Financing Structure of Indonesian SMEs:
Gender Differences regarding Pecking Order Theory

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Abstract

The growing importance of SMEs in economic development nowadays is alongside with the attention towards the role of women as entrepreneurs in the economy. This research is aimed to explore women contributions for the SMEs through the evaluation of the SMEs' financing structure and identification based on gender differences. Initially, this study evaluates the used of external funding in Indonesian' SMEs by employing 58,291 respondents collected from 2015 Micro and Small Industry Survey by the Indonesian Central Statistics Agency by gaining the descriptive and the test of equality of means based on gender classification. The important findings of this study are: (1) the use of external funds is substantially lower. compare to internal source; (2) men entrepreneurs exploit external funding more than women subsequent to the higher level of collateral. The significant implications from these results is the needs of women empowerment in Indonesian's SME by providing more opportunities to engage in financial funding activities through approachable policy from financial institutions as well as financial inclusions.

Introduction

It is widely recognized that SMEs play an important role in economic development. In Indonesia, SMEs contribute 60.34% to GDP and represent 97% of the workforce across the country. A report from the Indonesia Ministry of Cooperatives and SMEs in 2015 mention that there are 52 million SMEs in Indonesia, and representing 99% of the number of entrepreneurs. Furthermore, 60% of the numbers of entrepreneurs of these SMEs are women (Ruslan, 2016). Therefore, financing for SMEs becomes an important issue both among academics and policy makers, because it affects sustainability and economic growth in Indonesia. More specifically, an understanding of SME financing among women enterpreneurs also should be a serious concern for both academics and policy makers.

The main problem with financing SMEs is that they often do not have the financial strength or underlying assets that can be used as bank collateral. Furthermore, start-up companies do not have a track record of bank agreement. Financing theory regarding SMEs is also different from financing for large companies. Caneghem & Campenhout (2012) provide an argument for why the results of a study on the financial structure of large

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companies cannot be applied to SMEs. First, the fiscal benefits of debt are very limited. Debt costs for SMEs are greater than large corporate debt costs, because banks consider SMEs to be a riskier subject of investment. Small companies are assumed to have smaller profit margins, because they usually operate in highly competitive markets. Second, decisions within the SME financial structure are usually determined by the owners who desire to have substantial control over the company. Third, the issue of asymmetric information is more pronounced in SMEs than in large companies.

Research on the capital structure of SMEs has been conducted in some countries, including of 812 SMEs in Sri Lanka (Kuruppu & Azeez, 2016); 1354 SMEs in Cuenca province, Spain, in 2006 (Ceballos-Santamaria, Villanueva-Alvaro, & Mondejar-Jimenez, 2012); 120 SMEs in Tigray Ethiopia (Gebru, 2009), in Gana (Arour & Biekpe 2007); Poland (Klapper et al., 2006); and 6482 non-financial SMEs in Spain during the the period of 1994-1998 (Sogorb & Mira, 2005). In the studies mentioned above, it was found that POT (Peking Order Theory) is more acceptable than the TOT (Trade-Off Theory). POT argues that company management makes decisions about financing instruments based on the hierarchical order of precedence (a pecking order), internal sources first, external debt financing second, with external equity financing as a last resource (Myers, 1984; Myers & Majluf, 1984). SMEs rely heavily on internal rather than external funding, especially during the earlier years of their existence, because they have limited access to capital markets (Newman, Gunessee, & Hilton 2010). Paul, Whittam, & Wyper (2007) argue that two main factors provide the rationale for applicability of POT to SMEs; i.e., 1) higher asymetric information than larger firms due to the lack of financial trade records that cause difficulty with of banks or investors to make lending or investment decisions, 2) strong aversion of SMEs owner-managers to losing control of the business activities that the bank or investor may claim.

However, several other studies have found different results. A study examining 1539 SMEs in one Chinese province (Newman, Gunessee, & Hilton, 2010) found that SMEs no longer adopt POT. They found that asset structure is a key determinant of capital structure and that firm size, firm age, profitability, and incorporation are significantly related to leverage; this is contrary to the POT and supports TOT. TOT reflects the influence of taxes and agency and financial distress costs. It suggests an optimal capital structure for each firm, assuming that the management of the firm will aim to maintain an optimal debt-equity ratio to minimize the costs of previling market imperfections.

Regarding SME financing, some scholars believe that there are differences in the financing patterns between female and male entrepreneurs (Xiong, Zhang, & Xiong, 2011).

Women entrepreneurs face more difficulty obtaining external financing, especially bank loans and ventures. Several arguments are used to explain this difference, both from the supply side and the demand side. From the supply side, it is widely argued that the behavior of bankers and public financiers is discriminatory, and women are asked for greater interest and some additional requirements (Coleman, 2000). From the demand side, the following usually apply: 1) women entrepreneurs are less likely too seek high economic growth because it present high risk (Orser and Hogart-Scott, 2002), 2) women entrepreneurs are more discouraged from borrowing than male entrepreneurs are (Singh, 2014), 3) the gap in financing problems between women and men is due to the systematic differences in the characteristics of men and women (Orser, Riding, & Manley, 2006). However, in some countries, no significant differences in financing problems exist between female and male SME entrepreneurs (Majkova, Solik, & Sipko, 2014). Studies on the issues facing SMEs in Slovakia, especially in the case of young entrepreneurs, reveal that, among the same size SMEs, male and female SME entrepreneurs do not differ significantly in terms of the amount of initial capital used. But when asked to choose which is more important between mentoring or funding sources, women choose significantly differently from men; women say it is more important to find mentoring than funding sources.

To my knowledge, no studies to date have examined the financing structure of SMEs in Indonesia using national survey data. This study aims to identify how the financing structure is carried out by SMEs and whether there is a difference in the structure of financing from a gender perspective.

Data and Research Method

This study uses data from the 2015 Micro and Small Industry Survey conducted by the Indonesian Central Statistics Agency. The number of respondents in the study totaled 58,291. We use descriptive statistics analysis and test for equality of means between men and women enterpreneurs.

Discussion and Results

First, we examine the SME funding, how many SMEs use external funding, and the reasons they not seek external funding sources. Table 1 describes the number and percentage of SMEs using external funding.

Table 1. number and percentage of SMEs using external funding.

	Number	Percentage
SMEs using 100% self funding	46,430	79.66%
SMEs using external funding	11,861	20.34%
	58,290	

Of the 58,290 respondents, only 11,861 respondents used external funding sources, or 20.34%. The remaining 79.66% used 100% of their own funds. This finding supports previous findings that the SME financing structure is more relevant to POT. Newman, Gunessee, and Hilton (2010) support these findings, asserting that SMEs rely heavily on internal rather than external funding, especially during the earlier years of their existences, because they usually have limited access to capital markets.

There are several reasons for the entrepreneurs' reluctance to use external funds or obtain bank loans. The most reason was "is not interested", followed by "not having collateral" and "not understanding the procedure".

The selection of "not interested" indicates that there are other alternatives that might be more feasible for owners of such SMEs. Another contributing factor is religious belief. Indonesia represents the largest Muslim population in the world, and borrowing from banks is considered usury, which is prohibited by Islam.

The second biggest reason indicated is "the lack of collateral". The reason for this is related to financial inclusion. Financial inclusion relates to access and financial services that are useful and affordable for meeting the needs of the community and its businesses in terms of transactions and payments, savings, credit, and insurance that are accountable and sustainable (World Bank, 2016). According to the results of a national survey of financial literacy conducted by the Financial Services Authority, Indonesia's financial literacy index in 2013 was 59.7% and increased to 67.8% in 2016. However, when realizing that the number of SMEs that do not use external funds is large enough and the reason for "lack of collateral" being the second highest reason, it seems that financial inclusion index for SMEs is smaller than the national index.

The reason of "not understanding the procedure" is also associated with dissemination of information and financial literacy among SME entrepreneurs. The Financial Literacy Index in Indonesia in 2013 was 21.8% and 29.7% in 2016. This means that around 22 out of every 100 inhabitants belong in the well-literate category. Thus, most of the Indonesian population

including SME entrepreneurs do not yet have sufficient knowledge about how to optimize money for productive activities. On the grounds of “not understanding the procedure”, it was seen that more women than men stated that they did not know the procedure for pursuing external financing.

Furthermore, this study deeply explored the financing structure used and associated with gender issues. Respondents were those who use external funding. Table 2 describes the percentage of external funds used, and the results of t-test.

The number of men who use external funding sources is greater than women. Likewise, with the average source of funds used, men on average use 42.11% of the available external funding sources, while women only use 30.21%. The results of the t-test also show significant differences between men and women regarding the percentage of the use of external funding sources. Thus, male entrepreneurs demonstrate bolder use of external capital. These results are consistent with findings from Xiong, Zhang and Xiong (2011), which use the 2002 China Private Economy Research Survey. They state that the average businessman prefers external financing than the average businesswomen.

Table 2. percentage of external funds used, and the results of t-test

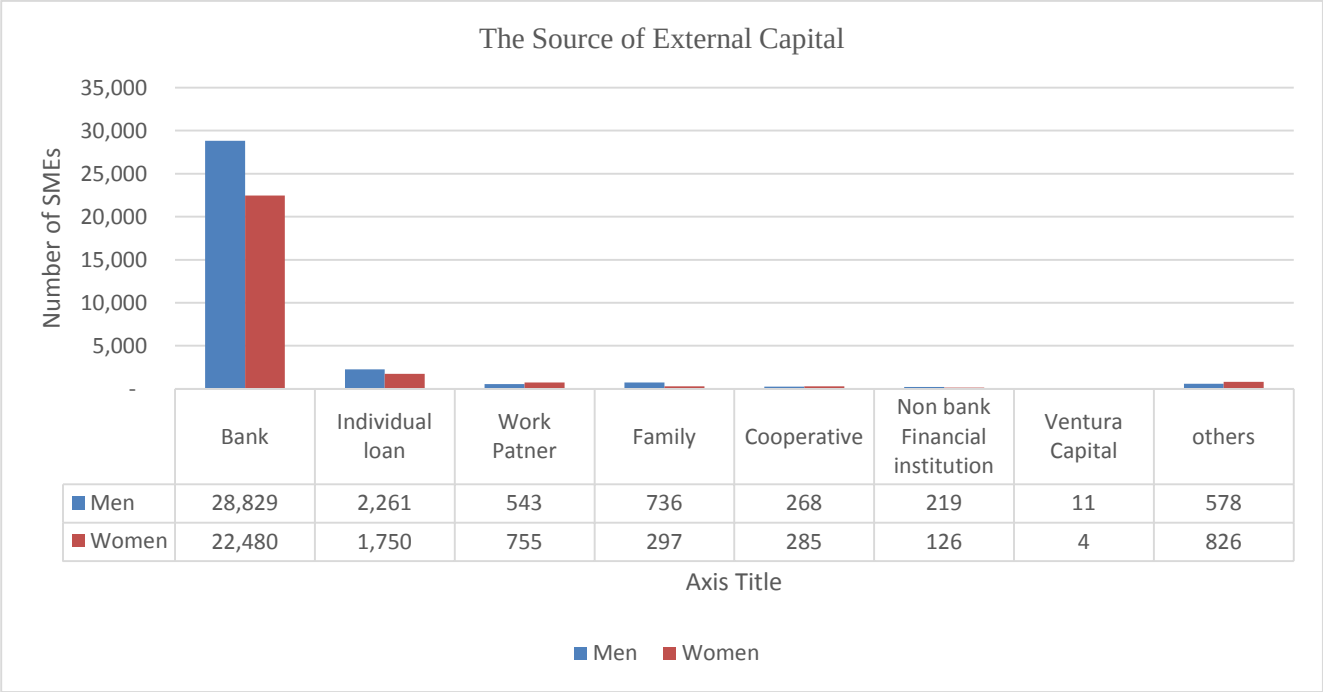
	Men	**Women**	**Total**
Mean	42.11%	30.21%	37.48%
Median	50.00%	30.00%	50.00%
Number of Obesevation	7,254	4,609	11,863
t-test df value P value	 11861 -22.7999 0.0000		

In terms of the sources of external funding used, there is no difference between men and women. For both men and women, the source of external capital used by SMEs from the largest in a row are: 1) bank, 2) family, and 3) individual loans. Meanwhile, cooperatives, non-bank financial institutions, and ventures include financing that is not popular among SMEs. More detailed data on external capital sources can be seen in Figure 1.

If further exploration of the percentage of bank funds is used, it appears that the percentage of women using banking funds is significantly smaller than that of men. On the contrary, the percentage of women using family funds is significantly greater than that of men. In terms of the number of loans from the bank, there are also significant differences

between male and female entrepreneurs, in which the number of female loans is smaller than the number of male loans.

Figure 1. The source of External Source



	Bank	Individual loan	Work Patner	Family	Cooperative	Non bank Financial institution	Ventura Capital	others
Men	28,829	2,261	543	736	268	219	11	578
Women	22,480	1,750	755	297	285	126	4	826

Connection with bank loans cannot be separated from collateral. Interestingly, it was found that the percentage of female-owned collateral was smaller than the percentage of male-owned collateral. This shows that banks have a higher level of trust towards women, because the default payment of women is smaller than their male counterparts. This is in line with the findings from United Nations 2006; a survey of managers of banks in Madha Pradesh revealed that female borrowers are more trustworthy and have lower default risk, and this can be used as a benchmark for launching financing schemes for women. (Maheswari & Goyal, 2014).

Conclussion & Implication

The results of this study clearly show that the Pecking Order Theory still applies to the structure of SME financing in Indonesia. The percentages of SMEs that use their own funds are almost four times higher than those using external funds. In relation to gender differences, this study also found gender differences in the structure of financing in SMEs in Indonesia. The difference represents the amount of female SME owners who use external funds regarding which men represent a much greater number than women and the difference in the percentage of external funds usage in which men are significantly greater than women, but the percentage of male collateral is higher than that of women.

The practical implications of the findings indicate the need to provide further education to owners of SMEs so that they have the courage and capability to find external funding. This presents a challenge for policy makers to be more active in providing education and financial guidance to SMEs to improve financial literacy as well as provide a friendly environment for SMEs related to financial inclusion. The challenge is also for the FSA to encourage banks and non-bank financial institutions to be more active in approaching SMEs. This approach must also touch cultural aspects, because reluctance to use external funding is also likely due to aspects of their belief/value regarding banks. Thus, opportunities will be presented for sharia banks and sharia financial institutions to take part in the markets that are reluctant to use external funds for reasons connected to their belief/value.

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