fraud, online loan fraud and online love fraud.

## **4. Results and Discussion**

### **4.1 Numerical Results**

Table 1 compares online frauds prior to the Covid-19 pandemic (2018-2019) and during the pandemic (2020-2021), and estimates the relative change between the two values for each type of online fraud. The findings demonstrate that the majority of online frauds increased between the two periods, with the increase rate being particularly substantial in the cases of online investment fraud and e-commerce fraud. Scams in Macau fraud and online loans fraud are also at an all-time high, especially during the pandemic. Love fraud patterns, on the other hand, have decreased during the pandemic era. The modest number of cases reported and recorded by RMP may have contributed to this decline. Overall, the findings show that, with the exception of love scams, all types of online fraud increased significantly during the Covid-19 pandemic compared to before the outbreak.

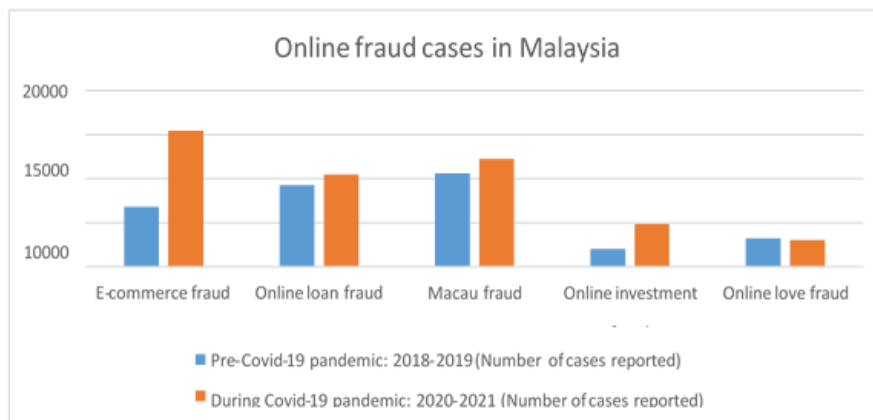
In addition, Table 1 reveals that the top three types of online fraud in Malaysia for both periods are the same: Macau scam, online loan fraud, and e-commerce fraud, based on the total cases recorded. Nonetheless, the findings in Table 1 and

Figure 1 demonstrate that the Covid-19 pandemic has a variety of consequences on various types of online fraud and changes their patterns. Prior to the Covid-19 outbreak, for example, Macau fraud had the greatest recorded cases in Malaysia, with 10,595 cases. However, the pattern changed when the pandemic started, as shown in Table 1, where e-commerce fraud was the most common type of fraud, with 15,424 incidents reported to the Royal Malaysia Police. Descriptive result as below: -

**Table 1. Online Fraud Incidents in Pre-and During the Covid-19 Pandemic**

| Types of online fraud   | Pre-Covid-19 pandemic<br>2018-2019<br>(Number of cases reported) | During Covid-19 pandemic<br>2020-2021<br>(Number of cases reported) | Relative<br>change (%) |
|-------------------------|--|---|------------------------|
| E-commerce fraud        | 6,808  | 15,424  | 126.56                 |
| Online loan fraud       | 9,274  | 10,484  | 13                     |
| Macau fraud             | 10,595   | 12,238  | 15.5                   |
| Online investment fraud | 2,014  | 4,850   | 140.8                  |
| Online love fraud       | 3,229  | 3,035   | -6                     |
| Total online fraud      | 31,920   | 46,031  | 44.21                  |

## 4.2 Graphical Results



**Figure 1. Online Fraud Patterns Prior To and During the Covid-19 Pandemic**

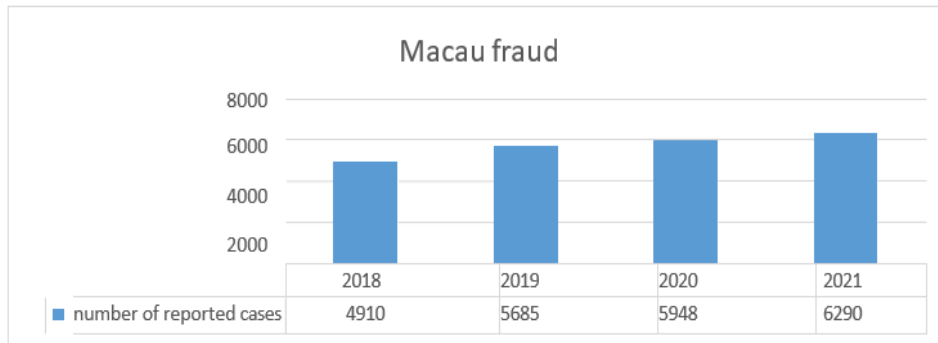
Figures 2 to 6 compare e-commerce, Macau, online investing, online lending, and love fraud from 2018 to 2021. As seen in Figures 2 and 3, e-commerce and Macau fraud are rising. Even before Covid-19, both sorts of fraud cases proliferated. Figure 2 exhibits e-commerce fraud reports from 2018-2021. As shown, e-commerce fraud reports have been rising since 2018, but they spiked after 2020, coinciding with the COVID-19 outbreak. E-commerce fraud cases rose by 66.69% to 5,839 in 2020. 2021 sees 9,585 instances, up from 64.15 percent in 2020.



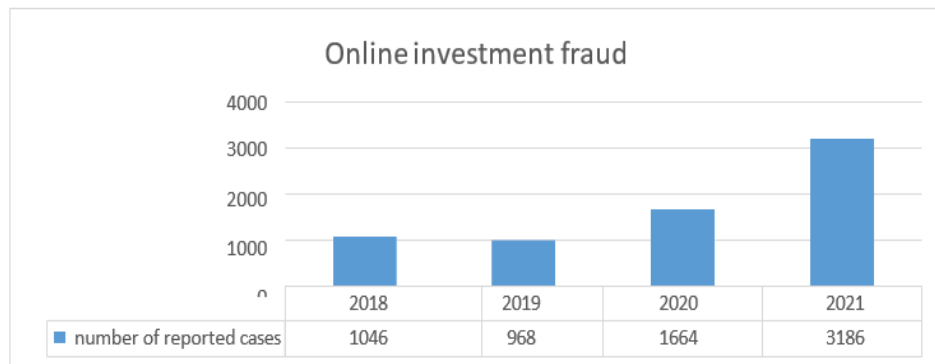
**Figure 2. E-Commerce Fraud Patterns Prior To and During the Covid-19 Pandemic**

Similar to e-commerce fraud, Figure 3 also shows the same pattern for Macau fraud. As visualized in Figure 3, the number of reported cases of Macau fraud slightly increase to 6,290 in 2021, up from 10.64 percent in 2019. Meanwhile, there was a

significant spike in internet investment fraud prior to the pandemic and during the outbreak. For example, in 2019, there were 968 incidents of investment fraud in Malaysia, but by 2021, there will be 3,186 cases, a 229 percent increase.

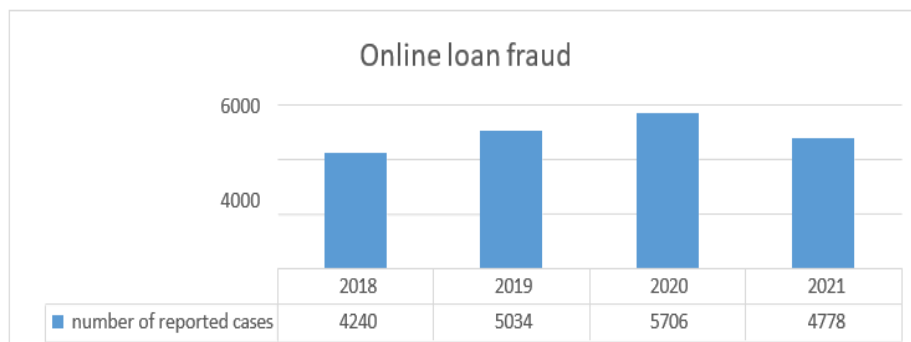


**Figure 3. Macau Fraud Patterns Prior To And During the Covid-19 Pandemic**

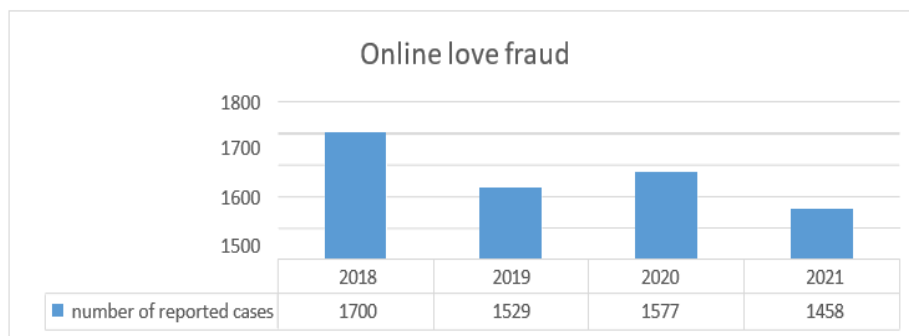


**Figure 4. Online Investment Fraud Patterns Prior To and During the Covid-19 Pandemic**

However, as for online loan fraud and love fraud, there were mixed patterns of cases between 2018 to 2021. Figure 5 shows that slight increasing by 672 cases from 2019 to 2020. Nevertheless, the cases decrease to 4,778 in 2021. Similarly, love fraud also shows the same trend, after the national lockdown, the cases slightly rise to 1,577, but decrease to 1,458 in 2021. The mixed patterns open up opportunities for future studies to explore the empirical evidence of these two frauds.



**Figure 5. Online Loan Fraud Patterns Prior To and During the Covid-19 Pandemic**



**Figure 6. Online Love Fraud Patterns Prior To and During the Covid-19 Pandemic**

In general, the descriptive year-to-year comparison broadly confirms the main findings of this study that the Covid-19 pandemic affect the criminalization pattern. However, further analyses are needed to disentangle whether the observed increase in e-commerce fraud, Macau fraud, online investment can be attributed to Covid or is simply a continuation of the upward trend observed in previous years.

## 5. Conclusion

This study compared Malaysian internet fraud patterns before and during Covid-19. The Covid-19 pandemic has drastically increased online fraud instances and rates, according to the study. All online fraud increased by 44.21 percent between 2018-2019 and 2020-2021. This shows that increased online fraud rates are a result of lifestyle and mobility changes as people shift from a physical to an online environment, offering significant opportunities for cybercriminals (Lallie et al., 2021). Police-recorded e-commerce frauds have risen across all categories. E-commerce fraud cases grew 173.62% from 3503 in 2019 to 9585 in 2021. (During the epidemic). The findings confirm the Crime Opportunity Theory, which says crime levels and types change quickly in response to shifting opportunity structures and limitations (Nivette et al., 2021). As the Covid-19 outbreak and accompanying movement limitations closed most retail outlets in Malaysia, e-commerce increased swiftly, enabling Malaysians to buy everyday essentials, especially healthcare-related things, online. This helps scammers develop e-commerce scams. Prior studies (Buil-Gil et al., 2021; Kemp et al., 2021) revealed an increase in online shopping fraud during the pandemic. This study helps understand the impact of Covid-19 on cybercrime, although it has limitations. Because of police-recorded data, generalisations may be flawed. Prior studies show police-recorded data is underreported because it depends on victim disclosure (Caneppele & Aebi 2019; Kemp et al. 2020). Future research should investigate other sources to validate this study's results.

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## **Analysis of Consumption Behavior and Influencing Factors Toward Organic Foods in the Post Pandemic of COVID-19**

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### **Abstract**

The COVID-19 pandemic has changed people's consumption behavior. Safety and hygiene of the products consumed become essential issues that are increasing amid the uncertainty of the virus outbreak that threatens consumers' and their families' health. The influencing factors of consumers' purchase intentions, such as the consumer's attributes, internal attributes of products, and external factors of products, impacted consumers' purchase intentions. In this research, four hypotheses raise Hypothesis 1. The higher the household income level is, the more organic products consume; Hypothesis 2. The higher the education level of consumers, the more they understand the COVID-19 virus and the more organic foods they consume; Hypothesis 3. People who have purchased organic foods will increase their purchases after the pandemic; and Hypothesis 4. People who are skeptical about food safety after the pandemic will pay more attention to the safety of organic products and increase their purchases of organic foods. This study uses a quantitative survey method to collect respondents' perceptions of organic foods. Quantitative data analysis will be carried out descriptively through binary logistic regression analysis using SPSS software. This study showed that consumer household characteristics, such as average family income and the consumer's education level, significantly affect the consumption behavior of organic foods in post-pandemic COVID-19 time. On the other side, respondent's awareness of organic foods, which is implemented by the previous consumption behavior of organic foods, also significantly affects the consumption behavior towards the organic foods after the pandemic.

### **Keywords**

Consumption Behavior, Organic Product, Social Marketing

### **1. Introduction**

The study of consumption behaviour covers many fields. It studies the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy their needs and desires (Solomon, 2018). This behaviour changes over time and adapting the environment's requirements. The changing of consumer preferences influences the way of marketing, and at the final stage, the marketers create influence back to the consumer. The influencing factors of consumption behaviour might be coming not only from the internal but also from the external environment.

The pandemic of COVID-19 has caused massive disruptions in daily consumer experiences and has presented an unprecedented moment that forces consumers everywhere to change their behaviours rapidly. The outbreak of the COVID-19 virus imposed self-isolation and social lockdown on confirmatory patients, increasing mental stress and behavioural changes (Witteveen, 2020). The pandemic, which started in early 2020, has created constant fear of infection outbreaks and restricted people's mobility. During the new normal and living with COVID-19, people are becoming more aware of health and changing their lifestyles and eating habits (Sánchez-Sánchez et al., 2020). Social marketing strategies can be related to consumer invitations to live a healthy lifestyle and healthy behaviour. Consumer companies would respond to find ways to meet consumers where they are today and satisfy their needs in the post-pandemic period.

WHO (2020) states that the COVID-19 pandemic is not only a health problem but also a multi-sector problem, including the economic, social, political, and psychological (Khayru, 2021). Due to the economic, social, and psychological impact of COVID-19, consumers have altered how and where they spend their money. Previous studies have shown increased consumers' spending on groceries and health and hygiene products (Rogers & Cosgrove, 2020). The safety of food in the market during and post pandemics is becoming the consumer's concern. Consumers tend to choose the safest product for them and their families. Organic food or organically grown food is food grown and processed using no synthetic fertilizers or pesticides (EPA, 2022). Organic food is produced by farmers who emphasize using renewable resources and conserving soil and water to enhance environmental quality for future generations. Organic food, including meat, poultry, eggs, and dairy products, comes from animals that are given no antibiotics or growth hormones. Organic foods offer a variety of food products in the market with their characteristics.

The above background has motivated researchers to analyse the consumption behaviour and influencing factors towards organic foods post-pandemic COVID-19. The consumer level of awareness towards safety and healthy food in



the post-pandemic creates new opportunities for the organic farmer, manufacturer, and retailer to increase the number of distributed products to the market. The studies of consumption behaviour during the post-pandemic would help the organic farmer, manufacturer, and retailer define the marketing strategy and reshape the product's target market. This study seeks to address the following research questions:

1. How have the consumer's attributes influenced the consumption behaviour toward organic foods in the post-pandemic of COVID-19?
2. How have the internal attributes of the product influenced the consumption behaviour towards organic foods in the post-pandemic of COVID-19?
3. How have the external factors of the product influenced the consumption behaviour towards organic foods in the post-pandemic of COVID-19?

## **2. Literature Review**

Organic food is fresh or processed food produced by organic farming methods (Duram, 2019). Organic food, including fresh produce, meats, and dairy products, is grown without synthetic chemicals, such as human-made pesticides and fertilizers, and does not contain genetically modified organisms (GMOs). Organic food consumption has its complexity. According to Chen (2009, p. 166), organic farming refers to a farming system that uses organic manure and avoids or largely refrains from using synthetic fertilizers, pesticides, and chemicals (Anisimova, 2016). Organic foods generally contain fewer harmful additives and more primary and secondary nutrients without additional risk of food poisoning. According to Hughner et al. (2007), consumers who choose organic foods are concerned about their health and the environment (Anisimova, 2016).

Consumer's purchase intentions or the willingness to consume influences the consumer behaviour. Many factors and their attributes influence individuals' decisions about food consumption. Jianying (2006) summarized that consumer attributes (gender, age, occupation, income, and education level), internal attributes of the products (product value standards, use value, and quality), and external factors of products (store environment, design style, and shopping experience) have an impact on consumer's purchase intentions (Chen and Shang, 2022).

To study the consumption behaviour towards organic food, previous researchers tended to use attitude-behaviour models such as the theory of reasoned action (TRA) and the theory of planned behaviour (TPB). According to Ajzen & Fishbein (1980) and Fishbein & Ajzen (1975), the central assumptions of TRA and TPB is that humans are rational in their decision-making processes and actions so that cognitive approaches can be used to predict behaviours (Anisimova, 2016). Chen and Shang (2022) conducted research that showed that the consumer's attributes: family members, annual family income, gender, and education level, did not affect consumer's consumption behaviour of ecological agricultural products after the pandemic. On the other side, age and whether consumers have purchased ecological agricultural products before had a significant negative relationship with the consumption behaviour of ecological agricultural products. The result showed a significant positive relationship between consumer's attitudes and purchase behaviour of agricultural products in the market after the pandemic. It concludes that consumers who are sceptical of regular agricultural products in the market will increase their purchase of ecological agricultural products after the pandemic.

### **2.1 Research Hypothesis**

In line with the theory and the previous research, this article studies the consumption behaviour and influencing factors toward organic foods in the post-pandemic of COVID-19. Some hypotheses are developed to conduct this research:

H1: The higher the household income level is, the more organic foods consume.

H2: The higher the education level of consumers, the more they understand the COVID-19 virus and the more organic foods consume.

H3: People who have purchased organic foods before will increase their purchases after the pandemic.

H4: People who are sceptical about food safety after the pandemic will pay more attention to the safety of organic foods and increase their purchases of food products.

The more concerned consumers are about their health, the more positive the attitude toward purchase intention of organic food. This will lead to behavioural reactions during post-pandemic, which can be categorized into adverse and in-adverse reactions (Mohd Dali, 2020). Changes in behaviour denote an adverse reaction, while no changes in individual behaviour represent an in-adverse reaction. The level of income, the level of education, the behaviour of previous purchases, and the scepticism about food safety will be the main factor in explaining the consumption behaviour towards organic foods.

## **3. Methods**

This study will use a quantitative approach using survey methods to collect primary data from targeted respondents who have known or made purchases of organic products. The first step of this study was using literature to get the conceptual framework for the research. The second step was conducting the online survey with a convenience sampling method,

resulting in data from 105 respondents analyzed in this article. Data analysis was essentially a series of structured activities to explore the data's confidential information using statistical norms. This study used quantitative data analysis will be carried out descriptively through regression analysis using SPSS software. The research results become input for developing social marketing strategies related to directions for consumers to stay healthy. Social marketing strategies can be related to consumer invitations to live a healthy lifestyle and healthy behavior.

## 4. Results and Discussion

### 4.1 Data Source

This study used a survey method with a questionnaire adapted from the research instruments by Cheng and Shang (2022). The questionnaire was distributed online in July 2022, and 105 complete questionnaires were collected. The questionnaire consists of four parts: the first and second parts are grouped into the customer's attributes. The first part is the respondent's characteristics, including gender, age, marital status, education level, and occupation. The second part is the family characteristics of respondents, including the number of family members and family income. The third part of the questionnaire is the respondent's awareness of organic foods, including the understanding of organic foods, the degree of concern for organic foods, and their scepticism towards foods that sell in the market after the pandemic. The last questions are about the consumption behaviour towards organic foods, including the choice of locations to purchase organic foods, the consumption behaviour of organic foods after the pandemic, and the factors for purchasing decision of organic foods.

### 4.2 Respondent Characteristics

**Table 1. Respondent Characteristics**

| Frequency analysis results |                              |            |                |                           |
|----------------------------|------------------------------|------------|----------------|---------------------------|
| Title                      | Options                      | Frequency  | Percentage (%) | Cumulative Percentage (%) |
| Gender                     | Male                         | 58         | 55.2           | 55.2                      |
|                            | Female                       | 47         | 44.8           | 100                       |
| Age                        | Under 20                     | 1          | 1.0            | 1.0                       |
|                            | 20 – 30                      | 37         | 35.2           | 36.2                      |
|                            | 31 – 40                      | 32         | 30.5           | 66.7                      |
|                            | 41 – 50                      | 31         | 29.5           | 96.2                      |
|                            | Above 50                     | 4          | 3.8            | 100                       |
| Marital Status             | Not Married                  | 32         | 30.5           | 30.5                      |
|                            | Married                      | 73         | 69.5           | 100                       |
| Education                  | Senior High School and under | 13         | 12.4           | 12.4                      |
|                            | Diploma                      | 19         | 18.1           | 30.5                      |
|                            | Undergraduate                | 44         | 41.9           | 72.4                      |
|                            | Master degree and above      | 29         | 27.6           | 100                       |
| Profession                 | Students                     | 15         | 14.3           | 14.3                      |
|                            | Private Employee             | 66         | 62.9           | 77.1                      |
|                            | Entrepreneur                 | 7          | 6.7            | 83.8                      |
|                            | Civil Servant                | 8          | 7.6            | 91.4                      |
|                            | Housewife                    | 6          | 5.7            | 97.1                      |
|                            | Lecture/Teacher              | 2          | 1.9            | 99.0                      |
|                            | Retired                      | 1          | 1.0            | 100                       |
| <b>Total</b>               |                              | <b>105</b> | <b>100</b>     | <b>100</b>                |

The respondents of this research on consumption behaviour towards organic products are shown in Table 1, the respondent characteristics. Among the respondents surveyed, males account for 55.2%, and females account for 44.8%; the ages of respondents have varied, with most of the range between 20-30 accounting for 35.2% and 31-40 account for 30.5%, and they are mostly married with 69.5%. The respondents mainly hold an undergraduate degree, which accounts for 41.9%, and a Master's degree, which accounts for 27.6%. Most of the respondents work in private institutions, with 62.9%.

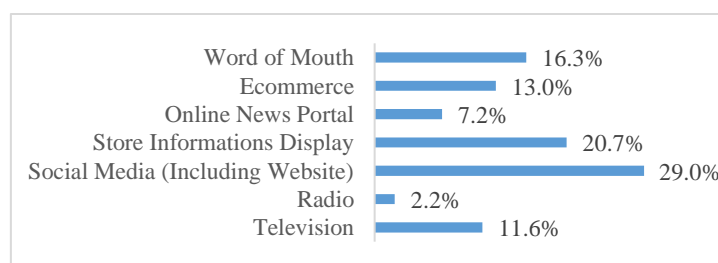
It can be seen from Table 2 about respondent household characteristics. Most respondents have 3-4 members, accounting for 56.2% of the sample population, and families with more than five persons account for 21%. The average monthly incomes of respondents ranging from 11 to 20 million rupiahs and above 20 million accounts for 21.9% and 26.7%, respectively, and a large proportion is ranging from 5 to 10 million accounts for 35.2%.

**Table 2. Respondent Household Characteristics**

| Frequency analysis results |                               |            |                |                           |
|----------------------------|-------------------------------|------------|----------------|---------------------------|
| Title                      | Options                       | Frequency  | Percentage (%) | Cumulative Percentage (%) |
| Family Members             | 1 person                      | 6          | 5.7            | 5.7                       |
|                            | 2 persons                     | 18         | 17.1           | 22.9                      |
|                            | 3 - 4 persons                 | 59         | 56.2           | 79.0                      |
|                            | 5 persons and more            | 22         | 21.0           | 100.0                     |
| Average Family Income      | Less than Rp 5.000.000        | 17         | 16.2           | 16.2                      |
|                            | Rp 5.000.000 - Rp 10.000.000  | 37         | 35.2           | 51.4                      |
|                            | Rp 11.000.000 - Rp 20.000.000 | 23         | 21.9           | 73.3                      |
|                            | Above Rp 20.000.000           | 28         | 26.7           | 100                       |
| <b>Total</b>               |                               | <b>105</b> | <b>100</b>     | <b>100</b>                |

### 4.3 Awareness of Organic Foods

The respondent's awareness of organic foods, consumption experience, and satisfaction degree is shown in Table 3. 97.1% of the surveyed respondents are aware of organic foods. The majority of the respondents, accounting for 48.6%, average express concern about information about organic food; and 37.1% are concerned about the information. Based on the survey, as seen in Figure 1, most respondents gathered organic food information from social media (including websites), which accounts for 29%. Store information display also becomes the primary source of information about organic foods accounting for 20.7%. Social media plays an essential role in disseminating information about organic food, a prevalent source of information, especially for the young generation, which dominates the respondent's characteristics in this research. Store information also provides sufficient information, especially for the consumer, who is highly motivated to purchase organic foods at the store.



**Figure 1. Source of Informations about Organic Foods**

The pandemic of COVID-19, which caused a collective fear of the virus outbreak, creates a deep concern about food safety. Regarding the safety of foods in the market after the pandemic, most respondents think the food offered in the market has safety elements accounting for 79%, only a small group of respondents are worried about the safety of foods in the market. This result shows that most of the respondents were not concerned about food safety in general after the pandemic and believed that the food in the market was safe to consume. A growing perception in the community about organic food products is the difficulty in differentiating them from non-organic products, as well as unclear benefits, including the food safety easily affected the perception of organic foods.

Interestingly, the high level of awareness and experience does not correlate strongly with consumption behaviour. Among the surveyed respondents, 85.7% have purchased organic foods before and are mostly satisfied after purchasing. Even though the experience level is high, most of the respondents buy organic foods once in a while, and only 10% of the respondents who have purchased organic foods consume them more than three times a week.

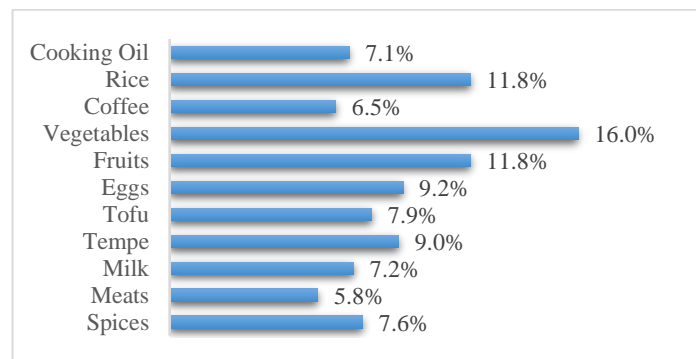
**Table 3. Respondents Awareness of Organic Products**

| Frequency analysis results          |             |           |                |                       |
|-------------------------------------|-------------|-----------|----------------|-----------------------|
| Title                               | Options     | Frequency | Percentage (%) | Cumulative Percentage |
| Have you heard about organic foods? | No          | 3         | 2.9            | 2.9                   |
|                                     | Yes         | 102       | 97.1           | 100                   |
| Have you consumed organic foods?    | No          | 3         | 2.9            | 2.9                   |
|                                     | Do not care | 7         | 6.7            | 6.7                   |

|  |                                   |    |            |            |
|--|-----------------------------------|----|------------|------------|
| How concerned about the information of organic foods?    | Average                           | 51 | 48.6       | 55.2       |
|  | Concerned                         | 39 | 37.1       | 92.4       |
|  | Very Concerned                    | 8  | 7.6        | 100        |
| Do you think foods on the market is safe after pandemic? | Suspect                           | 16 | 15.2       | 15.2       |
|  | Safety                            | 83 | 79.0       | 94.3       |
|  | Very Safe                         | 6  | 5.7        | 100        |
| Have you purchase organic foods before?                  | No                                | 15 | 14.3       | 14.3       |
|  | Yes                               | 90 | 85.7       | 100        |
| Satisfaction after purchasing the organic foods          | Quite satisfied                   | 7  | 7.8        | 7.8        |
|  | Satisfied                         | 79 | 87.8       | 95.6       |
|  | Very Satisfied                    | 4  | 4.4        | 100        |
|  | Null                              | 15 | 14.3       | 14.3       |
| Frequency of organic foods consumption                   | Buy once in a while               | 68 | 75.6       | 75.6       |
|  | Purchase 1-2 every week           | 13 | 14.4       | 90         |
|  | Purchase 3-4 every week and above | 9  | 10.0       | 100        |
|  | Null                              | 15 | 14.3       | 14.3       |
|  | <b>Total</b>                      |    | <b>105</b> | <b>100</b> |

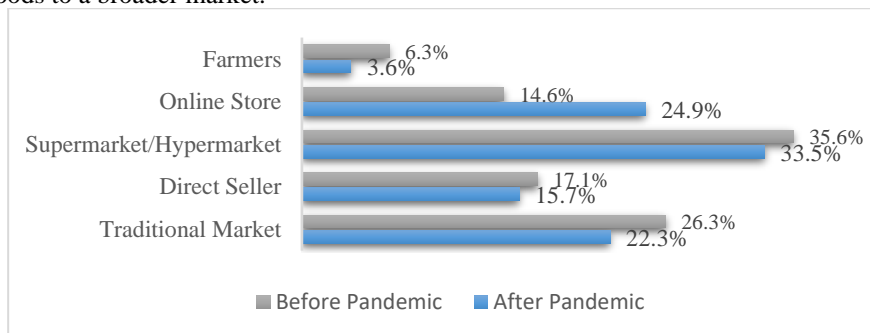
#### 4.4 Consumption Behaviour Towards the Organic Foods

To understand the consumption behaviour, this research analyses the element of consumption activity. As can be seen in Figure 2. vegetables, fruits, and rice are the most popular organic foods among the customer. Vegetables are the most popular organic foods available in many shopping locations, as well as fruits and rice. These organic foods are also regular products that the consumer needs on a daily basis.



**Figure 2. Consumed Organic Foods**

To have a comprehensive figure of the respondents' consumption behaviour towards the organic foods, this study also investigated the shopping location to see whether the respondent's consumption behaviour would change due to the pandemic. The results show, as seen in Figure 3 that respondents surveyed are more accustomed to buying organic foods in supermarkets or hypermarkets before and after the pandemic. The exciting result is that respondents purchased organic foods through the online store as other options after the pandemic, which account for 24.9%. The social restriction forces the consumer to use an alternative channel to purchase organic foods. This phenomenon is an excellent opportunity to promote organic foods to a broader market.

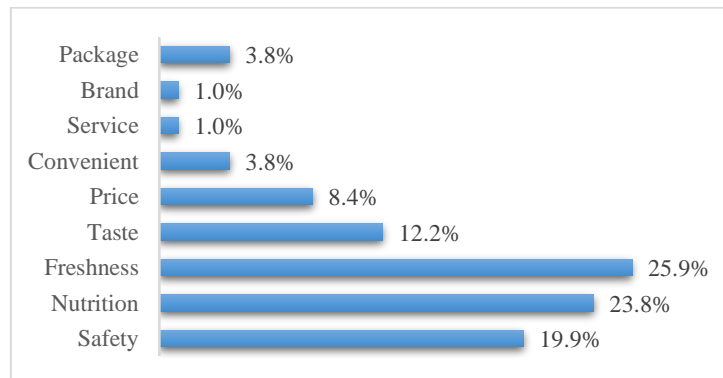


**Figure 3. Where to Buy Organic Foods**

From Table 4, the studies emphasized the respondents' consumption behaviour of organic foods through the increase in the purchase of organic foods. The study has shown that most of the respondents, accounting for 51.4%, will not increase their purchases after the pandemic. 76.2% of respondents are interested in the supply process of organic foods. On the premise of understanding the entire supply process of organic foods, the number of consumers willing to increase their purchase accounts for 67.6%. In terms of organic food, 62.9% of respondents can accept the condition that organic foods' price is higher than ordinary foods' price. It can be seen from Figure 4 that the purchase decision factors of organic foods are influenced by the internal attributes and external factors of the products. The data shows that respondents are more concerned about organic foods' freshness, nutrition, and safety. On the other side, elements of services and brands are the most minor factors that influence the purchase decision.

**Table 4. Respondents Consumption Behaviour of Organic Foods**

| Frequency analysis results  |           |            |            |                       |
|---|-----------|------------|------------|-----------------------|
| Title   | Options   | Frequency  | Percentage | Cumulative Percentage |
| After the pandemic, will you increase your purchase of organic foods?   | No        | 54         | 51.4       | 51.4                  |
|   | Yes       | 51         | 48.6       | 100.0                 |
| If there is a technology that allows you to understand the supply process of organic foods, would you like to know this technology? | Unwilling | 25         | 23.8       | 23.8                  |
|   | Willing   | 80         | 76.2       | 100.0                 |
| After you can understand the entire supply process of organic foods, are you willing to increase your purchase?                     | No        | 34         | 32.4       | 32.4                  |
|   | Yes       | 71         | 67.6       | 100.0                 |
| After the pandemic, can you accept that the price of organic foods is higher than the price of ordinary foods?                      | No        | 39         | 37.1       | 37.1                  |
|   | Yes       | 66         | 62.9       | 100.0                 |
| <b>Total</b>  |           | <b>105</b> | <b>100</b> | <b>100</b>            |



**Figure 4. Purchase Decision Factors for Organic Agricultural/Food Products**

#### 4.5 Regression Analysis

**Table 5. Related Variables and Means Value**

| Variables Name   | N          | Mean | Std. Deviation |
|--|------------|------|----------------|
| X1 – Average family income   | 105        | 2.59 | 1.053          |
| X2 - Education   | 105        | 2.85 | 0.969          |
| X3 - Have you purchase organic foods before?                               | 105        | 1.86 | 0.352          |
| X4 - Do you think foods on the market is safe after pandemic?              | 105        | 2.90 | 0.450          |
| Y1 - After the pandemic, will you increase your purchase of organic foods? | 105        | 1.49 | 0.502          |
| <b>Valid N (listwise)</b>  | <b>105</b> |      |                |

To answer the research hypothesis, this study uses binary logistic regression. This regression model is used where the dependent variable is dichotomous or binary. Binary logistic regression in this study is the statistical technique used to predict the factors influencing the consumption behaviour toward organic foods post-pandemic COVID-19. As shown in

Table 5., this study analyses the influence of independent variables, which consist of average family income, education, organic foods purchase activity, and scepticism about food safety after the pandemic, to the dependent variable of consumption behaviour of organic food after the pandemic.

From Table 6, can be seen the value of significant model is 0.029 (significant level 5%) which means that all of the independent variable simultaneously influencing the dependent variable. This result show that the model is significant and showing a good fit.

**Table 6. Omnibus Test of Model Coefficient**

|        |       | Chi-square | df | Sig.  |
|--------|-------|------------|----|-------|
| Step 1 | Step  | 10.782     | 4  | 0.029 |
|        | Block | 10.782     | 4  | 0.029 |
|        | Model | 10.782     | 4  | 0.029 |

The model summary result, as seen in Table 7, explains the approximate variation in the criterion variable in this research. In this research on consumption behavior toward organic foods in the post-pandemic of COVID-19, the table shows that a 13% change in the increasing variable purchase of organic food after the pandemic can be accounted to the predictor variables in the model.

**Table 7. Model Summary**

| Step | -2 Log likelihood    | Cox & Snell R Square | Nagelkerke R Square |
|------|----------------------|----------------------|---------------------|
| 1    | 134.693 <sup>a</sup> | 0.098                | 0.130               |

At the partial level, we can see in Table 8. which variables have a significant effect so that they can be included in the model. Based on the result, it can be inferred that average family income, education, and purchasing activity before the pandemic significantly affected consumer purchasing activity of organic foods in post-pandemic time.

The table of variables in the equation shows the relationship between the predictors and the outcome which resulted from the research. B (Beta) is the predicted change in the predictor and Exp(B) change in the probability of the outcome. Table 8 shows that the Beta coefficient of the average family income is 0.451, which is significant (sig =0.050), meaning that the family income level significantly affects the increase in purchasing organic foods after the pandemic. It explains that Hypothesis 1 passed the verification. The higher family income may be related to the choices of the foods for families, mainly organic foods, which have a higher price than ordinary foods.

The Beta coefficient of education level is 0.539, which shows significance (sig 0.033<0.05). It means that the education level of respondents affects the choice to buy organic foods. So, hypothesis 2 has been verified. In this study, the education level of respondents is consistent with their awareness of organic foods. The more they understand the benefit of organic food, the more they consume the products daily. The regression coefficient of the option of whether to purchase organic foods is 1.273, showing a significant level of 0.05 (sig 0.047<0.05), which means that respondents who have purchased organic foods before will increase the purchase of organic foods post the pandemic, so hypothesis 3 has been verified. Respondents who purchased organic foods before the pandemic are more willing to increase their purchases after the pandemic. They will maintain the previous consumption behaviour, positively impacting and satisfying their lives.

**Table 8. Variable in the Equation**

|   | B     | S.E.  | Wald  | df | Sig.  | Exp(B) | 95% C.I.for EXP(B) |       |
|---|-------|-------|-------|----|-------|--------|--------------------|-------|
|   |       |       |       |    |       |        | Lower              | Upper |
| Average Family Income                                   | 0.451 | 0.239 | 3.567 | 1  | 0.050 | 1.570  | 0.983              | 2.508 |
| Education   | 0.539 | 0.253 | 4.555 | 1  | 0.033 | 0.583  | 0.355              | 0.957 |
| Have you purchase organic foods before?                 | 1.273 | 0.641 | 3.943 | 1  | 0.047 | 0.280  | 0.080              | 0.984 |
| Do you think foods on the market is safe after pandemic | 0.179 | 0.500 | 0.128 | 1  | 0.720 | 1.196  | 0.449              | 3.184 |
| Constant  | 2.588 | 2.166 | 1.427 | 1  | 0.232 | 13.305 |                    |       |

The regression coefficient of consumers' attitudes towards organic foods after the pandemic is 0.179. It does not show a significance (sig 0.720>0.05), meaning that the consumer perception of food safety post-pandemic COVID-19 has not positively impacted purchasing behaviour after the pandemic. It means that hypothesis 4 has not been verified. It shows that consumers in this study consider that there are no critical issues on food safety after the pandemic.

#### **4.6 Discussion**

It explains in regression analysis that hypotheses 1, 2, and 3 passed the verification. The higher family income, the higher level of education, and the previous purchase of organic foods may affect the consumption behaviour towards organic foods. Family income may be related to the choices of foods for families. Organic foods, which have a higher price compared the non-organic foods, influence the consumer purchase decision. The high prices of organic foods are due to the costs of production, which are more expensive, so they may not be sold at prices equal to non-organic foods. This result is linear with the previous research of Suharjo et al. (2016), which resulted that the levels of purchase intention associated with respondents affected by the levels of family income are essential information to know for sure one of the characteristics of potential markets for organic foods. Organic food could modify the price to meet the character of each consumer level to create a new scope.

This research shows that the education level of respondents is consistent with their awareness of organic foods and affects their behaviour towards organic foods. The more they understand the benefit of organic food, the more they consume the products daily. This phenomenon is easy to understand and also linear with the previous research of Chen & Shang (2022) that the higher the consumer's level of education, the more they may know about the information concerning food safety during the pandemic, which will affect their consumption concept after the pandemic. This group of respondents is more likely to purchase organic foods after the pandemic. It also applies to those who bought organic foods before the pandemic and are no strangers to organic foods, so they will not change the original consumption structure. On the contrary, consumers who have not organic foods before may be more willing to learn about and purchase the products after the pandemic.

This research should be highlighted that due to the impact of the pandemic still ongoing, the research coverage of consumer behaviour and its influencing factors is also dynamically moving. So, in the future, we should increase the sample size, expand the regional scope, and consider variables such as purchasing motivation and consumption ideas.

#### **5. Conclusion and Recommendation**

The results showed that respondents were concerned about food safety during the pandemic. Respondents understood the importance of deciding to buy organic food because it would have an impact on their health. During the pandemic, they are also concerned about consuming organic products. They are aware of the benefits of organic consumption. From the respondents' information, they showed an understanding of organic products and concern for consuming organic products. Purchases of organic products before the pandemic have also been carried out with reasonably high frequency. Organic products generally purchased are foods in the form of vegetables, fruit, and rice consumed daily. The organic products of choice are the supermarket, followed by traditional markets, online shops, direct sellers, and online shops. A number of factors influence the purchase decisions of organic products, namely freshness, nutrition, safety, taste, price, packaging, convenience, service, and branding aspects.

This study analyses that consumer characteristics such as education level and household characteristics such as average family income significantly affect the consumption behaviour of organic foods in post-pandemic COVID-19 time. On the other side, respondents' awareness of organic foods, which is implemented by the previous consumption behaviour of organic foods, also significantly affected the consumption behaviour towards organic foods after the pandemic.

Results showed that the respondents, before and during the pandemic, were aware of the importance of organic products. This shows they know the benefits of organic consumption for food health and safety. During the pandemic, they are particularly concerned about consuming organic products. This research provides theoretical and practical recommendations. Theoretically, this research shows that the factors influencing the selection of organic products are freshness, nutrition, and safety. The characteristics of organic products are an essential factor in decision-making. This study shows that attributes within the value proposition become essential for companies to promote products. This value proposition becomes the point of difference in the supply of products that differ from competitors. Social marketing will play a significant role in opening the potential market and transforming consumption behaviour, especially in a healthy lifestyle. In addition, marketers must also educate consumers on organic products in order to provide a more comprehensive understanding.

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# **The Relationship Between Work Environment and Compensation on Employee Retention in Construction and Manufacturing Firms in Klang Valley, Malaysia**

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## **Abstract**

In general, employee retention has become a critical problem face by many firms in Malaysia regardless of industries they are involved. It is difficult to retain employees or workers especially the one who has valuable knowledge, skills and abilities needed by all firm. Therefore, current study examines the work environment and compensation as predictors toward employee retention in construction and manufacturing firms in Klang Valley, Malaysia. The sample for this study will be the employees who are working in construction and manufacturing firms in Klang Valley area by distributing an online survey for them to fill in.

## **Keywords**

Employee Retention, Work Environment, Compensation

## **1. Introduction**

Generally, employee retention is today one of the most essential concerns in organisational as a result of changing dynamics and turbulence in the general work environment caused by a variety of phenomena. The organizational leaders are always assessing and adjusting their retention tactics as the organization's top priority activity (Ezaili et al., 2019). As employee retention is referring to individual's decision to remain with an organization, which develops a sense of enjoyment and confidence in the organisation. Most employees in the private sector were looking for a better working environment, compensation, and so on in order to stay with the company.

Furthermore, when employee retention rates are poor, extra time and money are spent on recruiting, hiring, and training for the new employees that might have been spent on other activities such as for the employee performance improvement or employee career development. Since the 2000s, scholars and practitioners have argued that offering a better and more suitable work environment and compensation (Dewi Sumaryathi & Manuati Dewi, 2020; Hassan et al., 2017; Kullab & Kassim, 2017; Kusuma Putra et al., 2015; Samat et al., 2020; Sutawijaya & Pertiwi, 2017; Talwar et al., 2017; Tam & Nguyet, 2021) demonstrated organizational support to employees and, as a result, maintained talented individuals (Ghosh & Sahney, 2011).

Employers tend to identify the important concerns with their employee turnover in an organisation, where it has become a huge issue nowadays on how they can retain their workers who have the top-level talents or performance that gives the best outcome in the business's objective and goals. When competent and talented employees leave organisations, it may have a detrimental influence on productivity and service delivery (Chiboiwa, Samuel, & Chipunza, 2010) thus, talented employees are less inclined to be devoted to a single organisation; instead, they prefer the paradigm of fresh employment (Kumar & Santhosh, 2014). Moreover, according to (Terera and Ngirande, 2014), the difficulty that many organisations confront today is their failure to devise a structured compensation system for keeping these skilled individuals in order for the organisation to thrive (Joy et al., 2021).

As employee retention is becoming a major issue for whichever organisation nowadays. Therefore, skill shortage in various industries such as information, communication, and technology, manufacturing, construction, health services, and engineering (Ezaili Alias et al., 2019). This occurred not just in one or two industries, but also in more than one industry in both the public and private sectors as well. Cronley and Kim (2017) stated that organisations are judged weak if they fail to address the ongoing issue of high voluntary employee turnover rates. As they were unable to keep their employees owing to a variety of factors, they resigned and sought employment with another organisation that had a better offer, incentive system, and so on. Furthermore, employee retention enables organisations to maintain their competitiveness in order to expand their worldwide footprint (Idris, 2014).

By understanding the factors that influence the retention of valuable employee is critical for managers and the organisations as well for the bright future of the organisation. This research aims to determine the relationship between work environment and compensation on employee retention in construction and manufacturing firms in Klang Valley, Malaysia. Previous studies have revealed that the relationship between work environment and employee retention is significant (Ahmad Azam et al., 2022; Chen et al., 2016; Hassan et al., 2017; Kullab & Kassim, 2017; Ramadhanty et al., 2020; Talwar et al., 2017; Tam & Nguyet, 2021). However, a study done by Samat et al. (2020) found that the relationship between work environment and employee retention is insignificant. Therefore, there is no concrete evidence about the

relationship between work environment and employee retention. Therefore, this study takes the initiative to further investigate this relationship from the construction and manufacturing firm perspective (Ahmad Azam et al., 2022).

Previous studies have shown that there is a relationship between compensation and employee retention (Akhigbe & Ifeyinwa, 2017; Chen et al., 2016; Dewi Sumaryathi & Manuati Dewi, 2020; Hassan et al., 2017; Kullab & Kassim, 2017; Kusuma Putra et al., 2015; Samat et al., 2020; Sutawijaya & Pertiwi, 2017; Talwar et al., 2017; Tam & Nguyet, 2021). However, a study done by W, Armanu, & Sudjatno, (2017) found that the relationship between compensation and employee retention is insignificant as compensation is commonly given and an obligation to the organization to pay. Therefore, there is no convincing evidence about the relationship between compensation and employee retention. Thus, this study takes the initiative to further investigate this relationship from the construction and manufacturing firm perspective (Ahmad Azam et al., 2022). With reference to the above inconclusive evidences on the relationship between work environment and compensation on employee retention, as a result, current study takes further initiative to investigate the relationship in construction and manufacturing firm perspective in Klang Valley, Malaysia.

## **2. Literature Review**

This section described the independent variables affecting employee retention, which in this case include the work environment and compensation. In addition, the dependent variable, employee retention is also discussed as well.

### **2.1 Employee Retention**

Organizations require personnel who perform well and choose to stay with them. Employee retention, by definition, is an endeavour or method of encouraging employees to stay with the firm for an extended length of time (Ahmad Azam et al., 2021; Tirta & Erika, 2020). Meanwhile, retention is the capacity of a corporation to maintain valued individuals who contribute to organizational performance for as long as the relationship is mutually favourable. Employee retention is today one of the most essential concerns in organization as a result of changing dynamics and turbulence in the general work environment caused by a variety of phenomena (Ahmad Azam et al., 2021; Msengeti & Obwogi, 2015). Employees are one of the organization most valuable assets, according to Kossivi, Xu, and Kalgora (2016) as well employees are viewed as a valuable asset who contribute to the organization financial success and long-term development (Singh, 2019). Additionally, every organization would think about how to keep its high-level performers and keep them loyal to the organization so that the organization's performance would continue to rise. It is about how eager the organization is to come up with alternative ways to make it happen, such as remuneration, work environment, and so on. Refer to (Ahmad Azam et al., 2022; Tirta & Erika, 2020) on their previous research, employee retention might be accomplished by developing a work atmosphere that encourages employees' motivational growth. Employee retention is said to be influenced by factors like remuneration, career growth, and work flexibility. Likewise, there are numerous techniques for retaining employee, one of which through compensation structure by estimating the amount of pay dispersion across organizational levels, which matters in employee turnover (Ahmad Azam et al., 2021; Zulkifli & Omar, 2019).

### **2.2 Work Environment**

Work environment is defined as a place where employees accomplish their jobs as allocated by their company and are able to work more efficiently. (Sedarmayanti, 2011) defined the work environment is the full tooling equipment and materials encountered, the surrounding environment in which a person works, work practices, and work arrangements both individually and as a group. The ability to persevere and create a positive work environment will determine the success of accomplishing organizational goals (Meirina et al., 2018). The similar sentiment is echoed by (Ahmad Azam et al., 2022; Nitisemito, 1996), who defines the work environment as everything that occurs around workers who have the ability to affect themselves in carrying out their given activities.

In general, a healthy work environment affects employee retention because employees feel content and comfortable in their surroundings and are able to accomplish their job successfully. Referring to previous researcher (Deckop, 2006) stated that by maintaining a healthy work atmosphere will help employees to grow. A pleasant working atmosphere may boost morale, inspire higher performance, and help the employees remain afloat (Ahmad Azam et al., 2021; Meirina et al., 2018). Hence, when the work environment is stressful and demotivating, connections become tight and less successful, and those who have the ability to leave the organization will do so as soon as the appropriate chance presents itself.

### **2.3 Compensation**

Compensation was described as the total of financial and non-financial recompense paid to employees by employers in exchange for the performance of valuable services (Ramlall, 2017). In the other hand, compensation can also be defined as the monetary or non-monetary compensation given to an employee in exchange for their services or specific contributions to the company. Wages or salaries, bonuses, incentives, and other fringe perks such as holidays, health insurance, and corporate cars are all part of it. Nowadays, employee seeks for a better compensation in order for them

working in that company and remains in a long time period. But there is some of the employee tends to quit their job as a result of dissatisfaction with their compensation system in an organisation (Ahmad Azam et al., 2022). Osibanjo (2012) stated that the degree to which employees are content with their jobs and willing to stay with a company is a consequence of compensation packages.

It shows that compensation system provided by certain organisation unable to satisfy their employees need in term of their compensation system. On the one hand, compensation was recognised as a motivator, and therefore a significant retention technique (Gardner, 2004), having a direct association with employee retention (Hytter, 2007). Meanwhile, (Teseema and Soeters, 2006) highlighted more explicitly that voluntary turnover was high among employees who valued larger financial benefits as part of their compensation package, implying that remuneration plays a significant influence in retention (Ramlall, 2017). In previous research stated that the compensation management is a powerful means of focusing attention within an organisation (Chiekezie et al., 2017). Thus, it is a critical instrument for “integrating the individual efforts with strategic corporate objectives by motivating people to do the right thing with ever-increasing efficiency” that is stated by (Ahmad Azam et al., 2022; Horwitz, 2010).

### **3. Research Objectives**

Based on the above problem statement the following are the research objectives of the current study:

1. To determine the relationship between work environment and employee retention in construction and manufacturing firms in Klang Valley, Malaysia.
2. To determine the relationship between compensation and employee retention in construction and manufacturing firms in Klang Valley, Malaysia.

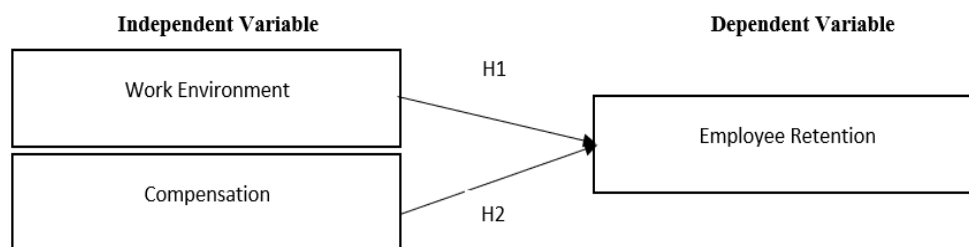
### **4. Research Questions**

The study research questions are as follows:

1. What is the relationship between work environment and employee retention in construction and manufacturing firms in Klang Valley, Malaysia?
2. What is the relationship between compensation and employee retention in construction and manufacturing firms in Klang Valley, Malaysia?

### **5. Framework Development**

Figure 1 shows the theoretical framework that has been adapted from Hayrol Azril et al. (2010) to determine the relationship between work environment and compensation on employee retention in construction and manufacturing firms in Klang Valley, Malaysia.



**Figure 1. Conceptual Framework [Adapted from Hayrol Azril et al. (2010)]**

### **6. Significant of Study**

The research is done in order to investigate the relationship between work environment and compensation on employee retention in construction and manufacturing firms in Klang Valley, Malaysia. Employee retention plays a significant role in the success of the business of construction and manufacturing firms. This study will help the construction and manufacturing firms in Selangor in retaining their employees to ensure business continuity and success. Retaining a valuable, skilled and experienced employee will ensure the success of the business (Pandu & R., 2019) in terms of their existence in the market and business growth (Hassan et al., 2017). It was found in Antoncic & Antoncic (2011) that there is a positive relationship between employee retention or loyalty and the firm’s growth.

Retaining a loyal employee will ensure that a high-quality service will be provided to the customer and lead to customer satisfaction (Esmailpour & Ranjbar, 2018). The success of the construction and manufacturing firms depends on customer satisfaction. If the customers are not satisfied with the services provided, they will not return back for future purchase of services. According to Esmailpour & Ranjbar (2018), when employees are loyal and more committed

towards their organization, they become more responsible towards their duties and responsibilities, thus, they will provide high-quality services to customers which will make the customer satisfied with the services provided. Thus, by ensuring employee loyalty/retention, the services provided to the customers will be of high-quality service and this will ensure the customers continued support towards the legal firms (Ahmad Azam et al., 2022).

## 7. Conclusion

This study expects that there is a positive relationship between work environment and compensation on employee retention in construction and manufacturing firms in Klang Valley, Malaysia. This study helps the construction and manufacturing firms in Klang Valley in retaining their employees to ensure business continuity and success. Retaining a loyal employee that is skilled, experienced and committed will ensure that a high-quality service will be provided to the customer and lead to customer satisfaction. This will ensure the success of the business of construction and manufacturing firms as the customer will return to re-hire them. As this study is going to be conducted towards the employees of construction and manufacturing firms in Klang Valley, future research can be done in other states to determine factors influencing employee retention in construction and manufacturing firms. By doing so, it will give a clearer picture of the factors influencing employee retention in construction and manufacturing firms in Malaysia.

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# **Exploring the Internal Auditors' Self-Perception on Audit Command Language (ACL) Skill Level: The Case of the Royal Malaysian Customs Department (RMCD) in Northern Region of Malaysia**

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## **Abstract**

Despite the benefits obtained from the rapid development in information technology, it is also a challenge that requires the users to master the use of the technology. This research was conducted with an aim to investigate the skill level of mastering the ACL software among internal auditors in RMCD. The study is a quantitative study that used online questionnaires distributed to the internal auditors in the three states of the northern region of Malaysia. Data was collected in year 2021. Findings of this study found out that majority of the respondents self-rated themselves as "Beginner" in using the ACL software including those who already have 10-12 years of working experience. Less than three percent of the respondents rated themselves as "Advanced" users of ACL. Approximately 50% of the respondents reported that they have never attended any ACL trainings.

## **Keywords**

Internal Auditors, ACL, Training, Skill Level

## **1. Introduction**

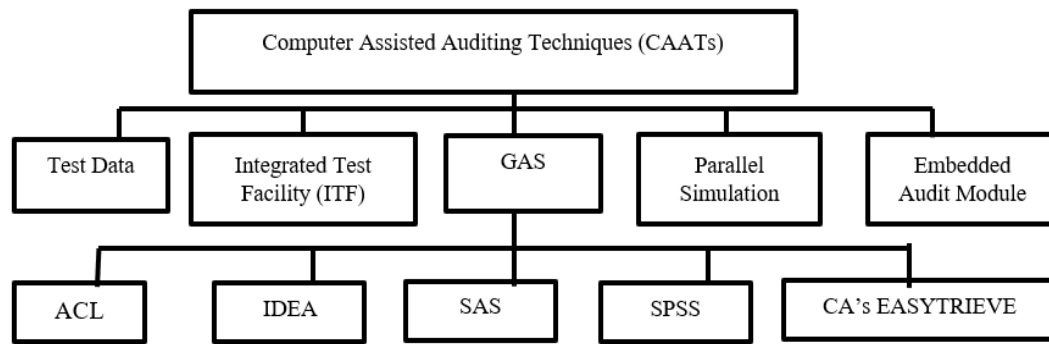
For the past decade, there has been unceasingly introduction of new technologies. From one year to another year the new technologies are undeniable had improved the former technologies. In general, it has also led the introduction of more complex systems and processes and these technologies have been used widely in many organizations. Although technological advancement is an advance that brings many benefits, it comes along with challenges.

The borderless transactions require organizations to link to the sophistication of the information system (IS) and information technologies (IT). This means that IS is essential for every organization to keep their information better. The reliance on the IS has indeed change the traditional roles and job scopes of almost all types of work position including accountants and auditors as they are now working with the machines (the computers). IS have become the backbone to their works and thus competencies of using the systems are essential in ensuring works are completed very well. The extensive usage of IS, simultaneously, requires organizations to use software that will help their staffs to easy access information from the systems. Without software, works that should be done effectively and efficiently will be hard to be achieved.

The notable challenges faced by any staffs in organizations are firstly to get themselves well-equipped in terms of knowledge about the systems or software being used in their workplace and secondly need to be skilful or competence in using the systems and the software. Accountants, for example, need to be specially and regularly trained to able them to use the accounting IS with the highest level of skill. Consequently, accountants can use the system very wisely starting from record-keeping, re-accessing the data and finally reporting the financial statements. Apart from accountants, auditors; internal and external, are also need to be IS literate; i.e., competent in using information systems and software and understand how the IS works. Accordingly, the auditors can able to do their audit work smoothly, effectively and efficiently.

In auditing field, auditing through a computer has become a common practice and currently has become a necessity in organizations. This is proven with the increasing numbers of Generalized Audit Software (GAS) used in organizations in both private and public sectors (Gray, 2006, Jackson, 2004). GAS has been used due to its relative simplicity as it only requires little specialized information system knowledge and its features are easy to be adaptable to a variety of environments and users (Braun & Davis, 2003). GAS also allows auditors to improve the efficiency and effectiveness of audit procedures that associated with large-scale operations found in many organizations.

GAS is a component under Computer Assisted Auditing Techniques (CAATs) that has been introduced as a data analytics tool to assist auditors to search for irregularities within data files and help auditors to do further analysis and identify fraud if existed. There are two dominant GAS programs: the Audit Command Language (ACL) and the Interactive Data Extraction and Analysis (IDEA) that are used extensively by both internal and external auditors around the world (Matherly, Watson & Ivancevich, 2009).



**Figure 1. Components Of Computer Assisted Auditing Techniques (CAATs)**

## **2. Literature Review**

### **2.1 Computer Assisted Auditing Techniques (CAATs)**

CAATs, in general, is a tool that may help simplify auditors' job and can support both internal and external auditors in completing audit tests and tasks in a more efficient approach. CAATs include everything from simple practices such as using electronic working documents to using statistical analysis software and Artificial Intelligence (AI) techniques to anticipate financial failure or bogus financial statements. This tool makes it easier for auditors to look for inconsistencies in the data they have been supplied. In addition, with the use of CAATs, more forensic accounting with more analysis can be performed. The usage of CAATs also may help to ease the work of auditors and can help them to work efficiently and more productive. Firms may opt for the usage of CAATs, which assists in further analysis and fraud detection (Mohamed, Muhayyidin & Rozzani, 2019). CAATs can extract samples according to specific criteria, calculating ratios and identifying indications that do not satisfy pre-determined criteria, and preparing reports. Therefore, by selecting samples for testing, identifying risk regions, and conducting specific conductive procedures, CAATs could simplify auditors' job. CAATs could help to save cost on audits and at the same time could help in enhancing the audit quality and productivity of the audit works (Banker, Chang & Kao, 2002). Furthermore, CAATs may also assist audit firms in meeting client demands for quick audit results and therefore, CAATs is a dependable audit method. CAATs may assist auditors with a variety of IT related audit activities. It is used in audit procedures to process audit-relevant data in client's information system. Other than that, CAATs also allow auditors to improve productivity, as well as the audit function (Sayana, 2003). Most of the firms nowadays are aware of the benefits and advantages offered by CAATs and that has become the reason for firms to employ CAATs in their audit process (Dias & Marques, 2018). Some firms might as well modify and make some advancement in the tool in accordance to the firm's need.

The use of CAATs is encouraged by new audit standards to enhance audit efficiency and effectiveness (AICPA, 2001). Statement of Auditing Standards (SAS) No. 106 for instance, recommends that CAATs could be utilized to boost audit efficiency by recalculating data provided by audit customers. Additionally, the standard also emphasizes that CAATs help improve audit effectiveness by permitting auditors to view evidences kept in electronic form directly. Despite the good points about the CAATs given by the standards, however, researches show that auditors do not use them regularly or consistently (Curtis & Payne, 2008). The CAATs acceptance by auditors might be influenced by both availability of organization resources and individual perceptions about CAATs.

Audit Command Language (ACL) and Microsoft Office such as Microsoft Access and Excel are among the CAATs tools that frequently used by auditors. Larger firms specifically those with good financial resources may have the affordability to purchase good software such as ACL. However, smaller firms that have financial constraints may reluctant to purchase expensive accounting software after weighing the costs and benefits of the software to their firms. Hence, smaller firms tend to use the much cheaper alternative tools such as Microsoft Access and Excel for their auditors to perform their audit tasks (Ghani et al, 2017).

The swift development in IT and IS has seen many organizations, from time to time, uses a more updated information and communication technology facilities in order to cater with the tremendous data that they need to deal in a day. Despite of all the advantages that the technologies offer, it also becomes challenges to every staff involved to understand very well the way how the systems work and be competent with the systems and software. It is the key success factor for one to perform their respected tasks very well.

## 2.2 Generalized Audit Software (GAS)

**Table 1. The Characteristics of CAATs Tools**

| <b>Type of CAATs</b>             | <b>Static versus dynamic auditing</b>  | <b>Client disruption and data corruption risk</b>  | <b>Information system expertise required</b>   | <b>Reliance on client</b>  |
|----------------------------------|--|--|--|--|
| Test data                        | Static. Client provides a copy of existing application software. The auditor only gains information as to how this version of the application works.                   | Minimal due to the fact that a copy of the application is used.  | Minimal, although preparing test data and understanding internal logic of the application can be costly.   | Client provides a copy of the application. It may be difficult to determine if the copy provided is exact, thereby reducing liability of the method.                                   |
| Integrated test facility (ITF)   | Dynamic. ITF is designed into the application during systems development.  | High corruption risk. Controls must be designed to identify and remove the effects of test transactions.   | Expertise is required to design the audit modules into the system and to ensure that test transactions do not affect actual data.  | Information obtained does not rely upon the client.  |
| Parallel simulation              | Dynamic or static. The parallel simulation can run alongside the client's application or can be executed at intervals using accumulated client data.                   | Minimal. The simulation does not affect client processing.   | The extent to which expertise is required depends upon the complexity of the client's process being simulated. GAS can be used to simulate many processes.   | The auditor obtains output information directly without client intervention.   |
| Embedded audit module (EAM)      | Dynamic. Although due to disruption factors, the auditor may choose to turn the module on and off at different points in time, thus reducing the online effectiveness. | Because all transactions would be subjected to the module's screening algorithm, it can significantly affect speed of processing. For this reason, the module may be turned on and off at intervals. | Some level of programming expertise is needed to design and implement the module.  | As revisions to the application in which the module is resident can affect processing, often considerable client interaction is necessary to maintain the functionality of the module. |
| Generalized audit software (GAS) | Static. Typically, the client's period-end data are accessed.  | Minimal. All processing occurs within the auditor's system.  | Relatively easy to use. Very little technical background is required to effectively use many features of GAS. Accessing complex client data structures often requires the assistance of information technology specialists | Minimal reliance on client.  |

*Note: Adapted from Braun & Davis, 2003. (See reference)*



It has been reported in literature that GAS is the most frequently tool used compared to the other four tools of CAATs (refer Figure 1). One of the reasons to the widely used is the features of the GAS itself that has made it more acceptable among auditors. Table 1 lists the uniqueness of each of the tool of CAATs. In addition, the increasing numbers of fraud cases that has been continuously reported in the media along with the facts that internal auditors are among the best person/team to first determine the frauds has made the GAS become the best option for internal auditors to use in their audit. According to Singleton (2011), the issues that motivate auditors to use GAS are first, there is the focus of fraud cases; second, the issue of Sarbanes-Oxley Act Section 404 – Gas software products are included in the list of data manipulation software and third, the increasing demands of IT and internal auditors.

There are many GAS programs available in the market. However, the common GAS programs are the ACL (Audit Command Language) and the IDEA (Interactive Data Extraction and Analysis). The ACL is the leading GAS program in the market (Braun and Davis, 2003).

### **2.2.1 Audit Command Language (ACL)**

Using ACL, auditors review all data and transactions. This means if the ACL is used effectively by the auditors, there is tremendously high chances of detecting frauds. ACL empowers the auditors to conduct their audit procedures with a clear direction. In using the ACL, the auditors will first perform some audit procedures that allows them to understand the data (e.g., using PROFILE and STATISTICS commands). These procedures allow a very conscientious and well-trained auditor to recognize any irregularities (Singleton, 2006). This will then direct the auditors to focus on that related transactions or data.

In addition to the above advantages of ACL, data in the ACL is much protected as the data can only viewed in read only format (Singleton, 2011). Therefore, there is no chances for issue such as data been changed by the auditors to arise. The commands in ACL are also easy to understand. However, auditors still need to be trained to use ACL. There are many commands in ACL such as AGE command that is very beneficial in generating an aged trail balance and CLASSIFY command that is used to subtotal amounts. Apart from commands, the features such as LOG feature provides a way to automate auditors' working papers and BATCH feature that allows auditors to keep their various routines in a batch. There are many other benefits of using ACL and things that matters to organizations and audit firms is the cost of the software and continuous training that they need to provide to their auditors. Continuous trainings are very important to make sure the ACL is used effectively by the auditors and ultimately gain the advantage from it.

### **2.3 Royal Malaysian Customs Department (RMCD)**

RMCD is a federal government agency under the Ministry of Finance. RMCD is responsible for administering the implementation of the country's indirect tax system through revenue collection, providing trade and industrial facilities to the business community. Also, RMCD is responsible in enforcing the law in combating smuggling of goods to ensure national security and prosperity. RMCD plays a role in driving economic growth and preserving national security and the well-being of the people through three main functions, namely collecting national revenue, providing facilities to the trade and industrial sector and enforcing the law. The huge responsibility of the RMCD necessitates the agency to have robust IS in managing its plentiful information resources when almost every service provided by RMCD is now handled electronically.

The advancement of the IT that goes hand in hand with the advancement of the IS has made the RMCD to take the advantage of the technologies to manage their operations effectively and efficiently. As a result, RMCD should ensure that every one or almost all of their employees is competence in using the information systems and software related to their work scopes. The sophistication of a system and software may not be optimized if the human unable to use it efficiently and effectively.

In RMCD, the staff in the Compliance Management Division are responsible to plan and conduct a systematic audit of the licensees/importers and to ensure the tax/customs duties are collected accurately, to provide advice regarding custom matters and to ensure that companies/importers licensed under the customs laws, understand and comply with laws and regulations. Therefore, the competence level of the staff in the division is expected to be highly skilful.

In Royal Malaysian Customs Department (RMCD), specifically the department of audits, auditors are using CAATs as an audit tool in assisting their audit tasks. The CAATs that are being used by RMCD auditors is the Audit Command Language (ACL). The ACL has started been used in RMCD for years. ACL is a software application that is used to analyse sets of large data. Also, ACL is able to save time, increase the quality and reliability of the audit work done. ACL is a software that allows data to be read in read-only mode, without affecting the original data. This tool can be used to examine the financial and operational data and identify the risk items for further analysis and tracking by auditors, allowing them to keep track of high-risk areas (Ghani et al, 2017).

The RMCD 2020-2024 Strategic Plan Model has outlined 4 main pillars (Official Portal Royal Malaysian Customs Department). The 4<sup>th</sup> pillar is about human capital and technology. This thrust emphasizes the enhancement of human capital capabilities and empowers the use of technology among its staff. Therefore, this study is conducted to explore the

skill level of internal auditors of RMCD in using ACL and the ACL trainings attended by the internal auditors of RMCD in the Compliance Department.

In RMCD, audit staffs are provided with the Audit Command Language (ACL) software. However, the information about how internal auditors self-rated their skills level in using ACL and the ACL training provided to the internal auditors if RMCD is worth to be investigated. Therefore, this study is conducted with an objective to examine the perceptions of internal auditors in the RMCD on their skill level of ACL and the provided training that they received.

### 3. Methodology

#### 3.1 Research Population and Samples

This study conducts survey on the internal auditors in RMCD in the Northern Region of Malaysia where it only covers Perlis, Kedah, and Penang states. Data on the population of internal auditors in the Perlis, Kedah, and Penang in 2021 are as listed in Table 2.

There is a total of 107 RMCD's internal auditors in the Northern Region and this study focuses on the populations of internal auditors in the three states. The data in Table 3.1 was obtained from the administration officer of the RMCD. A letter was sent to the administration officer beforehand to ask permission for the data. The letter was accompanied with a letter of "Application for Data Collection" issued by the researchers' organisation as an evidenced that the researchers are doing a research and the data is used only for research purpose. Table 2 shows the summary of the total number of internal auditors in the Northern Region of Malaysia:

**Table 2. Summary of the Total RMCD's Internal Auditors in Northern Region of Malaysia in 2021**

| No | State  | Number of Auditors<br>in the State | Percentage of<br>Auditors in the State |
|----|--------|------------------------------------|--|
| 1  | Perlis | 12                                 | 11.21                                  |
| 2  | Kedah  | 31                                 | 28.97                                  |
| 3  | Penang | 64                                 | 59.81                                  |
|    | Total  | 107                                | 100                                    |

To determine the appropriate sample size for this study, a reference of Krejcie and Morgan (1970) is being used as a guide. Based on the sample size table of Krejcie and Morgan (1970), therefore the suitable sample size for this study (year 2021) is 88. This study is a preliminary and cross-sectional research. Questionnaires were used as a research instrument to collect data from the prospective participants. The questionnaire was emailed in year 2021 and the rate of return is 100% and usable for the analysis. The respondents were asked to self-evaluate their skill level of using the ACL and the reasons for the evaluation they made. The data is analysed descriptively using SPSS.

### 4. Results and Discussion

This section depicts the results of the statistical analysis carried out on the collected data. Table 3 represents the demographic profile of respondents. Data in Table 3 shows that majority of the respondents are female (66%) and most of the respondents are aged between 31-40 years old. Majority of the respondents are degree holder and almost 50% of them are currently in the grade of WK41. About 44% and 24% of the respondents have 4-6 years and 10-12 years of working experience respectively. In summary, this study gets responses from all categories of demographic backgrounds.

The data also shows that almost 50% of the respondents claimed that the last ACL training attended was over a year ago meanwhile another 34% reported that they have not attended the ACL training. About 9% of the respondents attended the ACL training more than 5 years ago. In terms of the frequency of attending ACL training, 51% of the respondents reported that they only attended once a year and almost 45% of the respondents claimed that they have not attended any ACL training. Data in the Table 3 shows that majority of the respondents' employers have not sent them to attend ACL training.

In Table 4, over than 80% of the respondents rated themselves as "Beginner" in the ACL and only 16% of them rated themselves as "Intermediate". Very small percentage (about 2%) of the respondents rated as "Advanced" meanwhile none of the respondents rated themselves as "Expert" in the ACL. This result is consistent with the data in the Table 3 that shows most of the respondents have not received sufficient and regular ACL training.

**Table 3. Demography Analyses (N = 88)**

| <b>Criterion groups</b>                              | <b>Level</b>             | <b>Data in numbers</b> | <b>Percentage</b> |
|--|--------------------------|------------------------|-------------------|
| Gender   | Male                     | 30                     | 34.10             |
|  | Female                   | 58                     | 65.90             |
| Age  | 20 – 30 years            | 8                      | 9.09              |
|  | 31 – 40 years            | 62                     | 70.46             |
|  | 41 – 50 years            | 14                     | 15.91             |
|  | 51 – 60 years            | 4                      | 4.54              |
| Education level                                      | Diploma                  | 2                      | 2.27              |
|  | Degree                   | 73                     | 83.00             |
|  | Master                   | 13                     | 14.73             |
|  | PhD                      | 0                      | 0                 |
| Current Position                                     | WK29                     | 1                      | 1.14              |
|  | WK32                     | 1                      | 1.14              |
|  | WK36                     | 0                      | 0                 |
|  | WK41                     | 43                     | 48.86             |
|  | WK44                     | 33                     | 37.50             |
|  | WK48                     | 6                      | 6.82              |
|  | WK52                     | 4                      | 4.54              |
| Working experience (years)                           | Less than 1 year         | 2                      | 2.27              |
|  | 1 – 3 years              | 14                     | 15.91             |
|  | 4 – 6 years              | 38                     | 43.18             |
|  | 7 – 9 years              | 8                      | 9.09              |
|  | 10 – 12 years            | 21                     | 23.87             |
|  | More than 12 years       | 5                      | 5.68              |
| Last ACL training                                    | Last 3 months            | 2                      | 2.27              |
|  | Last 4 -6 months         | 6                      | 6.82              |
|  | Last 7 – 9 months        | 1                      | 1.14              |
|  | Over a year ago          | 41                     | 46.58             |
|  | None/Never               | 30                     | 34.10             |
|  | Others                   | 8                      | 9.09              |
| Frequency of attending ACL training                  | Once a year              | 45                     | 51.14             |
|  | Twice a year             | 2                      | 2.27              |
|  | More than 3 times a year | 3                      | 3.41              |
|  | None/Never               | 38                     | 43.18             |
| Frequency of your employer sent you for ACL training | 1 -3 times a year        | 23                     | 26.14             |
|  | 4-6 times a year         | 2                      | 2.27              |
|  | None                     | 63                     | 71.59             |

Getting knowing of the reasons why the respondents rated themselves as “Beginner”, “Intermediate” or “Advanced”, the respondents were asked to tick the cause(s) of their assessment (of the ACL skill level) based on the options given. None of the respondents tick the option of “I have no interest to upgrade my ACL skill to a higher level”. This shows that the respondents have interest to upgrade their ACL skill to a higher level but they have not been given the opportunity to attend any appropriate ACL courses or trainings. Majority of the respondents agreed that they have attended the ACL course only once (42%) and they have not given a chance to attend a series of ACL trainings that will support their continuous skill upgrading in ACL (approximately 40%). About 26% of the respondents claimed that their employer does not make it mandatory of its staff to continuously upgrade their ACL skills. This is consistent with the above findings (refer Table 3) that shows almost 72% of the respondents reported that they have not been sent to ACL training by their employers and only 26% of them claimed that their employers sent them for ACL training only 1-3 times a year. About 8% of the respondents agreed that they rated themselves as either “Beginner”, or “Intermediate” or “Advanced” due to the opportunity been given to them to attend the same ACL training for few times. Not many of the respondents agreed that there is lack of hands-on ACL training available in the market.

**Table 4. Respondents' Self-Assessment of ACL Skill Level**

| Criterion groups   | Level        | Data in numbers | Percentage |
|--|--------------|-----------------|------------|
| Skill level  | Beginner     | 72              | 81.82      |
|  | Intermediate | 14              | 15.91      |
|  | Advanced     | 2               | 2.27       |
|  | Expert       | 0               | 0          |
| Reasons for the rating of skill level:   |              | Data in numbers | Percentage |
| I have attended the ACL training for once.   |              | 37              | 42.05      |
| I have attended the same ACL training for few times.   |              | 7               | 7.95       |
| I have not given a chance to attend a series of ACL training that will support my continuous skill upgrading in ACL. |              | 35              | 39.77      |
| There is lack of hands-on ACL training available in the market.  |              | 6               | 6.82       |
| My employer does not make it mandatory to its staff to continuously upgrade their ACL skills.                        |              | 23              | 26.14      |
| I have no interest to upgrade my ACL skill to a higher level.  |              | 0               | 0          |
| Other  |              | 0               | 0          |

## 5. Conclusion

RMCD is one of the main federal government agencies that play big roles to the nation. The ability of its internal auditors to work effectively and efficiently requires the agency to have a highly skilled human resource system such as having a human resource that is very skilful in using ACL. Findings from this study found out that RMCD has used one of the best CAATS tool; i.e., ACL. However, the RMCD has not make the literacy of ACL among its internal auditors as one of its main priorities. RMCD should have started to seriously put a focus on the skill level of its internal auditors in using ACL by providing a series of ACL training. These regular trainings will make them highly skilled in the ACL. If regular trainings of ACL are not been provided, the RMCD will actually waste it resources as it spends much money to the system but it has not been supported by skilled operators.

## Acknowledgement

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## **Women On Board and Environmental, Social and Governance (ESG) Of Malaysian Listed Companies**

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### **Abstract**

The purpose of this paper is to present a review of literature on women on board and the significant influence on the environmental, social and governance (ESG) performance on the public listed companies in Malaysia. Further knowledge on recent developments on this research area is expected in this paper. This study employed structured review process which 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 five sections; introduction, the ESG Disclosures, Women on Board and finally on ESG and Women on Board This study will be beneficial to academics, policymakers and government authorities who dealt with the ESG disclosure and Women participation as the directors in Malaysian public listed companies

### **Keywords**

Environmental, Social and Governance, ESG, Women on Board, Gender Diversity, ESG Disclosure

### **1. Introduction**

The environmental, social and governance (ESG) are the non-financial performance of the companies that play an important role in the decision making of investors' especially on the potential investors. In 2006, the United Nation, had launched the 'Principles for Responsible Investment' that called for responsible institutional investors to integrate the environmental, social and corporate governance (ESG) considerations into their investment activities (United Nations, 2006). To have better firm performance, ESG activities are considered as the management effort to fulfilling the shareholders' and stakeholders' and eventually companies will be achieved better performance (Atan et.al., 2018). ESG helps investors to screen potential investment in companies. Investors want to invests in the best govern companies, the one that protect the environment and cautious in social issues and human capital issues.

The universal growth of corporate sustainability practices in developing countries are fast growing and gaining thrust in the Association of Southeast Asian Nations (ASEAN) countries with regulations and laws are directed in integrating the elements of sustainability in corporate practices (Global Reporting Initiative, 2020). Malaysian corporations are perceived to still neglecting the importance to practice this sustainability practices wisely whether in theory and policy (Thomas et al 2021). According to the Corporate Register, the world's largest CR Report directory Malaysian firms' participation in sustainability practices has also been seen as expanding from 65 (2016) to 109 (2020) (Thomas et al 2021). Notwithstanding such positive trends, the statistics is still very low which is only 11.64% out of 936 listed firms in Bursa Malaysia as of 2020 (Thomas et al 2021).

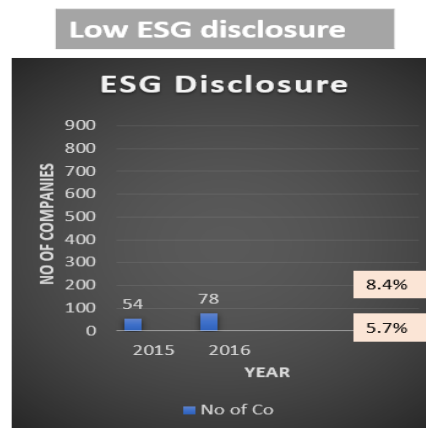
Gender diversity has been the concerned of regulators and standard-setting bodies. (Shakil, Tasnia, & Mostafiz, 2020). This has been supported by one of the major agenda in United Nations Development Programme (UNDP) "2030 Agenda for Sustainable Development Goals" to promote women empowerment (United Nations Development Programme, 2015) which stressed on the woman empowerment in the gender equality.

In Malaysia, since 2011, Ministry of Woman, Family & Community Development Malaysia (KPWKM), had initiated Women Directors' Programmed and focus to achieved at least 30% of the decision-making decision positions must be woman by 2016. Malaysia has been the first country in the region to set a gender diversity target for public listed companies (PLCs) boards. Consequently, in Mac 2021, there are 25.8% of woman on board in 100 top public limited companies in Malaysia (Bernama) which supported by the Finance Minister in delivering the nation's spending plan to ensure that at least one-woman director in every PLCs (Times, 2022). In addition, few researches had indicated that participation of woman on board of directors has been increasing since 2014 with pioneered by Norway followed suits by other European countries including Brazil and Malaysia. The countries have taken ways to make sure the sound participations of woman board in listed companies (Al-Jaifi, 2020) (Shakil, Mahmood, Tasnia, & Munim, 2019)

## 2. The ESG Disclosures

ESG disclosure is considered to be one of the most suitable methods for demonstrating firms' good reputation without restraining them from being up to date and flexible to allow a quick response to industrial and technological innovations (Arayssi, Jizi, & Tabaja, 2020). The environmental dimension covers environmental awareness and protection such as energy and water usage, natural resource protection, carbon emissions pollution; the social dimension is mainly related to human rights, human capital, fair trade principle, gender equality, product safety, health safety, stakeholder opposition, social issues and governance dimension includes the relationship between the business management and stakeholders leadership of a company which includes audits and internal controls, executive pay, shareholder protection, reporting and disclosure, corruption and bribery (Zahid, 2020).

In order to attain the purpose of this study to look at the ESG disclosure score as much as possible in the companies in Malaysia, considerations have to be given to the all companies listed on the main board in Bursa Malaysia as their annual reports and accounts are readily available in the Bursa Malaysia website and their company's website (Mohammad & Wasiuzzaman, 2021). Atan et. al 2018 found that in 2015, only 54 companies out of 936 total companies in Bursa Malaysia had Bloomberg ESG disclosure index. (5.7%). To support this, Mohammad and Wasiuzzaman 2021 from their studies conducted in 2016 found out that the data was only available from 78 companies out of the total 926 companies in Bursa Malaysia which represent only at 8.4%. There was only a slight increase of ESG disclosure at 2.7% since 2015 for the Malaysia public listed companies.



2015-Atan et. al., 2018:  $54/936 = 5.7\%$   
2016-Wasiuzzaman et.al. 2019:  $78/926 = 8.4\%$

Figure 1. ESG Disclosure in Malaysian public listed companies

## 3. Women on Board

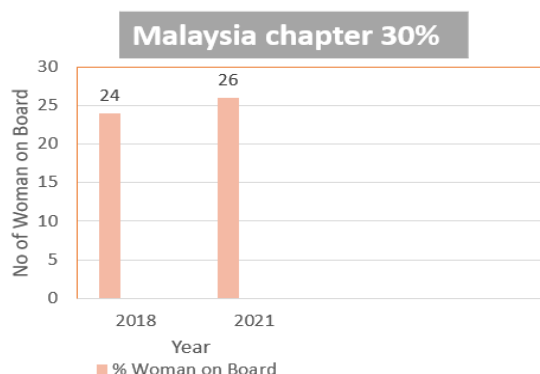
As the sustainability and its underlying environmental, social, and governance (ESG) issues become increasingly material to companies' ability to create durable and sustainable value and maintain stakeholder confidence, effective board leadership and oversight requires the integration of sustainability considerations in corporate strategy, governance, and decision-making (Mccg, 2012). Gender diversity has been the concerned of regulators and standard-setting bodies. (Shakil et al., 2020). This has been supported by one of the major agenda in United Nations Development Programme (UNDP) "2030 Agenda for Sustainable Development Goals" to promote women empowerment (United Nations Development Programme, 2015) which stressed on the woman empowerment in the gender equality. Agenda 5.5 states that women must ensure full and affective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life (United Nations Development Programme, 2015).

In Malaysia, since 1976, the Third Malaysia Plan (1976-1980) has set up aim to the development of woman. In the Sixth Malaysia Plan, a full chapter of policies and programmes to promote women on development has been established. The Tenth Malaysia Plan looked at the fourth key programmes which one of them is to increase the number of women in decision making positions, this ultimately do support the strong participation of woman on the board of directors. Subsequently the Ministry of Woman, Family & Community Development Malaysia (KPWKM), had initiated Women Directors' Programmed and focus to achieved at least 30% of the decision-making decision positions must be woman by 2016. Malaysia has been the first country in the region to set a gender diversity target for PLC boards. Consequently, in Mac 2021, there are 25.8% of woman on board in 100 top public limited companies (PLCs) in Malaysia which supported by the Finance Minister in delivering the nation's spending plan to ensure that at least one-woman director in every PLCs (Times, 2022). In addition, few researches had indicated that participation of woman on board of directors has been increasing since 2014 with pioneered by Norway followed suits by other European countries including

Brazil and Malaysia. The countries have taken ways to make sure the sound participations of woman board in listed companies (Al-Jaifi, 2020) (Shakil et al., 2019). In addition to this, World Bank also has reported on "Woman on Board in Malaysia", stated that a typical Malaysian firm has around 13.8% women on boards members, more than those in the Asia Pacific region of 12.5%. This could be the initiatives of Malaysian government to archive participation target of 30% in year 2020 (Wasiuzzaman and Wan Mohammad 2019).

Later in June 2011, the Prime Minister of Malaysia announced the target of at least 30% of the decision-making positions must be women by 2016. To support this, the Ministry of Woman, Family & Community Development Malaysia (KPWKM), initiates Women Directors' Programmed which concentrated on this three (3) aspects; first, to develop comprehensive Women Directors Registry with data of all eligible and qualified Malaysian women for board positions; second, a structured training curriculum with the knowledge of board readiness assessment, coaching, training on technical and soft skills, mentoring programme; and third, the board simulation to familiarize with the real-life challenges of serving on boards.

Successfully in 2012, Malaysia is the first country in the region to set a gender diversity target for public listed companies boards. Bernama reported as of 2021, woman on board in 100 top public limited companies (PLCs) is 25.8 % (82% increase from 2011). Consequently, the New Straits Times described that the Finance Minister Tengku Zafrul Abdul Aziz in delivering the nation's spending plan designated that all PLCs must have at least one-woman director. The government seeks to ensure that more female oversight in the running of the companies in the South-east Asian nations. The move is aimed at recognising the role of women in the decision-making process and strengthening leadership as well the effectiveness of the board of directors. In support to this, the 30% Club Malaysia is responsible to take action to increase diversity, equity and inclusion (DEI) at board and senior management levels.



**Figure 2. Malaysia chapter 30%**

#### **4. ESG and Woman on Board**

There are numerous studies done by researchers on the ESG and Board Gender Diversity in the United States (Shakil et al., 2020; Manita et. al., 2018;), in the United Kingdom (Arayssi et. al. 2016), in the European Union (Velte, 2016); in Gulf Corporation Council (GCC) countries (Arayssi et. al., 2020); in ASEAN countries (Al-Jaifi, 2020) and in Malaysia (Zahid et. al., 2019); Wasiuzzaman and Wan Mohammad, 2019; and Wan Mohammad and Wasiuzzaman, 2021), however, there are still some further areas that should be conducted. The sample size is the one of the variables where previous studies was not fulfilled. Velte (2016) mentioned that the sample size taken was not that high that presumably by taking into account the time taken for the data analysis. Another study done by Shakil (2021) was based on single country (the U.S) and sample size is comparatively small because the target sample are only for banks. With this in mind, it will reduce the significance of the research results and considerable improvement has to be done on the research design. Another interesting finding was on the study done by Wasiuzzaman and Wan Mohammad, 2019 indicated that the sample size of 78 out of 926 firms are considerably very low as the ESG disclosure among Malaysian firms are very limited. Database used was Bloomberg. Great consideration of using other databases which could be more viable.

The independent variable of Board Gender diversity particularly Woman on Board was only being assess as whether they are there on Board. The detail of the criteria of the Woman on Board was not taken into account (Manita, Bruna, Dang, & Houanti, 2018). Wasiuzzaman and Wan Mohammad (2019), indicated that the influence of the qualification of the female directors has not been overtly tested in their study. As mentioned in programmed conducted by the Ministry of Women, Family & Community Development, Malaysia in 30% Decision Making Position for Women explicitly required any Malaysian women age 45 years and above and have experience of holding top position in the corporate and government sector, have extensive skills, diverse experience and range of perspectives that can be contributed to shape the future Corporate Malaysia. In addition to the qualification, the committee membership of the women on board should also play an important consideration (Arayssi et. al., 2016). The committee membership could



influence the dynamics of diverse board to be able to have the say into the management process and ultimately could improve or reduce the effects on the abnormal returns of the companies.

With the evaluation of the diverse government management style to gender diversity is a foundation for this study's scrutiny of the affiliation between gender board differences and ESG. Previously, ESG investigate basically concentrates on firm's money related execution. With such a dearth of study conducted to investigate the relationship between woman on board and ESG disclosure (Manita et al., 2018) (Velte, 2016)(Al-Jaifi, 2020). The presence of gender differences gives more sturdy in making decision, improves checking exercises and has positive affect of execution. The reasons why ESG is related with woman on board are because woman are less overoptimistic, not risk takers, are likely to apply moral in choice making, women board are perceived to be a sign of quality firms' corporate revelation and regulators practices and likely to not manipulate earnings (Al-Jaifi, 2020). The composition of the management board is an essential factor of corporate governance in influencing the ESG performance (Velte, 2016). Female board members' background, psychological characteristics and experience influence them to involve in the strategic decision that affects banks ESG and their stakeholders (Manita et al., 2018), (Shakil et. al 2020). As such, this study is to investigate the extent of the ESG disclosure of Malaysian public listed companies and whether having women on board do contribute to the increase in the ESG score of the companies.

This study intends to look at the empirical evidences in the Malaysian public listed companies in disclosing their environmental, social and governance (ESG). Few studies substantiated that this research areas should be extended to the emerging market (Shakil et al., 2020)(Atan et.al., 2018). This would be contributing to the regulatory of the capital market (Atan et.al., 2018) especially to the regulators point of view (Atan et.al., 2018). Few empirical studies found that the level of disclosure are very low. Atan 2018 found that only 54 companies in the Bursa Malaysia have complete ESG disclosure as of 2015, another study conducted by Chong 2018 found that sample size is not large due to limited available companies that has ESG disclosure. Most recent study in 2019 by Wasiuzzaman 2019 encounter only 78% out of 926 companies has ESG disclosure which considerably quite low. However, the KPMG sustainability report 2020 testified that Malaysia is one of the tenth (10th) countries with the highest reporting. Although the techniques used might differ, points to ponder should be in considerations.

Gender diversity on boards is also a significant issue in the industry for many countries, particularly those in developing economies. Many discoveries suggest that women play an important role in the ESG performance. (Shakil et al., 2020)(Velte, 2016)(Manita et al., 2018)(Arayssi, Dah, & Jizi, 2016)(Al-Jaifi, 2020)(Arayssi et al., 2020) As a result, more opportunities should be provided to improve firm performance. It is up to them, particularly in the corporate sector, to promote gender equality in order to maximise firm profits. When a company's competitive advantages are enhanced, its image can also be enhanced.gender diversity in the boardroom has a positive impact (Chong, Ong, & Tan, 2018). As such, it is the intention of this dissertation to investigate the Women on Board and the ESG disclosures of Malaysian listed companies.

## 5. Conclusion

This study aims to present a review of literature on women on board and the significant influence on the environmental, social and governance (ESG) performance on the public listed companies in Malaysia. This paper contributes to knowledges on the recent development in this area of research. In general, the results show that most of prior empirical studies on Women on Board and ESG were on quantitative and very limited studies utilize qualitative method. Thus, in order to increase understanding on the contribution of Women on Board in ESG, more empirical research is needed in this research area.

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## **Insights on The Application of Role Theory in Discussing the Role of Internal Auditors**

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### **Abstract**

This paper aims to synthesise the academic literature on Role Theory, include different tracks and research and then identify the gaps to offer the application of the theory on the roles of internal auditors. By adopting a systematic literature review, 14 papers were selected from 1986 until 2021 for further review. The authors searched the articles related to "Role Theory", particularly the theory derived from Katz and Kahn (1978) and established the application trails. This study identifies the strengths and weaknesses of five perspectives under role theory: (1) structural perspective, (2) organisational roles perspectives, (3) interactional roles perspective, (4) cognitive roles perspective and (5) functional roles perspectives. This study provides some articles which utilised role theory in the discussion. This study also provides several directions for future research to apply this theory in the role of the internal auditor's context.

### **Keywords**

Auditing, Role Theory, Conceptual Paper, Qualitative, Systematic Literature Reviews

### **1. Introduction**

The Chief Operating Officer of Royal Bank of Canada, Jacqueline Bukaluk, mentioned that the internal auditor's role had expanded, which highly focused on giving the organisation high value (Deloitte, 2022). The officer expressed that the internal auditors should highlight more the challenges for the business ahead. It is further supported by the article written by Funkhouser (2022), who is the ex-mayor argued that the internal auditors' role can be expanded to protect the democracy of the organisation.

From the above news, it is noted that internal auditors' roles have expanded. The definition of internal auditors' role depends on how the stakeholders perceive their roles (Power, 1996). This study refers back to the essential requirement of auditing practices. The auditors are hired to ensure the manager's guidelines or rules align with the business's principal. The auditors reacted to the responsibilities given by the principal.

The word "responsibility" refers to the obligation to perform a specific task. The literature discussed how the internal auditors perform their responsibilities through the lens of stakeholders' theory (Caliskan, 2014; Boiral & Gendron, 2011; Kolk & Perego, 2010; Chiang & Northcott, 2012; Simon. et al., 2011; Yusof, 2013; Dixon, Mousa, & Woodhead, 2004), institutional theory (Chiang & Northcott, 2012; Rika, 2009; Sawani, Zain, & Darus, 2010) and legitimacy theory (Chiang & Northcott, 2010; Taylor, Sulaiman, & Sheahan, 2001).

However, the scholars like Power (1996) and Rousy (2013) argued that the social perspective could be utilised to explain how the internal auditors performed their duty. In understanding the agent's behaviour, these studies suggested the social perspective can explain the phenomenon around the internal auditors that may assist them in performing their duty. The phenomenon is the interaction between the auditors and the other parties, including the auditee, the organisation's management, the policymakers and society.

Therefore, the purpose of this study is to review the literature on the role theory, a sociology theory, which helps explain the responsibility of the auditors and the organisation. The following review provides valuable data for researchers to understand the usage and role theory in auditing. This study perhaps may explain how the internal performed their duty. Concurrently, this study shed some light on practitioners' reactions to auditing practices. This paper assisted the policy maker in refining the new role of the internal auditors.

This paper is structured initially by introducing the research design (Section 2) and following the general idea of role theory (Section 3); the first perspective is structural role perspective, is presented (Section 3.1); followed by a discussion on organisational role perspective (Section 3.2) and a discussion on the interactionist role perspective (Section 3.3); cognitive role perspective (Section 3.4) and functional role perspective (Section 3.5). In summary, the restrictions of existing research are emphasised, and recommendations are presented for future research activities (Section 4).

## 2. Research Design

As mentioned above, this study would like to synthesise the usage of role theory in the roles of internal auditors. The articles were downloaded from several papers published on Emerald, Science Direct; Willy Online Library, SSRN; Elsevier; Taylor and Francis Online as well as Google Scholar from 1986 until 2021 in English. This study focuses on searching the role theory originated by Katz and Kahn (1978) and further elaborated by Biddle (1986). The following string ("role theory") was used to retrieve the article or journals.

The articles were further screened by including the publication in English and publications related to the role theory by Katz and Kahn (1978) and Biddle (1986). This paper excludes the articles published on role theory discussed by the other scholars and publications in a grey area which discussed the concept of role in the sciences stream.

The papers were analysed into six sections: general discussion, structural role perspectives, organisational role perspective, interactionist perspective, functional role perspective and cognitive role perspectives. The researcher used the paraphrasing method to cite the articles in the discussions. The other two authors check the articles to ensure the quality of literature, which acts as the supervisor in the Doctor of Philosophy program to the corresponding author.

## 3. General Discussion of Role Theory

Katz and Kahn (1978) defined role as "recurring actions of an individual, appropriately with the repetitive activities of others to yield a predictable outcome" (pg 189). In other words, role theory characterises patterns understood and scripted by the role senders to the focal person during a specific task.

The initial discussion of this theory is the concept of roles, describing the interaction between role senders and focal person actors as stated in Figure 1 (Lynch, 2007; Wickham & Parker, 2007). The role sender, alternatively known as the instructor, is the person who sends the expectation to the focal person. Meanwhile, the focal person or the performer is known as the person who receives the expectation from the role of senders and executes the expectation. The focal person (the performer) is responsible for reporting to the role sender (the instructor).

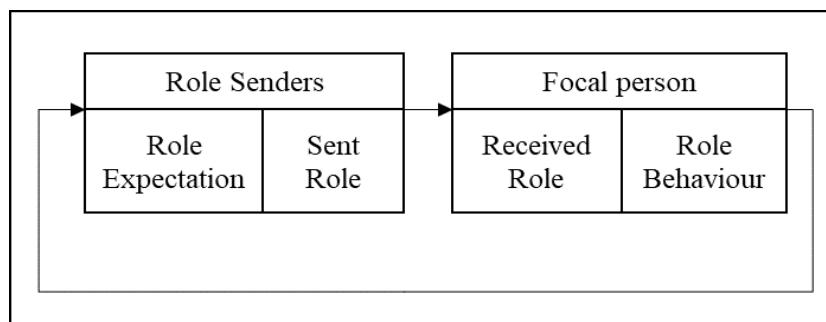


Figure 1. The basic concept of the role theory (Katz & Kahn 1978, pg 7)

Two processes are involved in the early discussion of this theory: the role sending process and the receiving process (Katz & Kahn, 1978). The *role-sending process* involves the role sender determining the expectation (role expectation) and communicating the roles to the focal person (sent role). Meanwhile, the *roles received process* involves a focal person receiving the role from the role sender (received role) and acting following the given role (role behaviour). The role sender and focal person relationship occur in an iterative process.

The discussion of this theory is further expanded into five perspectives: structural, organisational, interactionist, cognitive and functional. These perspectives, except structural, are illustrated in Figure 2.

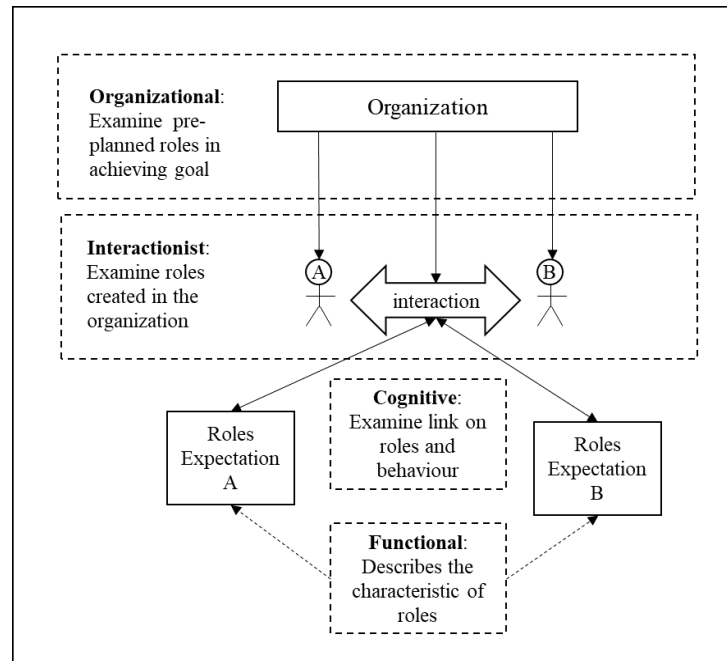


Figure 2. Perspectives in the role theory (Guirguis & Chewning, 2005)

### 3.1 Structural Role Perspective

This perspective defines the role as a collective bundle of tasks perceived by a stable organisation (Bechky, 2006; Biddle, 1986). The set of expectation roles derived from the same social cultures may affect the other person's behaviour in the same organisation (Biddle, 1986; Callero, 1994). Previous studies examined the expectation of different personalities in the same organisation. The expectation role may arise from the norms of the organisation (administrative structure, rules and working arrangements), demands and constraint behaviour (pre-determine roles) of the role sender and focal person (Bechky, 2006).

Most studies on this perspective used the quantitative approach to discuss an organisation's structure that affects the employees' actions (Biddle, 1986). Therefore, this perspective focuses on the organisation rather than on individual behaviour in the organisation (Biddle, 1986). This perspective states that the role existed when an organisation fixed the responsibility (Bechky, 2006). The perspective is excluded in the earlier diagram (Figure 2) because it discusses the different behaviour of actors that influence tasks provided for them.

### 3.2 Organisational Role Perspective

The organisational role perspective defines the role as "pre-determined or pre-planned task-oriented" (Biddle, 1986, pg 70). This perspective focuses on the roles of the person in a non-dynamic situation. This perspective relies heavily on the concept of the role episode model, as illustrated in Figure 3 below. This model emphasises factors that may influence the interaction between the role sender and the focal person.

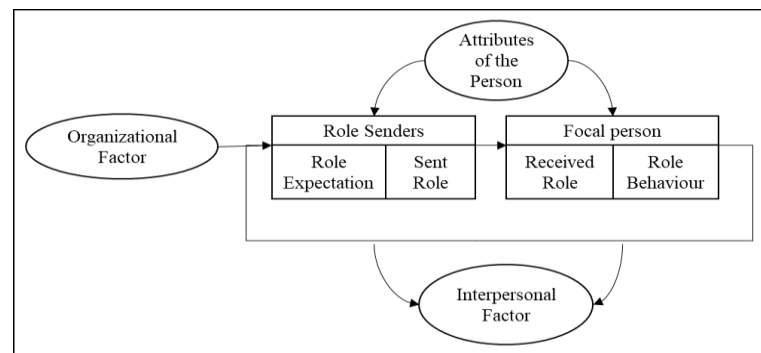


Figure 1. Role episode model (Wickham & Parker, 2007)

There are four assumptions in the role episode model (Wickham & Parker, 2007; Biddle, 1986). The first assumption is role-taking, where employees accept the roles designed for them. The second assumption is role consensus, in which members of the organisation agree to the roles given. The third assumption is role-compliance, where the employees comply with the roles given. The last assumption is role conflict. Role conflict is when the different roles arise when the members' expectations are not mutual.

This perspective highlights how the focal person must cope with the changes made by the role senders (Biddle, 1986). It also explains several factors facilitating the focal person to adapt to the changes sent by the role senders. How the organisational factor influences the role senders in deriving the expectations and how the attributes of the person influence the role senders and the focal person is also elaborated. Finally, how the interpersonal factor influences the relationship between the role senders and the focal person is also explained in this perspective.

This study found that Ahmad and Taylor wrote the paper (2009) discussing the effects of role ambiguity and role conflict in the commitment to auditors' independence. The study used a survey questionnaire and collected responses from 101 internal auditors from the Malaysian Institute of Internal Auditors. Role ambiguity and role conflict have a significantly negative relationship with independence. The study utilised the organisational role perspective, which emphasised unclear expectations, which lead to unclear roles (ambiguity) and ultimately lead to role conflict. It merely focused on the roles of the organisation rather than individual roles. This perspective did not look at the interaction process among actors.

### **3.3 Interactionist Role Perspective**

The other perspective is a symbolic interactionist perspective (Nyström, Leminen, Westerlund & Kortelainen, 2014). This perspective describes roles as dynamic (Biddle, 1986; Nyström, Leminen, Westerlund & Kortelainen, 2014; Lynch, 2007). A role is described as an ongoing process of the actors changing their tasks to achieve the organisation's objectives. This perspective is further divided into two viewpoints.

The first viewpoint is the role-making process (Biddle, 1986; Collier & Callero, 2005; Lynch, 2007; Nyström, Leminen, Westerlund & Kortelainen, 2014). This process explores how interactions among the actors shape the structure or process in the organisation. The actors can construct or reconstruct their roles along with the process (Scott, 2015; Turner, 1962). It focuses on the organisation's elaboration process with unique norms and cultural features. The interaction among persons in the organisation can be an instrument to construct the norms or culture in the organisation (Callero, 1994). This viewpoint can also describe the informal interactions between the actors (Biddle, 1986).

The second viewpoint explains the interaction mechanism (Bechky, 2006; Callero, 1994). It describes the role of an object of resources. The object of resources comprises the rules of etiquette, norms, procedure and general principles of the organisation. These are the schema, mainly the source of interaction that includes non-human elements such as factories, land and buildings (Callero, 1994). However, this perspective cannot explain the limitations of the actors' behaviours (Biddle, 1986; Collier & Callero, 2005). This perspective also gives little attention to the expectations of the role senders in the process (Biddle, 1986) and does not emphasise the organisation's structure (Biddle, 1986; Callero, 1994).

Meanwhile, the study by Roussy (2013) illustrated the role theory from the interactionist perspective. The study discussed the governance role of internal auditors in a Quebec public organisation. Utilising 42 in-depth interviews, the findings indicated that the internal auditors played two roles in the organisation: protectors and helpers. The primary role of the internal auditors is to protect the interests of the shareholders by delivering services to top management before performing the secondary role of helpers (Roussy, 2013). Due to the different roles played by the internal auditors, the study's findings also suggested that the internal auditors should examine the concept of independence based on the IIA code of ethics.

Another study examined the audit tendering process (Taminiau & Heusinkveld, 2017) using this perspective. The earlier study utilised more on role making in an audit firm. The data were collected from various source observations and interviews for each stage of the audit tendering process. The study claimed that the internal auditors utilised formal and informal practices during the tendering process at each stage. The study also adopted the other perspective, which is that of cognitive roles.

### **3.4 Cognitive Roles Perspective**

This perspective falls on the extended discussion of the interactionist and structural role perspectives (Collier & Callero, 2005). It includes the psychological process of constructing the roles and organisational structure. The psychological process refers to the element of feelings and behaviours in handling the given task, which is related to the relationship between expectation and behaviour (Biddle, 1986; Mantere, 2008; Taminiau & Heusinkveld, 2017). The behaviour of the actors influences the interaction between the actors, known as role-playing (Biddle, 1986).

Other studies extended the discussion on role-playing by including the enabling conditions that lead the actors to meet role expectations (Mantere, 2008; Taminiau & Heusinkveld, 2017). The enabling condition is defined as the

behaviour of the actors in meeting the role expectation. There are eight managerial enabling conditions: trust, responsiveness, narration, inclusion, referring, contextualisation, resource allocation and respect. The study by Mantere (2008) discussed these eight enabling conditions among the top management in the strategic process. Meanwhile, Taminiu and Heusinkveld (2017) discussed the seven enabling conditions among middle managers in the audit tendering process.

The first enabling condition is trust. Trust is developed at the managerial level, particularly among top managers (Mantere, 2008) and middle managers (Taminiu & Heusinkveld, 2017). It encourages new ideas about the success and failure of the process. Responsiveness can be explained in two ways. First, the top management can give feedback (Mantere, 2008) and the middle managers can respond to openness in the networking process (Taminiu & Heusinkveld, 2017).

The third enabling condition is narration, which is defined as the ability of the top management (Mantere, 2008) and middle managers (Taminiu & Heusinkveld, 2017) to develop the logical order of the process for the focal person. The following enabling condition is inclusion, where the middle managers invite the top managers to participate in the planning process (Mantere, 2008).

The fifth enabling condition is referring. The top management reacts to new ideas by referring to ideas provided by the middle managers (Mantere, 2008). However, middle managers defined the ability to follow the procedures (Taminiu & Heusinkveld, 2017). The following enabling condition is contextualisation. This is where the top management (Mantere, 2008) and middle managers (Taminiu & Heusinkveld, 2017) link the strategies to work-related processes.

The following enabling condition is resource allocation. In this condition, the middle managers utilise the organisational resources (Mantere, 2008; Taminiu & Heusinkveld, 2017). The middle managers have the freedom to make any changes to the work plan. The last enabling condition is respect. This is where the top management (Mantere, 2008) and middle managers (Taminiu & Heusinkveld, 2017) accept other parties' judgement.

This perspective highlights the relationship between behaviours and expectations (Biddle, 1986). After all, expectations consist of norms, preferences and beliefs directly associated with behaviours. This perspective allows the actors to discuss their thoughts about their involvement in a specific process. On the flip side, the limitation of this perspective is its lack of ability to counter the dynamics of human behaviours (Biddle, 1986). In other words, this perspective fails to explain the evolvement of human behaviour in a specific process.

Applying a framework by Mantere (2008), the study also examined the roles of internal auditors from the cognitive perspective, similar to Taminiu and Heusinkveld (2017). The findings indicated that the internal auditors focused more on building relationships during the orientation stage and were more likely to conduct content-driven activities during the intake stage. The internal auditors also paid attention to the trust-building process during the presentation stage to retain the clients. The study also used the functional role perspective, which discusses in the later discussion.

### **3.5 Functional Role Perspective**

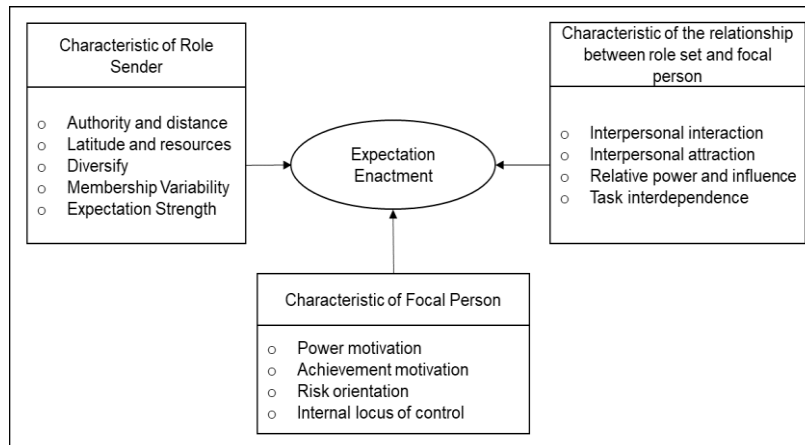
The functional role perspective defines roles as a set of expectations influenced by a social system (Biddle, 1986; Lynch, 2007; Mantere, 2008; Walker, 2017; Wittmayer, Avelino, Steenbergen & Loorbach, 2017). The social system is defined as the norms, behaviours, and characteristics of the individuals in an organisation.

This perspective perceives the importance of individual roles in an organisation (Wittmayer, Avelino, Steenbergen & Loorbach, 2017). It focuses more on the role-playing mechanism where the actors individually received and executed their roles to achieve the whole organisational objectives. This perspective describes the individual characters that influence the roles of the individuals to stabilise their organisational roles (Biddle, 1986). This perspective is relevant in explaining the characteristics of each role as the agent of compliance (Wittmayer, Avelino, Steenbergen & Loorbach, 2017) as the actors utilise their distinctive roles in the organisation.

Nevertheless, the shortcoming of this perspective is its lack of ability to relate to the impact of expectations on the behaviours of the actors (Biddle, 1986). This perspective explains the characteristics of the individuals influencing the expectations of the role sender rather than the focal person. A study by Fondas (1994) explored the characteristics of a focal person and the relationship between the focal person and role senders.

The expectation enactment model proposed by Fondas (1994) states four determinants in deriving expectations. They are characteristics of role senders, characteristics of the focal person, characteristics of the relationship between the focal person and role senders, and the organisational influences external to the role set or focal person relationship. However, this study did not provide any empirical data.

The last determinant was excluded in this present study. This determinant explains the external condition that influences the definition of task description when their task description revolves around the employees' abilities, interests and priorities (Fondas, 1994). In MLGs, the task description is determined by the Local Government Act. Therefore, MLGs cannot easily change their structures, sizes and roles. The three determinants of the Expectation Enactment Model (Fondas, 1994) are illustrated as follows:



**Figure 3. Model of expectation enactment (Fondas, 1994, pg. 92)**

There are five characteristics of the role sender (Fondas, 1994). The first characteristic is the role sender acts as authority and distance. This role is when the role sender delegates the authority. The second characteristic is the role senders' sets of latitude and resources. The role sender has the resources for the process and aids the role receivers. The third characteristic is that the role sender has numerous role sets, known as role set diversity. The following characteristic is membership variability. The focal person has to adopt the role sender's definition of expectations. The focal person will adopt the expectations of the sender's role when the focal person is new to the organisation. The last characteristic of the role sender is expectation strength. The role sender purposely initiates the expectation when it is weak — the expectation created by the role sender as part of their objectives.

The characteristics of a focal person can be divided into four. The first characteristic is known as powerful motivation. The focal person has the freedom to control the environment and influence others. The second characteristic is achievement motivation. This characteristic emphasises that the focal person desires to attain the expectations through effort. Risk orientation is the third characteristic of the focal person. This situation is where expectations are engaged to minimise risk. The last characteristic is the internal locus of control. The focal person enacts the expectation to match the desired expectation.

The third determinant in the Model of Expectation Enactment is the characteristic of the relationship between role senders and the focal person (Fondas, 1994). The relationship between them exists in four situations: interpersonal interaction, attraction, relative power and influence, and task interdependence. The first situation is interpersonal interaction. This situation describes the frequency and duration of interaction between the focal person and the role sender.

Next situation is interpersonal attraction. This situation explained the existence of affective bonds between them. The role sender delivers the expectations that match the focal person's expectations. Relative Power and influence are situations that the focal person complies with the demands of the role senders. Task interdependence exists when the manager and the role senders depend on each other in fulfilling their jobs. However, this perspective cannot generalise the findings on the roles of each actor as a collective view of the organisation (Lynch, 2007). This functional perspective is used to illustrate how each process started and how the process ended. The following discussion elaborates on the usage of this theory in the auditing literature.

Meanwhile, another study was conducted on the audit tendering process (Taminiau & Heusinkveld, 2017). The study indicated three stages of the audit tendering process: orientation, intake and presentation. From the functional role perspective, the findings indicated that the overall process of audit tendering evolved (Taminiau & Heusinkveld, 2017). Due to the dynamic definition of roles, role expectations differed between the stages of the audit tendering process.

#### **4. Discussion and Conclusion**

The usage of this theory in internal auditing studies is relatively small. It merely surrounding the discussion of stakeholders' theory, institutional theory and legitimacy theory. This paper took the opportunity on the suggestion given by the other scholars (Power, 1996; Roussy, 2013) to uncover the usage of sociology theory into the discussion of the role theory. This study aims to provide the future studies on the internal auditing literature focusing on sociology theory which is role theory.

The auditing process is checks and balances between the auditor and the clients (Roussy, 2013). It involved the communication and interaction process between parties. The culture and norms, such as organisation charts, standard operating procedures and regulations, influence communication and delivery. This study suggested the following research questions:

RQ 1: How do the culture and norms of the audit partner influence the works of auditors?



RQ 2: How do the auditors adapt to the changes in the regulation in Audit Partner A?

This study may suggest the role theory, especially the perspective of the organisational roles, to discover how the auditors refined their roles when there are changes in the other factors such as organisational, interpersonal and attributes of the actors. This study proposed that future study expands the research as follows:

RQ 3: What factors may influence the auditors' roles in maintaining ethics and how?

RQ 4: How do the auditors manage the role conflict?

The upcoming studies can explore using this interactionist perspective to determine how and why the auditors set up their roles (RQ 5) and in what mechanism they create their roles (RQ 6). The studies can also explore how the regulation shaped the auditor roles across the year (RQ 7). The studies can also examine how the company's policy changes the auditors' roles (RQ 8). The studies can use published data such as annual reports and new or government regulations from several years to explore the impacts of the changes in the roles of internal auditors.

The psychological aspects influence the actors' roles in the process (Lynch, 2007). The cognitive perspective is the new avenue to integrate the psychological aspects into the auditing literature. Future studies may explore the following research questions:

RQ 9: How do the auditors perform their duties behaviorally?

RQ 10: How do the clients fulfil their responsibility while the auditor performs the audit procedures?

RQ 11: How does the management perform their responsibility in the audit process?

Instead of looking at the group of actors, the last perspective discusses more on the individual actors in the process (Wickham & Parker, 2007; Bechky, 2006; Mantere, 2008). This perspective may open new research on how auditors perform their day-to-day activities (RQ 12). It is merely the diary journal of the auditors that may enhance the public's understanding of the auditors' role. This perspective may open a new path in discovering how the individual auditor judges the auditors' independence (RQ 13).

It will be helpful in the auditing literature if the imminent studies can triangulate more than one perspective in the research. It may enrich the discussion of the issues in auditing. This study proposed the role theory to highlight the importance of the role of the auditors in the business function. This study may give beneficial findings to other the researchers. The limitation of this study is that the study focuses more on the development of the role theory derived from Katz and Kahn (1978).

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## **Ethics Statements**

Some information in this paper is a part of the thesis published by the International Islamic University of Malaysia.

## **Author Statements**

The main discussion derived from the thesis written by Muthyaah Mohd Jamil as part of the requirement for Doctor of Philosophy (Accounting), International Islamic University of Malaysia. The corresponding author expands the discussion inside the conclusion. This thesis was supervised by Nor Hafizah Zainal Abidin (main supervisor) and Norhayati Mohamad Alwi (Co-supervisor).

## **Declaration of Interests**

There are no financial interests/personal relationships which may affect this work.

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## **Abruptness of ways to adaption of Covid-19 impact on Accounting Profession**

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### **Abstract**

The outbreak of Covid-19 has created a crisis in health, education, profession, and other social phenomena. The aim of the paper is to investigate how the accounting profession has been influenced by the Covid-19 pandemic. We find that physical restrictions and economic hardships resulting from Covid-19 impeded accountants' productivity, ability to perform their work, ability to maintain relationships with clients and co-workers, and ability to sell future services to prospective clients. Our focus is to show the abruptness of ways in which the accounting professionals have adapted in response to the pandemic, as well as the problems having potentially emerged in their professional field. The results showed that the Covid-19 pandemic significantly affected the activity of accounting professionals, who were forced into changes in their work routine, while, generally, experiencing difficulty in adapting to the newly emerging work demands. Many sudden changes are faced due to pandemics. Most accountants are working remotely during the pandemic rather than before. They are also have adapted to the new technology. Meetings and trainings are held virtually. They are facing cybersecurity problems because of less data security as well as the increase in job insecurity.

### **Keywords**

Accountants, COVID-19, Accounting Profession, Abruptness of Ways

### **1. Introduction**

The professional accounting department offers a wide variety of services, both to legal companies and people in accounting and finance nowadays. The range of services may include bookkeeping, compiling financial statements, tax services, payroll services, labor and insurance support services, budgeting and reporting, as well as consulting services. Therefore, it becomes clear that the accounting profession is no longer limited to bookkeeping but merely involving reporting activities (Chatzoglou et al., 2011). On the contrary, the role of professionals in the accounting field has expanded to meet the needs such as the analysis of past activities, the examinations and evaluations of present conditions and the participations in decision-making processes with regards to future activity. The role of professionals in the accounting field is to ensure that the professional and economic activities of both businesses and individuals is in accordance with the applicable legislation and that their clients accurately report data related to public revenue. In this way, on the one hand, macroeconomic indicators are possible to determine with accuracy, while the state collects the due amount of revenue, which facilitates effective policy making on the part of regulatory authorities, and ensures the general smooth functioning of the economy (Miller and Power, 2013).

The Covid-19 crisis causes a global confusion that dominates all economic sectors in all countries, and resulted in many damages. After the spread of Covid-19 across the globe, no economy remained healthy unless it was announced that it was negatively affected by the virus. During the Covid-19 outbreaks, most countries have prohibited millions of people from traveling and quarantine measures have been introduced. Companies struggle with lost profits and broken supply chains. The global supply chain instability triggered by plant shutdowns has illustrated many organizations' vulnerabilities. The disease has also contributed to tremendous unrest in the world's commodity and financial markets. There are also signs that the virus has infected the global economy significantly (Sangster, Stoner, & Flood, 2020).

The purpose of the present study is to investigate how the accounting profession has been affected by the Covid-19 pandemic. The researchers also want to know how accountants have tried to adapt to emergency changes imposed in response to the pandemic, and which problems have occurred, potentially affecting the accountants' efficiency in their professional activities. It is important to study the impact of Covid-19 on the accounting profession because of the physical restrictions and economic hardship due to Covid-19 have changed the work environment for a majority of public accountants and their clients across the country. Moreover, this study can get better understanding on how, if at all, such changes impact financial reporting and tax reporting. We believe the results herein are relevant to all stakeholders who depend upon financial statements to make informed decisions, as well as regulators who rely upon the accuracy of both financial reports and tax reports to shape public policy regulation and legislation (Heltzer and Mindak, 2021).

## **2. Literature Review**

The Covid-19 has dealt a painful blow to the global economy, which is already suffering from fragility, and until now, there are no explicit and clear reports capable of presenting the effects caused by Covid-19, not even before more time has passed (Sukharev, 2020). However, it is known that the losses caused by Covid-19 on the world are very large and will make the areas of weakness more evident than before due to the economic and financial turmoil that the world will be exposed to later. Many financial and economic studies and analysis have expected that the economic repercussions of the pandemic will be long-lasting and will need a lot of time for reconstruction and restoration (Leal Filho et al, 2020).

According to Gillingham et al (2020), the main weakness in the accounting profession was a very large percentage in one stage, which is the stage of documentary examination or vouching procedures, which require the work teams at auditing, accounting and tax offices to make field visits to the client and under the current work environment that requires the application of strategies of physical distancing and the encouragement of remote work, the work of auditing, accounting and tax offices has not stopped and it has to continue to support the economic sectors professionally and technically, especially at such a time when businesses need every possible support.

While Jowitt (2020) and Sahin et al (2020) indicated that there was a role for auditing, accounting and tax offices in limiting the effects of the Covid-19 crisis; this role is considered a critical and important role for business, as businesses greatly need advice and technical support at such times and in such times increase the number of risks that management must pay attention to. The risks of bankruptcy and sudden closure may loom on the horizon, and the risks of fraud are also not far away, and here comes the role of the auditor, who must play a major role in examination and review at such times to enhance confidence in the outputs of the account's sections and so that the decision-making process is based on solid ground (WHO, 2020).

The impact of the Covid-19 on the accounting profession has varied between the mechanisms and manner of practicing the profession and the duties it must perform in these circumstances (Alhawsawi, 2020). The curfew in many countries and the many closures that the different sectors were subjected to, had an impact on the organization's difficulty in providing its own disclosure due to the lack of clarity of its financial, economic and business conditions during that period (Zhu et al, 2020). However, Rinaldi et al (2020) noted that many organizations around the world have proven to be affected by the emergence of Covid-19 pandemic. According to international financial reporting standards, it must be disclosed if the organization has been affected by the precautionary measures and the spread of the Covid-19. Jinjarak et al (2020) added that the importance of disclosure during the pandemic stems from the need for the organization to disclose if there is a financial impact that has occurred from the end of the fiscal year until the publication of the financial statements to the public. Based on the 10th standard of international standards (IAS 10), organizations are required to disclose in the financial statements' clarifications about events and subsequent period of preparing the financial statements about any potential impact and risk coming due to the spread of the emerging Covid-19, and disclosure is made only when there is a financial impact on the financial statements (He et al, 2020).

Yu et al (2020) indicated that among the damages caused to the accounting profession during the Covid-19 pandemic is the loss of real and actual data as a result of closures, and therefore there was no clear evidence of numbers that could be the indications of profits, losses or even sales. Kenway and Holden (2020) confirmed that as a result of the lack of clear, explicit and accurate data during the pandemic period, this had affected the quality of financial reports and thus, the transmission of this effects on the foundations and standards of corporate governance as it is one of the basic elements of the economy.

This is in addition to the loss of the controls and principles in place in order to provide high-quality financial reports to stakeholders, including the board of directors, senior management and shareholders, and thus - according to Heald and Hodges (2020) - losing a large part of transparent communication about the impact of the Covid-19 crisis on its business, in terms of liquidity and business continuity, financial position, internal control and risk.

Regarding accounting, on the level of performance, technological progress was a decisive factor in preventing the epidemic from causing more serious harm to the way accounting and auditing functions, as the use of technology prevented work from stopping as a result of precautionary measures and lack of direct communication, so the pandemic led to the rapid expansion of the use of an artificial intelligence tools to do accounting work (Chen et al, 2020). It was also indicated by He et al (2020) that an increase in demand was observed to develop and provide these technologies and programs by organizations to meet their accounting needs with less cost and a clear saving in time and effort. Therefore, according to Lesi (2020), the accounting profession moved to computerized accounting programs and artificial intelligence for the sake of trying - as much as possible - to deal with the severe damages that many sectors have suffered, financially and economically.

The Covid-19 has had many unspecified dimensions including interruption of production, supply chain disruptions, lack of staff, decrease in sales and profits, closure of offices and warehouses, delays in planned business expansion procedures, inability to increase financing, increased volatility in the value of financial instruments, the decline in tourism, disruption of travel, and the cancellation of many commercial and financial activities (Elavarasan et al, 2020). Consequently, the organizations faced the risk of the necessity of stopping business and commercial activities, which led

to the necessity for organizations to analyze the risks and work to recover losses resulting from the cessation (Kenway and Holden, 2020). This was evidenced by the organizations demanding insurance companies to compensate for the risk of business interruption, and demanding accountants to solve the issue with unclear data and vague financial statements for numbers that could have been achieved by the organization in the event that its business was not disrupted and stopped. This was one of the biggest challenges for the accounting profession.

The use of external accounting or accounting outsourcing was the most in demand during the Covid-19 pandemic, as many of the affected organizations indicated their need to seek the assistance of external certified accountants in preparing damage analyzes and assisting them in settling their situation (Crane and Matten, 2020). Chen et al (2020) indicated that the pandemic has proven that the accounting profession is the actual interpreter and true estimator of the results of the economic and financial crises by producing figures indicating the course of events (Mazzucato and Kattel, 2020)

### **3. Methodology**

This research is explorative in nature that aims to explore the abruptness of ways to adaption of Covid-19 impact on accounting profession. Many studies used a structured questionnaire designed as a research tool. A five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree (Sarea et al., 2020; Papadopoulou S., 2020). It is worth noting that the questionnaire is the most appropriate tool for the conduct of quantitative research examining behavior, perceptions and attitudes (Bulmer, 2004). Due to Covid-19, the Google Form was made, and questionnaire was spread through Facebook and email Google. On Facebook, the Google Form was posted in accounting groups where accounting professionals are available but the response from Facebook was low (Jabin, 2021).

Study by (Sarea et al., 2020) stated that descriptive analysis technique was applied to analyze the collected data. This technique was used to explore the faculty perception regarding the impact of Covid-19 pandemic on different aspects of accounting teaching and learning areas in the public and private universities in Gulf Cooperation Council (GCC), Kingdom of Saudi Arabia, United Arab Emirates, Bahrain, Kuwait, Oman and Qatar. The unit of sampling recruited is the teaching staff at the higher education institutes at public and private universities in GCC. Exploratory studies widely apply the convenience sampling to collect the necessary data. The collected responses were 109 from public and private universities in GCC. However, the valid number of responses is 102 after eliminating the incomplete responses.

Papadopoulou S. (2020) used of primary data collected using a questionnaire, during the period of the Covid-19 pandemic outbreak in Greece, that was, during April 2020. The sample size involves 171 accountants located across Greece. The sample was selected by means of the method of 'simple random sampling', while the response rate was 37%. The study used the methods of descriptive and inferential statistics in order to extract reliable and accurate results. More specifically, the mean scores and frequencies representing the perceptions and opinions of the respondents were calculated on the grounds of a descriptive statistical analysis. Correspondingly, Wilcoxon signed-rank tests, Mann Whitney U tests and Kruskal-Wallis tests were conducted on the grounds of an inferential statistical analysis. Finally, a simple OLS regression analysis was conducted. Data processing was realized by means of the use of the IMB SPSS Statistics Data Editor statistical program.

Study by (Jabin, 2021) also use questionnaire and the sample was determined by using the random sampling method. Then questionnaire has been sent to 200 accountants and accounting professionals. One hundred fifty people have been responded to it. The sample size involves 190 respondents located in Bangladesh. Based on descriptive statistical analysis, mean, minimum, and maximum have been calculated. It will determine the average response to particular question. The Wilcoxon signed-rank test analyses were then carried out based on an inferential analysis.

Almutairi, (2021) also used online uploaded questionnaire consist of all accountants and auditors (external and internal) who were accessible through Kuwaiti manufacturing sector. A convenient sample of 200 individuals was chosen to represent population of study. After the application process, researcher was able to retrieve (177) properly filled questionnaires, which indicated a response ratio of (88.5%) as statistically accepted. SPSS was utilized in order to tackle, screen and analyze gathered data; Cronbach's Alpha was used in order to test the reliability of study tool, the test resulted in a value of (0.948) for all the items within the study, the alpha however resulted greater than 0.60 which indicated the tool consistency that enhanced its use in the study.

### **4. Results and Discussion**

The outcome of the study by Sarea et al. (2020) revealed interesting results of the crucial role of Covid-19 in the transformation process of digital education in general and accounting in particular. The results indicated that the accounting educators have changed their teaching methods to cope with the dramatic change in the delivery method as a result of the of Covid-19 outbreak. On the other hand, the implementation of online learning in the accounting education as a result of this pandemic improved the lecturer efficiency in managing their time, because the weekly time needed for lecturing and preparation has dropped. According to the study results, the focus of the educational institutions in the GCC is on the interactive learning management system such as Microsoft Teams and Zoom to support the e-learning process,

because these systems enable them to interact with their students and meet their needs. All these feedbacks gave a clue about the effect of Covid-19 pandemic on the transformation of accounting education into the digital era.

According to Papadopoulou S (2020), the Covid- 19 pandemics influenced the operation of accountants pushed into shifts in their working pattern. The accountant rarely did the work remotely before the COVID-19 outbreak but as a result of the Covid-19, they have currently turned to remote working, to which they resort more often than was the case in the past. The accountants participating in the research expressed the opinion that working remotely has had a negative impact on the time required for the completion of their tasks, the communication and professional relationship with their clients, work-related stress and income. The respondents stated that they would not be able to carry out their entire range of accounting activities on the basis of remotely working in non-emergency situations. The findings showed that the Greek accountants have been working remotely on a much more frequent basis during the Covid-19 outbreak than before. In general, it was impossible to accommodate the newly emerging demands for the workplace. Finally, research has shown that when the world's economy is in danger during emergencies, the relevance of an accounting career is much more pronounced in Greece, as analyzed. This is due to the fact that accountants in Greece assume the role of a 'link' between the state and taxpayers, and, as such, they have played a vital role in the implementation of the emergency measures aimed at the support of those affected within the period of the Covid-19 pandemic. To the state, accountants have been the executive instrument in charge with the implementation of the measures, while, to the taxpayers, both businesses and individuals, they have functioned as the medium for them to have access to the financial benefits provided as assistance within this challenging period.

Results from Papadopoulou S (2020), was supported by another researcher. Jabin (2021), also find that the accountant in Bangladesh have adapted to this new working pattern. They also work remotely during pandemic rather than before pandemic. Because they need to work remotely, they have adapted to new technology. Meetings are held through video conference tools. Training is also provided virtually. They are working online, but the critical feeling remains that they miss office function and social and occupational contact with others. It is pretty standard as a human being. Human resource management had to figure out how to manage workflow virtually and manage the company. They are also facing cybersecurity problems as proper data security has not been used yet. Productivity and job insecurity have increased. The danger is increasing during Covid- 19 as technologies are being used, but cybersecurity is adequately provided.

The study by Almutairi, (2021) showed that the accounting profession was affected during the Covid-19 pandemic in terms of disclosure, given that organizations are content to disclose potential risks, and the amendment is not made to the core of the financial statements except in the event that there is an impact on the continuity of the organization. In this case, the organization must change the way the financial statements are presented and this matter requires a fundamental change in the accounting basis, which is a solution based on a lot of challenge. Such results agreed with Alhawsawi (2020), Rinaldi et al (2020), Zhu et al (2020), Jinjarak et al (2020) and He et al (2020).

## **5. Conclusion**

As conclusion, Covid-19 limits accountants' ability to meet face-to-face with the co-workers and clients, and unprecedented, unpredictable economic hardships have fallen upon accounting firms and clients alike. Regarding the impact of Covid-19 on accountants' work behavior, our findings suggest that, due to Covid-19, accountants shifted their work locations away from client sites and offices into homes. However remotely working in the accounting profession has had a negative impact on the number of working hours of accountants per day, on their communication and relationship with clients, on the level of work-related stress, as well as on their income.

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## Takaful Reporting from Maqasid Shariah Perspective: Malaysian Evidence

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### Abstract

The concept and objectives set in takaful are made of the objectives of Islamic law focussed on the five dimensions of maqasid Shariah which are important in a Muslim's life. The application of takaful in the Muslim society seems to have a significant relationship in achieving maqasid Shariah. The study aims to examine the level of Takaful reporting in Malaysia and its relation to maqasid shariah. The disclosure index developed based on the three perspectives of Islamic accountability (Shariah, social and financial) and related information specific to the takaful industry. The checklist items consist of 124 items: 67 mandatory items and 57 voluntary items. These items are categorised into financial reporting; Shariah compliance and governance; corporate governance; takaful policy requirements; Family Takaful; solvency requirements of takaful undertakings; risks and enterprise risk management. Takaful operators disclosed with an average of 95% of the total mandatory disclosure. As for voluntary disclosure, takaful operators disclosed with an average of 38% of total voluntary disclosure. All mandatory items are fundamental or essential (*daruriyat*) and takaful operators are expected to have a high-level disclosure while voluntary disclosure items which is classified as general needs information (*hajiyyat*) and information related to refinements (*tahsiniyat*) have lower level of disclosure.

### Keywords

Takaful, Maqasid Shariah, Voluntary Disclosure, Mandatory Disclosure, Institutional Theory

### 1. Introduction

Takaful and conventional insurance have the same principles; integrity and indemnity. However, takaful is bounded by the concept of mutual help, responsibility and protection that is free from prohibited items such as *riba* (interest), *maisir* (gambling) and *gharar* (excessive uncertainty). Takaful is an alternative to wealth protection mechanism which is Shariah compliant. It aims to assist the unfortunate participants through mutual financial aid and assistance in all its economics activities that comply with the Shariah including the principal contracts of takaful, the content of the contract, the participants and takaful operator. Takaful provides life protection and as a tool to ensure smooth circulation of wealth; inculcating social responsibility spirit and promoting mutual cooperation within society and facilitating ethical dealings. The notion and goals of takaful are developed by maqasid Shariah that is concerned on preserving the religion, life, intellect, ancestry, and wealth. This concept is important in Muslims' life and the application of takaful is significant towards the maqasid Shariah achievement (S. Abdullah, 2015).

Takaful is significant in Islamic financial system, thus maqasid Shariah should be employed to achieve its aims, purposes, values and direction by realising the *maslahah* (benefits) and avoiding *mafsadah* (harms) in every aspect of human life (Abdul Aziz & Mohamad, 2013). The purposes of maqasid Shariah are to achieve or gain benefits, welfare and advantages to the Ummah at the same time banishing evil, greed, loss and disadvantages from the individual beings. Therefore, there should be no injury, damage or difficulties to individuals or the public in the implementation of Shariah in the takaful practice.

Maqasid Shariah establishes some values, measures and standards to be sustained in the operation as well several elements to be avoided which will disqualify the Shariah objectives. Takaful objectives meet the objectives of Shariah through support by the *ta'awun* (mutual cooperation) concept, brotherhood and social equality and social justice, just and fair management of the participants' fund and achievement of *maslahah* of the ummah (public interest). Shariah and takaful share the same objectives, therefore, it is crucial for the takaful industry to comply comprehensively with Shariah principles in its concept and operations to accomplish the Islamic goals.

Explanation on activities that are permissibility, non-permissibility or prohibited, or encouraged together with the essence of ethical spirit incorporated to enable a good understanding of the rulings set in the Al-Quran and Hadith for the mankind. The contracts, products or any activity carried out in Islam have to be Shariah compliant to achieve maqasid Shariah (S. Abdullah & Furqani, 2012). The purpose of "maqasid Shariah" or the objective of Shariah is to benefit and protect the Ummah and to discipline and structure the living of the Ummah according to the Islamic teachings guided by the Quran and Hadith. In this view, takaful should be structured in line with the goals, objectives, values and direction defined by the Shariah.



In order to promote the well-being of all mankind, Imam Abu Hamid Al-Ghazali (as cited in Chapra (2008)) narrowing the objective of the Shari'ah (maqasid Shariah) into five main classifications or dimensions as shown in figure 1; preservation of faith (*din*), preservation of human self (*nafs*), preservation of knowledge (*'aql*), preservation of posterity (*nasl*) and preservation of wealth (*mal*). Whatever ensures the safeguarding of these five serves public interest (*maslahah*) and is desirable. These five fundamentals must be preserved in order to maintain the first *maslahah* category of essentials (*daruriyat*).

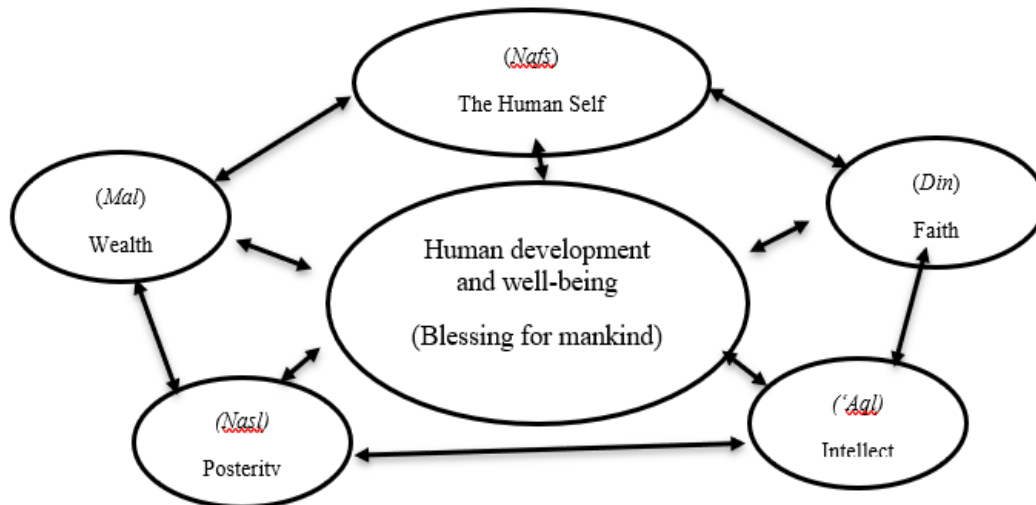


Figure 1. The main classification of Maqasid Al-Shariah in promoting human development and well-being (Adapted from Chapra (2008))

There are many other *maqasid* (objectives) to ensure human well-being in the Quran and the Sunnah or those suggested based on these sources by other scholars. These five classifications are considered as primary (*al-asliyyah*) and others are classified as their repercussions (*tabi'ah*) (Chapra, 2008). In Islamic legal theory, *maslahah* is a juristic device used to promote the public good and prevent social evil or corruption. Its plural *masalih*, means “welfare, interest, or benefit.” (Dusuki & Abdullah, 2007). Literally, *maslahah* is defined by Imam Abu Hamid Al-Ghazali as seeking benefit and repelling harm and preservation agent of the Shariah’s objectives (maqasid al-Shariah). According to al-Ghazali and later al-Shatibi, (in Dusuki & Abdullah (2007)), the theory of maqasid Shariah classified the *maslahah* through a three-level hierarchy of activities which comprise of essentials (*daruriyat*), general needs or conveniences (*hajiyyat*) and refinements or embellishments (*tahsiniyyat*). *Maslahah* represents the core of the theory of Maqasid Al-Shariah which is very significant in *maqasid* framework. (Aminuddin, Ahmad Bustaman, & Abd Wahab, 2014). Lahsasna (2013) explained *maslahah* from the public interest (the whole community) and private interest (individual) point of view and agreed that both are important to enhance the business sustainability. Dusuki and Abozaid (2007) stated that understanding the Shariah aims at protecting and upholding *maslahah* in all aspects and segments of life requires a thorough and careful examination of the Shariah rulings.

Understanding the Shariah needs and objectives (Maqasid Shariah) is vital to support the advancement of Ummah in all aspects especially in Muamalat (commercial and civil acts or dealings under Shariah). There is no direct and specific permission either in the Quran or the Sunnah which allows the practice of Takaful. The basis is developed on *Ijtihad* (or reasoning and interpretation). *Ijtihad* is developed by Muslim scholars in order to understand and apply the message of the Qur’an to varying societal needs and conditions. Maqasid Shariah acts as a general guideline and parameter which leads scholars to issue the right resolution in *ijtihad*. (Suhaimi & Ahmad Hazim, 2008; Abdul Jalil & Abdul Rahman, 2012; Lahsasna, 2013).

## 2. Literature Review

### 2.1 Takaful Reporting

Islamic companies should be more transparent in reporting their corporate activities as they operate within the boundary of Islamic principles. Transparency means that all important facts concerning the transactions to the affected parties must be clearly stated and is considered as one of the main objectives of Shariah in financial transactions activities (S. Abdullah & Furqani, 2012).

Lahsasna (2013) highlighted that one of the important maqasid Shariah is to prevent disagreement among people in social activities or in business community. In order to achieve a transparent market that is free from fraud and manipulation, Shariah focuses more on the transparency in business and finance. Transparency will avoid dispute, reduce corruptions and ensure that business operations will run according to the mutual consent of the related parties. Accounting or Islamic Financial Reporting is one of the tools to achieve the transparency in finance. In her research on Islamic banking risk reporting, Mohd Ariffin (2005) specified that, in order to achieve transparency, disclosures of qualitative and quantitative information must be timely, accurate, relevant and sufficient. These will enable users to make proper assessment of the institution's activities and risks inherent in those activities. Higher level of transparency and disclosure will lead to better-informed corporate stakeholders about the management and governance.

As for takaful industry, Ayabe (2009) stated that due to the elimination of usury, gambling and uncertain elements, takaful is perceived by the public as a more fair and transparent insurance system than conventional insurance. Bank Negara Malaysia (2013) highlighted that takaful operators, as part of good governance, shall be transparent in undertaking activities and to promote better understanding of takaful. Takaful operators must be consistent in disclosing information among all audiences, including the authorities, shareholders, the media, users, and employees. More importantly, participants (users) should be adequately informed of the changes and the impact of these changes. If any modifications or changes made to its operational model or to the terms and conditions of the products, the participants must be duly informed. The importance of transparency and clarity on agreements/ contracts are highlighted in several verses in the (*Al-Quran*, 2:282, 17:35, 11:84, 26:181-182, 55:9, 83:1-3). Transparency and disclosure provisions is important as it enables comparisons of product and services as well as facilitate informed choices of consumers. It also helps consumers to be better informed on functioning and systematic qualities of takaful business models (Archer, Abdel Karim, & Nienhaus, 2009).

## **2.2 Institutional Theory**

Institutional theory explains that firms within an industry are likely to evolve and become similar in form and practice because of the institutional pressures they face. Institutional Theory supports the legitimacy theory. However, unlike legitimacy theory which discusses on how companies use certain strategies to achieve legitimacy, institutional theory discusses how companies adopt certain forms and practices to achieve it. Scott (1995) indicates that, in order to survive, firms must adhere to the rules and belief systems in the surrounding environment (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). More importantly, institutional isomorphism, both structural and technical, will enable the firms to gain legitimacy (Suchman, 1995; Deephouse, 1996). Firms within the same industry might adopt similar structures and practices through the isomorphism process.

DiMaggio & Powell (1983) state that coercive, mimetic or normative isomorphism will lead to firms' action to adapt their processes to correspond with their institutional environment. Coercive isomorphism is as a result of formal and informal pressures imposed on organization by powerful entities such as responding to government regulations or legal mandates. Mimetic isomorphism occurs when companies copy or mimic the practices of other firms in the field in response to uncertainties arising from their institutional environment while normative isomorphism is pressures to homogeneity which come from the similar attitudes and approaches of professional groups and associations brought into the firm (DiMaggio & Powell, 1983; C. De Villiers & Alexander, 2014). The similarities caused by these three processes allow firms to interact with each other more easily and to build legitimacy among organizations. As for this study, only coercive and mimetic isomorphism are suitable to be adopted.

Coercive isomorphism derives from both formal and informal pressures exerted on organizations by other organizations on which they are dependent and from social expectations in the society they operate within (DiMaggio & Powell, 1983:150). The formal pressure is a regulatory process in which authorities have the power to set up rules and regulations, monitor compliance and impose penalty when necessary. In this study, coercive pressures include the power of authorities to control and supervise the performance of the takaful operators with regards to the quality of disclosures in the financial statements and other related reports as a medium of accountability to the public.

Mimetic isomorphism occurs when a company compares other successful firms in addressing external uncertainties (Qu, Cooper, Wise, & Leung, 2012). In addition, literature suggests that businesses or an industry may recognize the need for voluntary disclosure in a competitive market as a means of addressing information asymmetry issues (Barnett & King, 2008). Mimetic was hypothesized to measure the degree of disclosure practices by benchmarking industry leaders, competitors, industrial best practices and peer firms. (Iliya Nyahas, Munene, Orobias, & Kigongo Kaawaase, 2017). As for this study, mimetic isomorphism refers to the tendency of one takaful operator to imitate another takaful operator's reporting trend because of the belief that the reporting structure of that takaful operator is beneficial.

## **2.3 Mandatory Disclosure, Voluntary Disclosure and Maqasid Shariah**

The disclosure of reports produced by companies is divided into two categories: mandatory disclosure and voluntary disclosure. According to Owusu-ansah, (2018) voluntary disclosure refers to any disclosure made by a company that is

not required by law or self-regulatory authorities. Companies choose to disclose more information than is required because they believe it would benefit them. Managers should carefully prepare their disclosure strategy since the benefits include improved market reputation, fewer political and regulatory intervention, and enhanced stock liquidity (Entwistle, 1997). The quality and level of information on voluntary disclosure of the firms is a result of the rational decision of the managers based on the perceived, direct and indirect, costs and benefits of doing so (S. J. Gray, Radebaugh, & Robert, 1990).

On the other hand, mandatory disclosure is the minimal level of financial or non-financial information required by international accounting standards or other national standards from a reporting institution. Normally, regulatory bodies require corporations to disclose certain elements of information. However, if enforcement is inefficient, the levels of mandatory disclosures provided are mainly dependent on managers' decisions, similar to voluntary disclosures.

One of the reasons for mandatory disclosure regulation is the regulatory authorities' commitment to protect the interests of ordinary investors. Furthermore, the existence of disclosure regulation, which also assures firms' compliance with regulatory requirements, positively influences the credibility of information in capital markets. (Watts & Zimmerman, 1986; Taplin, R., Tower, & Hancock, 2002; Al-Htaybat & Napier, 2006). By establishing a minimum level of mandatory disclosure, regulators aim to redistribute wealth between informed and uninformed investors, as the information gap between them is expected to decrease (Healy, P. M., Hutton, & Palepu, 1999). However, mandatory disclosure may not always be adequate to meet investors' expectations. Thus, managers employ voluntary disclosure to communicate to investors their best information about the company's performance (Healy & Palepu, 2001; Graham, Harvey, & Rajgopal, 2005).

The theory of maqasid Shariah classified the masalah through a three-level hierarchy of activities which comprise of essentials (*daruriyat*), general needs or conveniences (*hajiyyat*) and refinements or embellishments (*tahsiniyyat*). From reporting perspective, mandatory disclosure consists of important information that firms must disclose to the users. Therefore, this information is categorised as essentials (*daruriyat*) under maqasid Shariah concept.

As for voluntary disclosure, it is an additional information based on company's discretion, relevant legislation and external pressures from consulting firms, financial analysts, capital markets, and cultural factors which are categorised as general needs or conveniences (*hajiyyat*) or refinements or embellishments (*tahsiniyyat*).

### 3. Methodology

#### 3.1 Research Framework

In order to identify the level of mandatory and voluntary disclosure, the research begins with the development of the disclosure index based on the pillars of Islamic accountability (Shariah, social and financial) (El-Halaby, Hussainey, Mohamed, & Hussien, 2018) and related information specific to the takaful industry. The checklist items were taken from various standards and guidelines such as the Islamic Financial Services Act (IFSA) 2013, the takaful operational framework and guidelines on financial reporting for Takaful operators by Bank Negara Malaysia (BNM), standards issued by Islamic Financial Services Board (IFSB), pronouncements on Islamic financial transactions by Malaysian Accounting Standard Board (MASB) and related Malaysian Financial Reporting Standards (MFRS). Based on the disclosure index, content analysis was conducted to examine mandatory and voluntary disclosure level of annual reports and websites of takaful operators. All eleven (11) takaful operators' website and annual report will be evaluated using the weighted disclosure index. This study employs ordinal scale index as it suits the purpose of the study to examine meaningful disclosure annual reports and websites of takaful operators. Categories for each item based on the following scoring system:

- 0 – Non-disclosure
- 1 – Simple narrative disclosure
- 2 – Details qualitative or quantitative disclosure

Greater weight (2) will be awarded for details qualitative and quantitative disclosures than simple narrative disclosures (1) because details and quantified information is more accurate, comparable and has higher potential value in decision-making by various stakeholders (Kamal, 2012; Kamala, 2014). The allocated categories represent the level of information disclosed in the annual reports and websites. The index will indicate any differences in the quality of reporting of each item. In order to analyse the results, the category of each item in the disclosure index will be evaluated. All eleven (11) takaful operators' website and annual report will be evaluated using the weighted disclosure index. Annual reports or director's report or audited financial statements and websites of all eleven (11) takaful operators were assessed from 8th July 2019 – 31st July 2019. The second round of content analysis was conducted from 1st August 2019 – 19th August 2019 to ensure stability and reliability of the data collected. The overall meaningful disclosure index for each takaful operator was then computed as an arithmetic mean of the eight sub-meaningful indices in percentages. The takaful operators were ranked from high to low based on the overall meaningful disclosure index. The overall meaningful disclosure index (MD Index) of each takaful operator was computed using the following formula:

$$MD\ Index = \frac{[MD\ financial + MD\ shari'ah + MD\ CG + MD\ policy + MD\ family + MD\ solvency + MD\ risks + MD\ ERM]}{8}$$

Where:

- MD Index = Meaningful Disclosure Quality Index
- MD financial = Meaningful Disclosure Financial Reporting Index
- MD Shariah = Meaningful Disclosure Shariah Compliance and Governance Index
- MD CG = Meaningful Disclosure Corporate Governance Index
- MD policy = Meaningful Disclosure Takaful Policy Requirements Index
- MD family = Meaningful Disclosure Family Takaful Index
- MD solvency = Meaningful Disclosure Solvency Requirements Index
- MD risks = Meaningful Disclosure Risks Index
- MD ERM = Meaningful Disclosure Enterprise Risk Management Index

### 3.2 Mandatory Disclosure Requirements

The mandatory disclosure requirements were developed based on Malaysian Financial Reporting Standards (MFRS) and requirements of Bank Negara Malaysia (BNM). Two standards from MFRS (MFRS 4 and MFRS 7) while three requirements of BNM (Financial reporting for Takaful Operators and Internal Capital Adequacy Assessment Process (ICAAP)). The summary of mandatory disclosure items is presented in Table 1.

**Table 1. Number of mandatory items according to standards/ requirements.**

| Requirements   | Number of Mandatory Disclosure items |
|--|--------------------------------------|
| MFRS 4 (insurance contract)                          | 12 items                             |
| MFRS 7 (financial instruments: disclosures)          | 13 items                             |
| Financial Reporting for Takaful Operator (FRTO)      | 38 items                             |
| Internal Capital Adequacy Assessment Process (ICAAP) | 4 items                              |
| <b>Total</b>   | <b>67 items</b>                      |

MFRS 4 is a standard for insurance contract. As there is no standard issued specifically for takaful, takaful operators had to adhere to the MFRS 4 requirements. MFRS 7 is a standard on financial instruments: disclosures. Even though MFRS 7 is on the disclosure for financial instruments, since takaful operators are involved in investment activity, this financial investment becomes part of the financial instruments. The aim of MFRS 7 is to allow entities to provide reports in their financial statements and enable users to determine the importance of financial instruments for the financial position and performance of the entity; and the nature and extent of the risks arising from the financial instruments to which the entity is exposed during and at the end of the reporting period; and the nature and extent of risks resulting from the financial instruments are exposed to the entity during the reporting period and at the end of the reporting period, and how the entity handles such risks.

Financial reporting for takaful operators is issued to clarify and sets minimum requirements for a takaful operator in MFRS application. It ensures adequate disclosures in the financial statements by a takaful operator to enhance comparability for users of financial statements and to promote better analysis of the financial position and performance of a takaful operator. The policy documents outline the specific criteria on MFRS implementation, information to be reported in the financial statements, requirements to authorize a dividend payment and requirements on submission and publication of the financial statements. Takaful operator is expected to fulfil the requirements in this policy document when preparing and publishing separate financial statements and consolidated financial statements.

On the other hand, The Internal Capital Adequacy Assessment Process (ICAAP) for takaful operators is the overall process to be performed by a licensed individual to ensure that the operator has sufficient capital to satisfy on an ongoing basis their capital requirements. Only four mandatory items based on general requirements on board oversight and senior management responsibilities; comprehensive risk assessment; individual target capital level (ITCL) and sound capital management.

According to Baydoun & Willett (2000), from an Islamic perspective, the main purpose of corporate reporting is to allow Islamic companies to demonstrate compliance with Shariah law and to serve the society. The concept of accountability in Islam is underpinned by two basic principles: full disclosure and social responsibility. Full disclosure refers to disclosure of any information that should be legitimately offered to community members in compliance with the

Shariah principles. Furthermore, the emphasis on social accountability would mean that financial reports would enable Muslims to assess the liability for *zakat* or tithes (the sum payable by Muslims whose income exceeds a minimum limit), a system that encourages socio-economic justice. As for this study, mandatory disclosure items cover includes information measurement of *Qard*, *Qard* repayment period, amount of *zakat* payable and its calculation, amount and nature of earnings (expenditure) from sources or by means which are not permitted by Shariah and Shariah Committee's report.

### 3.3 Voluntary Disclosure Requirements

The voluntary disclosure requirements were developed based on requirements of Bank Negara Malaysia (BNM) and Islamic Financial Services Board (IFSB). A requirement of BNM (Takaful Operational Framework (TOF)) and four requirements of IFSB (IFSB 8, IFSB 9, IFSB 10 and IFSB 14). As for BNM requirements, Takaful Operational Framework (TOF) draws the parameters governing the operational requirements for the management of takaful funds and shareholders' funds. TOF aims to achieve the takaful sector's operational efficiency and the sustainability of takaful funds, thus safeguarding the best interests of the takaful participants. The criteria in this TOF are formulated in compliance with the Islamic Financial Services Act 2013 (IFSA), by which the approved takaful operator acts on behalf of the takaful participants as the manager and administrator of the takaful funds. The summary of the voluntary disclosure items is presented in table 2.

**Table 2. Number of voluntary items according to standards/ requirements.**

| Requirements   | Number of Voluntary Disclosure items |
|--|--------------------------------------|
| Takaful Operational Framework (TOF)  | 21                                   |
| IFSB 8 – Guiding Principles on Governance for Takaful Undertakings   | 20                                   |
| IFSB 9 - Guiding Principles on Conduct of Business for Institutions Offering Islamic Financial Services          | 1                                    |
| IFSB 10 - Guiding Principles on Shari'ah Governance Systems for Institutions Offering Islamic Financial Services | 2                                    |
| IFSB 14 - Standard on Risk Management for Takaful Undertakings   | 13                                   |
| Total  | 57                                   |

## 4. Results and Discussion

**Table 3. Overall mandatory disclosure according to total quality disclosure and average disclosure**

|                             | Takaful operator 1 | Takaful operator 2 | Takaful operator 3 | Takaful operator 4 | Takaful operator 5 | Takaful operator 6 | Takaful operator 7 | Takaful operator 8 | Takaful operator 9 | Takaful operator 10 | Takaful operator 11 | Average Disclosure |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|--------------------|
| Financial Reporting         | 100%               | 100%               | 100%               | 100%               | 100%               | 100%               | 100%               | 100%               | 100%               | 100%                | 100%                | 100%               |
| Shariah Compliance          | 100%               | 100%               | 100%               | 100%               | 100%               | 100%               | 100%               | 100%               | 100%               | 100%                | 100%                | 100%               |
| Corporate Governance        | 100%               | 75%                | 100%               | 100%               | 50%                | 50%                | 50%                | 50%                | 75%                | 50%                 | 50%                 | 68%                |
| Takaful Policy Requirements | 50%                | 50%                | 83%                | 100%               | 67%                | 100%               | 83%                | 83%                | 83%                | 83%                 | 83%                 | 79%                |
| Family Takaful Risks        | 75%                | 50%                | 100%               | 50%                | 100%               | 50%                | 50%                | 50%                | 50%                | 100%                | 100%                | 70%                |
| Enterprise Risk Management  | 100%               | 100%               | 98%                | 98%                | 100%               | 100%               | 100%               | 100%               | 100%               | 100%                | 100%                | 100%               |
| TOTAL DISCLOSURE            | 96%                | 94%                | 96%                | 92%                | 96%                | 94%                | 93%                | 93%                | 96%                | 96%                 | 96%                 | 95%                |

There are only eleven takaful operators in Malaysia (before IFSA requirement for composite takaful operators to split their general and Family Takaful businesses into two separate entities in 2018). Three of the takaful operators were owned by foreign countries (Zurich Takaful Malaysia Berhad, AIA AFG Takaful Berhad and Great Eastern Takaful). The oldest

takaful operator is Syarikat Takaful Malaysia Berhad which was formed in 1985 using Mudarabah model. As for the content analysis, all voluntary and mandatory items were classified into 8 themes consistent with studies by El-Halaby et al (2018), Archer et al (2009), IFSB and IAIS (2006), IFSB (2009), Abdul Aris et al (2012) and Akhter (2010). The 8 themes are 1) financial reporting (El-Halaby, 2018); 2) Shariah Compliance and Governance (El-Halaby, 2018); 3) Corporate Governance (IFSB & IAIS, 2006); 4) Takaful Policy Requirements (Archer et al, 2009); 5) Family Takaful (IFSB, 2009); 6) Solvency Requirements of Takaful Undertakings (Archer et al, 2009); 7) Risks (Abdul Aris et al, 2012; Akhter, 2010) and 8) Enterprise Risk Management (Abdul Aris et al, 2012; Akhter, 2010). All eleven (11) takaful operators' website and annual report were evaluated using the weighted disclosure index. The summary of the content analysis was as follows

**Table 4. Overall voluntary disclosure according to total quality disclosure and average disclosure**

|                             | Takaful operator 1 | Takaful operator 2 | Takaful operator 3 | Takaful operator 4 | Takaful operator 5 | Takaful operator 6 | Takaful operator 7 | Takaful operator 8 | Takaful operator 9 | Takaful operator 10 | Takaful operator 11 | Average Disclosure |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|--------------------|
| Shariah Compliance          | 70%                | 30%                | 40%                | 40%                | 60%                | 30%                | 40%                | 40%                | 40%                | 70%                 | 40%                 | 45%                |
| Corporate Governance        | 67%                | 58%                | 67%                | 67%                | 58%                | 50%                | 42%                | 42%                | 33%                | 42%                 | 42%                 | 52%                |
| Takaful Policy Requirements | 45%                | 65%                | 53%                | 53%                | 63%                | 43%                | 43%                | 63%                | 55%                | 80%                 | 43%                 | 55%                |
| Family Takaful              | 0%                 | 50%                | 30%                | 80%                | 40%                | 20%                | 0%                 | 60%                | 60%                | 40%                 | 20%                 | 36%                |
| Solvency Requirements       | 0%                 | 0%                 | 0%                 | 0%                 | 0%                 | 0%                 | 0%                 | 0%                 | 0%                 | 0%                  | 0%                  | 0%                 |
| Risks                       | 57%                | 36%                | 43%                | 57%                | 79%                | 43%                | 14%                | 50%                | 36%                | 57%                 | 43%                 | 47%                |
| Enterprise Risk Management  | 50%                | 71%                | 64%                | 79%                | 86%                | 43%                | 43%                | 71%                | 86%                | 86%                 | 71%                 | 68%                |
| <b>TOTAL DISCLOSURE</b>     | <b>36%</b>         | <b>39%</b>         | <b>37%</b>         | <b>47%</b>         | <b>48%</b>         | <b>29%</b>         | <b>23%</b>         | <b>41%</b>         | <b>39%</b>         | <b>47%</b>          | <b>32%</b>          | <b>38%</b>         |

The objective of the research is to examine the level of Takaful reporting by examining the annual reports and websites of takaful operators. The content analysis was conducted to fulfil the objective of the study. All takaful operators disclosed 100% of information on financial reporting, Shariah compliance and governance, risks and enterprise risk management have the lowest level of average disclosure level on corporate governance. All mandatory items are fundamental/ essential (*daruriyat*) therefore it is expected that they have high level of total meaningful disclosure. Consistently, the findings show that the disclosure level is high that is, between 92% and 96% of total disclosure.

In institutional theory, coercive pressures present as a result of a government mandate that organisations are required to exercise (DiMaggio & Powell, 1983). In Malaysia, takaful operators are required to mandatorily disclosed information based on MFRS and Bank Negara requirements under MFRS 4, MFRS 7, TOF and ICAAP. High penalty was imposed if did not comply with the Bank Negara requirements. As for Takaful Operational Framework, the requirements in this policy document are specified pursuant to sections 29(2), 57, 90, 93, 94, 95 and 155 of the IFSA (2013), in which, the maximum penalty is imprisonment for a term not exceeding eight years or a fine not exceeding twenty-five million Malaysian Ringgit. Consistent with the proposition, the average disclosure level is 95% which is at high level of disclosure.

On the other hand, the result on voluntary information disclosed by takaful operators is mixed. The disclosure level is between 23% and 48% of total disclosure. None of the takaful operators disclose information on solvency requirement's theme. There is only 36% disclosure level on family takaful theme. The highest disclosure level is 68% which is on enterprise risk management theme. Further analysis shows that more than 6 takaful operators did not disclose information from 19 items required by IFSB and 9 items required by TOF.

Higher non-disclosure items on IFSB requirements are because it is just a guideline and best practice, not mandatory (*hajiyyat/ tahsiniyyat*). No penalty imposed on non-disclosure and IFSB is not one of the regulators in takaful industry in Malaysia. The findings show that the average voluntary disclosure level is 38% of total disclosure, which is considered as at moderately low level. Mimetic isomorphism explains the voluntary disclosure made by takaful operators.

One takaful operators might imitate another takaful operator's reporting structure which is perceived as legitimate and becomes a "safe" way to proceed.

## 5. Conclusion

Takaful operators disclosed with an average of 95% of the total mandatory information. As for voluntary disclosure, takaful operators disclosed with an average of 38% of total voluntary information. None of the takaful operators disclose information on solvency requirements because the IFSB requirements on solvency requirement is just a guideline and best practice. Given that this is not mandatory and that the IFSB is not one of the regulators of the takaful industry in Malaysia, takaful operators tend not to disclose. All mandatory items are fundamental or essential (*daruriyat*) and takaful operators are expected to have a high-level disclosure. Thus, the disclosure level is consistent amongst takaful operators that is between 92% and 96% of total mandatory disclosure.

From a disclosure perspectives, essentials or fundamental information (*daruriyat*) are disseminated in detail in the annual report as mandatory disclosure. As for general needs information (*hajiyyat*) and information related to refinements (*tahsiniyyat*), these are classified as voluntary disclosure. Voluntary disclosure includes sharing of nonfinancial information such as ethical, environmental, and social issues, by firms with users without any legal obligation. Given the time and cost constraints, this study is unable to explore these concepts thoroughly. Therefore, it is suggested for future researchers to do a thorough study on the meaningful disclosure level based on the three-level hierarchy of *maqasid* Shariah. Future studies may want to focus on the classifications of voluntary disclosure items into general needs information (*hajiyyat*) and information related to refinements (*tahsiniyyat*).

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## Voluntary Disclosure on Takaful Policy Requirements in Malaysia

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### Abstract

Takaful is still in its early stages as compared to conventional insurance with regard to regulatory maturity and market penetration. In Malaysia, Bank Negara Malaysia has issued guidelines to ensure the operational efficiency of takaful operators, safeguard the interests of participants and promote uniform practices between operators. From a reporting perspective, in the Financial Stability and Payment Systems Report 2013, Bank Negara Malaysia (2014) mentioned the importance of having meaningful disclosure to protect participants. However, it did not provide details of the elements of meaningful disclosure. This study focuses on disclosure of takaful information from user's perspective. A checklist was developed to represent desirable level of disclosure based on various requirements and standards. To measure the voluntary disclosure level, the checklist was distributed to takaful agents to examine their perception of the disclosure on takaful information. It was found that majority of the users (86.14%) agreed that all disclosure items on takaful policy requirements are meaningful. It is hoped that the findings will assist authorities in formulating guideline or policy pertaining to meaningful disclosure for the users in the future.

### Keywords

Takaful, takaful operational framework, takaful policy requirements

### 1. Introduction

Conventional insurance differs from takaful primarily because of its inconsistency with Islamic law (Shariah) in terms of uncertainty in the transactions (*gharar*), interest income, interest expense (*riba* ') and gambling elements (*maisir*) applied in the conventional insurance. Unlike insurance which transfer risk, takaful is based on the principle of *tabarru'* (donation) and the concept of risk sharing. In term of reporting, takaful has to adhere to various standards and regulations to ensure the takaful operations according to Shari'ah principle.

In Malaysia, takaful operators are required to adhere to the Malaysian Financial Reporting Standards (MFRS) to the extent that the standards in preparing their financial statements are consistent with Shariah principles. To further enhance the growth of the takaful industry in Malaysia, Bank Negara Malaysia (BNM), has issued guidelines on the takaful operational framework for takaful operators (TOs). Indeed, BNM in its 2013 Financial Stability and Payment Systems Report, highlighted the need for TOs to provide "meaningful disclosure" to participants to enable them to make more informed decisions. Meaningful disclosure refers to relevant and reliable information that will assist potential participants to make a balanced and informed decision on the takaful products that would fulfil both their investment needs as well as providing takaful protection. Accordingly, one may regard meaningful disclosure as synonymous with useful information. Other than indicating information on the costs and benefits as well as associated risks of takaful products in order to assist potential participants in their decision to "purchase" a particular takaful product, the guidelines did not really specify what "meaningful disclosure" is. This is indeed a concern. Accordingly, this study attempts to determine what constitutes meaningful disclosure.

#### 1.1 Background of the Study

The strong growth of the Malaysian takaful industry has been led by family takaful, which grew by 46.7% in the first half of 2021 (7.8% in 2020). In the same time period, general takaful increased by 13.5% (2020: 4.61%). According to Fitch Ratings (a credit rating agency), the sharp increase in contributions was driven by increased public awareness of takaful products, supportive government initiatives, the relaxation of Covid-19 movement restrictions, and a recovering economy. According to the Islamic Financial Services Board, Malaysia has the third-largest takaful market in the world, with a thriving Islamic finance ecosystem that includes Islamic banks, sharia-compliant corporates, Islamic fund managers, and halal industries seeking takaful products. Malaysia has the world's largest family takaful market with a proven model and a better regulatory (EY, 2014). Bank Negara allows Malaysian takaful operator to choose any takaful model (*mudharabah*,

wakalah, hybrid or waqf model) unlike Saudi Arabia, which only allow cooperative insurance based on mudharabah model.

In Saudi Arabia, in term of technical; and scale efficiency, takaful insurance is more effective compared to cooperative insurance (Benyoussef & Hemrit, 2019). However, still, the need of information to be disclosed is higher as variety of model, products and information must be adhered to Shariah principles disseminated to the potential participants to assist them in making decision.

### **1.2 Problem Statement**

Bank Negara Malaysia (2014) highlighted meaningful disclosure perception to help consumers or participants to understand the costs, benefits and associated risk of financial products. Indirectly, it assists the potential customers or participants to decide on which takaful product that suit their needs. This is to ensure a better protection to the participants.

Although there are rules and guidelines produced by several regulatory bodies for instance Bank Negara Malaysia (National Bank), Islamic Financial Services Board (IFSB), Islamic Financial Services Act (IFSA), Malaysian Accounting Standard Board (MASB) and Malaysian Deposit Insurance Corporation/ Perbadanan Insurans Deposit Malaysia (PIDM), however, there is no specific standard of disclosure items to fulfill the needs of potential consumers or participants.

This study focusses on the needs of potential consumers or participants on disclosure level of voluntary information pertaining to takaful policy requirements.

### **1.3 Objective and Significance of The Study**

The objective of the study is to examine the desired disclosure level of potential consumers or participants that fulfill their needs to make decision on the most preferred takaful products or investments. The study employs a set of disclosure index of takaful policy requirements developed based on takaful operational framework and Islamic Financial Services Board (IFSB). The findings of the study will lead to further research study and indirectly will assist the regulator to set a disclosure standard in the future.

## **2. Literature Review**

Previous studies can be classified into three main themes; research on knowledge and perception of takaful products, the basic concepts of takaful and consumer behaviour and preferences of takaful products. Several studies examining the level of awareness, knowledge and perception on takaful products and services (Maysami & Williams, 2006; Abdul Wahab, Lewis, & Hassan, 2007; Hamid, Osman, Ariffin, & Nordin, 2009; Bashir & Mail, 2011; Ayinde & Echchabi, 2012; Salleh, Abdullah, & Razali, 2013). Other studies explore and clarify the basic concepts and products of takaful (Maysami & Kwon, 1999; Bekkin, 2007; Altuntas, Berry-stölzle, & Erlbeck, 2011; Muhamat@Kawangit et al., 2012). Consumer behaviour and preferences in takaful are among the focus area of studies of researchers (Ab Rahman, Ali, Che Seman, & Wan Ahmad, 2008; Redzuan, Abdul Rahman, & Aidid, 2009; Matsawali et al., 2012; Sherif & Shaairi, 2013). As Takaful industry grows, the number of studies focusing on takaful has increased significantly. However, most of these studies cover almost the same areas with some focus deviation. Takaful is relatively new compared to conventional insurance and many researchers study the concepts and applications in takaful.

There are limited studies on takaful disclosure. Abu Kasim (2012) did a study on the disclosure of Shariah compliance via annual reports by takaful operators while Mohd Puad & Abdullah (2014) examined Takaful accounting reporting and regulations and the current practice of accounting standards among all the Takaful operators in Malaysia.

This study applied Decision Usefulness theory which states that the core principle of accounting information is to meet the information requirements of users located in the considerable environment of any focal organisation (Bebbington, Gray, & Laughlin, 2001) Under behavioral accounting research (BAR) approach, it is assumes that the user is in the best position to determine the information that will affect their decision or behaviour. As for this study, the main focused is on the needs of disclosure by potential consumers or participants to make decision on takaful products and investments.

## **3. Methodology**

This is quantitative study that involves 250 takaful agents. A set of disclosure index on takaful policy requirements were developed based on takaful operational framework and Islamic Financial Services Board (IFSB). The disclosure index consists of 20 items on takaful policy requirements.

Most of the disclosure items are quite difficult to understand as it is related to technical term in takaful operations. Therefore, samples are taken from respondents who possess takaful policy and have gone through takaful training. We decided to choose takaful agents who meets the two criteria to represents users. Takaful agents were chosen because they have formal takaful training and they are a better group of respondents who understand the technical information to represent the whole population of takaful participants.

The disclosure index was distributed through emails and social media applications (WhatsApp, Telegram and Line). Google Form were used as a medium to disseminate and gathered responses from the users. The index distributed to 250 takaful agents to gain their responses. The disclosure index was distributed from 1<sup>st</sup> January 2021 until 14<sup>th</sup> February 2021. Only 79 respondents reply and give their response. The data were gathered and analysed using SPSS.

## 4. Findings

### 4.1 Demographic Information

There are seventy-nine respondents answering the survey, consists of 44 (55.7%) male and 35 (44.3%) are female. In term of age, 6 respondents (7.6%) are under 25 years, 23 (29.1%) are between 26 to 35 years, 23 (29.1%) are between 36 to 45 years, 20 (25.3%) are between 46 to 55 years, 6 (7.6%) are between 56 and 65 years old and 1 (1.3%) is over 65 years old. The academic qualification of the respondents, are SPM 3 (3.8%); STPM 4 (5.1%); Diploma 30 (38.0%); Degree 33 (41.8%); Master 6 (7.6%); PhD 3 (3.8%) and others qualification is 1 (1.9%). In terms of academic background, 38 (70.4%) respondents are from Business/Management; Law 7 (13%); Engineering 3 (5.6%) and Science 6 (11.1%).

### 4.2 Information on Takaful Policy Requirements

The respondents are required to evaluate 20 voluntary information relating to takaful policy requirements for takaful operator in Malaysia. The respondents are required to rank the information according to its importance; 1 – Least important to 5 – Most important. Table 1 below shows the descriptive statistics for the information pertaining to takaful policy requirements. For transparency and briefness, the percentages of more important and most important (4 and 5 on Likert scale) were added together and report it as “percentage that perceive statement to be important” in the last column of the table 1. Those who are uncertain (3 on the Likert scale) were classified as perceiving the statement not to be important as the middle point of the Likert scale (3) suggest neutrality in the perception of the importance of the statement. The statement was ranked according to the percentage of users that perceive statement to be important which was adopted from the previous studies (Charl De Villiers & Van Staden, 2010:233-234; Kamala, 2014:295).

**Table 1. Descriptive statistics for information pertaining to takaful policy requirements**

| Takaful Policy Requirements        | Means  | Standard Deviation | Std. Error of Mean | Rank | Percentage that perceives statement to be important |
|------------------------------------|--------|--------------------|--------------------|------|---|
| Obligations of participants        | 4.7722 | 0.47903            | 0.0539             | 1    | 97.47%  |
| Statement of assurance             | 4.7468 | 0.49273            | 0.05544            | 2    | 97.47%  |
| Obligations of takaful operators   | 4.6835 | 0.51997            | 0.0585             | 3    | 97.47%  |
| Complaints handling policy         | 4.6203 | 0.56168            | 0.06319            | 4    | 96.20%  |
| Procedures of claim processing     | 4.6203 | 0.60561            | 0.06814            | 4    | 93.67%  |
| Remuneration's policy              | 4.6076 | 0.66829            | 0.07519            | 6    | 92.41%  |
| Tabarru' concept                   | 4.5949 | 0.63081            | 0.07097            | 7    | 92.41%  |
| Operational model                  | 4.5823 | 0.56857            | 0.06397            | 8    | 96.20%  |
| Exit options                       | 4.481  | 0.63772            | 0.07175            | 9    | 92.41%  |
| Underwriting policy                | 4.443  | 0.69332            | 0.078              | 10   | 88.61%  |
| Investments mgt strategy           | 4.2911 | 0.87928            | 0.09893            | 11   | 77.22%  |
| Policies on loss rectification     | 4.2785 | 0.83107            | 0.0935             | 12   | 81.01%  |
| Policy on PRF surplus              | 4.2658 | 0.85798            | 0.09653            | 13   | 81.01%  |
| Specific investment objectives     | 4.2532 | 0.79208            | 0.08912            | 14   | 81.01%  |
| Retakaful mgt strategy             | 4.2405 | 0.83536            | 0.09399            | 15   | 81.01%  |
| Surrender value basis              | 4.2278 | 0.84655            | 0.09524            | 16   | 78.48%  |
| Publish on websites                | 4.1646 | 0.82323            | 0.09262            | 17   | 75.95%  |
| Policies to manage operating costs | 4.1266 | 0.95229            | 0.10714            | 18   | 74.68%  |
| Allowable expenses                 | 4.0633 | 0.82185            | 0.09246            | 19   | 74.68%  |
| Commissions and agency fees        | 4.0633 | 1.06629            | 0.11997            | 19   | 73.42%  |
| Average                            | 4.4063 |                    |                    |      | 86.14%  |

From table 1 it was found that majority of the respondents perceive all 20 voluntary disclosure items in takaful policy requirements to be important. 97.47% (with mean of 4.7722) of respondents feels that obligations of Takaful participants (to make full disclosure of material facts relevant to the proposed transaction before signing any documents, to avoid any conflicts in the future) is either more important or most important. The lowest percentage is information on

commission and agency fees, where 73.42% (with mean of 4.0633) of the respondents perceived that the information is either more important. More than 80% of the respondents perceives that the 15 out of 20 of the information related to takaful policy requirements are either more important or most important. On average, 86.14% (overall mean of 4.4063) of the respondents perceive that information on takaful policy requirements to be important.

## 5. Conclusions, Recommendations and Future Research

The findings of the study provide valuable insights to the standard setter as they are made aware of potential customers' or participants' needs based on how they ranked the information related to takaful policy requirements.

The average percentage of users perceive that the information on takaful policy requirements to be important is 86.14% which is high. According to the decision usefulness theory, (based on users' knowledge and needs), users may agree or disagree with the meaningful disclosure index developed. As for this study, majority of the users agree with the standard and guidelines of the authorities.

This is the first study in Malaysia to evaluate the disclosure of takaful policy requirements information which is consistent with the available standards and regulations in the takaful industry. The findings of the study provide significant insights to Bank Negara Malaysia as regulator to undertake the task of formulating new legislation and standards. With input from the users, Bank Negara can improve the existing regulation by revising the existing guidelines especially on the consideration to classify the information as mandatory requirements.

Further research is needed to extent the scope and to include other voluntary information listed in the takaful operational framework, IFSB and other related rules and standard. The current practice of disclosure needs to be observed and analysed to match against the desired level of disclosure needed by the potential customers or participants.

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## **Determinant of Financial Statement Fraud Using Fraud Theory in Indonesia: A Literature Review**

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### **Abstract**

The purpose of this paper is to explore the determinants of financial statements fraud using various fraud theories, namely: fraud triangle theory, fraud diamond theory, fraud pentagon theory, and fraud hexagon theory. The data of this study was derived from a review of empirical literature comprising 32 articles published between 2016 and 2022. The sample articles on the relationship between fraud factors and financial statement fraud were located through a Scopus database keyword search. The results indicate that relatively little research has been conducted on the determinants of financial statement fraud using fraud theories. Inconsistent or mixed results have been identified as one of the key findings of previous financial statement fraud research. Several factors, such as the proxy used for predictor variables, the application of the theory, and the use of different measurement instruments to measure comparable variables, may have contributed to the mixed results. The empirical testing of the fraud theory (fraud triangle theory, fraud diamond theory, fraud pentagon theory, and fraud hexagon theory) shows that the theory is an excellent tool for explaining financial statement fraud. The pressure was the element that had the most significant effect on financial statement fraud. In contrast, most studies have found that capability does not significantly impact financial statement fraud.

### **Keywords**

Determinant Factors, Financial Statement Fraud, Fraud Theory, Indonesia.

### **1. Introduction**

Fraud is one of the problems that significantly affect organizations' growth. (Ruankaew, 2013). In addition, compared to other types of crime, fraud has a more significant economic impact (Abdullahi and Mansor, 2015b; ACFE Indonesia Chapter, 2019; Free, 2015). For example, according to the world's largest anti-fraud organization and primary source of anti-fraud training and education, known as The Association of Certified Fraud Examiners (ACFE), approximately 3.3 billion employees worldwide have some level of access to or control over their employer's cash or assets. As a result, the company has lost around 5% of its revenue each year to fraud (ACFE, 2020). Moreover, ACFE (2020) has divided fraud into three categories: asset misappropriation, financial statements fraud, and corruption. The survey of ACFE in 2018 and 2020 reported that financial statement fraud represented the most severe problem for all types of organizations and the costliest category of fraud (ACFE, 2018, 2020). This shows that financial statement fraud prevention has not been effective.

Financial statement fraud is the deliberate misrepresentation of an enterprise's financial position with the intent of deceiving those involved or by omitting material information from the financial statements (Erdogan and Erdogan, 2020). Evidence shows that companies carry out financial statement fraud which misrepresent their financial statements (Hail and Wang, 2017). International corporations such as Enron, WorldCom, Bernard Madoff, Lehman Brothers, and Charles Ponzi have engaged in extraordinary financial statement fraud over the last two decades (Ballard, 2018). This highlights an outline of why more attention should be paid to the issue of financial statement fraud.

Indonesia is also not an exception to financial statement fraud and corporate scandals. The financial statement fraud involved large listed companies such as PT Kimia Farma, PT Kereta Api, PT Timah, PT Hanson International, PT Garuda Indonesia, and PT Bank Bukopin. PT Kimia Farma was inflating its net profit on the financial statement in 2001. In 2005, PT Kereta Api's financial statements made a profit of Rp6.9 billion when the company should have lost Rp63 billion (CNNIndonesia, 2019). PT Hanson International manipulated its financial statements in 2016, fraudulently increasing its revenue by Rp732 billion (Idris, 2020). In another case in 2018, an accounting fraud involving PT Garuda Indonesia misrepresented a net profit of USD 809 thousand in its financial statements (CNNIndonesia, 2019). As a result, in Indonesia, the Indonesian securities commission, Otoritas Jasa Keuangan, has ordered the restatement of their financial statements for 2018. PT Garuda recorded a loss of USD175 million regarding the restatement (Saragih, 2019). Therefore, it is indicated that financial statement fraud in Indonesia is endless.

Financial statements serve as a primary source of information for a broad range of market participants and other stakeholders, making their validity and reliability critical. The validity and reliability of the financial statement prepared by the firm are the core issues in maintaining the trust and confidence of market participants and stakeholders. The financial statement should record all accounting transactions appropriately and be free from any misleading information.

Management of companies committed financial fraud by producing misleading financial statements relating to the company's profit. There is a severe impact of producing financial statement fraud which can tarnish the company's reputation and credibility in the eye of stakeholders.

The occurrence of financial statement fraud will negatively impact many parties, such as shareholders, creditors, employees, and other stakeholders (Famieza and Hashim, 2016; Omar et al., 2017; Perols and Lougee, 2011). Investors' confidence will decrease, and investors will be less willing to invest in companies that perform financial statement fraud (Famieza and Hashim, 2016; Wang et al., 2017). Hashim et al. (2020) and Manurung and Hardika (2015) argue that financial statement fraud depreciated the company's market value, directly impacted the company's bankruptcy, and affected investors' image and confidence in reinvesting in the financial markets. Financial statement fraud can cause a financial crisis that hits the world, leading to bankruptcy (Aviantara, 2020; Rukmana, 2018). In addition, the financial statement fraud made employees lose their jobs, and even more contemporaneous, former employees lost their pensions, and business partners lost contacts (Roszkowska, 2020).

Given the significant impact of financial statement fraud, many scholars have extensively studied fraud factors that affect financial statement fraud in Indonesia. Several studies examine how fraud factors based on fraud theory, such as Fraud Triangle Theory (Cressey, 1953), Fraud Diamond Theory (Wolfe and Hermanson, 2004), Fraud Pentagon Theory (Marks, 2012), and Fraud Hexagon Theory (Vousinas, 2019) that affect financial statement fraud incidents in Indonesia. The purpose of this paper is to review and provide a systematic overview of the current state of 32 empirical published literature on financial statement fraud in Indonesia from 2016-2022. This study's research problem is the development of empirical studies in the field of financial statement fraud in Indonesian listed companies. The research objective is to provide a comprehensive guide to the most recent contributions, developments, and empirical studies in the field of financial statement fraud by facilitating a clear discussion of the various research directions and techniques.

The paper is structured as follows: section 2 describes the literature review which discusses institutional setting and theory-related fraud; section 3 delineates the method and review design for the study; section 4 outlines the review results and discussion; and section 5 concludes the paper.

## **2. Literature Review**

### **2.1 Institutional Setting**

#### **2.1.1 Public Listed Firms in Indonesia**

Bursa Efek Indonesia (hereafter BEI) and the Indonesian Securities Commission, Otoritas Jasa Keuangan (OJK), are the primary regulators of Indonesia's capital market and accounting standards. BEI serves as an institution that organizes capital market transactions, while the OJK serves as a capital market supervisory agency. Thus, both are responsible for encouraging security and comfort in the capital market environment (BEI, 2019).

Since 1912, the Indonesian capital market has existed. At the time, the capital market's development and growth did not proceed as expected, and for several periods, capital market activity was virtually non-existent. In 1977, the government of the Republic of Indonesia reactivated the capital market, and the market expanded due to the government's various incentives and regulations. In 2007, two Indonesian exchanges merged to form BEI, the only exchange in Indonesia. In 2019, BEI was awarded the Best Companies to Work For in Asia for three consecutive years (2017, 2018, and 2019). This award recognizes BEI's efforts in managing the company's human resources (BEI, 2019). Bapepam was founded in 1976 and served as the organizer and supervisor of Indonesia's capital market. In 2012, an independent institution called Otoritas Jasa Keuangan (OJK) was ratified, taking over the functions, responsibilities, and authorities of Bapepam's capital market supervision and regulation. OJK's primary responsibilities in carrying out the capital market supervision functions are as follows: (1) Formulating and implementing regulations for the Capital Market sector; (2) Developing standards, norms, and guidelines for criteria and procedures in the capital market sector; (3) Establishing accounting provisions for the Capital Market sector; (4) Analyzing, developing, and supervising the Capital Market, including the Sharia Capital Market; and (5) Enforcing capital market laws (OJK, 2021).

#### **2.1.2 Regulations and Guidelines for Public Listed Firms in Indonesia**

The primary regulators of the Indonesian capital market are to ensure that financial and non-financial services activities are accountable, organized, transparent, and fair. The existence of these regulations is to ensure legal certainty for parties conducting activities in the capital market. Dechow et al. (1995) found that the highest incidence of fraud occurred in companies with weak corporate governance. Corporate governance could function effectively when accountability, responsibility, fairness, and transparency (Indarto and Ghazali, 2016).

In Indonesia, the activities of companies in the capital market are regulated in Republic Indonesia Law No. 8 of 1995, known as the law on the Capital Market. This law is a general provision regarding the Capital Market law. The law includes a definition, an explanation, and rules and regulations governing capital market activities (BEI, 2021). This law

was also enacted to foster the growth of the capital market; it requires a solid legal foundation to ensure greater legal certainty for parties engaged in capital market activities and safeguard the investor community's interests against harmful practices.

### **2.1.3 Financial Reporting Standards, Guidelines, and Practice for Public Listed Firms in Indonesia**

The guideline for financial statements reporting for Indonesia public listed firms is regulated in Rule Number VIII.G.7. OJK may impose sanctions on a company listed on the IDX (Indonesian Stock Exchange) for violating these rules. This regulation adopts the Statement of Financial Accounting Standards (PSAK), which is based on International Financial Reporting Standards (IFRS) and the International Accounting Standards (IAS). OJK supervises the presentation of financial statement reporting for Indonesian listed companies based on this rule. This regulation establishes standards for the structure, content, presentation, and disclosure of financial statements listed firms must submit to the public and regulators.

Financial accounting standards provide that financial statement reporting should include: (1) a statement of financial position at the end of the period; (2) a comprehensive income statement for the period; (3) a statement of changes in equity during the period; (4) Cash flow statement during the period; (5) notes to financial statements; and (6) statement of financial position at the beginning of the comparative period which is provided when an issuer or public company retrospectively applies an accounting policy or makes restatements of financial statement items or when the issuer or listed firms reclassifies financial statement items.

## **2.2 Fraud Related Theory**

### **2.2.1 Fraud Triangle Theory**

The Fraud Triangle Theory was developed and introduced by Donald Cressey in 1953, a criminologist whose research focuses on the "trust-violators" people. The fraud triangle was the initial theory of fraud factor detection. The fraud factors approach was primarily based on interviews of persons convicted of embezzlement. He observed that fraud usually had three common characteristics that must be present for someone to commit fraud or other unethical behavior. First, the individual felt that the financial need was not shared. Second, the embezzler was able to commit fraud. Third, the individual involved in the fraud rationalization the fraudulent act according to its code of ethics. Therefore, the fraud factors are pressure, opportunity, and rationalization, and these three factors are the key elements of the fraud factors of the Fraud Triangle Theory (Free, 2015; Skousen et al., 2009).

The Fraud Triangle Theory suggests that the three elements of fraud cannot be observed directly, and all three elements of the fraud triangle theory must exist for an individual to commit fraud. If the organization can prevent each element, it can stop fraud, unethical, and misconduct behavior. In 2002, AICPA issued SAS No. 99, formally embracing the fraud triangle theory as a tool for anti-fraud professionals to mitigate fraud risks (Roden et al., 2016; Skousen et al., 2009). AICPA (2002) mentions that the SAS provides detailed guidance on how fraud risks associated with material accounting misstatement in financial reporting can and should be assessed.

Therefore, Skousen et al. (2009) have developed these three elements to detect financial statement fraud based on SAS No. 99. They use pressure, opportunity, and rationalization as proxies to measure fraud. It is suggested that organizations understand the Fraud Triangle Theory to curb fraud, unethical, and misconduct actions that can severely impact the operation and financial performance of the organization.

#### **2.2.1.1 Pressure**

Pressure is also known as an incentive that can coerce someone into committing fraud. Examples of pressure include credit card debts, financial problems, personal or family difficulties, medical problems, and addiction to drugs or alcohol. The agents, management, or other employees may be pressured or incentivized to commit fraud (Skousen et al., 2009). In general, the pressure of the fraud triangle implies that when individuals and organizations are under financial stress, they circumvent the Law (Lokanan & Sharma, 2018). Financial pressure plays a significant role in an employee's motivation to commit fraud (Abdullahi and Mansor, 2015a). Lou and Wang (2011) contended that financial, non-financial, social, or political pressures might exist to commit fraud. Furthermore, non-financial pressures may arise, such as a sense of individual discipline and an urge to cause fraud.

SAS No. 99 identified four distinct types of pressure that may occur in financial statement fraud. Further, Skousen et al. (2009) identified four conditions related to the pressure that causes someone to commit fraud based on SAS No. 99 such as (1) financial stability; (2) external pressure; (3) personal financial need; (4) financial targets.

According to SAS No. 99, economic, industry, or entity operating conditions can threaten financial stability or profitability. Financial stability also can be implied by a high degree of competition or market saturation, which is associated with declining margins; recurring negative operating cash flows, and an incapability to create cash flows from operations even as reporting earnings and earnings growth; and rapid growth or unordinary profitability, particularly in



comparison to other similar businesses.

External pressure is pressure from third parties, such as the need for additional debt or equity financing to remain competitive; and limited ability to meet exchange listing, debt repayment, or other covenant requirements. All these can put pressure on the organization's management to commit fraud and misconduct.

Next, the entity's financial performance can also threaten the management's personal financial situation or those responsible for governance. Excessive pressure is also placed on employees to meet the financial objectives of those in charge of governance or management, including incentive targets for sales or profitability. By identifying the possible pressure experienced by the employee, the organization can help employees resolve their issues and help avoid fraud or illegal behavior that can severely affect company performance and livelihood in the long run.

#### **2.2.1.2 Opportunity**

Opportunity refers to the ability or capacity to put a plan/an action into effect with no or less possibility of being caught. The perpetrators will take advantage of the opportunities that exist. An opportunity occurs due to a weak internal control system that gives individuals a chance to commit fraud (Omukaga, 2020). Abdullahi and Mansor (2015a) describe that an ineffective control or governance system creates the opportunity for corporate fraud to occur. Then, internal control weaknesses are referred to as such in the accounting field. Thus, weak internal control environments may provide financial statement fraud opportunities (Huang et al., 2017).

SAS No. 99 identified three general types of opportunities that may lead to financial statement fraud. Based on SAS No. 99, Skousen et al. (2009) identified three conditions related to the opportunity that allows a crime to be committed such as (1) Nature of industry, (2) Ineffective monitoring, and (3) Organizational structure.

The first condition is the nature of the industry. The nature industry can allow employees to engage in fraudulent financial reporting, for example, manufacturing. Some accounts' balances are based mainly on estimates and subjective judgments. The second condition is an ineffective monitoring system. The results of ineffective management monitoring include the dominance of management by an individual or a group without adequate compensation for controls, ineffective monitoring of financial statements, and internal control monitoring for those responsible for governance.

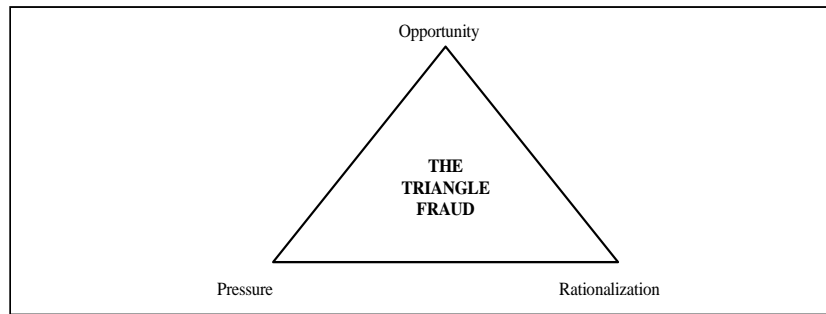
Finally, organizational structure can also provide an opportunity for fraud. Organizational structure is complex or unstable, as demonstrated by difficulties determining the organization or person controlling an entity. Complicated organizational structure may also be characterized by unordinary legal entities or organizational lines of responsibility and senior executive directors, advisers, or board members.

The organization needs to prevent the possibility of opportunity for their employees to do misconduct or fraud. This situation can be analyzed and evaluated by the organization's current operations, internal control system, and risk exposure. An organization should always find ways to minimize the chances of opportunities to be present to avoid employees committing fraud and unethical behavior.

#### **2.2.1.3 Rationalization**

Rationalization is the third element of the fraud triangle theory, and it is the most difficult element to measure (Skousen et al., 2009). Rationalization is when an individual tries to justify their unethical action. Prior to the emergence of fraudulent behavior, an attitude or morally acceptable rationalization must exist (Ruankaew, 2013). Cressy investigated how offenders' minds convinced themselves that stealing was okay and could forgive their crimes (Wells, 2017). This approach of mindset is called rationalization. Fraudsters could rationalize an act of fraud according to their belief of what is ethical and unethical (Skousen and Wright, 2011).

Moreover, some people have an attitude, personality, or set of ethical principles to commit fraud conscientiously and deliberately. The audit report is a condition related to rationalization resulting in cheating, which Skousen et al. (2009) developed based on SAS No. 99. Thus, the presence of rationalization may change an individual mindset to perceive his unethical action as acceptable and not wrong. It is suggested that letting an employee know the consequences of their action can minimize unethical behavior.



**Figure 1. The Fraud Triangle Model Adapted by Wells (2017)**

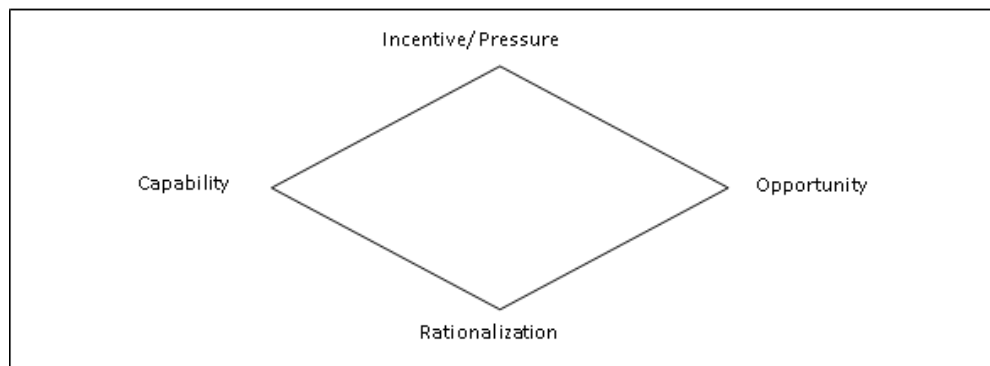
Wolfe and Hermanson (2014) believe that the fraud triangle theory has missed fraudsters' capabilities. They believed that numerous frauds would not have occurred without the right person with the right capabilities. Thus, they introduced fraud diamond theory as an extension of fraud triangle theory in response to its limitations.

### 2.2.2 Fraud Diamond Theory

According to Wolfe and Hermanson (2004), fraud has four crucial components. First, the individual's position or role in an organization could provide the capacity to create or manipulate a fraud opportunity not obtainable to others. Second is the ability of the individual to understand and exploit the weakness in a company's internal control system and take advantage of his/her position, function, or authorized access. Third, the individual believes and is confident that they would not be detected, or the person believes they can easily be out of trouble or escape if caught. Fourth, the individual can deal with high stress from his/her misconduct. Fifth, the individual lies consistently.

Wolfe and Hermanson (2004) extend the triangle theory into four elements by adding capability. This theory is commonly known as the Fraud Diamond Theory. They argued that fraud would not be possible to occur unless capability is present. A person with a high position normally has the authority or capacity to take advantage of the opportunity presented for his/her benefit. The capability element identifies a potential perpetrator's knowledge and capacity for fraud (Omukaga, 2020). However, Ruankaew (2013) argues that an individual's position or role within a company might enable him to provide or utilize opportunities for fraud that others do not.

Moreover, the characteristics described by Wolfe and Hermanson (2004) that are related to capability in the actions of the fraudster are (1) Position/function; (2) Brains; (3) Ego/confidence; (4) Coercion skills; (5) Effective lying; and (6) Immunity to stress.



**Figure 2. The Fraud Diamond Model Introduced by Wolfe and Hermanson (2004)**

Marks (2012) discovered that certain elements of arrogance served as triggers for fraudulent behavior in some cases. Meanwhile, the fraud diamond theory overlooks arrogance from the element of fraud. Additionally, the COSO survey mentions that most fraudsters exhibit a profile that combines pressure, arrogance, and greed (Marks, 2012). In response to the limitation of the four elements of Fraud Diamond Theory, Marks (2012) introduced arrogance into the theory he was developing called the Fraud Pentagon Theory.

### 2.2.3 Fraud Pentagon Theory

Crowe Howard LLP, one of the largest public accounting, consulting, and technology firms in the United States, 2011 expanded Fraud Triangle Theory, and Fraud Diamond Theory became a new model. This theory is commonly called Crowe's Fraud Pentagon Theory. In Crowe Horwath LLP, Jonathan Marks proposed that the Fraud Triangle theory must

be upgraded by including two elements related to human factors: arrogance and competence. The original fraud theory is broadened further and known as the Fraud Pentagon theory with these two elements. The competence element defined in fraud pentagon theory is similar to the capability described in Fraud Diamond Theory (Marks, 2012). Furthermore, arrogance or a lack of ethics is a pride attitude that makes someone feel they have a right and entitlement to something or greed that believes corporate rules and policies do not apply.

Competence and arrogance can substantially determine whether the employee has what it takes to commit fraud. Uncontrolled the five elements – pressure, opportunity, rationalization, competence, and arrogance can arouse an individual to commit fraud. However, this phenomenon is better explained by an iceberg, which appears small and unthreatening from a distance but can wreak havoc when it collides with something (Yusof et al., 2015).

According to Marks (2012), there are five traits of an arrogant: (1) CEO is regarded as celebrities instead of entrepreneurs; (2) They will be able to avoid internal controls and will not be stalled; (3) They come across as bullies; (4) They manage the company with an autocratic style; (5) Fear of being demoted or downgraded. An extreme arrogance or snobbery can disguise his subordinates' negative impact on a career or a company.



Figure 3. The Crowe's Fraud Pentagon Model Adopted by Marks (2012)

Vousinas (2019) argues that previous fraud theories have largely ignored the impact of collusion on financial fraud. Collusion, he asserts, is a deceptive understanding among both or more parties with the intent of a party bringing an activity against either deluding a third party of his rights. Therefore, Vousinas (2019) developed the Fraud Hexagon Theory in response to the Fraud Pentagon Theory's limitations.

#### 2.2.4 Fraud Hexagon Theory

Vousinas (2019) added one element to the Fraud Pentagon Theory, namely collusion. This element must be utilized effectively in the case of financial crimes. He coined the term S.C.C.O.R.E (Stimulus, Capability, Collusion, Opportunity, Rationalization, and Ego) to refer to this theory. This model should be used in conjunction with the S.C.O.R.E. model to make it more applicable to white-collar crimes, where collusion is a critical factor in determining the factors contributing to financial fraud's commission. The S.C.O.R.E. model comprises the following components: stimulus, capability, opportunity, rationalization, and ego. The stimulus in Fraud Pentagon Theory is similar to pressure, while the ego is similar to arrogance. Because this theory is described as having a hexagonal shape, it is also known as the Fraud Hexagon Theory.

Almost half of the cases examined by ACFE (2020) involved multiple perpetrators conspiring to commit fraud, and the more fraudsters involved, the greater the losses tended to be. Further, one possible explanation for multiple perpetrators being lost is that many controls are based on delegating duties and monitoring independently. Therefore, when numerous fraudsters collaborate, they have the potential to impair the process of independently validating information and other anti-fraud processes.

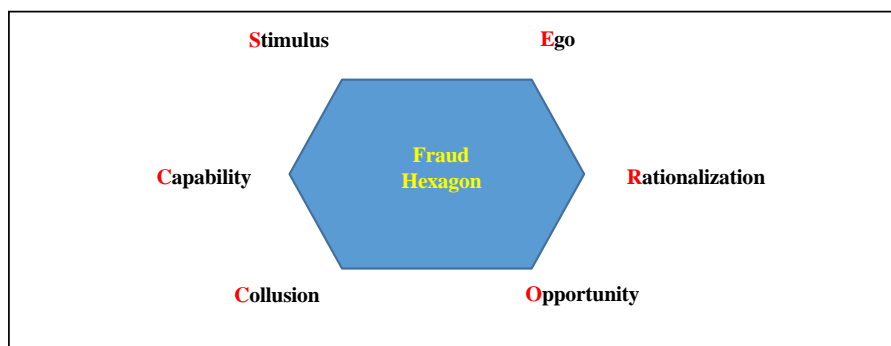


Figure 4. The Fraud Hexagon Model Adopted by Vousinas (2019)

The Fraud Hexagon Theory provides a basis for expanding on the Fraud Triangle, Fraud Diamond, and Fraud Pentagon Theories, all of which can assist parties in preventing fraudulent behavior. Additionally, the Fraud Hexagon Theory illuminates the various factors contributing to an individual's decision to commit fraud. Considering that, this study assumes that the Fraud Hexagon Theory is a comprehensive model for predicting financial statement fraud based on fraud factors.

### 3. Method

The purpose of this paper was to conduct a literature review on the determinants of financial statement fraud in Indonesia. This phase involved the selection of accounting journals that have previously demonstrated an interest in accounting research on the determinants of financial statement fraud employing fraud theory. Financial statement fraud and fraud theory were the primary selection criteria. The sample empirical articles on the determinant of financial statement fraud were located through a Scopus database keyword search. Financial statement fraud and fraud theory were the focus of the string search, which included financial statement fraud, fraud triangle theory, fraud diamond theory, fraud pentagon theory, and fraud hexagon theory. Some researchers as fraudulent financial reporting refers to financial statement fraud. Therefore, fraudulent financial reporting was also a keyword in this study.

After completing a database search, the researcher exported the results to a document created in Microsoft Excel. The researcher wanted to examine each result's reference lists. The researcher retrieved each full-text version of the initial search results. While the research conducted by Cressey (1973), a pioneer in the development of the fraud triangle theory, focused primarily on individuals, most of the existing literature examines businesses; therefore, both populations will be included.

Based on the search, 32 papers relevant to the research topic were obtained. Of these 32 articles, 19 mainly concentrated on companies and three on individuals. Due to the limited number of papers available for review, three international conference papers published in the Scopus database were also included in this study. The search extended the years 2016 to 2022 for available papers. The researcher collected the relevant information from the remaining 32 studies during a comprehensive article review. For each study, the researcher gathered information on the issue, data source, the object of study, total sample, research method, variable proxy, and primary finding.

## 4. Result and Discussion

### 4.1 Results in Predicting Financial Statement Fraud

Based on Table 1., the category used to represent predictor variables used in the prior studies depends on the number of elements in the chosen fraud theory. Several researchers employ three, four, or five fraud factors based on their adopted fraud theory. For example, the Fraud Triangle Theory has three elements: pressure, opportunity, and rationalization, the Fraud Diamond Theory has four components: pressure, opportunity, rationalization, and capability, and the Fraud Pentagon Theory has included one additional element, which is arrogance that resulted to has five variables, The Fraud Hexagon Theory has added one variable to the Fraud Pentagon Theory, namely collusion, resulting in a total of six variables. This shows that the majority of studies in Indonesia have employed Fraud Pentagon Theory and Fraud Pentagon Theory (11% for each) to predict financial statement fraud, followed by Fraud Diamond Theory and Fraud Hexagon Theory (5% for each).

**Table 1. The Various Variable as Determine Financial Statement Fraud in Indonesia**

| The proxy as fraud factors | Study   | %   |
|----------------------------|---|-----|
| Fraud Triangle Theory      | (Fitri et al., 2019; Hidayati et al., 2022; Indarti & Siregara, 2018; Irwandi et al., 2019; Maria & Gudono, 2017; Omar et al., 2017; Parlindungan & Africano, 2017; Rizani & Respati, 2018; Suryani & Fajri, 2022; Wahyuningrum & Iswajuni, 2020; Yusrianti et al., 2020)         | 11% |
| Fraud Diamond Theory       | (Handoko & Natasya, 2019; Ibrani et al., 2019; Indarto & Ghozali, 2016; Khamainy et al., 2022; Umar et al., 2020)   | 5 % |
| Fraud Pentagon Theory      | (Achmad, Hapsari, et al., 2022; Ariyanto et al., 2021; Devi et al., 2021; Harman & Bernawati, 2021; Nindito, 2018; Pamungkas, Ghozali, & Achmad, 2018; Pamungkas, Ghozali, Achmad, et al., 2018; Rukmana, 2018; Sahla & Ardianto, 2022; Sari et al., 2020; Yulianti et al., 2019) | 11% |
| Fraud Hexagon Theory       | (Achmad, Ghozali, et al., 2022; Handoko & Aurelia, 2021; Handoko & Tandean, 2021; Sukmadilaga et al., 2022; Wijayani & Ratmono, 2020)   | 5%  |

Skousen and Wright (2011) explain that pressure can be divided into four categories: financial stability, external pressure, personal financial need, and financial target. According to the review of relevant literature, the most commonly used proxy

for financial stability is assets change (14 paper).; external pressure is leverage (15 paper); personal financial need is insider ownership (8 paper), and the financial target is ROA (19 paper).

Additionally, Skousen and Wright (2011) categorized opportunities into three categories: nature of industry, ineffective monitoring, and organizational structure. The most popular proxy for the nature of industry is accounts receivable (10 papers), while the proxy for ineffective monitoring is the ratio of independent commissioners (14 papers). According to a search of 32 articles, no researchers measure opportunity using organizational structure. This highlights the need for future research examining organizational structure as a proxy for measuring opportunity in Indonesian companies.

The change in external auditors (17 papers) is the most popular proxy for rationalization, the third dimension of the fraud triangle theory. Meanwhile, researchers preferred a change in the board of directors (18 papers) as a proxy for capability. Next for the frequently used arrogance proxy is the number of photos of the board of directors (9 papers) in the annual report.

A limited amount of research has only been conducted on Indonesian companies that employ collusion as the fraud factor dimension developed by Vousinas (2019). A variety of proxy measures collusions, such as the collaboration projects between companies and the government (2 papers), followed by e-procurement, independent board of commissioners who hold multiple positions simultaneously, and state-owned enterprise with one paper for each. This calls attention to the researcher to conduct work in this field. The proxies used to determine financial statement fraud based on fraud theory are presented in Table 2.

**Table 2. The Proxy of Determining Financial Statement Fraud Using Fraud Theory**

| <b>Category</b>               | <b>Proxy</b>         | <b>Number of Paper</b> |
|-------------------------------|----------------------|------------------------|
| <b><i>PRESSURE</i></b>        |                      |                        |
| Financial stability           | SCHANGE              | 1                      |
|                               | ACHANGE              | 14                     |
|                               | SALAR                | 1                      |
|                               | SALTA                | 2                      |
|                               | PROF MARGIN          | 2                      |
|                               | %BUDGREAL/BUDGPROP   | 1                      |
| External pressure             | LEV                  | 15                     |
|                               | FINANCE              | 1                      |
|                               | FREEC                | 1                      |
| Personal financial need       | OSHIP                | 8                      |
| Financial target              | ROA                  | 19                     |
|                               | FREECF               | 1                      |
|                               | LIQUIDITY            | 2                      |
| <b><i>OPPORTUNITY</i></b>     |                      |                        |
| Nature of industry            | RECEIVABLE           | 10                     |
|                               | INV TO SALE RATIO    | 1                      |
|                               | ARCHANGE             | 1                      |
| Ineffective monitoring        | BDOUT                | 14                     |
|                               | NUM AUDCOMMITTEE     | 2                      |
|                               | % IND AUDCOMMITTEE   | 5                      |
|                               | NUM IND COMMISSIONER | 1                      |
|                               | EXTERN AUDQUALITY    | 4                      |
|                               | AUCOM CHANGE         | 1                      |
|                               | AUDIT OPINION        | 1                      |
|                               | AUDIT QUALITY        | 2                      |
|                               | MEETING AUDCOMMITTEE | 1                      |
|                               | WHISTLE-BLOWER       | 1                      |
| Organizational structure      |                      | 0                      |
| <b><i>RATIONALIZATION</i></b> |                      |                        |
|                               | AUDCHANGE            | 17                     |
|                               | AUDREPORT            | 2                      |
|                               | TATA                 | 4                      |
|                               | EXTERN AUQUALITY     | 1                      |
|                               | AUDIT OPINION        | 3                      |
|                               | PERSONAL INTEGRITY   | 1                      |

|                   |                       |    |
|-------------------|-----------------------|----|
|                   | AI BID-ASK            | 1  |
|                   | RPT                   | 1  |
|                   | ROA                   | 1  |
|                   | NPM                   | 1  |
|                   | WCTA                  | 1  |
|                   | AUEXPERT              | 1  |
| <b>CAPABILITY</b> | %IND COMMISIONARE     | 3  |
|                   | MAY                   | 1  |
|                   | DCHANGE               | 18 |
|                   | DOUBTDISC             | 1  |
| <b>ARROGANCE</b>  | CEOPOL                | 2  |
|                   | CEODUAL               | 4  |
|                   | CEOPIC                | 9  |
|                   | CEOEDU                | 1  |
| <b>COLLUSION</b>  | COMPANY-GOV COLLAB    | 2  |
|                   | E-PRO PORTAL          | 1  |
|                   | IND COMMISIONARE DUAL | 2  |
|                   | STATE-OWNED ENT       | 1  |

According to Table 3., Benish M-Model (26%) became the most common measurement of financial statement fraud, followed by F-score (23%), fraud firm, and non-fraud firm (19%), restate and non-restate financial statement and earnings management with 12% each. In contrast, the leverage and benefit ratio index were the last used (4% for each). With a prevalence of 26%, the Benish M-Model has surpassed all other methods of detecting financial statement fraud. Most of them suggest that pressure, opportunity, rationalization, and arrogance significantly impact financial statement fraud. The capability has no significant effect on financial statement fraud. Only one article employs the fraud hexagon theory, and its study concluded that collusion has no appreciable impact on financial statement fraud. Numerous studies utilize the F-Score (23%) to evaluate financial statement fraud. The majority of these studies suggest that opportunity, rationalization, capability, and arrogance have no significant effect on financial statement fraud. The pressure has a significant effect on financial statement fraud. One article state that collusion has a significant effect, while another does not.

**Table 3. The Various Measurement of Financial Statement Fraud**

| The measurement of FSF                      | Study   | %   |
|---|---|-----|
| Fraud firms and non-fraud firms             | (Nindito, 2018; Pamungkas, Ghozali, & Achmad, 2018; Pamungkas, Ghozali, Achmad, et al., 2018; Wahyuningrum & Iswajuni, 2020; Yusrianti et al., 2020)        | 19% |
| Restate and non-restate financial reporting | (Ibrani et al., 2019; Wijayani & Ratmono, 2020; Yulianti et al., 2019)  | 12% |
| F-Score                                     | (Achmad, Hapsari, et al., 2022; Ariyanto et al., 2021; Devi et al., 2021; Handoko & Aurelia, 2021; Handoko & Tandean, 2021; Sari et al., 2020)              | 23% |
| Benish M-Model                              | (Achmad, Ghozali, et al., 2022; Fitri et al., 2019; Handoko & Natasya, 2019; Irwandi et al., 2019; Khamainy et al., 2022; Rukmana, 2018; Umar et al., 2020) | 26% |
| Earnings management                         | (Harman & Bernawati, 2021; Indarto & Ghozali, 2016; Rukmana, 2018)  | 12% |
| Leverage index                              | (Sukmadilaga et al., 2022)  | 4%  |
| Benefit ratio index                         | (Suryani & Fajri, 2022)   | 4%  |

Approximately 19% use fraud firms and non-fraud firms to measure financial statement fraud. They used dummy variables "1" or "0" to classify companies as fraud firms or non-fraud firms. A "1" will be assigned to the company if the management of the company commits a material misstatement in its financial statements and gets sanction from Otoritas Jasa Keuangan and a "0" otherwise. Most papers demonstrate that pressure, opportunity, and rationalization do not affect financial statement fraud. Two out of three articles employing the fraud diamond theory indicate that capability has a significant positive effect on financial statement fraud. Only one article employs the fraud pentagon theory, and its study found that arrogance has no significant effect on financial statement fraud. No research detects financial statement fraud using the fraud hexagon theory.

The researcher selected earnings management (12%) as a proxy for financial statement fraud. Most of them indicate that pressure, opportunity, and rationalization substantially affect financial statement fraud. All papers utilizing capability

and collusion concluded that they have no appreciable effect on financial statement fraud. One paper assert that arrogance substantially impacts financial statement fraud, while another does not.

According to the preceding description, there are variations in the financial statement fraud measurement. As a consequence of this, the result is mixed. This is significant because researchers have diverse perspectives and financial statement fraud measurement instruments are not standardized. This highlights that additional research is required to determine financial statement fraud using the fraud hexagon theory.

A dummy variable was used by 12% of the papers to classify fraud firms as "1" if they restated their financial reporting and "0" if they did not. The majority of papers show that pressure, opportunity, rationalization, and arrogance have no effect on financial statement fraud. Only capability with the majority of its proxies has a significant positive effect on financial statement fraud. Moreover, Yulianti et al. (2019) failed to provide support for elements of the fraud theory. They are the only paper out of 32 that did not demonstrate any support for the fraud theory. This suggests that restatement is inappropriate as a measure of financial statement fraud.

## 4.2 Methods in Predicting Financial Statement Fraud

Researchers frequently use logistic regression models and multiple regression analysis to analyze the data in a quantitative approach, as shown in Table 4. This is significant because logistic regression has been one of the most frequent statistical analyses. After all, the outcome variable in historical studies was the likelihood of fraud, which is a dichotomous variable. Other innovative research methods have included artificial neural networks, machine learning algorithms, and forensic accounting techniques. Meanwhile, out of the thirty studies that were reviewed, only three made use of questionnaires. These studies are referred to as (Indarti & Siregara, 2018; Omar et al., 2017; Sahla & Ardianto, 2022)

**Table 4. Techniques in Predicting Financial Statement Fraud**

| <b>Traditional Method</b>              | <b>Reference</b>   | <b>%</b> |
|--|--|----------|
| Logistic regression                    | (Achmad, Hapsari, et al., 2022; Fitri et al., 2019; Handoko & Natasya, 2019; Handoko & Tandean, 2021; Ibrani et al., 2019; Khamainy et al., 2022; Maria & Gudono, 2017; Nindito, 2018; Pamungkas, Ghozali, & Achmad, 2018; Pamungkas, Ghozali, Achmad, et al., 2018; Parlindungan & Africano, 2017; Rizani & Respati, 2018; Sari et al., 2020; Wahyuningrum & Iswajuni, 2020; Wijayani & Ratmono, 2020; Yulianti et al., 2019; Yusrianti et al., 2020) | 57%      |
| Multiple linier regression             | (Ariyanto et al., 2021; Handoko & Aurelia, 2021; Harman & Bernawati, 2021; Hidayati et al., 2022; Indarti & Siregara, 2018; Indarto & Ghozali, 2016; Irwandi et al., 2019; Omar et al., 2017; Rukmana, 2018; Umar et al., 2020)  | 31%      |
| Content analysis                       | (Sukmadilaga et al., 2022)   | 3%       |
| Analysis factors and simple regression | (Devi et al., 2021)  | 3%       |
| <b>Intelligent detection system</b>    | <b>Reference</b>   | <b>%</b> |
| Artificial neural network              | (Suryani & Fajri, 2022)  | 3%       |

**Table 5. The Object Research**

| <b>Sector</b>                | <b>Reference</b>   | <b>%</b> |
|------------------------------|--|----------|
| Non-financial listed company | (Ariyanto et al., 2021; Fitri et al., 2019; Handoko & Aurelia, 2021; Harman & Bernawati, 2021; Hidayati et al., 2022; Ibrani et al., 2019; Indarto & Ghozali, 2016; Irwandi et al., 2019; Khamainy et al., 2022; Pamungkas, Ghozali, Achmad, et al., 2018; Pamungkas, Ghozali, & Achmad, 2018; Parlindungan & Africano, 2017; Rizani & Respati, 2018; Rukmana, 2018; Suryani & Fajri, 2022; Wahyuningrum & Iswajuni, 2020) | 56%      |
| Financial listed company     | (Handoko & Natasya, 2019; Handoko & Tandean, 2021; Yulianti et al., 2019)  | 10%      |
| Islamic bank listed company  | (Wijayani & Ratmono, 2020)   | 15%      |
| Governance                   | (Maria & Gudono, 2017; Sukmadilaga et al., 2022)   | 3%       |
| State-owned company          | (Achmad, Ghozali, et al., 2022; Achmad, Hapsari, et al., 2022; Devi et al., 2021; Sari et al., 2020)   | 6%       |
| All listed company           | (Nindito, 2018; Omar et al., 2017; Umar et al., 2020)  | 10%      |

Table 4 presents the frequency of the techniques in predicting financial statement fraud. It reveals that logistic regression (57 percent) was the technique used most frequently to predict financial statement fraud, followed by multiple linear regression (31 percent). Simple regression and artificial neural networks each account for 3%.

Table 5 shows that a non-financial listed company (56%) was the most frequently researched object for financial statement fraud, followed by Islamic bank listed companies (15%), a listed financial company (10%), and all listed companies (10%). In contrast, relatively little research was conducted on the state-owned company (6%) and governance (3%).

## 5. Conclusion

Globally, numerous researchers have identified gaps in the existing literature on fraud factors in the accounting field as potential future research topics or areas of study (Abdullahi and Mansor, 2015a; Devi et al., 2021; Free, 2015). One main area that requires research is the associations between fraud factors representing the fraud theories and financial statement fraud. One of the key findings from prior financial statement fraud research studies is the inconsistent or mixed results. The mixed results may be contributed by several factors, such as the proxy used for predictor variables, application of the theory, and different measurement instruments used to measure similar variables.

Overall, the empirical testing of the fraud theory (fraud triangle theory, fraud diamond theory, fraud pentagon theory, and fraud hexagon theory) shows that the theory is an excellent tool for explaining financial statement fraud. The pressure was the element that had the most significant effect on financial statement fraud. In contrast, most studies have found that capability does not significantly impact financial statement fraud.

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## **Development of Green Intellectual Capital in Manufacturing Sector**

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### **Abstract**

The importance of green intellectual capital (GIC) management in addressing environmental problems is increasingly gaining the attention of researchers. Investment in green intellectual resources is said to be able to help companies in driving competitiveness and sustainability. However, the challenge faced by researchers in determining the relationship between investment and performance is the measurement of GIC itself. The existing GIC measurement is very limited to the GIC measurement developed by developed countries, whose green technology advances are ahead of developing countries. This paper is an extension of the study on GIC measurement for environmentally sensitive companies in Malaysia. In this study, apart from the previous literature review, the researchers conducted focus group interviews, expert reviews and pilot studies on GIC measurements. The results of this study have detailed each element of GIC, namely green human capital (GHC), green innovation capital (GNC), green organizational capital (GOC) and green relational capital (GRC) designed specifically for the manufacturing sector in Malaysia. This measurement is also recommended for use by researchers using a sample of the manufacturing sector in other developing countries.

### **Keywords**

Green Intellectual Capital, Green Human Capital, Green Innovation Capital, Green Structural Capital and Green

### **1. Introduction**

The transition of Malaysia from industrial era to the knowledge-based economy has prompted management focus to face the sustainability and environmental challenge through the development of intangibles such as intellectual capital, rather than tangible and financial resources (Wasiluk, 2013). This is because, the contribution of intellectual capital (IC) to add values is more than physical assets and financial assets (Bontis, 2001). Numerous studies debated the link between intellectual capital and environmental management, which leads to the emergence of “green intellectual capital” (GIC) discussions (Chen, 2008; Liu, 2020). The most dominant view of GIC undertakes two perspectives. Based on the first perspective, Chen (2008) defines GIC as “total stocks of all kinds of intangible assets, knowledge, capabilities and relationships about environmental protection or green innovation on the individual level and the organizational level within a company” (p. 277). Most researchers conducted studies of the relationship between GIC and competitive advantage as well as sustainability performance based on the measurement developed by Chen (2008). The measurement of GIC involves intellectual capital about advance level of technological solution in environmental management, whose green technology advances are ahead of developing countries.

On the other hand, Liu (2010) undertakes a broader perspective to define green intellectual capital that is an “integration of green and environment knowledge sources and knowing capability of companies for improving competitive advantage”(p.2). The perspective views a broader concept of environmental management that is related to any activities conducted by business to address the environmental issues. Consistent with Liu (2010), Yahya, Arshad and kamaluddin (2014) come out with a measurement model for environmental sensitive firms in Malaysia that views GIC as knowledge resources utilized by company to address the environmental issues in conducting business activities. Unlike other GIC studies, the GIC has been classified into green human capital, green innovation capital, green process capital and green social capital. However, the study only highlights indicators for each type of gic, but does not clearly detail how each indicator is measured. Thus, this paper is aimed to extend the study on GIC measurement for environmentally sensitive companies proposed by Yahya, et al (2014). However, GIC measurement only focuses on aspects that are relevant to the manufacturing sector in Malaysia.

This study chooses to address the research issues in manufacturing sector because despite of its huge contribution towards economic growth, many pollution issues have been associated with the manufacturing process through their supply chain activities such as procurement, production and distribution (Eltayeb, Zailani, & Ramayah, 2011; Kuppusamy & Behrooz, 2015). The manufacturing firms have been claimed to produce more emissions as compared to other industries during the production phase (Rozar, Mahmood, Ibrahim, & Razik, 2015). Such pollution is the concrete evidence of

inefficient use of resources (Porter and Van der Linde (1995). In lieu of the needs to address the environmental issues by Malaysian manufacturing firms, effective and efficient management of GIC is crucial to ensure its competitive advantage. Therefore, it is very important to develop appropriate GIC measurement so that manufacturing companies in Malaysia can measure their GIC investment and management levels over time. Next, it will make it easier for GIC researchers to conduct further research on the relationship between GIC and company performance and other factors. The following section will discuss about the concept of GIC and the classification of GIC.

## **2. Literature Review**

GIC has been acknowledged as sustainable intellectual capital (Claver-Cortes, Lopez-Gamero, Molina-Azorin and Zaragoza-Saez, 2007), environmental knowledge sources (Liu, 2010) and intellectual capital about environmental management (Chen, 2008; Baharum & Pitt, 2009; Chaudry, Bilal, Awan, & Bashir, 2016). GIC is an embryonic management practice that integrates the environmental management and IC disciplines. Environmental management concerns about how organizations care about the natural environment and minimize the negative environmental effects of their entire operations (Klassen & McLaughlin, 1996; Welford, 2000; Rio-Rama, Alvarez-Garcia & Oliveira, 2018). But from other perspective, environmental management refers to innovation in technologies related to the green products and processes, such as energy-saving, pollution prevention, waste recycling, green product designs, and corporate environmental management (Chen, Lai & Wen, 2006; De Marchi, 2012).

Meanwhile, the IC scholars (Edvinsson and Malone, 1997; Stewart, 1997; Youndt, Subramaniam and Snell, 2004) define IC as accumulation of knowledge, which is created by firm's employees, embedded in infrastructures and processes and its social networks within and outside the organization that enables company to function and create wealth. The accounting-based defines IC as the difference between the value of its tangibles net assets and its market capitalization (Lev, 2001). The market perspectives define IC as the differences between the book value and market value where the knowledge becomes the main factor in the generation of wealth (Edvinsson & Malone, 1997; Stewart, 1997; Lopez et al., 2010). Johnson (2002) contended that the basis for all intellectual capital components are knowledge sets, or ideas. In other words, knowledge is the key to building IC (Hamdan & Damirchi, 2011). Most of the management and measurement of intellectual capital studies classified the IC into three types: human capital, structural capital and relational capital (Johnson, 1999; Bontis, 1999; Petty & Guthrie, 2000; Juma, 2005; Kamaluddin, 2009). However, Van Buren (1999), Wang & Chang (2005) and Tseng & Goo (2005) classified IC into four types, namely human capital, innovation capital, organizational capital and relational capital.

### **2.1 Green Human Capital (GHC)**

Human Capital represents human factors in an organization which include combined intelligence, skills and expertise that enable learning, changing, innovating and providing the creative thrust that give the organization its distinctive character. Human Capital possessed tacit knowledge that holds the innovation and intuition that must be verbalized (Egbu, 2004; Saint-Onge, 1996). The concept of green human capital (GHC) consists of cumulative tacit knowledge in human's mind relating to environmental protection (Liu, 2010). Boiral (2002) suggested that harnessing tacit knowledge associated with an environmental concern is particularly useful in three key areas of an environmental management; identification of pollution sources, management of emergency situations and development of preventive solutions.

### **2.2 Green Innovation Capital (GNC)**

Innovation capital can be depicted as the ability of an organization to generate new knowledge, develop new products, and the creative ideas based on previous knowledge (Tseng & Goo, 2005). It is also depicted as know-how, patents, trademarks and protected assets (Brooking, 116; Roos et al., 1997; Stewart, 1997; Bontis, 1998). Innovation Capital is a measure of a company's ability to create new products which meet customer's demands, and design more efficient operating processes (Cheng et al., 2010). Thus, green innovation capital (GNC) also relates to firm's innovativeness, which reflect the ability of firm to respond to environmental changes in a speedy and flexible manner (Fraj, matute, & Melero, 2015). The environmental R&D is more intense in manufacturing industries (Padget & Galan, 2010). R&D capabilities speed up the expansion of existing technologies and R&D function which emphasized on generation innovative green products, number of patents, R&D intensity, the percentage of researchers to overall employees, and degree of innovativeness of R&D green products (Tseng & Goo, 2005).

### **2.3 Green organisational Capital (GOC)**

Organisational capital relates to the task of illuminating the institutionalized knowledge, routines, manuals, processes, or systems that an organization owns (Subramaniam & Youndt, 2005; Youndt & Snell, 2004). Organisational capital is composed not only the knowledge created by and stored in a firm's information technology system, such as structure and operating procedures, but also in intangible elements like cultural and informal routines. In the context of GOC, it can be viewed as manuals, practices, routines, process and procedures (systems) and generate knowledge about addressing the

environmental issues effectively. The institutionalized knowledge and codified experience associated with environmental management requires rigorous documentation that contributes to the dissemination and retention of environmental knowledge within companies, which present in the codified environmental management systems (EMS) such as ISO 14001 (Boiral, 2002).

#### **2.4 Green Relational Capital (GRC)**

Relational capital can be defined as knowledge derives from interpersonal interactions, including internal and external relationships of an organization (Subramniam & Youndt, 2005; Youndt & Snell, 2004). Relational capital is related to knowledge needed to provide with ongoing value added relations especially with the economic agents who participate in different phases from the value chain of the product such as customers, suppliers, competitors and societal stakeholders. In terms of green relational capital (GRC), Chang and Chen (2012) asserted that it is important for companies to retain close relationships pertaining to mutual environmental interests with their external institutions and stakeholders. Chen (2008) defines GRC as “stock of a company’s interactive relationships with customers, suppliers, network members, and partners about environmental management and green innovation, which enables it to create fortunes and obtain competitive advantages.

### **3. Research Methods**

#### **3.1 Measurement instrument**

The GIC measurement scale involved recommendations from 16 industry experts and subject matter experts in areas related to IC and environmental management. Expert review is required to establish the validity and reliability of the questionnaire content. This process led in further purification of the items and improvement in the structure and content of the questionnaire draft. The revised questionnaire draft was then continued for pre-testing to establish test of face validity. In total, twenty-three (23) of the questionnaire drafts were evaluated in terms of respondents’ answers and comments. In the pre-testing phase, out of 44 items, only 39 variable items of GIC were identified as the items to be employed for the pilot study.

#### **3.2 Pilot Study**

The pilot study was carried out with 110 respondents. During pilot phase, a total of 13 variables for GIC, 9 variables for GNC, 10 variables for GOC and 7 variables for GRC were sorted out after factorial analysis. Finalised measurement scales were used to gather data. Respondents were asked to indicate their answers on a Likert scale of seven-points (1-strongly disagree to 5-strongly agree). In addition, reliability test has been carried out to ensure consistency among the indicators in the identified factors. As suggested by Hair et al., (2010), the reliability of the data in the current study was measured using Cronbach’s Alpha ( $\alpha$ ). Hair et al., (2020) suggested that acceptable number for Cronbach’s Alpha is 0.7, but for exploratory study the alpha value may decrease to 0.6.

#### **3.3 Operationalisation of Variables**

Based on previous literatures and expert reviews, this study defines GIC as knowledge resources utilised by company to address the environmental issues in conducting business activities to achieve firms’ competitive advantage. GIC in the current study consists of GIC, GNC, GOC and GRC. The classification of the GIC into four dimensions, is based on the classification of GIC established by Yahya, et al (2014). The measurement of each item in each dimension is classified into few themes or sub-dimensions. The themes have been identified based on IC measurement items and themes in previous IC researches, modifications on IC items and environmental management activities of environmental management literatures and opinion and comment from expert reviewers and respondents in pre-testing stage. The GIC in this study is defined as knowledge, skills and awareness to address the environmental issues possessed by individuals, shared and communicated throughout the organisation. This study classifies GIC into five themes namely environmental capabilities, environmental learning and training, employees’ satisfaction, environmental leadership and green teamwork. GNC is defined as the ability of a company to generate new knowledge, new product and any creative ideas aimed at addressing the environmental issues. It is classified into three categories, namely green research and development (R&D), green intellectual property rights (IPRs) and sustainability. The GOC is defined as the management of knowledge in addressing the issues effectively, that support employees’ productivity. This study classified GOC into three themes namely processes and practices, green culture and green integration and coordination of knowledge. GRC in the current study is defined as knowledge that is embedded in relationships and networking with relevant parties to address the environmental issues. It is classified into three categories, namely customer relationship, supplier relationship and other stakeholder integration.

## 4. Results and Discussion

### 4.1 Summary of Pilot Study Reliability Test

As indicated in Table 1, the reliability of the constructs ranged from 0.784 to 0.943; all within the acceptable range as described in the literature. The result indicates that all constructs exhibit internal acceptable consistency. Thus, only 39 items of related variables were identified as the items to be employed for the final measurement.

**Table 1. Reliability Coefficients (Green Intellectual Capital)**

| <b>Green Intellectual Capital (GIC)</b> | <b>N</b> | <b>Cronbach's Alpha</b> | <b>N of items</b> |
|---|----------|-------------------------|-------------------|
| Green Human Capital (GHC)               | 110      | 0.926                   | 13                |
| Green Innovation Capital (GNC)          | 110      | 0.943                   | 9                 |
| Green Organisational Capital (GOC)      | 110      | 0.784                   | 10                |
| Green Relational Capital (GRC)          | 110      | 0.887                   | 7                 |

## 5. Conclusion

The study suggests that in manufacturing firms, GIC should consist of four dimensions: GHC, GNC, GOC and GRC. In the development phase, GHC was classified into five themes: “environmental capabilities”, “environment training and learning”, “employees’ satisfaction”, “environmental leadership” and “green teamwork”. GNC was classified into 3 themes namely: “green R&D”, “green IPR’s” and “sustainability”. Similarly, the development of GOC suggest three themes: “green process and practices”, green culture” and “green integration and coordination”, whilst GRC represented by three themes namely “customer relationship”, “supplier relationship” and “stakeholder integration”. Overall, this study contributes to the existing literature by detailed out the four constructs of GIC into their specific themes for manufacturing firms in Malaysia and other developing countries.

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## **The Role of the Resource-Based View Theory for Business Sustainability: A Case of Women Microbusiness Entrepreneurs**

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### **Abstract**

The unprecedented effects of COVID-19 have been felt in nearly every industry and country around the globe, but the outbreak's severity varies across nations and sectors. This includes the population of female entrepreneurs who own small businesses. Despite numerous financial assistance available to assist women entrepreneurs, it remains a difficult phase for them to re-establish operations, given the embedded problems and challenges they face throughout the process. On top of that, the survival rate of the women-related business is also unsatisfactory due to several business internal factors. Therefore, this study will explore the use of the Resource-Based View theory in achieving business sustainability among women microbusiness entrepreneurs. It is a subject of interest as the RBV theory asserts that the key to enhancing business performance is by exploiting the business's internal characteristics. The RBV framework recommended the management focus on the firm's internal resources in developing the potential to obtain a sustainable competitive advantage. The RBV brings the idea for a firm to properly identify the firm resources, that are subject to be exploited as strategies for development, which in turn help to improve the firm's efficiency and effectiveness. The discussion will be constructed following three attributes of firm resources suggested by the RBV framework, which consists of physical capital resources, human capital resources and organisational capital resources. This paper clarifies the concepts of each attribute and demonstrates the framework's relevance in promoting business sustainability among women microbusiness entrepreneurs.

### **Keywords**

Resource-based view, Sustainability, Women-Microbusiness, Entrepreneurs.

### **1. Introduction**

Research in women microbusiness entrepreneurs (WME) has grown globally, as their significant contribution to the development of entrepreneurship, socioeconomic activity, country's economic growth and brilliant tool in managing global issues involving gender equality and poverty alleviation (Sallah & Caesar, 2020). WMEs, who are part of the Small Medium Business Enterprise (SME) sector, account for roughly 90 per cent of the global business population and supplied approximately 60 to 70 per cent of global employment opportunities (World Trade Organization, 2016). WMEs are estimated to contribute nearly 40 per cent of Growth Domestic Product (GDP) in emerging countries (World Bank, 2020) and 55 per cent of GDP growth in developing countries (World Trade Organization, 2016).

Looking at the greatest contribution of WME to community and country, their establishment, as well as survival, is an important aspect of research. The issue of business sustainability is a global issue that significantly affects entrepreneurs in their business strategic planning. Business sustainability is a complex and diverse concept in which its definition is unique according to different market segments (Sayed Samer Ali et al., 2016). Mohd. Amin & Othman (2019) define the sustainability of small rural business entrepreneurs as the ability of the business to ensure its survival and pass on to future generations. For women entrepreneurs, sustainability simply refers to their ability to grow and expand their businesses (Al-Shami et al., 2019). As a result, for WME to achieve business sustainability, they must ensure that their business performance is capable or sufficient to sustain the business and able to be exploited for future survival (Lee & Kim, 2019).

Realising the fundamental issue of business sustainability, there is an urgent need for a more thorough investigation into how these WME businesses can sustain themselves in the current environment as well as survive in the future. Therefore, this study will explore the use of the Resource-Based View (RBV) theory in achieving business sustainability among WMEs. It is relevant to answer the current issue as the RBV theory asserts that the key to enhancing business performance is by exploiting the business's internal characteristics. The RBV framework recommended the management focus on the firm's internal resources in developing the potential to obtain a sustainable competitive advantage. The RBV brings the idea for a firm to properly identify the firm resources, that are subject to be exploited as strategies for development, which in turn help to improve the firm's efficiency and effectiveness (Barney, 1991; Barney, 2001).

Hence, the purpose of this study is to better understand the relationship between RBV theory and the business sustainability of WME. As a result, this paper is organised as follows. The following section explores the key concepts of this study which include the RBV framework and sustainability of WMEs. The third section will analyse and discuss the



antecedents of business sustainability through the lens of the RBV framework. This will end with a conclusion on possible areas for further research on achieving WME sustainability using the framework of RBV theory.

## **2. The Resource-Based View and Women Microbusiness Entrepreneurs**

### **2.1 The Resource-Based View Theory**

One area of getting a sustainable competitive advantage is understanding and utilising the resources that the firm has. This stance is parallel with the RBV concept which was explored by Jay Barney in 1991. The RBV framework recommended the management focus on the firm's internal resources; either through responsiveness to opportunities, neutralising external threats and avoiding the internal issue; which are significant acts in developing the potential to obtain sustainable competitive advantage (Barney, 1991). The firm internal resources range from the company's data and inputs, either in tangible or intangible form, that either in the position owned or controlled by the company (Amit & Schoemaker, 2016). The RBV bring the idea for a firm to properly identify its resources, that subject to be exploited as strategies for development, which in turn help to improve the firm's efficiency and effectiveness. According to the RBV framework, the firm resources are constructed following three attributes which consist of physical capital resources, human capital resources and organisational capital resources.

#### **2.1.1 Physical Capital Resources**

Physical capital resources refer to the physical or tangible technology, that exists from the past or current period, that could be owned or borrowed; to generate a business flow of production. It is a vital component recommended by economists as the factor of production in the process of creating goods and services (Dean & Krestschmer, 2003). This definition embraces the type of plant or equipment used, its location plus its accessibility to raw material (Barney, 1991). Physical resources can be categorized into (i) tangible resources such as financial and technology resources and (ii) intangible resources; human capital, social capital and innovation (Kanapathipillai & Ferdous Azam, 2019).

Scholars have noted that technology or information communications technology (ICT) resources and financial resources are both important resources and a prerequisite for women entrepreneurs' empowerment and these resources have a significant effect on the firm performance (Crittenden et al., 2019; Khizindar & Darley, 2017). ICT has fostered economic competitiveness and sustained long-term economic growth. As such, women entrepreneurs in emerging economies use ICT to transform their social, political, and economic lives. ICT has been recognized as a factor that helps women entrepreneurs to identify new employment prospects and engage in self-employment opportunities (Ajumobi & Kyobe, 2016).

A financial resource is another important factor that affects the business performance and sustainability of women-owned firms. Ireland et al., (2003) defined financial resources as all monetary resources that companies can use to develop and implement strategies. Many women-owned businesses are small and small businesses are often faced with a lack of resources, and this forces them to operate under severe financial constraints. Generally, there are two ways a woman entrepreneur could choose for funding her business: either using her savings or borrowing from others (i.e., getting loans from family, nonrelatives or institutions)(Welsh et al., 2017). Lack of access to financing often influences these firms to focus on short-term rather than long-term goals, hindering them from further development and exploitation of opportunities existing in the environment (Khadijah et al., 2017).

#### **2.1.2 Human Capital Resources**

The other component of the RBV framework is human capital resources, which was proposed by Schultz (1961) and extensively expanded upon by (Becker, 1993). Human capital, which is the stock of skills, knowledge, and personality traits used to create economic value and improve business performance, is essential for organisational success. According to Becker (1993), there are two types of human capital investments: general and specialised. The term "general human capital" refers to the information, abilities, and skills gained via education and training that are applicable in a variety of contexts. The skills, aptitudes, and knowledge that individuals develop via work experience in niche or task-specific environments are referred to as particular or specialised human capital. It might not be as transportable or useful outside of the environment where it was learned.

Many studies have been conducted to investigate the impact of human capital components of RBV frameworks. Pereira et al. (2020) make a valuable contribution by identifying organisations in business clusters that perform better because they are more resilient, particularly during trying times. Through triangulation, they discover overwhelming evidence of the central function and significance of human capital (people) in fostering more prosperous businesses in business clusters because they are more resilient in trying times like the recent global financial crises. They demonstrate that robust clusters increase regional turnover and employment growth over time, as well as the resilience of regional economies to economic downturns through processes of resource acquisition and crossover

According to Aliu and Aigbavboa, (2019), human capital is crucial for personal growth, knowledge expansion, improving quality of life and income, eradicating poverty, and stimulating economic progress. Based on a survey of the literature on human capital development, there is a substantial association between human capital development and the current construction industry as well as other important operational results. According to the survey, developing human capital is crucial for keeping talented staff on board and attracting potential new hires. Additionally, spending money on human resources has a significant positive impact on productivity, organisational culture, and employee satisfaction.

### **2.1.3 Organisational Capital Resources**

To gain a thorough understanding of the RBV framework, it is essential to explore the final component, which is organisational capital resources. According to Barney (1991), organisational capital resources are one of the powerful firm resources that could be a source of sustained competitive advantage over other market players. As key resources for organisational capital, Barney (1991) focused on a firm's reporting structure, planning, controlling, and coordinating systems, as well as the relationships between groups within a firm and those in its industry. The RBV claims that inter-organisational collaborations can assist in gaining access to complementary resources and expanding the assets to ensure a sustained competitive advantage (Gueler & Schneider, 2021).

However, as time passes, the existence of organisational capital in the organisation has been discussed from two different perspectives (Hasan & Cheung, 2018; Iqbal et al., 2022). The first perspective refers to organisational capital as something that the employees of an organization and their social networks embody. For example, Eisfeldt & Papanikolaou (2013) define organisational capital as management and technical personnel who are critical to the firm and are classified as specialised labour inputs and key talent. According to this more specific definition, one could view investment in organisation capital as expenditures on hiring and training those key talent. From an alternative perspective, the organisation capital has been discovered to be embedded in the organisation itself because it is rooted in organizational practices, processes, and systems that endure even if the organisation's employees are replaced.

Organizational capital is one of the sub-dimensions of intellectual capital (Bozbura & Beskese, 2007; Iqbal et al., 2022; Kannan & Aulbur, 2004) which demonstrates itself in the form of organisation practices, processes, systems, culture, language and know-how (Hasan & Cheung, 2018). In contrast to other factors such as human capital resources, which leave when employees leave, organisational capital remains in the company until the business is closed (Lev & Radhakrishnan, 2005). To emphasise the significance of organisation capital, Brynjolfsson et al. (2002) stated that the most recent industrial revolution necessitates communication, learning environments, cultures, organisational structures, and processes in addition to physical resources such as labour, land, and capital; to achieve superior traits of an organization.

## **2.2 Women Microbusiness Entrepreneurs**

Women entrepreneurs are defined as "women or groups of women who take the initiative to establish and run a business" (Sallah & Caesar, 2020). Globally, the number of women-owned businesses is increasing, with Malaysia ranking 46th with 16.7 per cent of female business owners (Dimitropoulou, 2019). WME is part of microenterprises, which is one of three categories of Malaysia Small Medium Enterprise (MSME). Based on data shared by the Department of Statistic Malaysia, microenterprises were prominent as it accounts for the largest share of the other components of MSME between 2016 to 2021. In 2021, there are 964,495 microenterprises, or 78.6 per cent of MSME, compared to small and medium-sized enterprises. Despite this, women microenterprises or WMEs accounted for only 20 per cent of all microenterprises established in Malaysia (Department of Statistics Malaysia, 2019).

WMEs that characterizes by their unique business size is seemly fit with the RBV concept. The RBV that emphasises the exploitation of a firm's unique possessions for long terms survival is wisely business strategy for companies that are constrained by finances and expertise (Khadijah et al., 2017). Unlike larger firms, various resources make the process of developing business sustainability minimal. The WMEs are accountable to identify those unique sets of resources as a basis for a remain resilience (Runyan et al., 2007). Therefore, the next section will explore the antecedents of the RBV framework which have the potential to ensure the business sustainability of WMEs.

## **3. Earlier Research on The Resource-Based Theory and Business Sustainability**

### **3.1 Physical Capital Resources and Business Performance**

This section discusses previous studies which assessed the effect of physical capital resources on the firm performance of women-owned businesses. The performance of entrepreneurial firms is an important area of theoretical and practical debate, particularly for WMEs. The physical capital resource is one of the main components in RBV theory that is vital to develop a firm's sustained competitive advantage. A study by Khizindar and Darley (2017) using RBV theory examined the effect of firms' resources which are; (i) financial resources and (ii) knowledge on the firm performance among 171 female Saudi entrepreneurs. The research results revealed that both variables (financial resources and

knowledge) have a positive significance on the firm performance. Kanapathipillai and Ferdous Azam (2019) investigate success factors among 400 women entrepreneurs in Malaysia and found that the respondents did not face significant problems to access financial resources to finance the business. Furthermore, the findings reveal that the higher the education level of the women entrepreneurs, their access to financial capital is better.

Technology resources are one of the most important elements in the success of any business. A firm that uses the latest technology tends to capture its customers more than its competitors (Jasra et al., 2011). Thus, technology/ICT resources are regarded as an important tool and a prerequisite for women's business owner empowerment (Crittenden et al., 2019). In a study conducted by (Rahman et al., 2017) among the micro-entrepreneurs in Bangladesh, the impact of ICT on both the personal and professional development of the micro-entrepreneur was evident. Beninger et al. (2016) investigate the role social media plays in the businesses of 30 women entrepreneurs in Egypt and found that social media has an overall positive impact on the lives of women entrepreneurs, both professionally and personally and helped grow their businesses and improve business performance via greater access to customers.

### **3.2 Human Capital Resources and Business Performance**

According to research by Fatoki (2011), social, human, and financial capital all significantly improve small-business performance. They argued that it is consistent with theories of human capital that say investing in human capital boosts performance. In addition, policy support for cooperative networks might improve the human capital management (HCM) of women entrepreneurs, thereby boosting both their resilience and that of their tourism enterprises (Kimbu et al., 2019). The paper develops a conceptual framework that depicts four determinants of collaborative networks that influence the HCM of women entrepreneurs in tourism, namely type of network, resources, social capital dimensions, and human capital management, drawing on findings from the analysis of collaborative networks involving women entrepreneurs in Ghana, Nigeria, and Cameroon.

Marketing capability, a component of human capital resources, refers to the ability to forecast and respond to customer needs based on market knowledge and experience (Day, 1994). Marketing capabilities include skills in segmentation and target-pricing advertising that enable the firm to implement effective marketing programs (Kimosop et al., 2016). Market knowledge usually develops over time through learning and experimentation. A substantial part of market knowledge is difficult to codify because of its socially complex nature, implying that market knowledge is distributed across multiple groups and people (Simonin, 1999). Additionally, a business that is well-informed about the industry is more likely to be responsive to customer needs and outperform its rivals (Kotler & Keller, 2012). Furthermore, businesses with strong marketing capabilities can persuade customers to buy their products (Chin et al., 2013).

The RBV perspective has a significant impact on human capital theory in entrepreneurship, which is mostly based on the idea that investing in education increases earnings. (Barney, 1991). Better education and experience are associated with more ambitious entrepreneurial goals. High levels of human capital give potential entrepreneurs a major edge; in particular, advanced education and managerial experience have a beneficial impact on entrepreneurial entry (Kim et al., 2006). For instance, Khadijah et al. (2017) obtained empirical results demonstrating that entrepreneurial competency and technology usage is associated with the successes of small businesses under the FELDA plan. They recommended that the government and FELDA continue to offer the necessary training and guidance so that they can help their companies secure premium market segments and predict the market before competitors. Lack of entrepreneurial skills among business owners has little effect; instead, it may cause the companies to be cut off from the supply chain.

### **3.3 Organisational Capital Resources and Business Performance**

A study on the association between organisation capital and firm life cycle by Hasan & Cheung (2018) found firms cannot afford large physical investments at the introduction stage due to limited capital and access to external finance. Therefore, firms will more focus to spend time and effort improving firm performance by developing their organisation capital. Meanwhile, Iqbal et al. (2022) discovered that organisational capital appears to strengthen the positive relationship between environmental innovation and firm value, implying that businesses with higher levels of organisational capital are more likely to consider stakeholder demands to be environmentally friendly, which boosts their market value. Both Hasan & Cheung (2018) and Iqbal et al. (2022) employed the belief that organisational capital is rooted in organisational processes and systems because this perception is more aligned with RBV.

Referring to the perspective of organisational resources which is rooted in an integrated part of employees' behaviour and a built-in component of a social network of organisation, Welsh et al. (2018) predicted social capital as one of the factors for women's entrepreneurial success. A study done by Huang et al. (2015) provided evidence that family firms exhibit a human-capital-enhancing culture that improves firm performance. According to Tagiuri & Davis (1996) family relationships increase motivation, loyalty, and trust, and family firms typically have workplace cultures that foster strong loyalty (Ward, 1988). Powell & Eddleston (2013) shared that family members can provide support by giving encouragement, attention, understanding and an overall positive attitude, which transfers from the family to the business domain

Another study by Syed et al. (2011) revealed that family support, social ties and internal motivation affect positively and significantly the success of women entrepreneurs in small businesses. Self-fulfilment desires play a significant role in business start-up motivation. Hasni et al. (2012) claimed that the two main factors motivating people to become entrepreneurs are "push" and "pull". Naser et al. (2009) further explained the push factor related to a negative situation such as low income, job dissatisfaction, strict working hours or even lack of job opportunities whereas, the pull factor is documented as positive developments such as the need for achievements. This also supported by Reijonen & Komppula (2007) which discovered that entrepreneur motivations and goals do influence the financial performance of micro-businesses in the craft and rural tourism industries in Finland.

#### 4. Conclusion

This study explores the use of the RBV theory in achieving business sustainability among women microbusiness entrepreneurs following three attributes of firm resources as suggested by the RBV framework, which consists of physical capital resources, human capital resources and organisational capital resources. Based on the previous literature review, financial resources and technology, both classified as physical capital resources, were investigated as having the greatest impact on business performance (Kanapathipillai & Azam 2020; Crittenden et al. 2019; Welsh et al. 2018; Rahman et al. 2017; Beninger et al. 2016).

However, simply meeting the physical capital requirements does not guarantee WME business sustainability. It is recommended to consider looking at human capital resource attributes such as marketing capabilities and entrepreneur competency. Similar to financial resources and technology, both marketing capabilities and entrepreneur competency are giving impact on business performance (Guo et al., 2018; Khizindar & Darley, 2017; Khadijah et al. 2017; Noor Hazlina et al. 2017). As more information about customers is obtained, relevant marketing strategies can be developed to meet the needs of stakeholders (Bowen et al., 2009). And it is believed that only entrepreneurs with relevant skills and experience can accomplish this. As a result, both attributes, marketing competence and entrepreneur competence, were thought to be important for further research because both potential to improve business performance for WMEs.

Finally, it is suggested that two aspects of organisational capital resources: motivation and family member support, be researched further to ensure the long-term viability of WME businesses. The success factors that contribute to business sustainability for a small-scaled business structure like WME differ slightly from those for large companies. Support from family and friends is essential for survival. In which the lack of both networks forces women entrepreneurs to abandon the idea of excelling in their business ventures. Besides, internal motivation, such as business challenges and the need to accomplish goals, was also able to enhance business performance (Muthuvelayutham & Jeyakodeeswari, 2015). This attribute merits further study to provide WME with a wider range of opportunities to achieve sustainability in their businesses.

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## **Community-Based Ecotourism Development for Sustainability: Lessons from Desa Cinta Kobuni**

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### **Abstract**

The focus of this study is to outline the development of Community-Based Ecotourism (CBET) in order to achieve sustainability. The CBET in Desa Cinta Kobuni is a result of a collaboration between Kampung Kobuni, Kota Kinabalu City Hall or widely known as DBKK (Dewan Bandaraya Kota Kinabalu), and Universiti Malaysia Sabah (UMS). It is located in Inanam, a suburb and sub-district of Kota Kinabalu city, which is very close to Kionsom waterfalls and Mari-Mari Cultural Village. The current ecotourism activities are still in the growth stage and mainly focused on cultural tourism products and activities that showcase their traditional food, clothing, language, history, values, beliefs, dance, arts, and crafts. The study's methodological approach is qualitative with narrative inquiry, also known as storytelling. This enables the study to access valuable insight with rich data into the complexity of developing community-based ecotourism. The results show that there are three major impacts on the Desa Cinta Kobuni, which are, 1) the increment of secondary income; 2) the advancement of women's empowerment, and 3) the enhanced sustainability initiatives of the villagers. The experience in developing their first CBET has resulted in the Kota Kinabalu City Hall producing the Framework for Sustainable Community Based Ecotourism that integrates Sustainable Development Goals and the Global Code of Ethics for Tourism (GCET) for future CBET development in other parts of the city. The paper concludes that there is a significant positive transformation of the village and the villagers while reaffirming that Community-Based ecotourism (CBET) is a sustainable form of tourism that improves the quality of life of hosts at the tourist destination.

### **Keywords**

Community, Ecotourism, Cultural Tourism, Sustainability, Sustainable Development

### **1. Introduction**

Even though the idea of a sustainable community has been debated extensively, sustainability in a community typically has a place and a time dimension. In addition to those, total sustainability is the overlapping of ecological, economic, and social components to ensure that they satisfy current needs without jeopardizing the capacity of future generations to satisfy their own. A sustainable form of tourism that enhances the standard of living of hosts at the tourist destination is community-based ecotourism (CBET). The implications of CBET's long-term operation on the local way of life have not yet been thoroughly researched by academics. By giving the local community a more sustainable alternative source of income, ecotourism aids in the development of local communities.

Many see ecotourism as an effective strategy to safeguard the environment while generating positive social and economic effects for nearby communities. Information, safety concerns, cost, the type of community-based tourism, the weather, the infrastructure and amenities of the tourist destination, the length of stay in the area, and environmental protection efforts for resource points are all important variables in community-based ecotourism. CBET, which is managed and operated sustainably by the local community that is being visited by visitors, empowers local communities, enhances local talent, fosters a sense of ownership among community members, and can promote local development. Profits are reinvested in the community because the decision-makers for the tourist sites are locals.

This study's main objective is to describe the growth of community-based ecotourism (CBET) as a means of achieving sustainability. A partnership between Kampung Kobuni, Kota Kinabalu City Hall (DBKK), and Universiti Malaysia Sabah (UMS) produced the CBET of Desa Cinta Kobuni. The village is situated in Inanam, a neighborhood and sub-district of Kota Kinabalu city, which is adjacent to the Mari-Mari Cultural Village and Kionsom Waterfalls. The CBET mostly focuses on cultural tourism-related goods and services and is still in the growth stage.

### **2. Literature Review**

One of the essential components of CBET's sustainability is community involvement. Recognizing locals as significant partners in the development of ecotourism and providing them authority over ecotourism planning and management is referred to as community engagement. As a result of government encouragement, a growing number of locals may use

CBET as a means of support. However, the majority of CBET now only serves as a formality and is a product of the standard "top-down" decision-making process. According to several research, the community's status as an ecotourism stakeholder is only acknowledged during the management phase. Other stakeholders rule the ecotourism planning process. The community loses the chance to present its own requests and ideas and instead becomes a passive recipient of decision-making outcomes. The local community typically receives little benefit from CBET as a result of being denied the opportunity to participate in the planning process. Therefore, in order to achieve sustainability, CBET must acknowledge the right of the local community to participate in the planning process and enhance their capacity to do so (Zheng, Li, Yu, & Gao, 2021).

Local communities are not always benefited by the growth of community-based tourism. Community-based tourism, on the other hand, is regarded as a theory or notion and might even be thought of as idealistic and imaginary. Many studies discuss the drawbacks of community-based tourism, particularly in reference to the low standard of human resources used to receive guests, including cleanliness, unsatisfactory accommodations, and guiding tourists. There is also an emphasis on the significance of local resources as the driving force behind the growth of community-based tourism, necessitating outside help. However, when local communities become dependent on the facilitator, this aid also runs into issues (Prakoso, Pradipto, Roychansyah, Nugraha, 2020).

Other studies also pointed out that the local community can profit from the development of ecotourism in the area to improve their socioeconomic situation. Responsible type of strategy and decision in tourism needs to be a top priority for all tourism stakeholders, including local government, enterprises, eco-tourists, local communities, NGOs, and resource management, in order to ensure the survival of the ecotourism destination. The growth of community-based ecotourism must provide the local community with as many opportunities for ownership, employment, management, training, and capacity building as possible in tourism-related initiatives and businesses where community benefits could be maximized (Chan, Marzuki & Mohtar, 2021).

### **3. Methods**

This study is using qualitative approach with the narrative inquiry. Also known as storytelling, it is an in-depth grasp of a topic and novel insights, usually giving voice to underrepresented groups whose viewpoint is not frequently sought. With the help of interviews, which are then recorded and chronologically organized, narrative inquiry documents the experiences of a person or small group in order to reveal their lived experience or unique perspective. frequently documented as a biography, life history, or oral history in the case of older/ancient traditional narrative recording. The methods that are used are interviews and focus groups. The interviews were conducted with selected community leaders while the focus group discussion was done during the community consultations. These are some benefits of narrative inquiry. It is simple to encourage individuals to share their stories, it gathers in-depth data, participants are eager to reveal themselves and reflect on their accounts, the truth is revealed, and it gives participants a voice.

The main topic, which is the development of Community-Based Ecotourism (CBET) to achieve sustainability or thesis is the center of inquiry in a narrative data analysis. This comprises inquiries pertaining to the development of CBET from the end of 2018 to early 2020 at the research site i.e., Desa Cinta Kobuni. The analysis is divided into two categories where the first is the data that responds to or advances the main study topics and the second is the identification of emergent topics.

The researcher is utilizing respondent validation to ensure that the data are trustworthy. Validity may also be supported by "member checking," which entails the researcher explicitly verifying the accuracy of their knowledge with participants while collecting the data through interviews. If the respondent statements are confusing, researchers can use member checking by repeating, paraphrasing, and asking for more information. In doing so, they provide the interviewees a chance to confirm or correct the interviewer's understanding of their words. The interviewer is also constantly aware of the degree to which each respondent's verbal and nonverbal communication appears harmonic and, therefore, potentially reflects an authentic level of communication, as well as the tone and emphasis of both the respondents' speech and their own utterances (Coleman, 2021).

## **4. Results and Discussion**

### **4.1 The Beginning**

The collaboration between Kampung Kobuni and Kota Kinabalu City Hall (DBKK) with Universiti Malaysia Sabah under the Faculty of Business, Economics, and Accountancy started at the end of 2017. Kampung Kobuni is located in Inanam and still within the city limits just started to get noticed based on its achievement in the cleanliness competition. The village has 291 villagers from 72 households and most of them are from the Dusun ethnic group. The tourism activities in this village were none at this point but there is an interest in developing it, therefore, all three stakeholders decided to develop community-based ecotourism with sustainability as a goal in mind. The village was later renamed Desa Cinta Kobuni for tourism branding.



The community consultation resulted in the expected outcome of this collaboration. The local community is expecting enhanced social and economic impacts on the village, while this project also fits into Kota Kinabalu City Hall's key performance indicators (KPI) for the Department of City Tourism Development in producing two tourism products per year. Universiti Malaysia Sabah would benefit from the project by designating Desa Cinta Kobuni as their Tourism Living Lab, where the staff and students of the Faculty of Business, Economics, and Accountancy could do their research projects, assignments, community outreach, publications, training, and development.

#### **4.2 The Growth**

Kota Kinabalu City Hall (DBKK) was very aggressive in developing Desa Cinta Kobuni as a Community-Based Ecotourism destination and as the first urban homestay destination in the state. In a short time, it identified a number of local champions that could get the community to initiate and complete tasks in the most efficient way in the shortest time. Therefore, there were a series of community consultations and motivational talks happenings on an almost daily basis. In order to ensure equal distribution of benefits and to avoid conflicts among the villagers, DBKK assisted the villagers in establishing the first village cooperative. Other than that, DBKK was also instrumental in bringing in funds to the village from various government agencies that were channeled into building infrastructure that will help with the ecotourism activities.

Universiti Malaysia Sabah organized a series of capacity-building workshops and seminars starting with the Tourism Product Development Seminar at the end of 2017 at Kampung Kobuni, Inanam in conjunction with the National Blue Ocean Strategy (NBOS) at the village. The seminar was organized to assist the local community to strategize their tourism planning and development, and 30 villagers participated. The next one was a workshop on Food and Beverage Operation in early 2018 which focuses on menu planning, food and beverages preparation, handling, safety, storage, and table scaping with 21 villagers, some of whom, by then, were already certified, homestay operators.

As Desa Cinta Kobuni gearing up to become the next tourism destination in Sabah, Universiti Malaysia Sabah sent forty-two tourism management students and staff of UMS to take part in the Beautification and Sustainability Program at the village with the local community. The program focuses on constructing ponds at the natural springs, creating beautiful murals in the public area, and cleaning the rivers that run through the village.

Finally, the local community developed ecotourism activities mainly focused on cultural tourism products and activities that showcase their traditional food, clothing, language, history, values, beliefs, dance, arts, and crafts. The showcase revived some of their traditional rituals and practices with the hope of conserving their culture in modern times. The villagers also adopted the farm-to-table concept in preparing food for tourists that is highly sustainable with very low carbon footprints. In order to have a low-impact but high-quality ecotourism experience, several of the local community underwent homestay experience courses and 19 premises were certified as homestay providers by the Ministry of Tourism, Arts and Culture Malaysia. While there are some international guests visiting the village, most of their guests are domestic and always in groups. The community-based ecotourism for Desa Cinta Kobuni was officially launched in March 2018.

#### **4.3 Impacts**

The study suggested three significant impacts of community-based ecotourism for Desa Cinta Kobuni. The first impact is the creation of new employment i.e., tour guides, homestay operators, micro-entrepreneurs for souvenirs, food, beverages, and cultural performance. These employments provided secondary income to the villagers mainly women and children with RM250 and above per month. The creation of the village cooperative ensures fair distribution of income. The second impact is the empowerment of women. The ecotourism activity among the villager is mainly run by women which have given them the opportunity to exercise creativity and work in a structured organization. They also have been receiving secondary income, which supplements their household income, especially those who are single mothers. The final impact of the community-based ecotourism is the improvement of the ambiance of the village tremendously with murals project i.e., in collaboration with DBKK and Nippon Paint, creating beautiful and green public spaces i.e. collaboration with DBKK and UMS, and encouraging small organic gardens in many households as the village aspired to become greener and more sustainable.

On the other hand, the experience in developing the CBET for Desa Cinta Kobuni has resulted in the Department of City Tourism Development developing the Framework for Sustainable Community-Based Ecotourism that integrates Sustainable Development Goals and the Global Code of Ethics for Tourism (GCET) (Ag. Samad, 2021). This is the first venture of its kind for the department and due to the perceived success of Desa Cinta Kobuni, it has become a model for the next village that aspires to have its own CBET.

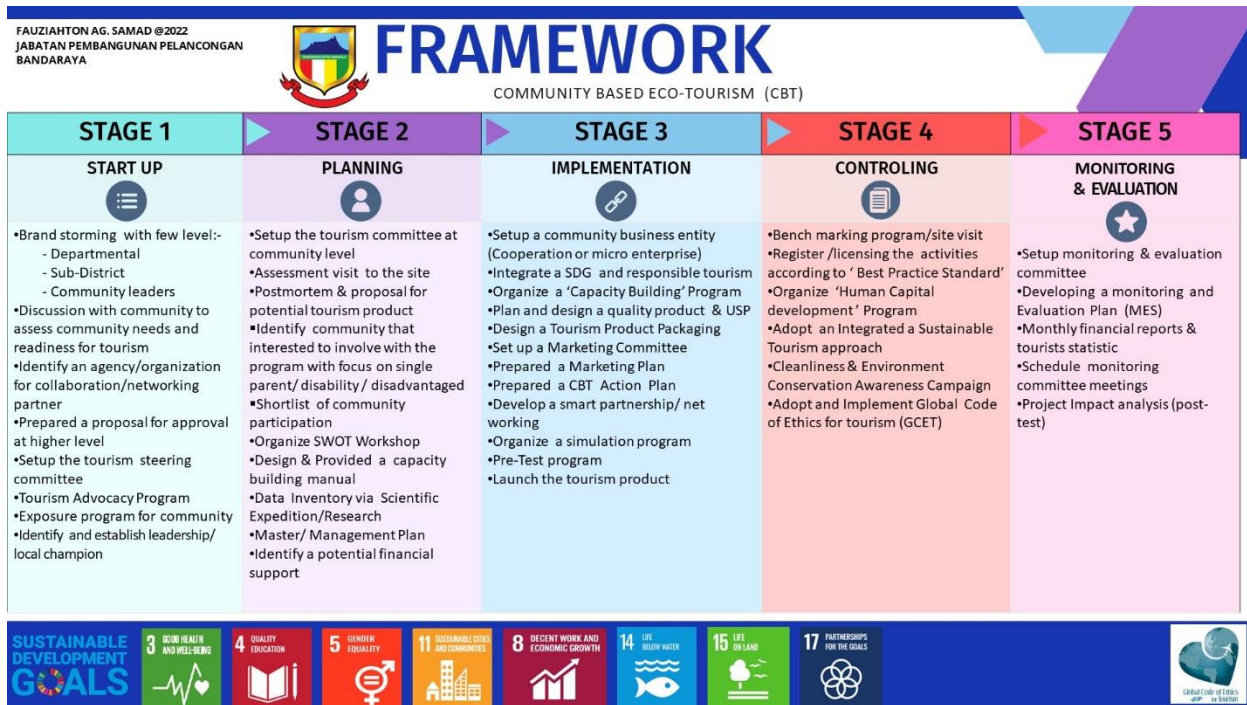


Figure 1. Framework Sustainable Community-Based Ecotourism

Source: Ag. Samad (2021)

## 5. Conclusion

The study reaffirms that community-based ecotourism or CBET is a form of sustainable tourism as it often brings various financial and non-financial benefits to local communities and maximizes sustainability at the local level. The collaborations between Desa Cinta Kobuni and UMS have given benefits to both parties such as new job creation, providing secondary income, empowering the women, and enhancing the sustainability of the village. The implication of the project is that Desa Cinta Kobuni has become a working model for community-based ecotourism for a sustainable village for DBKK to implement in other villages around the city.

## Acknowledgment

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## **Analysis Of Financial Performance and Their Effect on Company Value at Pt Garuda Indonesia Tbk During the Covid-19 Pandemic**

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### **Abstract**

This study aims to determine financial performance and its effect on firm value at PT Garuda Indonesia Tbk during the Covid 19 pandemic, 2019-2020 period. The population in this study is PT Garuda Indonesia Tbk, while the sample in this study is the statement of financial position (balance sheet) and the profit/loss report of PT Garuda Indonesia Tbk for the 2019-2020 period, data collection was carried out using secondary data. Analysis of the data used in this study is multiple linear regression analysis while the analytical tools used are classical assumption test, hypothesis testing and determinant coefficient ( $R^2$ ). The results of this study indicate that the profitability and liquidity ratios have a positive and significant impact on firm value at PT. Garuda Indonesia Tbk for the 2019-2020 period. Meanwhile, the solvency ratios have no positive and significant effect on the value of the company at PT Garuda Indonesia Tbk for the 2019-2020 period. Meanwhile, simultaneously or jointly the independent variables have a significant effect on the dependent variable as seen from the results of the F test by proving the value of  $F_{count} > F_{table}$ , which is  $13.111 > 6.39$ , while the sig value is  $0.03 < 0.05$ .

### **Keywords**

Flight Company, Profitability, Solvability, Liquidity, Covid 19

### **1. Introduction**

Basically, the company always strives to achieve the main goals that have been set. The goals to be achieved in the company. Both increasing company profits and to support all activities that occur within the company so that good financial performance and operating performance are needed. Good financial performance will be benchmark for investors to invest in a company. The source of information that will be used by investors is the company financial statements. Financial statements are the most important media for assessing the achievements and economic conditions of a company and also financial statements describe the company's financial position. The company's results of operations in a certain period.

If the financial performance shows good prospects. Then the stock will be in demand by investors and will affect the selling value of the stock. Assessment of the company's financial performance can be done by analyzing financial ratios. The ratio used consists of the ratio of profitability, liquidity, solvency (Husnan,2022). Profitability ratio is the ratio used to measure how much the company's ability to earn a profit, both with the relationship of asset sales and profit or loss of own capital. The liquidity ratio is a ratio that provides an overview of the company's ability to meet its short-term obligations. Solvency ratio is a ratio used to measure the extent to which the company's assets are financed with debt which means how much debt the company bears compared to its assets.

Research conducted by Hasanah, Susyanti & Wahono (2017) shows that financial performance analysis based on profitability ratios and liquidity ratios has a positive effect on the performance of companies listed on the Indonesia Stock Exchange. To determine the efficiency of financial performance necessary to analyze financial statements.

In this study, the object of this research is PT. Garuda Indonesia Tbk is a leading airline in Indonesia and is the only State-Owned Enterprise (BUMN) that flies more than 40 domestic destinations and 36 international destinations. Garuda Indonesia experienced problems related to the published financial statements. Garuda Indonesia was declared to be re-auditing or manipulating financial statements. The financial statements in 2018 were declared not in accordance with the statement of financial accounting standards (PSAK).

Garuda Indonesia's profit shows that profit performance tends to decline every year. This decline can be caused experienced occurred in 2018 which Garuda Indonesia manipulated financial statements. Basically, Garuda Indonesia suffered a loss but because of the recognized revenue and the revenue was related to Mahata Aero Technology partner of USD 239 million. Garuda Indonesia recognized the revenue and caused an increase in profit, while if it is based on the applicable PSAK, the income should not be recognized as profit in the financial statements of Garuda Indonesia (Jumungan, 2006).

The value of the company is the price that prospective buyers are willing to pay if the company is sold. The higher the value of the company. The greater the prosperity that will be received by the owner of the company. For companies that have gone public. The market value is determined by the mechanism of supply and demand on the stock exchange

which is reflected in the listing price. This is different from a public company, whose market value is determined by an independent institution such as an appraisal service company (Husnan, 2006).

Although the aviation industry in Indonesia has grown very rapidly in recent years. There are still concerns about their ability to manage the business in order to survive. Especially when the COVID-19 pandemic hit the aviation industry. Practically in the past year, people have avoided cross-regional as well as cross-country travel for both trade and tourism. With the implementation of various restrictions and strict health protocols accompanied by fear of the transmission of COVID-19. People generally choose to postpone or travel by private vehicles. One of the impacts of the pandemic on the airlines financial health condition was recognized by PT. Garuda Indonesia Tbk. September 2020 had recorded a loss of US\$ 1.07 billion compared to a profit of US\$ 122.4 million in the same period in 2019. This loss was due to a free fall of 67.8 percent of revenue compared to last year. Based on the financial reports that they announced, revenue for nine months in 2020 only reached US \$ 1.13 billion (Dwitya, 2021). Based on the phenomena that have been described and some literature reviews related to these phenomena, this study attempts to conduct further analysis related to the performance of the Garuda Indonesia Tbk company. Therefore, the authors decided to conduct a study with the title "Financial Performance Analysis and Its Effect on Firm Value at PT. Garuda Indonesia Tbk, During the Covid 19 Pandemic Period".

## **2. Literature Review**

### **2.1 Pandemic Covid 19**

The COVID-19 pandemic is a new type of disease caused by a virus and can be transmitted to other people through the air and direct contact. Wuhan, Hubei Province, China, was the center for the first time that COVID-19 was discovered by Chinese doctors in December 2019 (WHO, 2020). Countries in the Americas, Europe, Asia, Africa and Australia have made strict regulations regarding prohibitions for foreign nationals (foreigners) from visiting their countries and also prohibiting their nationals from visiting abroad since the announcement of the pandemic by WHO. After the official announcement by the WHO from March to August, 2020, the Indonesian government also banned foreign tourists from visiting Indonesia, as well as the Indonesian government banned domestic tourists from traveling abroad and banned domestic tourists from visiting tourist attractions in several cities. and provinces in Indonesia. The prohibition of foreign tourists visiting Indonesia and the prohibition of domestic tourists from visiting abroad in accordance with Large-Scale Social Restrictions in the Context of Accelerating the Handling of Corona Virus Disease 2019 (Covid-19) have been enacted with the issuance of Government Regulation Number 21 of 2020 by (President of the Republic of Indonesia, 2020). The Presidential Regulation was followed up by the Guidelines for Large-Scale Social Restrictions in the context of Accelerating the Handling of Covid-19 with the issuance of Minister of Health Regulation Number 9 of 2020.

### **2.2 Definition of financial performance ratio**

Financial ratio analysis is an activity to compare the numbers contained in the financial statements by dividing one number by another. Financial ratio analysis is the analysis of technical analytical tools for general purpose financial statements and related data to produce estimates and conclusions that are useful in business analysis. Ratios used in financial performance:

#### **1. Profitability Ratio**

Profitability ratio is a ratio to assess the company's ability to seek profit. Based on the opinion of the experts above, it can be concluded that the profitability ratio is a ratio to measure the level of management effectiveness in the company which is indicated by the amount of profit generated from sales and investment. The point is that the use of this ratio shows the efficiency of the company.

#### **2. Liquidity Ratio**

The liquidity ratio is a ratio that provides an overview of the company's ability to meet its short-term obligations.

#### **3. Solvability Ratio**

The solvency ratio or leverage ratio is the ratio used to measure the extent to which the company's assets are financed by debt. This means how much debt burden borne by the company compared to its assets.

#### **4. Company Values**

Company value is measured using Price Book Value (PBV) which is a comparison of the book value of the stock with its market price

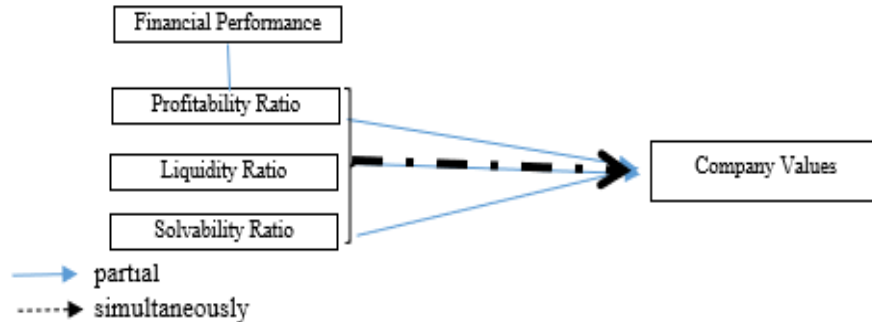


Figure 1. Framework

### Hypothesis

H<sub>1</sub>: Profitability ratios have an effect on firm value at PT. Garuda Indonesia Tbk period 2019-2020.

H<sub>2</sub>: Liquidity ratios have an effect on firm value at PT. Garuda Indonesia Tbk period 2019-2020.

H<sub>3</sub>: Solvability ratios have an effect on firm value at PT. Garuda Indonesia Tbk period 2019-2020.

H<sub>4</sub>: Profitability, liquidity, solvability and activity simultaneously have an effect on firm value at PT. Garuda Indonesia Tbk period 2019-2020.

### 3. Methods

The research design used in this research is quantitative research. Quantitative research is research by examining how much influence an independent variable has on the dependent variable (Hermawan, 2019). In this study provide information that aims to describe systematically, factually, and accurately about the financial performance of PT Garuda Indonesia during the Covid 19 pandemic. The population in this study is the population of PT Garuda Indonesia Tbk which is listed on the Indonesia Stock Exchange (IDX) which provides financial performance in 2019-2020. The total population is 2 (two) years so that the number of samples (n) from the financial report data per quarter during the 2019-2020 period is 30 samples. In analyzing the data uses descriptive quantitative method which is a data analysis technique that uses numbers so that problem solving can be calculated with certainty by testing the classic assumptions first, testing the hypothesis (t test, f test).

### 4. Results and Discussion

This section describes the data acquisition for all research variables used by describing the variables for the entire observation period from 2019-2020 on financial performance variables consisting of profitability, liquidity, solvency variables that affect firm value at PT Garuda Indonesia Tbk.

Financial statement analysis is the company's instrument in measuring the performance that has been achieved to determine the level of achievement of company goals and as a tool to obtain information about the company's financial position. Based on research conducted by Gunawan, it shows that an analysis of the company's activity ratio can be carried out for assessing company performance (Ade, 2019).

The percentage of the profitability variable used in this study is return on assets (ROA) (Hidayat, 2018) which is used is the value of each quarter in the annual financial statements from 2019 to 2020 which is taken as a sample for the dependent variable and for the value of ROA is obtained by using the formula:

$$\text{Return on Asset (ROA)} = \frac{\text{Net Profit}}{\text{Total Asset}}$$

For the profitability ratio using Return On Assets (Hidayat, 2018), after being analyzed, it can be seen that asset performance is not optimal in generating net income so that it has an impact on the company's income later. Where in 2019 the first quarter ROA was 0.014, the second quarter rose to 0.017, the third quarter also rose to 0.041 and the fourth quarter decreased to 0.029. Then in 2020 in the first quarter it also decreased to 0.013, in the second quarter it rose again to 0.070, then in the third quarter it also rose to 0.160 and in the fourth quarter it also increased to 0.890. So we can conclude that the increase in the company's return on assets is because the company is able to increase its income and assets from the previous year which resulted in an increase in the level of net profit after tax. And the decline in the

company's return on assets (ROA) occurs because the company's income and assets have decreased so that the company's profit has also decreased.

The liquidity ratio used in this study is the quarterly value for 2019-2020 based on the financial statements of PT Garuda Indonesia Tbk using the formula:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Short Term Liabilities}}$$

It can be seen that in 2019 the percentage value of the current ratio for the first quarter was 0.600, then in the second quarter it decreased to 0.420, then in the third quarter it rose again to 0.540, and in the fourth quarter it fell back to 0.380. As for 2020, the percentage value of the current ratio for the first quarter amounted to 0.210, then in the second quarter it decreased to 0.160, then in the third quarter it fell back to 0.150 and in the fourth quarter it rose again to 0.210. The highest current ratio value was in 2019 in the first quarter of 0.600. Then the lowest was in the third quarter of 2020, namely 0.150. However, in the fourth quarter, it increased in 2020 to 0.210.

The solvency ratio uses Total Asset Turn Over (TATO) for each quarter from 2019 to 2020.

$$\text{Total Asset Turn Over (TATO)} = \frac{\text{Net Sales}}{\text{Average Assets}}$$

The number of tattoos from year to year has increased and decreased. It can be seen that in 2019 the percentage value of TATO for the first quarter was 0.062. Then in the second quarter it increased to 0.078, in the third quarter it fell again to 0.074, and in the fourth quarter it rose again to 0.110. As for 2020, the percentage value of TATO for the first quarter amounted to 0.047, then in the second quarter it increased to 0.060, in the third quarter it fell again to 0.024, and in the fourth quarter it fell back to 0.015. The highest TATO was in the fourth quarter of 2019 at 0.110 and the lowest tattoo was in the fourth quarter of 2020, which was 0.015.

In addition, measuring the value of the company uses Price Book Value (PBV) for each quarter from 2019 to 2020 which is taken as a sample for the dependent variable and for the Price Book Value (PBV).

$$\text{Price Book Value (PBV)} = \frac{\text{Price Per Share}}{\text{Book Value Per Share}}$$

Price Book Value (PBV) from year to year has increased and decreased. It can be seen that in 2019 the Price Book Value (PBV) for the first quarter was 0.600, then in the second quarter it increased to 0.610, then in the third quarter it rose again to 0.78, and in the fourth quarter it fell back to 0.640. As for 2020, the Price Book Value (PBV) for the first quarter was 0.380, then in the second quarter it decreased to 0.060 then in the third quarter it rose to 0.340, and in the fourth quarter it rose again to 1.480. The lowest Price Book Value (PBV) was in 2020 in the second quarter of 0.060 and the highest was in the fourth quarter of 2020, namely 1.480.

## 5. Conclusion

Profitability ratio in the form of Return On Assets (ROA) has a positive and significant influence on firm value. Because the profitability ratio is one of the corporate governance mechanisms that can increase the value of the company. When viewed from the direction of the coefficient, the effect is positive, which means that the higher the profitability ratio, namely ROA, the higher the value of the company. Liquidity ratio in the form of cash ratio has a positive and significant effect on company value at PT Garuda Indonesia Tbk for the 2019-2020 period. The cash ratio has a positive effect on firm value, so it can be concluded that a company's liquidity is able to describe the company's ability to meet short-term obligations. In short, to short-term creditors, the greater the ratio of cash to debt, the better. The solvency ratio in the form of a debt ratio has no positive and significant effect on the value of the company at PT Garuda Indonesia Tbk for the 2019-2020 period. This is indicated by the value obtained  $t_{\text{count}} < t_{\text{table}} = -0.50 < 3.182$ . Thus, there is no negative and insignificant effect because  $0.269 > 0.05$  on firm value.

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## **The Influence of Personal Financial Wellness, Financial Stress, and Financial Behavior on Work Performance of Expatriates in Malaysia**

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### **Abstract**

This research study is aimed to examine the influence of personal financial wellness, financial stress, and financial behavior on work performance of expatriates in Malaysia. The framework created for this study comprises financial wellness, financial stress, and financial behavior which are the independent variables, while work performance of expatriates on the opposite direction serve as the dependent variable. This study could utilize both quantitative and qualitative approach through interviews and questionnaire survey. This study proposed that there is significant influence of personal financial wellness, financial stress, and financial behavior on work performance of expatriates in Malaysia.

### **Keywords**

Financial Wellness, Financial Stress, Financial Behavior, Work Performance

### **1. Introduction**

Malaysia has been ranked 4th best destination for expats (Caroline, H. 2021), and the arrival of these expatriates has brought huge contribution towards the progressive development to the country. According to HSBC survey, 43% expats own properties, transfer skills, pay taxes and have investments in various sectors of Malaysia (HSBC, 2019). It is also on records that foreign expatriate remit RM36 billion annually about 3% of national GDP, and their recruitment, processing and placement are huge, worth more than RM2 billion annually (Murray, 2019). These expats contributions are traceable to RM32.6 billion FDI formerly distributed across sectors: 50.2% to service, 47.4% on manufacturing, 2.3% on construction and 0.2% to agricultural sectors (Zulkaedah, 2018). With these enormous contributions, it is clear that expatriates are of great importance to the government of Malaysia, and so their financial conditions should be of importance too.

Unfortunately, expatriate in Malaysia face challenges with their financial situations. They encounter financial stress due to the inability to cope with medical bills, house bills, major vehicle repair, and debt that lead to overall mental stress (Jinhee & Thomas, 2004). Stress of workers is one of the concerns of employers as it influences productivity, decision-making, and overall job performance negatively (NoorHafiza et al., 2019).

Poor financial behavior is another issue among expatriates. Examples of poor financial behaviors are exuberant spending, low budgeting behavior, and low saving behavior (Cliff & Ann, 2011; Kim et al., 2006). Even though past findings showed differences among expatriates by education, income, age, and marital status (Delafrooz & Paim, 2011), it cannot be denied that poor financial behavior matters because it influences work performance (Wee et al., 2019).

Financial wellness is another related financial issue of expatriates in Malaysia. The causes of low financial wellness of expatriates are due to many factors. Expatriates that have problems in adjusting to Malaysian culture would influence superiors' bias during evaluation, which lead to unsatisfactory reward amount (Adedara et al., 2020). As a result, these expatriates would feel unsatisfied with their financial conditions (Ilara et al., 2020). Lack of organizational support such as expatriate wages being spent on working permit and other professional provisions that organization supposed to handle, made the expatriates do not have much left to cover budgeted or planned expenses (Adedara et al., 2020). Poor support on the part of the organization has reduced job satisfaction and commitment to the corporate goal (Mojca et al., 2018). Having considered these expatriates' issues, the theory of planned behavior could address the problem.

Theory of planned behavior proposed that individual behaviors are influenced in three categories which are via attitude, subjective norms, and perceived behavioral control (Ajzen, 1988). Attitude refers to self-opinion whether the behavior will be favorably or unfavorably, subjective norms refer to the perceived sense of how people feel about the behavior which results in perceived social pressure, while perceived behavioral control is about presence of factors that may hinder behavioral performance; producing perceived behavior control. Based on Ajzen assertion, this study therefore propose that performance and financial behavior is influenced by financial stress and financial wellness.



## **2. Literature Review**

### **2.1 Financial wellness**

Financial wellness has been traditionally viewed in term of income and assets sufficiency. Breen, (1991) defined financial wellness as a state of having sufficient income and assets enough to offer good health and personal care, possessing adequate level of products and services as well as legal preparedness and professional guidance. Porter & German, (1993) described financial wellness as the perception of opportunities that include being able to make hands meet, having sense of material security and equity of reward sharing system. Marzieh et al., (2013) viewed financial wellness as individual perception about their living standards and view of being able to meet the needs, feeling secure, feeling comfortable, and satisfied with income as well as inward distribution system. Thus, this study defined financial wellness as a state where the expat earns adequate income to have hands meet in host country, a level where the individual living standard is without worry and in-control of his finance with good savings.

The traditional dimension and measurement of financial wellness consist of multiple elements with a broad level of dimensions. Joo, (1998) developed one of the first comprehensive framework model of financial wellness based on double ABCX model based seven main dimensions: demographic characteristic; financial stressors; personal financial wellness; financial stress level; Buffering system; financial education; and outcomes. Porter & German, (1993) developed four dimensions of financial wellness that includes personal characteristic, objective attributes, perceived attributes, and evaluated attributes based self-anchoring striving measurement scale to determine financial situation of Virginian in US. Prawitz et al., (2006) created the In-Charge Financial Distress/Financial Wellbeing (IFDFW) comprising of financial situation, satisfaction, financial freedom, meeting normal monthly living expenses, financial emergency, paycheck to paycheck, stress level in a self-reported scale. Therefore, level of financial situation, financial satisfaction, financial stress level, saving behavior will be used as indicators to measure the construct (So-hyun & Thomas, 1998; Brey, 2001; Prawitz et al., 2006).

### **2.2 Financial Stress**

Financial Stress has been traditionally viewed as a stimulus that triggers physiological response. The pioneer research of Selye, (1956) defined stress as the nonspecific neuroendocrine response of the body to an extremely stressor. Thomas & Jinhee, (2003) defined financial stress as a current situation in which an individual finds it challenging to meet up with external financial expectations. Northern et al., (2010) described financial stress as individual's inability to meet up with his/her economic responsibilities which influences a person's attitude, beliefs and various psychological factors. And Shapiro & Burchell, (2012) termed financial stress as an anxious attitude developed toward one's personal finances or every symptom of anxiety that associated with an individual financial situation. Therefore, this study conceptualized financial stress as the expatriate physical response of anxiety resulting from inability to meet up with financial expectations, a state where income earned is not sufficient to cover expenses or excessive credit borrowing makes it impossible to save for the economic responsibilities which can influence an individual and/or the family social system.

The financial stress dimensions and measurement has been earlier viewed as multidimensional construct and not unidimensional. Jinhee & Thomas, (2004) developed a framework to test financial stress using three dimensions such as pay satisfaction, work time use, and absenteeism. Prawitz et al., (2006) developed a self-reported measure of financial stress known as Incharge financial distress/financial wellbeing (IFDFW). Shapiro & Brendan, (2012) developed a financial stress measure utilizing State-Trait Anxiety Inventory (STAI) and Center for Epidemitologic Studies Depression Scale (CES-D). Wookjae et al., (2020) created a financial stress measurement known as APR scale which comprised of three-dimensional construct such affective reaction, relational/interpersonal behavior, and physiological responses. This study conceptualized financial stress as expatriate financial concern or anxiety which negatively influence the individual performance at work. Therefore, pay satisfaction, work time used on personal financial issues and absenteeism will be used as indicators to measure the construct (Kim et al., 2006; Wookjae et al., 2020).

### **2.3 Financial Behavior**

Financial behavior concept has been formally viewed in term of money management practice. German & Leech, (1997) described financial behavior as an attitude required in managing financial resources that include utilization of retirement strategy, financial plan and credit and money management in order to achieve financial success. Jeanne, Sondra & Marianne, (2003) termed financial behavior as whatever human behavior that is relevant to financial management in term of cash, credit and saving behavior. And Beby et al., (2017) referred to financial behavior as how well an individual or household manage financial resources specifically on the aspect of savings, budget, planning, insurance and investment. Therefore, this study defined financial behavior as the expatriate ability to minimize excessive spending of cash earned through good budgeting in order to have adequate savings for economic sustainability and investment as well as a reduced credit debt that can negatively impact life and commitment at work.

The primary conceptualization of financial behavior has been more towards effective dimensions and designed from self-reported measurement. Xiao & Wu, (2006) concept of financial behavior centers on consumer debts, they used four dimensions such as consumption, savings and investment, cash management and credit management. Joo & Thomas, (1999) created a self-assessed financial knowledge level (SAFKL) scale to determine financial behavior. Jing & Jeffrey, (2011) developed a self-reported measure of financial behavior known as financial management behavior scale (FMBS). Cliff & Ann, (2011) attempted to measure financial behavior by use of Financial Industry Regulatory Authority (FINRA) survey through range of questions as; overall thinking of assets, debts, and savings. Therefore, this study conceptualizes financial behavior as expatriate perceived money management practice which can positively or negatively influence the individual performance at work. Thus, cash management behavior, credit card behavior, debt and planning behavior will be used as gauge to determine the construct (Joo, 1998; Grable & Joo, 1999; Beby et al., 2017).

## **2.4 Work Performance**

Work Performance is generally viewed as an attitude of the mind which empowers individual to improve his/her self on continues basis. According to Akerele, (1991), performance is evaluated in term of quality, quantity, cost, and time. Campbell, (1990) defined performance as a function of knowledge, skills, abilities, and motivation towards a role designed behavior or actions pertinent to organizational goals. Borman & Motowidlo, (1993) described performance as task or role prescribed behaviors which differentiate one's job from another and at the same time contribute to technical objectives of the organization. Harrison & Shafer, (2005) defined expatriate performance as the magnitude of time and energy exacted on the designed job. Therefore, in this study, expat performance is conceptualized as proficiency of knowledge and skills in foreign employee's disposal and the persistent effort to accomplish task(s) assigned by the manager.

Expatriate performance have been found to be a multidimensional construct comprised of task, context, and assignment specific dimensions. Campbell, (1990) measure performance which include job specific task proficiency, non-specific task proficiency, written and oral communication, demonstrating effort, maintaining personal discipline, facilitating peer and team performance, supervision, and management of administration. Riggs et al. (1994) measure expatriate work performance using personal efficacy belief scale (PEBS). Schauteli et al., (2002) developed work engagement scale (WES) like vigor, dedication and absorption. In this study, expat performance is conceptualized as perception of knowledge, skills and motivation to effectively perform task as specified in the job description. Therefore, Job effectiveness, performance ability, adaptability will then be used as construct indicator (Bertol et al., 2010; Zubair & Maaz, 2013; Mohammad et al., 2017).

## **2.5 Influence of Financial Wellness on Financial Behavior**

Certain level of financial wellness cannot be successfully realized without inculcating adequate financial attitude. Studies have found that there is a positive and significant influence of financial wellness on financial behavior (Narges & Laily, 2011; Zahariah et al., 2019). The study of Delafrooze and Laily (2013) noted that individual satisfaction with level of personal finances is usually influenced by one's ability to manage income, save and have planned financial goals. Mohamad & Nurul, (2015) found income adequacy, cash and credit management significantly influence expatriate financial wellness and motivate job performance. Certain workers with poor financial behavior tend to have low financial health, this is generally because lack of good financial behavior especially in term of savings and money management result in debts and worry which reduced the level of financial wellness and drawback in job performance. Report have shown that 50% of employees in the US monthly expense is higher than their income, as a result, 37% are in uncontrollable debt, while 41% lacks sufficient savings to cover their living expense (Liz, 2019).

Planning and budgeting have also proofed to be a good financial behavior indicator that can positively promote the level of financial wellness and improve expats underperformance at work. Joo, (2008) and Mohamad & Nurul, (2015) established that consumer shopping skill, planning and budgeting are financial behavior indicators that correlate with expatriate financial wellness. Having control over shopping will not only help an individual savings, it will enable employee to have proper planning and budgeting that will support financial goals and reduced financial pressure at work. However, poor consumer shopping skill like credit card borrowing and purchasing unnecessarily needed things have put a number of expatriates in dare financial debt which made it difficult for some to have emergency savings and long-term planning. Such poor financial behavior has affected the financial health expats badly that they spend volume of the time for work thinking about their financial situation, thereby affecting their job performance (Dewi-Izzwi & Kelvin, 2021).

Financial education is also one of the factors of good financial behavior that improve financial wellness level and produce positive performance. Margaret et al., (2017) found that financial literacy correlate with financial behavior and influence financial wellness level. This suggest that financial education is important because it is produced good financial knowledge, supports effective management money and improve personal financial situation as well as result in better performance at work. Study conducted by Rossazana, (2020) found that working financial knowledge and vital financial tools reduced the negative impact of poor financial decisions, improve saving attitude and raised level of financial wellness as well as encouraging performance. Vital financial tools have been found beneficial and recommended by expats and

organizational leadership for expatriates with low working financial knowledge (Rossazana, 2020), because it is supportive for quality financial decision-making capable of improving level of financial wellness and motivate performance.

Thus, it can be proposed that:

P1: There is a significance influence of financial wellness on financial behavior

## **2.6 Influence of Financial Stress on Financial Behavior**

There is certain unavoidable situation faced by individual that are capable of producing stressful financial challenges, and such financially challenge conditions can affect the person's ability save for emergency days. Laily & Delafrooz, (2013) found that financial stress negatively correlates with financial behavior. Also, a study conducted by Nuradibah & Husniyah, (2017) discovered that public employees' respondents who had lower financial stress were those with positive financial behavior. Certain personal stressors such as job loss, investment loss, injury, decreased wages have been found to have a devastating impact on living expense (Meralie & Anabelle, 2020). The negative effect of some stressors can be more severe for a professional employee with poor financial behavior, job loss for example, can make such individual withdraw money from business investment and cash meant for specific financial goals for living expense or logistics for job interviews which may lead to stressful situation. And worry about inability to meet up day-to-day expenses can negatively influence on expatriate's job performance (Sabri et al., 2020).

Joo, (2008) also recognized that there are family events which negatively influence financial behavior. Family events are considered as sudden or unexpected happenings within the worker's family which will require substantial amount of money if not immediately addressed. Prawitz et al., (2006) identified some family events as child birth, child school fees, divorce or separation from spouse, death of loved one are some sources of financial stressors evident in the life of employees with inadequate income. Brown & Gray, (2016) argued that family events are sources of financial stress which negatively influence financial behavior, medical bills and divorce with spouse were found highly significant. When a person faces several stressors like marital relationship failure, family member job loss, child educational fees, they tend to experience stress-related illness, and in other cases lead to alcoholism, gambling and drug abuse which will lower their financial attitude, increase their financial stress level and cause under-performance of expatriate.

However, the level of financial stress faced by the expatriate is to a large extent traceable to lack of sufficiently planned behavior. The study of Mohamad & Nurul, (2015) have asserted that though financial counselling and financial education are good buffers of financial stress, but personal knowledge and experience are determinant of financial attitude that produce better financial behavior capable of reducing financial stress level and promote expatriate performance at work. Though there are some chronic situations which may not be the making of the expatriate, however, good financial behavior serves as a buffer which reduce excessive spending, increase ability to save, and lower financial stress level as well as produce commendable performance of expatriate (Ramanujam, 2020).

Therefore, it can be proposed that:

P2: There is a significance influence of financial stress on financial behavior

## **2.7 Influence of Financial Behavior on Performance**

Financial behavior is a perceived behavioral control which influences an expat to develop financial plans that guarantee financial future and satisfaction that will improve performance. Joo & Thomas, (1998) found that there is a positive and significant influence of financial behavior on performance. When an employee develops positive financial attitude, the fellow will be able to have adequate income, good cash and credit management, as a result, such worker will not have challenges living on earnings. Joo, (2008) established that income adequacy, cash management, and personal financial management significantly improve employee job performance. Any expatriate with such good behavior will feel satisfied with the amount of money saved, and the feeling of fulfillment will bring about performance of the expatriate (Zahariah, et al., 2019).

However, when a professional worker adopts negative financial behavior, the individual usually makes financial decisions that will make it difficult to live on his/her income which will lead to increased debt and worry. Such poor financial behavior often endangers the worker's opportunity to borrow for emergency, subsequently, the perceived sense of inadequate income will bring about worry about personal financial situation and produce stress-related sickness that causes absenteeism as well as determine low performance (Nurazleena & NurDamia, 2019).

Also, performance is found to positively correlate with financial behavior Joo & Thomas, (2004). When an expatriate financial behavior is positive, it will produce positive outcome to the individual and the organization (Joo, 2008). In certain situation, the financial behavior of an employee is sometimes being produced by the workplace financial education, whichever, the expats good financial attitude can affect poor financial behavior, create desirable personal portfolio, less stress-related illness, save toward retirement and increase the expatriate performance (Nurazleena & NurDamia, 2019). While negative financial behavior produces low wages, high absenteeism, poor communication at

work, reduced quantity and quality of work, lead to greater turnover, bad job performance and possible job loss (Merallie & Anabelle, 2020).

Therefore, it can be proposed that:

P3: There is a significance influence of financial behavior on performance

### 3. Proposed Research Framework

Based on foregoing discussion, it is hypothesized that financial wellness and financial stress both influences financial behavior. In turn, financial behavior influences the work performance of expatriates in Malaysia. Figure 1 shown the proposed research framework of this study.

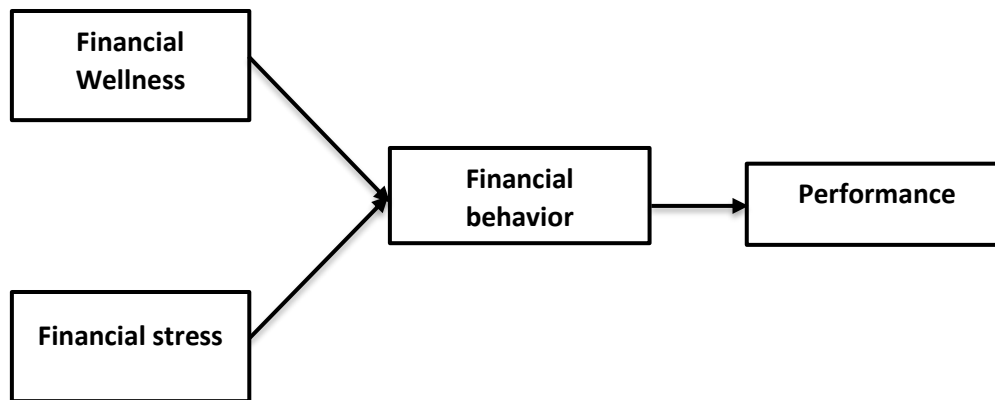


Figure 1. Proposed Research Framework

### 4. Conclusion

In the quest of becoming a developed country, Malaysia requires massive contribution of knowledge, skills and experiences by its people. But, in order to grow, these contributions may need to be supplied by the expatriates so that the process can be faster and cheaper. Hence, work performance of these expatriates is important.

This research view expatriates as a foreign employee of an organization who are employed from home into host country as manager or in any related positions. This is a conceptual paper to show the propose relationship between financial wellness, financial stress, financial behavior, and work performance of expatriates in Malaysia. Financial wellness is a state where the expat earns adequate income in host country. Financial stress is the expatriate physical anxiety resulting from inability to meet up with financial commitment in host country. And financial behavior is the expatriate ability to manage spending of cash earned in host country.

The review of literatures has extensively discussed the variables of this study, the dimensions and measurement, as well as conceptual framework developed for this study. Thus, it was proposed that the higher the level of satisfaction with personal financial wellness, the lesser the financial stress, and the better the expatriates work performance. This is because when an expatriate level of financial wellness is high, he will take good care on how to spend his income. Similarly, when he has low stress about his financial matters, his will demonstrate good behavior in managing his wealth. Good behavior of an expatriates will in turn reflect his high work performance.

If proven correct, intervention programs can be done by organizations to improve work performance of expatriates. Stress management programs can be designed to help expatriates manage their stress. Wages and salary scheme might need to be revised so that expatriates can cope with their financial obligations. Personal financial management program shall be created to train expatriates to manage their income. Therefore, the result of this research is expected to support the concern of every foreign employee hired from home into host country as managers or in any related position in Malaysia.

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## **Exploring the Factors that affect Retirement Planning Behaviour among Female Employees via Smart-PLS Approach**

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### **Abstract**

Every employee wishes for a great retirement after leaving their jobs. Therefore, adequate retirement funds are required to cover all needs after retirement. This study aims to examine the effects of psychological factors such as financial literacy (FL), financial risk tolerance (FRT), and health perceptions (HP) on retirement planning behaviour (RPB) among female employees in the East Coast, Malaysia. This study applies a quantitative approach whereby the questionnaires were distributed online via email, WhatsApp, and telegram. After data cleaning, the final sample size was 237. The data analyzed was obtained by using SPSS and Smart-PLS Software. Structural Equation Modeling (SEM) was used to evaluate the linear relationship between FL, FRT, HP, and RPB. The main findings of this study had a significant positive effect on RPB. The general public, particularly female employees, requires more financial literacy education. The researcher has decided to investigate the behaviors of people engaged in retirement preparation because of the significance of retirement planning. This decision was made as a result of the significance of retirement planning. A better understanding of working individuals, professional financial advisors, governments, and financial institutions could strengthen their natural understanding and capabilities towards retirement planning behaviour to help societies prepare well for their retirement planning.

### **Keywords**

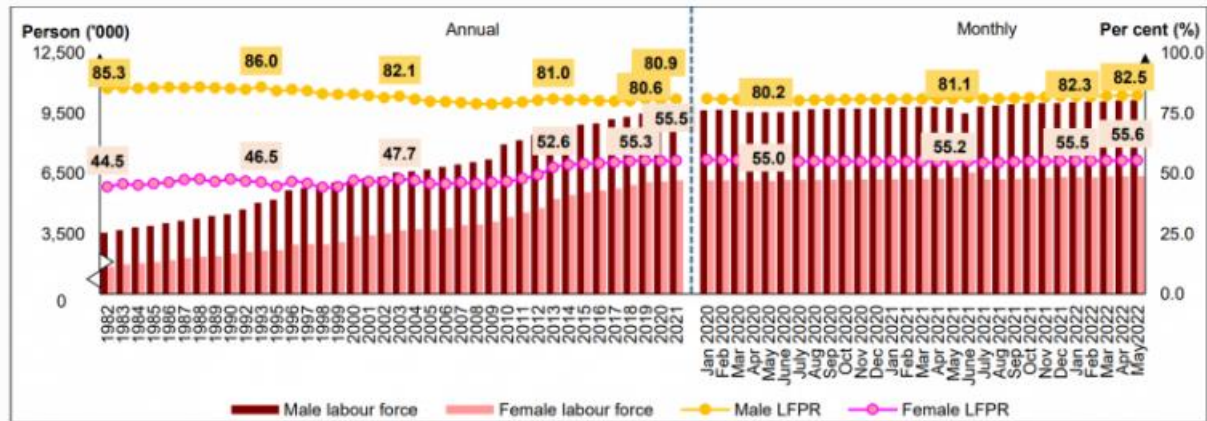
Smart-PLS, Retirement Planning, Savings Behaviour, Financial Literacy, Financial Risk Tolerance, Female Employment

### **1. Introduction**

Planning for retirement is an essential subject that must be investigated in depth so that those nearing retirement may be confident that they have a solid plan before they stop working. This is also a reflection of how Malaysians need to put enough money aside so that they can buy the goods they will need in the not-too-distant future. According to Yeung & Zhou (2017), retirement planning is how an individual develops these plans for their future after work ends. On top of that, the inflation issues in Malaysia are worsening, which means that the prices of everything are rising, and it is getting harder for everyone to achieve something. Thus, the retirement fund or pension should be adequate to fulfill the requirements of the desired quality of life, as well as increased medical bills and higher costs of living as they occur. Moreover, many retired people continue to work after they formally retire, which is one of the primary factors that cause many working people to feel anxious about the challenges they will encounter when they reach retirement age. To date, the retirement age for women in Malaysia remained unchanged at 60 in 2021 from 60 in 2020 and is forecast to remain at 60 by 2023.

Malaysia is one of the ASEAN nations with the lowest participation rate of women in the labour market. Currently, as the economy recovers from the slowdown caused by the spread of COVID-19, the number of women returning to the workforce is not very encouraging. On average, men currently profit from the expansion of employment opportunities. In April 2022, the percentage of women with a bachelor's degree or more increased somewhat by 0.3% to 55.5%, compared to 55.25% during the same month the previous year. In Malaysia, women are more educated, totaling 61% of female students participating in universities in 2021 and more than 56% working in academic sectors. In terms of labour force by gender, the male labour force increased during the month to a record 10.15 million individuals (April 2022: 10.15 million population), while the female labour force increased to 6.38 million people (April 2022: 6.36 million persons). As a result, the male and female Labor Force Participation Rates (LFPR) increased by 0.2 percentage points and 0.1 percentage point, respectively, to 82.5 % and 55.6 percent. The male LFPR increased by 1.4 percentage points year on (May 2021: 81.1%), while female LFPR increased by 0.4 percentage points (May 2021: 55.2%). Latest in May 2022, the rate for males rose to 92.5%, while female LFPR rose to 55.6% (Department of Statistics Malaysia, 2022).

**Figure 1. Labour Force and Labour Force Participation Rate by Sex, 1982-2021 and January 2020 – May 2022**



\*LPFR: Labour Force Participation Rate

However, the spread of the pandemic has had a big effect on women's participation in the workforce in most countries, and it has also set back progress that had been made. Many people worldwide have lost their jobs because of the pandemic and the health restrictions that have been put in place. Therefore, when women leave the job market, it has a huge effect (Bernama, 2022). Aside from that, psychological factors also play a vital role in women's reactions to retirement planning behavior. Financial literacy, financial risk tolerance, and health perceptions all play a significant influence in determining whether a woman will prepare for their retirement planning. It gives the impression that working women with completed educational backgrounds, those with a higher level of financial literacy and who are willing to take risks are more likely to participate in retirement planning.

## 2. Literature Review and Hypothesis Development

*H1.* There is a significant positive relationship between FL and RPB

Lusardi & Mitchell (2008) conducted a study focusing on female participants and found that a high level of financial literacy is strongly and favorably connected with making retirement plans. Those individuals who demonstrated a high level of financial literacy by answering all of the questions in the test correctly turned out to be effective planners. Hence, this result showed that women have a lesser level of financial knowledge than males do. Meanwhile, Mahdzan & Tabiani (2013) examined the factors influencing savings, emphasizing financial literacy in Malaysia. The result found that financial literacy is crucial in encouraging individuals to save money. The level of financial literacy also influences individuals' willingness to accept risk (Larisa et al., 2020). Personal financial literacy helps individuals become self-sufficient, which allows them to achieve financial security (Sujani, 2022).

*H2.* There is a significant positive relationship between FRT and RPB

According to Grable & Roszkowski (2008), Financial Risk Tolerance refers to a person's willingness to accept the potential to lose money due to their investment decisions. Moreover, Ropslock (2010) investigated men's and women's perceptions of wealth and discovered that males are better aware of tax and insurance planning and are perceived to be more sophisticated in financial decision-making. Women, on the other hand, are less confident and reported a desire to learn further expertise, as well as a significant interest in monitoring how socially accountable investments they were performing. In contrast, Doda (2014) observed that females are more delicate and spend more money on goods such as house renovations, gifts to relatives, coworkers, and friends, charities, and vacations. This boosts their living costs and depletes their retirement funds. In addition, Juen & Sabri (2016) stated that married women employees in government sectors achieve a higher level of education, have adequate money, and can save up for retirement. They are financially literate, able to apply healthy financial management practices and have greater confidence in securing a retirement life.

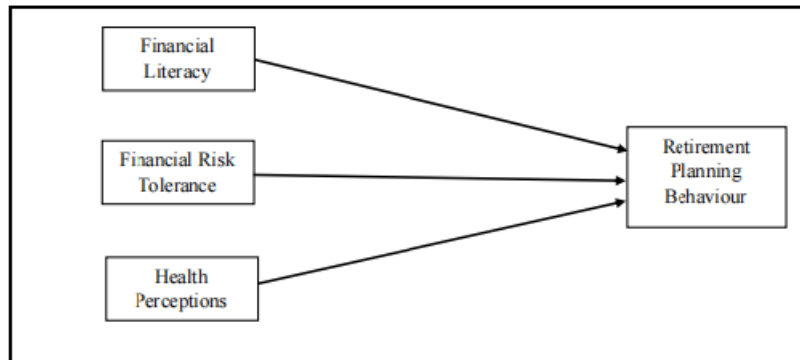
Financial risk tolerance also plays a vital indicator that influences a female's retirement planning behaviour. Fisher (2010) discovered that risk tolerance influences both men's and women's portfolios and saving behaviours. Women with a greater aversion to risk are less likely to save irregularly and save in the short term. Moreover, Bernasek & Shwiff (2001) studied the effect of risk aversion on household financial decisions among unmarried and married couples. The results are comparable to those of single women. Regardless of their partner's risk tolerance, women make less risky investing selections. This statement could be supported by Croson & Gneezy (2009) and Charness & Gneezy (2012), whereby women are more risk averse in financial investment considerations.



H3. There is a significant positive relationship between HP and RPB

Last but not least, health conditions also lead to female behaviour in retirement planning. For example, a study by Zang (2020) stated that a husband's retirement could improve a wife's health. The findings explained that a women's physical and mental well-being gets better by increasing the frequency of their exercises and social interactions, while Silver et al. (2020) showed that women have more depressive symptoms but generally have good self-assessed health. Additionally, women with low education levels and less chance to work physically caused a significant rise in weight and Body Mass Index (BMI) (Feng et al., 2020).

Referring to the above findings from the previous literature, a conceptual framework of factors influencing women's retirement planning behaviour is generated. The conceptual model's objective is to coherently integrate all possibly significant aspects to present a framework that provides the most appropriate explanation for the event that took place (Brown et al., 1995). Figure 2 presents the model.



**Figure 2. A conceptual Framework was developed for the study**

### **3. Methods**

The population of the study is female employees in Malaysia, focusing on the East Coast area. An overall number of 500 working individuals from public and private sectors participated in this research project. Peninsular Malaysia is the region that has been chosen for this research, focusing on Pahang, Terengganu, and Kelantan. Only 344 respondents replied to the survey, which was conducted online. After the final data screening, the total number of 237 respondents is the final data. The information gathered was utilized to explain the correlation between the variables and the female employee's behavior while planning for retirement. A pilot test was conducted in Terengganu from October 2021 to November 2021 on 30 prospective respondents before conducting the actual survey. The Cronbach Alpha for all independent and dependent variables is more significant than 0.7; values greater than 0.7 in the range are acceptable.

In this study, the dependent variable is retirement planning behavior. Eight questions specifically about retirement planning behavior were combined and used as one retirement planning behavior variable adapted from Tomar et al., (2021) and Afthanorhan et al., (2020). The questions were measured with a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree." Explanatory variables include measuring individual characteristics (Gender, Age, Level of education, and income) and psychological factors (financial literacy, financial risk tolerance, and health perceptions) were analyzed and included as independent variables. The questions for financial literacy were divided into two parts. Part A is for basic questions, while Part B is for sophisticated questions. The respondents were required to choose the correct answer for each question adapted from the previous study (Lusardi & Mitchell, 2006; Van Rooij et al., 2011) to assess respondents' general knowledge of the financial planning topic. Next, Financial risk tolerance questions were measured with a 5 point-Likert scale, ranging from "strongly disagree" to "strongly agree". The questions have been adapted from past studies by Tomar et al. (2021) to identify respondents' risk tolerance to save for their retirement. For items regarding health perceptions, the questions were measured with a 5-point Likert scale, ranging from "poor" to "excellent". Finally, the respondents were required to answer their health and lifestyle questions. The questionnaires have been adapted from past studies (O'Neill et al., 2016).

To analyze the data, the partial least squares structural equation modelling (PLS-SEM) technique was used in this study using SmartPLS 3.3.22. PLS-SEM was used in this study due to its prediction-oriented variance-based method, conversely to covariance-based structural equation modelling (CB-SEM), which is results are more confirmed (J. Hair & Babin, 2017). PLS-SEM was chosen to examine the predictability of the exogenous variables (Financial Literacy, Financial Risk Tolerance, and Health Perceptions) on the endogenous variable (Retirement Planning Behaviour). To evaluate the purpose research model, the goodness and validity of the measurement model were firstly tested (Poon and Mohamad). Then, for reflective constructs, items of the factor loading, construct reliability, composite reliability (CR), and average variance extracted (AVE) are evaluated (J. Hair & Babin, 2017).

#### 4. Results and Discussion

The frequency distribution method was presented to explain the characteristics of respondents. In all, 106 respondents were male and 237 respondents were female. The summary of the demographic data is presented in Table 1 below.

**Table 1. Demographic Variables**

| Characteristics          | Descriptions                      | Frequency | Percent    |
|--------------------------|-----------------------------------|-----------|------------|
| Gender                   | Female                            | 237       | 100        |
| Total (N):               |                                   | 237       | 100        |
| Age                      | Below 25 years                    | 20        | 8.4        |
|                          | 25-29 years                       | 47        | 19.8       |
|                          | 30-34 years                       | 47        | 19.8       |
|                          | 35-39 years                       | 42        | 17.7       |
|                          | 40-44 years                       | 43        | 18.1       |
|                          | 45-49 years                       | 17        | 7.2        |
|                          | 50-54 years                       | 14        | 5.9        |
|                          | 55-59 years<br>60 years and above | 5<br>2    | 2.1<br>0.8 |
| Total (N):               |                                   | 237       | 100        |
| Ethnicity                | Malay                             | 225       | 94.9       |
|                          | Chinese                           | 4         | 1.7        |
|                          | Indian                            | 1         | 0.4        |
|                          | Others                            | 7         | 3.0        |
| Total (N):               |                                   | 237       | 100        |
| Education Level          | SPM                               | 17        | 7.2        |
|                          | STPM/Matriculation/Diploma        | 38        | 16         |
|                          | Bachelor's Degree                 | 93        | 39.2       |
|                          | Master's Degree                   | 80        | 33.8       |
|                          | Ph.D or Doctorate                 | 9         | 3.8        |
| Total (N):               |                                   | 237       | 100        |
| Marital Status           | Single                            | 65        | 27.4       |
|                          | Married                           | 164       | 69.2       |
|                          | Others                            | 8         | 3.4        |
| Total (N):               |                                   | 237       | 100        |
| Number of Children       | None                              | 87        | 36.7       |
|                          | 1                                 | 21        | 8.9        |
|                          | 2                                 | 45        | 19.0       |
|                          | 3                                 | 37        | 15.6       |
|                          | 4                                 | 23        | 9.7        |
|                          | More than 4                       | 24        | 10.1       |
| Total (N):               |                                   | 237       | 100        |
| Type of Employment       | Government Sector                 | 104       | 43.9       |
|                          | Private Sector                    | 80        | 33.8       |
|                          | Self-employed                     | 53        | 22.4       |
| Total (N):               |                                   | 237       | 100        |
| Household Monthly Income | Less than RM2500                  | 69        | 29.1       |

|                     |                   |     |      |
|---------------------|-------------------|-----|------|
|                     | RM2501-RM4850     | 49  | 20.7 |
|                     | RM4851-RM5880     | 20  | 8.4  |
|                     | RM5881-RM10970    | 62  | 26.2 |
|                     | RM10971 and above | 37  | 15.6 |
| Total (N):          |                   | 237 | 100  |
| Contribution to EPF | Yes               | 137 | 57.8 |
|                     | No                | 100 | 42.2 |
| Total (N):          |                   | 237 | 100  |

With respect to the PLS-SEM results, items of factor loadings have a minimum cut-off value of greater than 0.70. However, a value above 0.5 is deemed acceptable (Bagozzi & Yi, 1988; J. F. Hair et al., 2013). Furthermore, each construct has an AVE of more than 0.50 and a CR greater than 0.708. As shown in Table 2, the model meets all of these requirements.

**Table 2. Loadings, Composite Reliability, and Average Variance Extracted**

|                               | Items                    | Loadings | CR <sup>a</sup> | AVE <sup>b</sup> |
|-------------------------------|--------------------------|----------|-----------------|------------------|
| Financial Literacy Advance    | Adv                      | 1.000    | 1.000           | 1.000            |
|                               | Financial Literacy Basic | Basic    | 1.000           | 1.000            |
| Financial Risk Tolerance      | FRT1                     | 0.830    | 0.887           | 0.612            |
|                               | FRT2                     | 0.832    |                 |                  |
|                               | FRT3                     | 0.648    |                 |                  |
|                               | FRT4                     | 0.851    |                 |                  |
|                               | FRT5                     | 0.732    |                 |                  |
| Health Perception             | HP1                      | 0.695    | 0.772           | 0.531            |
|                               | HP4                      | 0.739    |                 |                  |
|                               | HP5                      | 0.751    |                 |                  |
| Retirement Planning Behaviour | RPB1                     | 0.777    | 0.926           | 0.610            |
|                               | RPB2                     | 0.786    |                 |                  |
|                               | RPB3                     | 0.715    |                 |                  |
|                               | RPB4                     | 0.790    |                 |                  |
|                               | RPB5                     | 0.731    |                 |                  |
|                               | RPB6                     | 0.819    |                 |                  |
|                               | RPB7                     | 0.831    |                 |                  |
|                               | RPB8                     | 0.790    |                 |                  |

Note(s): HP2, HP3, and HP6 were removed due to low loadings

Note(s): <sup>a</sup>Composite Reliability (CR)

<sup>b</sup>Average variance extracted (AVE)

Adv = Advance

FRT = Financial Risk Tolerance

HP = Health Perceptions

RPB = Retirement Planning Behaviour

Henseler et al. (2009) explained the heterotrait-monotrait (HTMT) ratio. It is the average of heterotrait-heteromethod correlations relative to monotrait heteromethod correlations. This study employed HTMT to test discriminant validity at 0.85. Values above 0.85 imply problems with discriminant validity (Henseler et al., (2009); Voorhees et al., 2016). Based on HTMT analysis, the measurement model achieves discriminant validity, as presented in Table 3 below.

**Table 3. Heterotrait-Monotrait (HTMT) Ratio Analysis**

| HTMT                             | 1     | 2     | 3     | 4     | 5 |
|----------------------------------|-------|-------|-------|-------|---|
| 1. Financial Literacy Advance    |       |       |       |       |   |
| 2. Financial Literacy Basic      | 0.458 |       |       |       |   |
| 3. Financial Risk Tolerance      | 0.272 | 0.193 |       |       |   |
| 4. Health Perceptions            | 0.175 | 0.194 | 0.193 |       |   |
| 5. Retirement Planning Behaviour | 0.237 | 0.260 | 0.399 | 0.427 |   |

**Table 4. SRMR Value**

| Estimated Model |       |
|-----------------|-------|
| SRMR            | 0.078 |

*Note: SRMR = Standardized Root Mean Square Residual*

**Table 5. Standard Beta, Standard Error, T-Value, and Variance**

|   | $\beta$ | Std. Error | t-value | P Values | Decision  | R2    |
|---|---------|------------|---------|----------|-----------|-------|
| Financial Literacy -> Retirement Planning Behaviour       | -0.169  | 0.052      | 3.281   | 0.001    | Supported | 0.219 |
| Financial Risk Tolerance -> Retirement Planning Behaviour | 0.286   | 0.053      | 5.408   | 0.000    | Supported |       |
| Health Perceptions -> Retirement Planning Behaviour       | 0.248   | 0.043      | 5.737   | 0.000    | Supported |       |

## 5. Conclusion

This study aimed to examine the effects of psychological factors such as financial literacy (FL), financial risk tolerance (FRT), and health perceptions (HP) on retirement planning behaviour (RPB) among female employees in the East Coast, Malaysia. The objectives of the study are achievable, whereby the findings of this study are consistent with previous studies. The financial literacy and health perceptions had a significant positive effect, while financial risk tolerance had an insignificant impact on retirement planning behaviour.

The result of the study has a meaningful impact on individuals, especially female employees, financial planning professionals/financial advisors, financial institutions, government, and policymakers. Working individuals must set goals and achievable targets for retirement planning and obtain a professional financial advisor to guide them on preparation for retirement or seek advice on any personal finance issues. This act would benefit individuals from any default or mistakes affecting their lives. Moreover, working individuals with a higher level of financial knowledge could help people around them by sharing explanations or experiences about retirement planning. In addition, it could be a warning alert to working individuals with the absence of pension benefits to prepare for their early retirement. It also may improve female employees' awareness of prospective experiences and future opportunities for approaching retirement, allowing them to plan for a successful retirement transition.

Women are very synonym with beauty. However, the most important thing to focus on is health. Women have specific health concerns, including breast cancer, cervical cancer, menopause, cysts, and pregnancy issues, which are more likely to affect them than males. Even worse, most illnesses affecting women go untreated or are discovered too late when treatments are more expensive. Therefore, women need to focus on their health starting today until they get old. Unfortunately, life doesn't always go the way we want it to because as we get older, we are more likely to get sick or hurt. Thus, appropriate insurance coverage can help us and our loved one's deal with these illnesses much better. It is also suggested that retirees take multivitamins and get regular medical checkups to ensure their continued good health. They would benefit from making this effort since it would allow them to put money aside for future medical care after they retire.

As a guideline, policymakers or financial institutions could take a nuanced approach to enhance financial planning knowledge and awareness of retirement savings to develop a favorable policy environment that encourages the market to set up as many greater pension plan investment instruments and wealth management as possible. This includes annuity plans or retail saving bond funds and offers tax breaks to inspire more voluntary retirement savings. These ideas would help encourage more people to save for retirement of their own volition. Besides, a better understanding of the factors that influence retirement planning behavior may help financial advisors to educate clients. For example, clients with low financial knowledge would benefit from the information gathered by the financial advisors, in which this effort would enhance their understanding of the preparation for retirement planning.

This study is unique as no previous studies focused on female employees' retirement planning behaviour using a PLS-SEM approach in Malaysia. Still, this study is limited because it was conducted on a sample of female employees of the east-coast region. Further research could extend the current study into other states in Malaysia or work into several industries. Thus, a new perspective on retirement planning behaviour may be discovered, while future studies might explore other psychological factors influencing an individual's retirement planning behaviour.

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