TOWARDS MSME SUSTAINABILITY:
THE ROLE OF ENTREPRENEURIAL COMPETENCE, INFORMATION TECHNOLOGY AND ACCESS TO CAPITAL

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Abstract

The primary aim of this study was to investigate how entrepreneurial abilities, IT, and financial backing influence the long-term survival of small and medium-sized businesses in Pontianak City. In order to conduct this study, a quantitative approach was utilised, with a survey used as the means of gathering data. The focus group included all SMEs in Pontianak City, and a total of 156 businesses were chosen through purposive selection. Data analysis was carried out using multiple regression analysis, with the help of SPSS software. The results revealed that entrepreneurial skills, IT, and access to funding all had a significant and beneficial impact on the resilience of SMEs. Additionally, having access to financial resources was singled out as a crucial element in fostering the growth and competitiveness of SMEs. This study has practical implications for policymakers and business owners seeking to create an enabling environment for the advancement and sustained success of SMEs in the digital age.

Keywords: *Entrepreneurial Competence, Information Technology, Access to Capital, Business Sustainability, MSMEs Sustainability*

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are essential for driving the Indonesian economy forward. These businesses contribute to 61.07% of the Gross Domestic Product (GDP) and are responsible for employing 97% of the population. In Pontianak City, MSMEs are experiencing growth due to government support, the integration of digital technology, and an increasing demand for locally produced items (Windusancono, 2021).

The sustainability of MSMEs is important in achieving inclusive and sustainable national economic growth (Simarmata & Sari, 2022). However, MSMEs frequently struggle to keep their companies sustainable, in which case entrepreneurial competence, utilisation of information technology, and access to capital play important roles in encouraging their growth and sustainability.

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Low entrepreneurial competence is a major obstacle for MSME actors in maintaining their business sustainability. The MSME coaching program conducted by the Pontianak City Government has not been able to reach all MSMEs in Pontianak City. MSME owners are required to have the ability to recognise market opportunities, control risks and adjust to shifting market conditions to ensure their company's long-term viability (Sulistianingsih, 2020). Competency development can be achieved through formal and informal training and education, but not all MSME owners in Pontianak City receive these programs.

Information technology is the key to improving operational efficiency, increasing market access, expanding reach, and becoming a driving factor in business transformation in the digital era (Setiawati & Al Qoodir, 2021; Sulistiogo, 2019). Information technology can help MSMEs manage digital-based finance and more effective marketing strategies through social media, e-commerce sites as well as additional online resources (Fatimah & Azlina, 2021).

The LAMIKRO was created by the Ministry of Cooperatives and SMEs, application to help SMEs create a simple, easy-to-use financial reporting system. However, only around 10,000 MSMEs are actively using the application. The low utilisation of technology is due to the low entrepreneurial competencies of MSME actors, such as ignorance and awareness, limited skills and resources, and inadequate government support in the form of education and training (Lubis & Junaidi, 2016).

The sustainability of MSMEs is significantly impacted by their access to capital. The government seeks to encourage their growth by providing People's Business Credit (KUR) facilities. However, MSMEs still often face obstacles in accessing the capital needed to expand their businesses due to strict requirements such as a lack of financial statements and collateral, limited information, and complicated processes (Sulistiogo, 2019).

In the current era of digitalisation, MSMEs have been given the convenience of preparing financial reports with the help of information technology, but this is not well utilised by MSME actors due to relatively low entrepreneurial competence (Marti'ah, 2017). Consequently, it is important to conduct study on how information technology, capital access, and entrepreneurial skill affect MSMEs' ability to survive.

Formulation of the problem to be researched: a) Does entrepreneurial competence affect the sustainability of MSMEs? b) Does information technology affect the sustainability of MSMEs? c) Does access to capital affect the sustainability of MSMEs? The goal of the

study is to examine how information technology, capital availability, and entrepreneurial skill affect the viability of MSMEs in Pontianak City.

Entrepreneurial Competence on MSME Sustainability

Entrepreneurial competence can be defined as a set of knowledge, skills, and attitudes required by an entrepreneur to establish, manage, and develop a successful business. It is an ability that MSME actors need to possess in order to be successful. These competencies enable MSME actors to start and transform their businesses into large and well-performing ones. Various indicators, such as business continuity, increased sales volume, revenue and profits, competitive advantage, development of marketing areas, and additional workforce, can measure business performance (Suryana & Burhanuddin, 2021).

MSME actors with good technical, marketing, financial, and relationship competence can create their own jobs, overcome business problems, and contribute to economic development. Thus, with the support of strong entrepreneurial competencies, it can maximise the potential of entrepreneurial initiatives in promoting sustainable development.

Research conducted by Hasanah et al (2019); Suryana & Burhanuddin (2021) Proves that the role of entrepreneurial competence affects business success. It follows from the foregoing reasoning that MSMEs' sustainability is impacted by entrepreneurial competency.
H1: Entrepreneurial competence affects the sustainability of MSMEs.

Information Technology on MSME Sustainability

Information technology can be defined as a tool businesses use to increase efficiency, productivity, and competitiveness. IT that can be used to run a business, such as accounting information systems, e-commerce, etc. Information technology (IT) enhances business sustainability by streamlining operations, encouraging innovation, and promoting environmentally friendly practices. IT integration supports operational efficiency and enables businesses to adapt to changing markets and consumer demands.

It helps optimise business processes, service and product innovation, data-driven decision-making, and improved communication access. IT can improve operational efficiency and reduce costs. With an integrated system, businesses can better monitor and manage resources, supporting business sustainability. (Annisa, 2023).

Research conducted by Fatimah & Azlina (2021); Sagita et al (2021) Proves that information technology affects business success. The aforementioned rationale suggests that information technology has an impact on MSMEs' sustainability.
**H2**: Information technology affects the sustainability of MSMEs.

Access to Capital on MSME Sustainability

Access to capital refers to the lack of hindrances such as high administrative expenses or complex procedures that small businesses encounter when seeking funding from financial institutions (Yuliani et al., 2024). Access to capital is important for MSME actors in business development, production improvement, human resource development, market development and business resilience.

MSMEs can achieve their performance and competitive advantages with valuable human resources. If business owners can access capital so that they have sufficient capital, they can run their business well and achieve maximum performance. (Sintya Dewi & Masdiantini, 2023).

Research conducted by Sintya Dewi & Masdiantini, (2023; Yuliani et al (2024) Proves that access to capital affects business success. It follows from the foregoing statement that MSMEs' sustainability is impacted by their ability to obtain funding.

H3: Access to capital affects the sustainability of MSMEs.
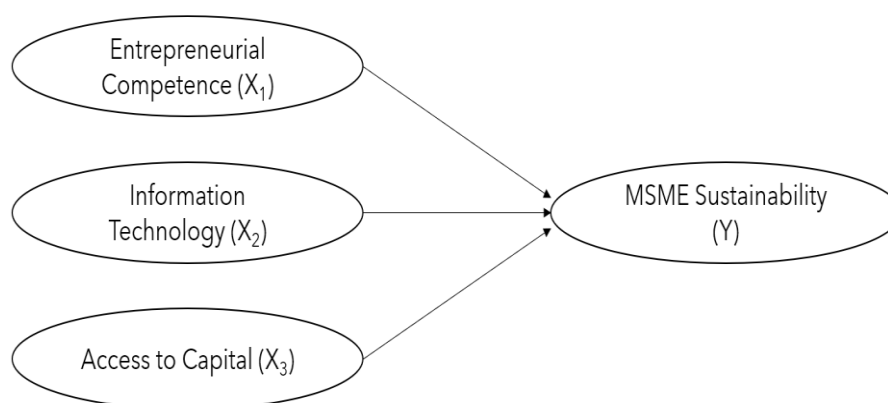
Figure 1. Research Framework

RESEARCH METHOD

The methodology employed in this study is quantitative in nature, utilising a survey-based approach (Sugiyono, 2019). This study explores how entrepreneurial skills, technology, and financial resources impact the longevity of small and medium enterprises while examining the cause-and-effect relationship between different factors.

The research population was all MSMEs in Pontianak City. The research sample was taken using a purposive sampling technique with the following criteria: a) MSMEs operating for at least 1 year; b) Use information technology; and c) Have applied for business capital

loans. The sample size of this study was 156 respondents. The table of operational variables of this study is as follows:

Table 1. Variables, Research Indicators and Measurement Scale

Variables	Research Indicators	Measurement Scale
Entrepreneurial competence (Angraeni & Yuldinawati, 2019; Kuriloff et al., 1993)	1. Technical competence 2. Marketing competence 3. Financial competence 4. Relationship competency	Likert
Information technology (Marei et al., 2023; Saifullah, 2015)	1. Innovation Adoption 2. Usage skills 3. Technology utilisation 4. Business process optimisation	Likert
Access to Capital (Yuliani et al., 2024)	1. Access to information 2. Submission procedure 3. Loan collateral 4. Capital utilisation	Likert
MSME Sustainability (Hasanah et al., 2019; Infithor, 2019)	1. Financial performance 2. Product and service innovation 3. Resource enhancement 4. Customer trust	Likert

Source: Data processed, 2024

Data analysis techniques include descriptive and multiple regression. Descriptive analysis concentrates on the average element (mean) of the questionnaire results. The data is analysed in tabular form, processed and classified using quantitative methods based on percentages, and a conclusion is drawn with the SPSS version 26 analysis tool.

RESULT AND DISCUSSION

Research Results

Overview of Research

The research was conducted at Micro, Small, and Medium Enterprises (MSMEs) in Pontianak City. Data was collected for the study using online surveys through Google Forms, as well as face-to-face interviews with MSME owners. Below are the traits of the participants involved in this research:

Table 2. General Description of Respondents

Description	Total	Percentage (%)
Gender		
Male	76	48.7%
Female	80	51.3%
Age (Year)		
18 - 24	5	3.2%
25 – 34	115	73.7%
35 – 44	35	22.4%
45 – 54	1	0.6%
Last Degree		
Junior High School	1	0.6%

Description	Total	Percentage (%)
Senior High School	128	82.1%
Diploma	4	2.6%
Bachelor	20	12.8%
Master	3	1.9%
Length of Business (Years)		
1 – 2	29	18.6%
3 – 5	73	46.8%
6 – 10	42	26.9%
11 – 20	10	6.4%
> 20	2	1.3%

Source: Data processed, 2024

Table 2 shows that most MSME owners are female (51.3%), with the dominant age between 25 and 34 (73.7%). Most respondents have a high school education background (82.1%), followed by a Bachelor's degree (12.8%) and a Diploma (2.6%). Regarding length of business, 46.8% of respondents have been in business for 3-5 years, while 26.9% have been in business for 6-10 years.

Data Quality Test

The purpose of this validation assessment is to assess the degree to which a survey used for gathering data is reliable. A survey is considered reliable when its questions effectively capture the intended measurements (Ghozali, 2018). The critical assessment includes the comparison of the calculated r-value with the r table value corresponding to a particular degree of freedom, which is established by the sample size. In this research, since there are 156 samples, the degree of freedom is computed as 154 (156-2) with a significance level of 5%. The r table value for this scenario is 0.131. The results of the examination are presented in the following table.

Table 3. Data Validity Test Results

Variables	No Item	R_value	R_table	Description
Entrepreneurial Competence	1	0.843	0.131	Valid
	2	0.853		
	3	0.789		
	4	0.877		
Information Technology	1	0.895	0.131	Valid
	2	0.880		
	3	0.829		
	4	0.792		
Access to Capital	1	0.836	0.131	Valid
	2	0.802		
	3	0.869		
	4	0.720		
MSME Sustainability	1	0.894	0.131	Valid
	2	0.843		
	3	0.764		
	4	0.595		

Source: Data processed, 2024

Based on Table 3, each questionnaire item shows a value of r_value ≥ r_table (0.131), which suggests that each item in this research variable is valid and can be maintained.

Data Reliability Test

The reliability assessment is utilised to assess the dependability of the measurement tool when being used; simply put, it yields consistent outcomes when used repeatedly at various points. A parameter is considered reliable if it produces a Cronbach Alpha (a) score above 0.60 (Sugiyono, 2020).

Table 4. Reliability Test Results

No	Variables	Cronbach Alpha Value	Description
1	Entrepreneurial Competence	0.859	Reliable
2	Information Technology	0.864	Reliable
3	Access to Capital	0.819	Reliable
4	MSME Sustainability	0.786	Reliable

Source: Data processed, 2024

Based on the test results in Table 4, the Cronbach alpha value is above the threshold value of 0.60, so all variable items are declared reliable.

Classical Assumption Test

Normality Test

The test for normality checks if the confounding or residual variables follow a normal distribution within the regression analysis (Sugiyono, 2020). Here are the outcomes of the conducted tests:

Table 5. Normality Test Results

		Unstandardised Residual
N		279
Normal Parameters	Mean	0.0000000
	Std. Deviation	1.04351693
Test Statistic		0.051
Asymp. Sig. (2-tailed)		0.200

Source: Data processed, 2024

The findings from Table 5 indicate that the Asymp. Sig. (2-tailed) value in the Kolmogorov-Smirnov test is 0.200, which is higher than the standard significance level of 0.05. This implies that the remaining data is following a standard distribution. The residual values have an average of 0 and a standard deviation of 1.043, verifying that there is no significant deviation from normality. Ensuring that the data meets the normality assumption in this analysis can be achieved if the significance level of the Kolmogorov-Smirnov test exceeds 0.05, suggesting a distribution that is standard.

Heteroscedasticity Test

The aim of the heteroscedasticity test is to detect any disparities in the variable variants' values within a regression model. This test is carried out to examine whether there is a discrepancy in residual variances among observations in the regression model (Ghozali, 2018). The following are the results of the Heteroscedasticity test that has been carried out:

Table 6. Heteroscedasticity Test Results

Model	Standardised Coefficients Beta	T-value	Significance
(Constant)		3.319	0.001
Entrepreneurial Competence	0.025	0.250	0.803
Information Technology	0.206	1.954	0.053
Access to Capital	-0.052	-0.349	0.059

Source: Data processed, 2024

According to the findings presented in Table 6, there is no indication of heteroscedasticity. This is supported by the statistical significance of each variable exceeding the threshold of 0.05, suggesting that heteroscedasticity is not present in the regression model.

Multicollinearity Test

The method for assessing multicollinearity examines the VIF and tolerance values of each variable. A table displaying the results of the multicollinearity test is provided below.

Table 7. Multicollinearity Test Results

No	Variables	Tolerance	VIF	Description
1	Entrepreneurial Competence	0.605	1.653	Free
2	Information Technology	0.535	1.869	Free
3	Access to Capital	0.755	1.325	Free

Source: Data processed, 2024

According to the information in Table 7, it can be inferred that all the independent variables have a tolerance value greater than 0.10 and a VIF value lower than 10.00. As a result, it is safe to say that each variable in this study shows no signs of multicollinearity and is appropriate for further research.

Hypothesis Testing

Coefficient of Determination

The analysis of the coefficient of determination is utilised to ascertain the extent to which entrepreneurial capabilities, IT, and capital accessibility impact the resilience of MSMEs. Below are the findings from assessing the coefficient of determination:

Table 8. Results of the Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.853	0.727	0.721	1.054

Source: Data processed, 2024

According to the findings presented in Table 8, the Adjusted R Square value is 0.721, signifying that almost three-quarters of the sustainability of MSMEs can be attributed to fluctuations in entrepreneurial skills, technology use, and funding availability. The remaining percentage, which is approximately 27.9%, is credited to factors not addressed in the research.

F Statistical Test

The F test is used to assess the feasibility of the model formed in this study. The following are the results of the F Statistical Test output:

Table 9. Anova Test Results (F)

F-value	F-table	Significance	Test Criteria	Description
299.202	2.640	0,000	P < 0,05	Significance

Source: Data processed, 2024

Table 9 shows that the ANOVA test yielded an F value of 134.824, surpassing the critical F value of 2.640. With a significance level of 0.000, which is less than 0.05, it suggests that the model used in this research is appropriate.

Partial Effect Test (t-Test)

The t-test is used to prove the hypothesis and to determine the effect of entrepreneurial competence, information technology and access to capital on the sustainability of MSMEs (Sugiyono, 2020). The results of the t-statistical test are presented in the following table:

Table 10. Partial Test Results (t-test)

Model	Unstandardised Coefficients		t-value	Significance
	B	Std. Error		
1 (Constant)	1.750	0.686	2.550	0.012
Entrepreneurial Competence	0.168	0.050	3.337	0.001
Information Technology	0.361	0.045	7.993	0.000
Access to Capital	0.356	0.045	7.890	0.000

Source: Data processed, 2024

Based on the multiple linear regression test results in Table 10, the regression equation is obtained as follows:

$$Y = 1.750 + 0.168X1 + 0.361X2 + 0.356X3 + e$$

The explanation of the regression equation obtained is as follows:

The constant of 1,750 indicates that if the variables of Entrepreneurial Competence (X_1), Information Technology (X_2), and Access to Capital (X_3) are zero, then the dependent value will be 1,750.

Entrepreneurial Competence has a coefficient of 0.168 with a t value of 3.337 and a significance level of 0.001. This suggests that the variable has a meaningful impact on the dependent variable at a 5% significance level. This implies that for each incremental improvement in entrepreneurial competence, the dependent variable will rise by 0.168.

The coefficient for Information Technology is 0.361, with a t value of 7.993 and a significance level of 0.000. This also points to a significant influence on the dependent variable. Each step up in Information Technology will lead to a 0.361 increase in the dependent variable.

Moreover, Access to Capital has a coefficient of 0.356, a t value of 7.890, and a significance level of 0.000. This indicates that this factor also has a substantial impact on the dependent variable. A rise of one unit in Access to Capital results in a 0.356 increase in the dependent variable.

Based on the explanation above, it can be concluded that entrepreneurial competence, information technology and access to capital can affect the sustainability of MSMEs. The following is the conclusion of the hypothesis test results:

Table 11. Hypothesis Testing Results

Hypothesis		p-value	Results
H1	Entrepreneurial Competence has a positive effect on the sustainability of MSMEs	0.001	Accepted
H2	Information technology has a positive effect on the sustainability of MSMEs	0.000	Accepted
H3	Access to capital has a positive effect on the sustainability of MSMEs	0.000	Accepted

Source: Data processed, 2024

Discussion

The Effect of Entrepreneurial Competence on MSME Sustainability

This research investigates how the skills of entrepreneurs impact the longevity of Micro, Small, and Medium Enterprises (MSMEs) through the evaluation of four key factors: technical expertise, marketing prowess, financial acumen, and interpersonal skills. The continued success of MSMEs is not solely reliant on immediate achievements but also on the entrepreneur's capacity to sustain and expand the business over time.

The results of the research indicate that possessing robust entrepreneurial abilities can positively influence the enduring success of small and medium-sized businesses. The

regression coefficient of 0.168, a t-value of 3.337, and a significance level of 0.001 demonstrate that entrepreneurial skills play a significant role in the long-term sustainability of MSMEs, with a strong impact at a 5% significance level. In practical terms, this means that enhancing entrepreneurial skills can lead to a 0.168 increase in business sustainability. As a result, it is essential for training and development programmes to prioritise the cultivation of these entrepreneurial competencies in order to enhance the competitiveness and longevity of MSMEs moving forward.

With increased entrepreneurial competence, MSMEs can not only survive the competition but also be able to innovate and develop, which ultimately contributes to local economic growth. The results of this study are in line with previous research by Haryono et al. (2017), having the necessary experience and skills to manage a business is crucial. Fadhila et al. (2024) findings indicate that the success of MSMEs is influenced positively by the proficiency of entrepreneurs, indicating that higher entrepreneurial abilities result in improved performance of MSMEs.

This consistency fully supports the findings in this study and provides a strong basis for the sustainability of MSMEs influenced by entrepreneurial competence. Meanwhile, as noted by Elshifa et al. (2023), Business success is influenced by various factors, including education, training and institutional support. Education and training are essential for entrepreneurs to acquire the necessary skills and knowledge to run their businesses successfully.

The Effect of Information Technology on Business Sustainability

The effect of information technology on the sustainability of MSMEs is very significant. The test results generated in this study indicate that information technology affects the sustainability of MSMEs. The sustainability of MSMEs is bound to be influenced by advancements in information technology, as indicated by the regression coefficient value of 0.361. The t-test findings display a noteworthy t-value of 7.993 and a significance level of 0.000, suggesting a significant effect on company sustainability after the adoption of information technology.

Overall, the influence of information technology on the sustainability of MSMEs is very significant, especially through indicators of innovation adoption, usage skills, technology utilisation, and business process optimisation. Despite the challenges in technology adoption, MSMEs can reap great benefits from information technology with the right approach. This is in line with previous research that provides similar findings. Research by Machin et al

(2023) This proves that MSME owners and managers can drive sustainability by adopting digital technologies to streamline operations, access new markets, and create new employment opportunities.

An investigation by Salecha and Winarsih (2024) revealed that the integration of Information Technology has the potential to impact the long-term viability of small and medium enterprises. Good information technology can improve the quality of customer service speed and make it easier to process production and buying and selling data so that MSME players will experience sustainability in their business. While challenges remain, MSMEs that invest time and resources in information technology have the potential to grow and develop sustainably.

The Effect of Access to Capital on MSME Sustainability

The sustainability of MSMEs is greatly impacted by the availability of funds, which can be seen through various factors such as access to information, loan application processes, guarantees, and effective use of capital. The findings of this research demonstrate that the ability to obtain capital has a direct influence on the longevity of MSMEs.

Based on the study results, a slight boost in capital availability could result in improved sustainability for micro, small, and medium enterprises (MSMEs), as suggested by the coefficient of 0.356 in the regression analysis. The t-test findings reveal a significant t-value of 7,890 and a significance level of 0.000, highlighting a substantial influence on business sustainability with increased capital access. Prior research has similarly demonstrated a favourable connection between capital availability and the sustainability of MSMEs (Sugita & Ekayani, 2022).

To improve the sustainability of MSMEs, banks and financial institutions need to simplify application procedures, improve access to information, and consider flexibility in collateral requirements. Credit requirements affect MSMEs' access to formal credit (Nugraeni et al., 2023). Effective access to capital through access to information, simple application procedures, adequate loan collateral, and good capital utilisation significantly influence the sustainability of MSMEs. Strengthening these four variables will improve access to capital and contribute to their overall growth and sustainability.

CONCLUSION

The findings of this research suggest that the longevity of MSMEs is greatly impacted by entrepreneurial skills, technological knowledge, and financial resources. It is crucial to focus on enhancing these skills through training programmes to enhance their ability to compete and endure in the future. By enhancing their entrepreneurial abilities, MSMEs can not only thrive in the competitive landscape but also cultivate innovation and expansion, ultimately playing a part in the growth of the local economy.

High-quality information technology has the potential to enhance customer service speed and streamline production and sales processes, leading to increased sustainability for MSMEs. Access to capital plays a vital role in the success of MSMEs, with factors like information accessibility, simplified loan procedures, suitable collateral, and effective capital management making a significant impact on sustainability.

The findings of this research underscore the significance of entrepreneurship training, technology investment, and policies that facilitate capital access. Further studies could investigate the influence of external factors like government policies and economic conditions on this dynamic, as well as how MSMEs across various sectors can implement competency-based entrepreneurial strategies to enhance competitiveness and ensure long-term sustainability.

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