

WOMEN ENTREPRENEURSHIP IN THE DEVELOPING COUNTRY: THE EFFECTS OF FINANCIAL AND DIGITAL LITERACY ON SMES' GROWTH

Fitriya Fauzi^{*}, Darius Antoni^{**}, Emi Suwarni^{***}

^{*} Corresponding author, Bina Darma University, Indonesia

Contact details: Bina Darma University, Jl. Jenderal A. Yani No. 3, Palembang, Sumatera Selatan, 30111, Indonesia

^{**} Bina Darma University, Indonesia



Abstract

How to cite this paper: Fauzi, F., Antoni, D., & Suwarni, E. (2020). Women entrepreneurship in the developing country: The effects of financial and digital literacy on SMEs' growth. *Journal of Governance & Regulation*, 9(4), 106-115.
<https://doi.org/10.22495/jgrv9i4art9>

Copyright © 2020 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).
<https://creativecommons.org/licenses/by/4.0/>

ISSN Print: 2220-9352
ISSN Online: 2306-6784

Received: 23.10.2020
Accepted: 22.12.2020

JEL Classification: G00, G50, G53, L26
DOI: 10.22495/jgrv9i4art9

This study aims to investigate the effects of financial and digital literacy on growth of small and medium enterprises (SMEs) managed by women in Indonesia. Data were collected through questionnaires of women entrepreneurs in Palembang, Indonesia. For the purpose of comparison, data of men entrepreneurs were also collected. The variables employed are latent variables such as financial literacy, digital literacy, SME's growth which are derived from a series of questions to indicate each variable. A total of 240 women and 240 men were analyzed using structural equation modelling (SEM). The results reveal that both financial and digital literacy had positive and significant effects on return on assets. On the other hand, only digital literacy had positive and significant effects on growth. The findings further evidence that women had a lower level of digital knowledge compared to men. Furthermore, the results show that in the short term, financial literacy and digital literacy are important to understand and implement. But in the long run, digital literacy plays an important role because it impacts business growth. This is in line with an increasingly fierce market competition where the market is also shifting from traditional markets to modern markets. Not only the market, but consumers are also shifting from traditional consumers to digital consumers.

Keywords: Women Entrepreneurship, Financial Literacy, Digital Literacy, SME, Developing Country

Authors' individual contribution: Conceptualization - F.F.; Methodology - F.F.; Investigation - F.F., D.A., and E.S.; Resources - F.F.; Writing - F.F., D.A., and E.S.; Supervision - F.F.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

Acknowledgements: This study is fully funded by the Ministry of Research, Technology and Higher Education of Republic Indonesia for the period of 2019.

1. INTRODUCTION

The small business sector is one of the crucial keys to supporting the growth of the Indonesian economy. Not only does the small business sector have an important role in creating employment, but

it can also improve the quality of living, improve the entrepreneurial culture, develop creativity and innovation and, create other business opportunities. Moreover, flexibility, as well as low start-up and operating costs, has enabled small and medium enterprises (SMEs) to spring up, to reposition and

adjust themselves quickly in response to market and economic changes. Moreover, they easily expand or contract in a short space of time. SMEs have not only survived the impact of big enterprises and the law of economies of scale but have carved out niches for themselves, which enable them to coexist with big enterprises. The small business sector has survived through the economic and financial crisis. Despite its ups and downs, the small business sectors still encounter some challenges that are the lack of access to market information and technology, the lack of human resources, the lack of access to capital, and the lack of financial and digital literacy (Basyith, Idris, & Fauzi, 2014; Fatimah, Fauzi, & Basyith, 2014; Basyith, Fatimah, & Idris, 2016).

In developing countries, women-owned between 30% to 37% of SMEs in 2016 (International Labour Organization, n.d.). In Southeast Asia, the figure is relatively similar with 35% ownership rate (Zhu & Kuriyama, 2016). Specifically in Indonesia, SMEs account for 93.4% of total businesses, absorb 97.22% workforce, and contribute 60.34% to economic growth, according to BPS website (<https://www.bps.go.id/>). From these statistics, women in Indonesia manage 60% of the SMEs, according to Kementerian Koperasi dan UKM website (<http://www.depkop.go.id/>) and present 9.1% to the GDP (according to BPS website). In relation to development, from 2009 to 2013, women entrepreneurship grew from 42.8% to 47% (IFC, 2016), faster than their men counterparts (GEM, 2014). Women entrepreneurs are able to create new jobs not only for themselves but also for others (Women's World Banking and EBRD, 2014). IFC predicts women entrepreneurs will create new businesses and provide jobs to half of the total workforce (IFC, 2017).

Despite the positive trends, studies analysing entrepreneurship in developing countries only focus on men (Hisrich & Brush, 1984, 1986; Bird & Brush, 2002). Those that investigate women are only in developed nations (Zimmerer & Scarborough, 2001; Malach-Pines, 2002; Bruni, Gherardi, & Poggio, 2004; Boyd, 2005; Brush, Carter, Gatewood, Greene, & Hart, 2006a; Malach-Pines & Schwartz, 2006; Lerner & Malach-Pines, 2010; Avolio, 2012). Also, researchers have proven that men and women differ in various aspects in regard to entrepreneurship (Avolio, 2012; Carter & Cannon, 1992; Zapalska, 1997; Mitchell, 2004; Minniti, Arenius, & Langowitz, 2005). Consequently, findings on men entrepreneurship in the developing nations mentioned before are inapplicable to women. Thus, a discussion on women entrepreneurship in developing countries is needed.

Furthermore, most of those women who manage SMEs still encounter some fundamental obstacles. In a survey in 2011, the Asia Pacific Women's Information Network Center (APWINC) reveals that the majority of women in Southeast Asia lacked financial and digital literacy due to the low level of education (APWINC, Sookmyung Women's University, 2011). Social and cultural aspects also contribute to such findings (Antonio & Tuffley, 2014). Research evidences that financial and digital literacy through financial management capability as well as information, communication, and technology

(ICT) will give value added to entrepreneurs (West, 2012). Conversely, without financial and digital literacy, entrepreneurs will be unable to create and analyze financial management and market their products. As a result, it will be difficult to access finance and marketing networks. This, in the end, is likely to cause growth stagnation, and worse, bankruptcy (Basyith et al., 2014).

Ertl and Helling (2011) examine four dimensions that may help teachers to analyse the emerging of gender inequalities and how it relates to gender differences and digital literacy. The results reveal that qualitative study reveals students' perceptions of gender differences as computer use, computer skills, and computer-related self-concepts are subject to gender differences. Furthermore, Ratten and Miragaia (2020) examine entrepreneurial passion from a gender perspective in particular women in the sports sector. Using an exploratory study that utilizes semi-structured in-depth interviews conducted with ten female athletes to analyze the role of work, obsessive, and harmonious passion, the findings show that gender, prior networks and business connections in their sports career are significant in supporting their entrepreneurial passion.

How the financial and digital literacy affected the SME's growth so far in Indonesia is worth to be investigated as until now the main concern is solely focused on the financing issues. Therefore, this study aims to provide some empirical results regarding the effects of financial and digital literacy on the growth of SMEs in Indonesia. Furthermore, based on the prospects and problems explained above, this study aims to empirically investigate the extant financial and digital literacy that affects return on asset (ROA) and growth in the context of SMEs owned by women in Indonesia. This study offers two core contributions. First, from the theoretical perspective, the study presents new insights for women entrepreneurship literature, especially in developing nations. Second, from the practical perspective, the findings of financial and digital literacy effects on SMEs' ROA and growth will provide guidelines for government and to further foster women entrepreneurship and eventually enhance economic growth and stability.

The structure of this paper is as follows. Section 2 reviews the relevant literature. Section 3 analyses the methodology that has been used to conduct empirical research on the effect of financial and digital literacy on the growth of SMEs. Sections 4 and 5 provide findings and conclusion subsequently.

2. LITERATURE REVIEW

2.1. Financial literacy and digital literacy

The scope of literacy differs from each other, depending on its context. Fundamental literacy consists of reading and writing capabilities. Functional literacy deals with the ability to utilize tools. Lastly, informational literacy relates to the skills to obtain, process, and use information effectively. Similarly with the last category, financial literacy is an individual's intellectual capability to

comprehend and use information persistent to finance, financial products and services through loan, investment, planning, risk, and all the information that financially relevant to welfare (OECD/INFE, 2012).

Digital literacy in this study corresponds to ICT, which is defined as knowledge on the use of information and communication (Dutta & Bibao-Osorio, 2012). ICT plays an important role in business success as it facilitates the creation, storage, management, and dissemination of information using electronic devices such as radio, television, telephone, fax, computers, and the Internet. The four current characteristics of ICT are interactive, always available, global reach, and cost-effective (Gerster & Zimmermann, 2003). One of the apparent examples of the ICT implementation is the advent and popularity of e-commerce. Such a platform can save costs and time, penetrate geographical boundaries, and facilitate wider market reach for commercial information acquisition. This has been a driving force in the global economy (Teltscher, 2002).

Bucher-Koenen, Lusardi, Alessie, and Van Rooij (2017) found that regardless of their economic condition, women have lower financial literacy compared to men across countries and this is a critical issue as financial literacy has been linked to economic behaviour and entrepreneurship. Though women are less financially knowledgeable than men, women are more likely to change their financial behaviour after attending financial seminars and financial education programs compared to men (Clark, D'Ambrosio, McDermed, & Sawant, 2006; Lusardi, Keller, & Keller, 2009). Digitalisation plays a critical role to succeed for family firms (Quarato, Pini, & Positano, 2020).

For women, digitalization through ICT application offers various opportunities such as empowerment and equalization of women in labour and financial markets. In addition, ICT's skills boost self-confidence and increase the quality of life for women (Intel & Dalberg, 2011). Ertl and Helling (2011) stated that computer use, computer skills, and computer-related self-concepts are subject to gender differences. For those women entrepreneurs, ICT implementation can help them build networks (e.g., with government, industry associations, market platforms, and suppliers). Because entrepreneurs, especially SMEs, normally lack economies of scale in research, have less access to information, and other critical innovation resources, this collaboration between entrepreneurs and their networks enables them to survive competitive pressures from larger firms (Gronum, Verreynne, & Kastle, 2012). However, Oggero, Rossi, and Ughetto (2020) found that gender differences play a significant role in driving digital skills and financial literacy in which men are superior compared to women when it comes digital and financial literacy, and this is considered as one of the success drivers in the business. Furthermore, digital skills increase the probability of being an entrepreneur with a bigger effect for men than for women. Moreover, Suwana and Lily (2017) find that inadequate education, lack of opportunities and the patriarchal

system in Indonesia contribute to the lower digital literacy for women.

2.2. Women entrepreneurship

Entrepreneurship creates jobs, enhances welfare, promotes innovation, and sustains economic growth (Ayadurai & Sohail, 2006). Specifically to gender, women entrepreneurship is those businesses founded by women (Moore, 1990; Sultana, 2012), where they organize and operate their ventures through product and service innovation (Okafor & Mordi, 2010). Not only women in the business sector that have entrepreneurship passion, but women that occupied as an athlete in the sports sector also have entrepreneurship passion (Ratten & Miragaia, 2020). Such endeavour plays an important role in strengthening economic and social development (Zamberi Ahmad, 2011). In today's world, albeit cultural, educational, and financial hindrances, women have better opportunities in starting their own business (UNCTAD, 2014).

Studies discover that women entrepreneurship contradicts with its men counterpart (Zimmerer & Scarborough, 2001; Malach-Pines, 2002; Bruni et al., 2004; Boyd, 2005; Brush et al., 2006; Malach-Pines & Schwartz, 2006; Ertl & Helling, 2011; Lerner & Malach-Pines, 2010; Avolio, 2012). One research shows that women commence their businesses with an inconsiderable amount of capital and a low level of debt relative to men (Bruin, Brush, & Welter, 2007). This is because 1) women prefer the service sector for its low capital requirement and ease to establish; and 2) women entrepreneurs are more difficult to access financing (Carter, Anderson, & Shaw, 2001; OECD, 2013) where only 1% of available credits are non-collaterals and 65% require collaterals through fixed assets (IFC, 2016). Other studies also reveal that although women's default rates are lower than men's (IFC, 2016), their loan track records are lower compared to men (Shaw, Carter, & Brierton, 2001). From the digital literacy viewpoint, women entrepreneurs have impediments in taking advantage of digital networks. Consequently, they mostly fail to identify job and business opportunities in the nowadays digital era (Krieger-Boden & Sorgner, 2018). Due to these dissimilarities, the study's findings on men entrepreneurship in developing countries (Hisrich & Brush, 1984, 1986; Bird & Brush, 2002) are inapplicable to women. Therefore, a study on women entrepreneurship in a developing nation is needed.

3. RESEARCH METHODOLOGY

This study employed survey research using questionnaires that were given to 480 respondents comprising of 240 men and 240 women entrepreneurs in Palembang City. Research samples were chosen proportionally from SMEs owned by women in 18 districts of Palembang, Indonesia. The secondary data for this study is collected from SMEs financial reports, World Bank, OECD, the Indonesian Ministry of Cooperation and SME, Central Bureau of Statistics of Indonesia, Bank Indonesia, SUSENAS, and other relevant institutions. The variables are financial literacy, digital literacy

and SME's growth. Knowledge, behaviour and attitude indicators are employed as a proxy for financial literacy and digital literacy. Series of questions for each indicator (knowledge, behaviour and attitude) are developed by authors to represent each indicator. Meanwhile, the SME's growth is calculated by subtracting the current total assets with the initial total assets and return on asset is calculated by dividing net income with total assets. After all data were complete, this study implemented structural equation modelling (SEM) to measure the latent variables (i.e., financial literacy and digital literacy) effects on SMEs' growth and ROA.

4. FINDINGS AND DISCUSSION

4.1. Descriptive statistics

Although the focus of this study is women entrepreneurs, this research also collected male entrepreneurs data. They were used as a comparison in the analysis using inferential statistics. Based on gender, the respondents were 240 men and 240 women entrepreneurs. Most of these respondents resided in the districts of Seberang Ulu 2, Sukarami, and Plaju while the rest in Gandus, Ilir Timur 1, Kalidoni, and Sematang Borang.

The ages of respondents were ranged from 17 to 75 years old with a distance of 58 years and an average age of 39 years old. In detail, they were 10.83% aged 17 to 25, 28.13% aged 26 to 35, 31.67% aged 36 to 45, 18.75% aged 46 to 55, and 10.63% aged 56 to 75. This indicates that most businesses commence from the productive age of 26 years old. This occurs because young graduates tend to plan to work in companies. Only few start their own business. At the age of 26, when they begin to feel unfulfilled, or still unemployed, they try entrepreneurship. Also, the average age of 39 years old explains that the entrepreneurs are at their highest performance at that age. This is justifiable because if they start their businesses at 25 years old, it means they have 14 years of experience. Through these periods, their profitability and growth are more stable.

Based on education level, 52.3%, 27.1%, and 20.6% of respondents have high school, tertiary (diploma, bachelor, and master), and primary and junior secondary education respectively. This describes that the majority of the respondents started their businesses after graduating from high school. Further, the marriage status data showed that 82.9% were married. From that, 51.50% ($N = 205$) were female and 48.49% ($N = 193$) were male. This means the entrepreneurs are responsible for their family needs. This can be a motivation to grow their entrepreneurship in the long term.

In addition, 44.2% of respondents held taxpayer identification number and 55.8% did otherwise. At present in Indonesia, tax number has become part of the requirements in the application of governmental licences, bank loans, and others. Data

further exhibited that 52.5% of businesses have been registered, of which 56.75% ($N = 143$) were men and 43.25% ($N = 109$) were women entrepreneurs. In regard to sector, the businesses involved in trade, industrial, and service sectors as much as 25.4%, 56.5%, and 18.1% respectively. The trade sector in this study corresponds to those businesses that sell goods by buying them from other parties, without changing their shapes, and assigning a markup to the selling price. This includes stationery, furniture, and building material stores. The industrial sector refers to the activities that process raw materials and transform them into finished products. This consists of traditional clothes manufacturing centres (e.g., *jumputan* and *songket*) as well as heritage food processing centres (e.g., *pempek* and *kemplang*). Lastly, the service sector is those businesses that provide services to customers including salons, laundry, and tailors.

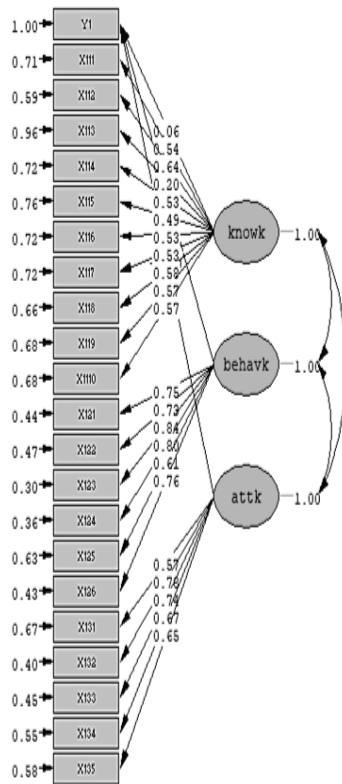
Based on the stages of the business cycle, this study classified them in accordance with the ages of businesses as follows: the idea and startup were in the first and second years (22.6%), the growth was at 3 to 5 years (26.5%), the expansion (22.2%) and maturity (28.7%) were above 10 years. In relation to the source of capital, 74.2% were from personal funding, 14.2% were from family, and 11.7% were from loans. Of these fundings from financial institutions, the respondents used loans 32.1% once, 32.2% twice to three times, and 35.7% more than three times. In more details of the fundings, 89.3% ($N = 50$) were from banks and 10.71% ($N = 6$) were from cooperation/integrated independent business centre. Relevant to gender, those who received loans were 66% men and 34% women. This implies that women are more risk-averse compared to men when it comes to financing.

Referring to the selling methods, 63.3% were offline, 0.8% were online, and 35.8% were both online and offline. Specifically to women respondents ($N = 240$), only 41.25% ($N = 99$) utilized online and mixed-method (online and offline) to sell their products. This means that women are still ineffective in optimizing the benefits of technology. Lastly, this study measured growth through the increase of capital from when the businesses started until the current period. Data exhibited growth as much as 69.1% ($N = 166$). Both genders, men and women, showed a relatively similar level of growth.

4.2. Structural equation modelling

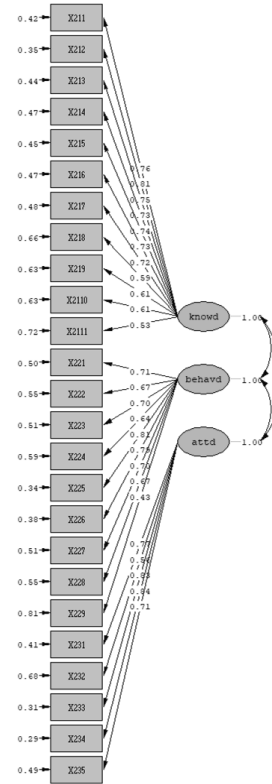
Results of the t-value found that all the indicators of second order financial literacy construct (Figure 1) and second order digital literacy construct (Figure 2) had t-value > 1.96 and loadings > 0.5 . This explained the validity of all the indicators. Also, the p-value of financial literacy construct (Figure 3) and digital literacy construct (Figure 4) for the test of close fit ($RMSEA < 0.05$) = 0.121, lower than 0.08. This means the model structures had goodness of fit.

Figure 1. T-value of financial literacy indicators



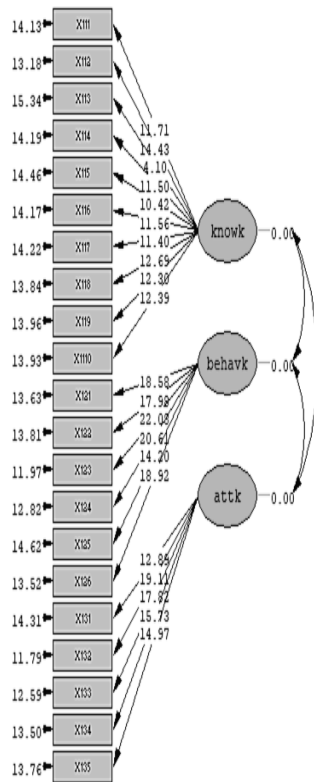
Notes: Chi-Square = 1584.85, *df* = 204, *p*-value = 0.00000, RMSEA = 0.119.

Figure 3. Standardized solution of financial literacy indicators



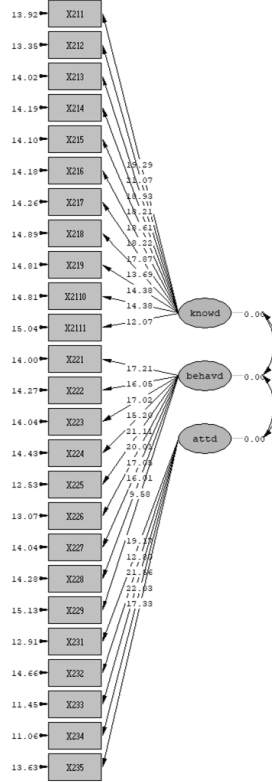
Notes: Chi-Square = 5127.34, *df* = 272, *p*-value = 0.00000, RMSEA = 0.193.

Figure 2. T-value of digital literacy indicators



Notes: Chi-Square = 1499.80, *df* = 186, *p*-value = 0.00000, RMSEA = 0.121.

Figure 4. Standardized solution of digital literacy indicators



Notes: Chi-Square = 5127.34, *df* = 272, *p*-value = 0.00000, RMSEA = 0.193.

Table 1 shows the effects of financial and digital literacy on growth. All the financial literacy variables (knowledge, behaviour, and attitudes) had positive but no significant effects on growth. On the other hand, all the digital literacy variables (knowledge, behaviour, and attitudes) had positive and significant effects on growth. This means financial literacy is less important than digital

literacy in enhancing SMEs' growth. Such effects are justifiable as most entrepreneurs operate their business activities through digital. These include sourcing for suppliers, managing employees, marketing their products, networking with prospective partners, and selling. To grow and survive the tight competition, digital literacy is highly needed in the digital economy.

Table 1. Regression coefficient on growth

<i>Independent variables</i>		<i>Beta In</i>	<i>t</i>	<i>Sig.</i>
Financial literacy	<i>knowk</i>	.029	.639	.523
	<i>behavk</i>	.057	1.251	.211
	<i>attk</i>	.034	.749	.454
Digital literacy	<i>knowd</i>	.190	4.242	.000
	<i>behavd</i>	.124	2.726	.007
	<i>attd</i>	.155	3.440	.001

Notes: Dependent variable: Growth.

Furthermore, the equality test of covariance matrices resulted in a significance value of 0.152. This shows that both of the population matrices were different. Also, the multivariate test results (Table 2) on the measurement of financial literacy

based on gender reveal the significance value of 0.045. This explains that men and women entrepreneurs have a different judgement on financial literacy.

Table 2. Multivariate test on financial literacy

<i>Effect</i>		<i>Value</i>	<i>F</i>	<i>Hypothesis df</i>	<i>Error df</i>	<i>Sig.</i>	<i>Observed power</i>
Intercept	Pillai's Trace	.984	9784.009	3.000	476.000	.000	1.000
	Wilks' Lambda	.016	9784.009	3.000	476.000	.000	1.000
	Hotelling's Trace	61.664	9784.009	3.000	476.000	.000	1.000
	Roy's Largest Root	61.664	9784.009	3.000	476.000	.000	1.000
JK	Pillai's Trace	.017	2.710	3.000	476.000	.045	.658
	Wilks' Lambda	.983	2.710	3.000	476.000	.045	.658
	Hotelling's Trace	.017	2.710	3.000	476.000	.045	.658
	Roy's Largest Root	.017	2.710	3.000	476.000	.045	.658

Notes: Dependent variable: Growth.

The results of the univariate test (Table 3) on financial literacy indicators (knowledge, behaviour, and attitudes) exhibit differences between men and women entrepreneurs. Based on the mean value of

the descriptive statistics, men had higher values than women. This means men have a higher level of financial literacy compared to women entrepreneurs.

Table 3. Univariate test on financial literacy

<i>Source</i>	<i>Dependent variable</i>	<i>Type III sum of squares</i>	<i>df</i>	<i>Mean square</i>	<i>F</i>	<i>Sig.</i>	<i>Observed power</i>
Corrected model	<i>knowk</i>	2.366	1	2.366	7.169	.008	.762
	<i>behavk</i>	1.813	1	1.813	3.881	.049	.503
	<i>attk</i>	1.496	1	1.496	3.925	.048	.507
Intercept	<i>knowk</i>	6112.555	1	6112.555	18521.842	.000	1.000
	<i>behavk</i>	7909.692	1	7909.692	16932.783	.000	1.000
	<i>attk</i>	8598.747	1	8598.747	22554.194	.000	1.000
JK	<i>knowk</i>	2.366	1	2.366	7.169	.008	.762
	<i>behavk</i>	1.813	1	1.813	3.881	.049	.503
	<i>attk</i>	1.496	1	1.496	3.925	.048	.507
Error	<i>knowk</i>	157.749	478	.330			
	<i>behavk</i>	223.285	478	.467			
	<i>attk</i>	182.237	478	.381			
Total	<i>knowk</i>	6272.670	480				
	<i>behavk</i>	8134.790	480				
	<i>attk</i>	8782.480	480				
Corrected total	<i>knowk</i>	160.115	479				
	<i>behavk</i>	225.098	479				
	<i>attk</i>	183.733	479				

Notes: Dependent variable: Growth.

In terms of digital literacy indicators (knowledge, behaviour, and attitudes), the multivariate test (Table 4) proves that each gender

had a different level of effects. This can be seen from the results of Pillai's Trace and Roy's Largest Root with the value below 0.05 or 5%.

Table 4. Multivariate test on digital literacy

	<i>Effect</i>	<i>Value</i>	<i>F</i>	<i>Hypothesis df</i>	<i>Error df</i>	<i>Sig.</i>	<i>Observed power</i>
Intercept	Pillai's Trace	.962	4003.366	3.000	476.000	.000	1.000
	Wilks' Lambda	.038	4003.366	3.000	476.000	.000	1.000
	Hotelling's Trace	25.231	4003.366	3.000	476.000	.000	1.000
	Roy's Largest Root	25.231	4003.366	3.000	476.000	.000	1.000
JK	Pillai's Trace	.019	3.105	3.000	476.000	.026	.724
	Wilks' Lambda	.981	3.105	3.000	476.000	.026	.724
	Hotelling's Trace	.020	3.105	3.000	476.000	.026	.724
	Roy's Largest Root	.020	3.105	3.000	476.000	.026	.724

The results of the univariate test on the digital literacy indicators based on gender show variations. Specifically, men and women had a relatively similar level of behaviour and attitudes toward digital. While in terms of digital knowledge, men were better than women entrepreneurs.

Table 5. Univariate test on digital literacy

<i>Source</i>	<i>Dependent variable</i>	<i>Type III sum of squares</i>	<i>df</i>	<i>Mean square</i>	<i>F</i>	<i>Sig.</i>	<i>Observed power</i>
Corrected model	<i>knowd</i>	1.622	1	1.622	2.890	.090	.396
	<i>behavd</i>	.075	1	.075	.129	.720	.065
	<i>attd</i>	.133	1	.133	.236	.627	.077
Intercept	<i>knowd</i>	5411.619	1	5411.619	9645.235	.000	1.000
	<i>behavd</i>	4543.621	1	4543.621	7821.877	.000	1.000
	<i>attd</i>	6192.033	1	6192.033	10949.486	.000	1.000
JK	<i>knowd</i>	1.622	1	1.622	2.890	.090	.396
	<i>behavd</i>	.075	1	.075	.129	.720	.065
	<i>attd</i>	.133	1	.133	.236	.627	.077
Error	<i>knowd</i>	268.190	478	.561			
	<i>behavd</i>	277.664	478	.581			
	<i>attd</i>	270.313	478	.566			
Total	<i>knowd</i>	5681.430	480				
	<i>behavd</i>	4821.360	480				
	<i>attd</i>	6462.480	480				
Corrected total	<i>knowd</i>	269.811	479				
	<i>behavd</i>	277.739	479				
	<i>attd</i>	270.447	479				

Table 6 shows the effects of financial and digital literacy on profitability (y_2). The findings evidence that all the variables of financial (knowledge, behaviour, and attitudes) and digital literacy (knowledge, behaviour, and attitudes) had positive and significant effects on profitability. This differs from the effects on growth. This also means

that financial literacy affects SMEs more in the short-term. On the other hand, for the longer term, to grow and survive, entrepreneurs must focus on the digital implementation of their businesses. If they fail to do this, they are likely to lose in the competition in the long-term.

Table 6. Regression coefficients on profitability

<i>Independent variables</i>	<i>Coef.</i>	<i>Std. err.</i>	<i>t</i>	<i>P > t </i>	
Financial literacy	<i>knowk</i>	16.39421	8.891165	1.84	0.066
	<i>behavk</i>	20.83405	10.75066	1.94	0.053
	<i>attdk</i>	41.47233	11.72966	3.54	0.000
Digital literacy	<i>knowd</i>	32.70894	11.64689	2.81	0.005
	<i>behavd</i>	6.093339	10.41321	0.59	0.559
	<i>attd</i>	22.25762	10.27792	2.17	0.031

Notes: Dependent variable: Profitability; $F(6.472) = 0.0000$.

Although the descriptive statistics (Table 7) of growth and ROA of SMEs managed by men and women were contrasting, the Manova multivariate test (Table 8) resulted in no difference. This

indicates that both men and women entrepreneurs have similar objectives when managing their businesses. These involve improving ROA and growth to survive both in the short- and long-term.

Table 7. Descriptive statistics

<i>Source</i>	<i>Dependent variable</i>	<i>Type III sum of squares</i>	<i>df</i>	<i>Mean square</i>	<i>F</i>	<i>Sig.</i>	<i>Observed power</i>
Corrected model	Pertumbuhan Usaha	.052	1	.052	.248	.619	.079
	ROA	4130.133	1	4130.133	.332	.565	.089
Intercept	Pertumbuhan Usaha	236.602	1	236.602	1127.060	.000	1.000
	ROA	1059568.133	1	1059568.133	85.151	.000	1.000
JK	Pertumbuhan Usaha	.052	1	.052	.248	.619	.079
	ROA	4130.133	1	4130.133	.332	.565	.089
Error	Pertumbuhan Usaha	100.346	478	.210			
	ROA	5947911.733	478	12443.330			
Total	Pertumbuhan Usaha	337.000	480				
	ROA	7011610.000	480				
Corrected total	Pertumbuhan Usaha	100.398	479				
	ROA	5952041.867	479				

Table 8. Manova multivariate test

	Effect	Value	F	Sig.	Observed power
Intercept	Pillai's Trace	.743	690.800	.000	1.000
	Wilks' Lambda	.257	690.800	.000	1.000
	Hotelling's Trace	2.896	690.800	.000	1.000
	Roy's Largest Root	2.896	690.800	.000	1.000
JK	Pillai's Trace	.002	.358	.699	.108
	Wilks' Lambda	.998	.358	.699	.108
	Hotelling's Trace	.002	.358	.699	.108
	Roy's Largest Root	.002	.358	.699	.108

5. CONCLUSION

The findings reveal that both financial and digital literacy are crucial for SMEs managed by women in the short-term. However, in the long-term, women entrepreneurs must focus on the digital implementation in their businesses. This is because most entrepreneurs operate their business activities through digital. These include sourcing for suppliers, managing employees, marketing their products, networking with prospective partners, and selling. To grow and survive the tight competition, digital literacy is highly needed in the digital economy. If they fail to do this, they are likely to lose in the competition in the long-term. Furthermore, the results also show that men have a higher level of digital knowledge than women entrepreneurs. This study is important as the results should be taken into consideration for government and policymakers which should provide more

quality training on the digital application for women entrepreneurs. The limitation of this research is the study only covers the 2019 survey and further research should consider more observation thus it can observe the literacy pattern both financial and digital.

As the results show that women have lower digital literacy compared to men, it supports the notion that women are less privilege when it comes to digital technology. This also supports the previous studies that found that women entrepreneurs are not only liable to the business but also their household, thus it makes them have less time to learn new technology in the business and marketing (Basyith, Idris, & Fauzi, 2014). Thus, networking amongst women entrepreneurs is of importance so that they can share updated information about the change of digital technology in business.

REFERENCES

- Antonio, A., & Tuffley, D. (2014). The gender digital divide in developing countries. *Future Internet*, 6(4), 673-687. <https://doi.org/10.3390/fi6040673>
- Asia Pacific Women's Information Network Center (APWINC), Sookmyung Women's University. (2011). *Preliminary research on promotion of rural women's livelihood with ICT use*. Retrieved from http://www.women.or.kr/?module=file&act=procFileDownload&file_srl=2790&sid=59fcb1ab86778b24aff7f14035b634d&module_srl=1974
- Avolio, B. (2012). Why women enter into entrepreneurship? An emerging conceptual framework based on the Peruvian case. *Journal of Women's Entrepreneurship and Education*, 3-4, 43-63. Retrieved from <https://www.library.iien.bg.ac.rs/index.php/jwee/article/view/96>
- Ayadurai, S., & Sohail, M. S. (2006). Profile of women entrepreneurs in a war-torn area: Case study of North-East Sri-Lanka. *Journal of Developmental Entrepreneurship*, 11(1), 3-17. <https://doi.org/10.1142/S1084946706000234>
- Basyith, A., Fatimah, & Idris, M. (2016). The effectiveness of a credit financing model and the potential of regional economy for micro and small business enterprises in South Sumatera, Indonesia. *Global Business and Economics Research Journal*, 5(2), 1-16. Retrieved from <http://repository.um-palembang.ac.id/id/eprint/40/1/203-655-1-PB-ISSN2302-4593.pdf>
- Basyith, A., Idris, M., & Fauzi, F. (2014). The gender effect on small business enterprises' firm performance: Evidence from Indonesia. *Indian Journal of Economics and Business*, 13(1), 21-39. Retrieved from https://serialsjournals.com/abstract/66890_2-abdul-basyith.pdf
- Bird, B., & Brush, C. (2002). A gendered perspective on organizational creation. *Entrepreneurship Theory and Practice*, 26(3), 41-65. <https://doi.org/10.1177/104225870202600303>
- Boyd, R. L. (2005). Race, gender, and survivalist entrepreneurship in large northern cities during the Great Depression. *The Journal of Socio-Economics*, 34(3), 331-339. <https://doi.org/10.1016/j.soc.2004.09.018>
- Bruin, A. D., Brush, C. G., & Welter, F. (2007). Advancing a framework for coherent research on women entrepreneurship. *Entrepreneurship Theory and Practice*, 31(3), 323-339. <https://doi.org/10.1111/j.1540-6520.2007.00176.x>
- Bruni, A., Gherardi, S., & Poggio, B. (2004). Entrepreneur-mentality, gender and the study of women entrepreneurs. *Journal of Organizational Change Management*, 17(3), 256-268. <https://doi.org/10.1108/09534810410538315>
- Brush, C. G., Carter, N. M., Gatewood, E. J., Greene, P. G., & Hart, M. M. (Eds.). (2006). *Growth-oriented women entrepreneurs and their businesses: A global research perspective*. <https://doi.org/10.4337/9781845429942>
- Bucher-Koenen, T., Lusardi, A., Alessie, R., & Van Rooij, M. (2017). How financially literate are women? An overview and new insights. *The Journal of Consumer Affairs*, 51(2), 255-283. <https://doi.org/10.1111/joca.12121>
- Carter, C. L., Anderson, S., & Shaw, E. (2001). *Women's business ownership: A review of the academic popular and internet literature* (Report to the Small Business Service, University of Strathclyde, Department of Marketing). Retrieved from <https://pureportal.strath.ac.uk/en/publications/womens-business-ownership-a-review-of-the-academic-popular-and-in-2>

14. Carter, S., & Cannon, T. (1992). *Women as entrepreneurs: A study of female business owners, their motivations, experiences and strategies for success*. London, the UK: Academic Press.
15. Clark, R. L., D'Ambrosio, M., McDermed, A. A., & Sawant, K. (2006). Retirement plans and saving decisions: The role of information and education. *Journal of Pension Economics & Finance*, 5(1), 45-67. <https://doi.org/10.1017/S1474747205002271>
16. Dutta, S., & Bibao-Osorio, B. (Eds.). (2012). *The global information technology report 2012: Living in a hyperconnected world* (World Economic Forum). Retrieved from http://www3.weforum.org/docs/Global_IT_Report_2012.pdf
17. Engström, P., & McKelvie, A. (2017). Financial literacy, role models, and micro-enterprise performance in the informal economy. *International Small Business Journal*, 35(7), 855-875. <https://doi.org/10.1177/0266242617717159>
18. Ertl, B., & Helling, K. (2011). Promoting gender equality in digital literacy. *Journal of Educational Computing Research*, 45(4), 477-503. <https://doi.org/10.2190/EC.45.4.f>
19. Fatimah, Fauzi, F., & Basyith, A. (2014). Small business financing: Determinants and obstacles in the context of Indonesia. *International Research Journal of Finance and Economics*, 95-116.
20. Gerster, R., & Zimmermann, S. (2003). *Information and communication technologies (ICTs) and poverty reduction in Sub Saharan Africa: A learning study (synthesis)*. Retrieved from http://www.gersterconsulting.ch/docs/synthesis_report.pdf
21. Global Entrepreneurship Monitor (GEM). (2014). *Special report: Women's entrepreneurship*. Retrieved from <http://gemconsortium.org/report/49281>
22. Gronum, S., Verreyne, M.-L., & Kstelle, T. (2012). The role of networks in small and medium-sized enterprise innovation and firm performance. *Journal of Small Business Management*, 50(2), 257-282. <https://doi.org/10.1111/j.1540-627X.2012.00353.x>
23. Hisrich, R. D., & Brush, C. G. (1984). The woman entrepreneurs: Management skills and business problems. *Journal of Small Business Management*, 22(1), 30-37.
24. Hisrich, R. D., & Brush, C. G. (1986). *The woman entrepreneur: Starting, financing and managing a successful new business*. Toronto, Canada: Lexington Books.
25. IFC. (2016). *UKM yang dimiliki wanita di Indonesia: Kesempatan emas untuk institusi keuangan lokal* (IFC Working Paper). Retrieved from <https://adoc.pub/ukm-yang-dimiliki-wanita-di-indonesia-kesempatan-emasa-untuk-.html>
26. IFC. (2017). *Investing in women. New evidence for the business case* (IFC Report). Retrieved from http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Gender+at+IFC/Priorities/Entrepreneurship/investing+in+women_new+evidence+for+the+business+case
27. Intel & Dalberg. (2011). *Women and the web: Bridging the Internet and creating new global opportunities in low and middle-income countries*. Retrieved from <https://www.intel.la/content/dam/www/public/us/en/documents/pdf/women-and-the-web.pdf>
28. International Labour Organization (ILO). (n.d.). *Women's entrepreneurship development (WED) programme*. Retrieved from <http://www.ilo.org/empent/areas/womens-entrepreneurship-development-wed/lang-en/index.htm>
29. Krieger-Boden, C., & Sorgner, A. (2018). *Labor market opportunities for women in the digital age* (Economics Discussion Paper). <https://doi.org/10.5018/economics-ejournal.ja.2018-28>
30. Lerner, M., & Malach-Pines, A. (2010). Gender and culture in family business: A ten-nation study. *International Journal of Cross Cultural Management*, 11(2), 113-131. <https://doi.org/10.1177/1470595811399190>
31. Lusardi, A., Keller, P. A., & Keller, A. M. (2009). New ways to make people save: A social marketing approach. In A. Lusardi (Ed.), *Overcoming the saving slump: How to increase the effectiveness of financial education and saving programs*. <https://doi.org/10.7208/chicago/9780226497105.003.0008>
32. Malach-Pines, A. (2002). The female entrepreneur: Burnout treated using a psychodynamic existential approach. *Clinical Case Studies*, 1(2), 170-180. <https://doi.org/10.1177/1534650102001002005>
33. Malach-Pines, A., & Schwartz, D. (2006). Men and women small business owners in Israel. *Equal Opportunities International*, 25(4), 311-326. <https://doi.org/10.1108/02610150610706285>
34. Minniti, M., Arenius, P., & Langowitz, N. (2005). *Global entrepreneurship monitor: 2004 report on women and entrepreneurship*. Retrieved from https://www.findevgateway.org/sites/default/files/publications/files/mfg-enpaper-gem-2004-report-on-women-and-entrepreneurship-2005_0.pdf
35. Mitchell, B. C. (2004). Motives of entrepreneurs: A case study of South Africa. *The Journal of Entrepreneurship*, 13(2), 167-183. <https://doi.org/10.1177/097135570401300203>
36. Moore, D. P. (1990). An examination of present research on the female entrepreneur - Suggested research strategies for the 1990's. *Journal of Business Ethics*, 9, 275-281. Retrieved from <https://link.springer.com/article/10.1007%2FBF00380327>
37. OECD. (2013). *Women and financial education: Evidence, policy responses and guidance*. Retrieved from <https://www.oecd.org/daf/fin/financial-education/women-and-financial-education-2013.htm>
38. OECD/INFE. (2012). *High-level principles on national strategies for financial education*. Retrieved from <https://www.oecd.org/daf/fin/financial-education/OECD-INFE-Principles-National-Strategies-Financial-Education.pdf>
39. Oggero, N., Rossi, M. C., & Ughetto, E. (2020). Entrepreneurial spirits in women and men. The role of financial literacy and digital skills. *Small Business Economics*, 55, 313-327. <https://doi.org/10.1007/s11187-019-00299-7>
40. Okafor, C., & Mordi, C. (2010). Women entrepreneurship development in Nigeria: The effect of environmental factors. *Economic Science Series*, 62(4), 43-52. Retrieved from <https://core.ac.uk/download/pdf/32224174.pdf>
41. Quarato, F., Pini, M., & Positano, E. (2020). The impact of digitalization on the internationalization propensity of Italian family firms. *Corporate Ownership & Control*, 17(3), 92-107. <https://doi.org/10.22495/cocv17i3art7>
42. Ratten, V., & Miragaia, D. (2020). Entrepreneurial passion amongst female athletes. *Journal of Small Business & Entrepreneurship*, 32(1), 59-77. <https://doi.org/10.1080/08276331.2018.1551460>
43. Shaw, E., Carter, S. L., & Brierton, J. (2001). *Unequal entrepreneurs: Why female enterprise is an uphill business*. Retrieved from <https://pureportal.strath.ac.uk/en/publications/unequal-entrepreneurs-why-female-enterprise-is-an-uphill-business>

44. Sultana, A. (2012). Promoting women's entrepreneurship through SME: Growth and development in the Bangladesh Context. *IOSR Journal of Business and Management*, 4(1), 18-29. <https://doi.org/10.9790/487X-0411829>
45. Suwana, F., & Lily. (2017). Empowering Indonesian women through building digital media literacy. *Kasetsart Journal of Social Sciences*, 38(3), 212-217. <https://doi.org/10.1016/j.kjss.2016.10.004>
46. Teltscher, S. (2002). Electronic commerce and development: Fiscal implications of digitized goods trading. *World Development*, 30(7), 1137-1158. [https://doi.org/10.1016/S0305-750X\(02\)00033-5](https://doi.org/10.1016/S0305-750X(02)00033-5)
47. UNCTAD. (2014). *Empowering women entrepreneurs through information and communications technologies: A practical guide* (UNCTAD Current Studies on Science, Technology and Innovation, No. 9). Retrieved from <https://unctad.org/webflyer/empowering-women-entrepreneurs-through-information-and-communications-technologies>
48. West, D. M. (2012). *Digital schools: How technology can transform education*. Washington, D.C.: Brookings Institution Press.
49. Women's World Banking and EBRD (European Bank for Reconstruction and Development). (2014, November 14). *Global best practices in banking women-led SMEs*. Retrieved from <http://www.womensworldbanking.org/publications/global-best-practices-banking-women-led-smes/>
50. Zamberi Ahmad, S. (2011). Evidence of the characteristics of women entrepreneurs in the Kingdom of Saudi Arabia: An empirical investigation. *International Journal of Gender and Entrepreneurship*, 3(2), 123-143. <https://doi.org/10.1108/17566261111140206>
51. Zapalska, A. (1997). A profile of women entrepreneurs and enterprises in Poland. *Journal of Small Business Management*, 35(4), 76-82.
52. Zhu, H., & Kuriyama, C. (2016). *Gender-related constraints faced by women-owned SMEs* (APEC Policy Support Unit, Policy Brief No. 15). Retrieved from https://www.smefinanceforum.org/sites/default/files/post/files/Policy%20Brief_Gender-related%20Constraints%20Faced%20by%20Women-owned%20SMEs_v2.pdf
53. Zimmerer, T. W., & Scarborough, N. M. (2001). *Essentials of entrepreneurship and small business management* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.