

INTEGRATIVE ANALYSIS OF INTERNAL AND EXTERNAL FACTORS: DETERMINANTS OF SME SUCCESS AND SUSTAINABILITY IN THE ERA OF GLOBAL COMPETITION

Heni Safitri¹, Dedi Hariyanto

Study Program of Management, Faculty of Economic and Business, Universitas Muhammadiyah Pontianak
Jl. Ahmad Yani No.111, 78124, Pontianak, West Kalimantan, Indonesia

Article history:

Received
8 September 2025

Revised
22 October 2025

Accepted
22 January 2026

Available online
31 January 2026

This is an open access
article under the CC
BY license ([https://
creativecommons.org/
licenses/by/4.0/](https://creativecommons.org/licenses/by/4.0/))



Abstract:

Background: The research is driven by the necessity to comprehend how the combination of internal and external variables serves as a crucial determinant for MSMEs success and continuity, particularly when confronting the challenges of intensifying international competition.

Purpose: This study was conducted to determine the interaction between internal and external factors in creating synergy that supports the sustainability of MSMEs in the era of global competition.

Design/methodology/approach: This was a quantitative study with an associative approach. The sample in this study consisted of micro-scale MSMEs in the food and beverage accommodation and processing industry sectors located in Sambas and Kubu Raya Regencies in West Kalimantan Province. The sample in this study consisted of 200 micro-scale MSMEs in Indonesia. The analysis technique used was Structural Equation Modeling (SEM) with Smart PLS.

Finding/Result: The analysis results show that the financing access variable has a very significant effect on the sustainability of MSMEs, especially micro-scale MSMEs. In addition, environmental changes significantly affect the sustainability of MSMEs, especially those on a micro scale. The environmental changes referred to in this study include market changes, technological changes, innovation, and changes in the MSME's business environment.

Conclusion: MSME sustainability depends critically on two interconnected factors: access to financing and adaptability to environmental change. Limited capital access constrains micro-enterprises' growth potential, while their inability to adapt to market shifts, digital transformation, and regulatory changes threatens their survival. These challenges are compounded by MSMEs' narrow market focus, lack of diversification strategies, and insufficient resources for technology adoption.

Originality/value (state of the art): This study fills the empirical gap by focusing on micro MSMEs in geographically underexplored areas, namely, Sambas Regency (bordering Malaysia) and Kubu Raya (bordering the provincial capital). Furthermore, this study employed a comprehensive integrative approach by simultaneously combining internal and external factors.

Keywords: access to financing, business continuity, environmental change, MSMEs, global competition

How to Cite:

Safitri, H., & Hariyanto, D. (2026). Integrative analysis of internal and external factors: Determinants of SME success and sustainability in the era of global competition. *Indonesian Journal of Business and Entrepreneurship*, 12(1), 86. <https://doi.org/10.17358/IJBE.12.1.86>

¹ Corresponding author:

Email: heni.safitri@unmuhpnk.ac.id

INTRODUCTION

The sustainability of MSMEs remains a major challenge, with many businesses failing within their first five years of operation. This statement supports the phenomenon in West Kalimantan, where the number of MSMEs decreased in 2024. In 2023, the number of micro-, small, and medium enterprises increased by 14.91 %, 9.47%, and 82.93 %, respectively. Meanwhile, in 2024, the number of micro enterprises decreased by 12.18%, small enterprises decreased by 92.44%, and medium enterprises by 94.23% (diskopukm.kalbarprov.go.id, 2025). The sustainability of MSME businesses can be influenced by various factors, both internal and external. Internal factors include the managerial capabilities of owners or managers, financial management, human resource quality, product innovation and marketing strategies. Meanwhile, external factors encompass government policies, market conditions, business competition, access to financing, technology, and changes in consumer preferences. In the current era of globalization and digitalization, MSMEs are required not only to focus on strengthening their internal capacity but also to adapt to dynamic external environmental changes. This study examines the synergy between internal and external factors in relation to the sustainability of MSME businesses in West Kalimantan Province, specifically in Kubu Raya and Sambas regencies. The selection of these areas is based on the highest distribution figures of MSMEs in the food and beverage accommodation provider and processing industry sectors. Furthermore, these two regencies have strategic locations where Kubu Raya regency borders directly with the capital city of West Kalimantan Province, and Sambas regency shares a national border with Malaysia. With these strategic locations, it is highly possible for MSMEs to develop and compete globally. A comprehensive understanding of the interaction between these two factors provides a strong foundation for developing effective strategies and policies to enhance the competitiveness and sustainability. The synergy between the internal strengths of MSMEs and external support can be optimized to create a resilient and sustainable business model for MSMEs. Therefore, this study seeks to produce a conceptual framework that can be used as a reference for formulating integrated and sustainable MSME development strategies.

This research is motivated by the need to understand how synergy between internal and external factors can

be the key to the success and sustainability of Micro, Small, and Medium Enterprises (MSMEs), especially in the face of increasingly fierce global competition. Barney's (1991) resource-based theory and Porter's diamond model are used to identify internal and external factors that form the basis for developing a contingency theory framework for this research to understand the MSME landscape (Rampyapedi & Adetunji, 2024). A comprehensive understanding of the interaction between these two factors provides a strong foundation for developing effective strategies and policies to enhance the competitiveness and sustainability. Although several studies have examined the relationship between internal and external factors on MSME growth in various countries (Farid et al. 2017; Fibriyani & Mufidah, 2018; Hanggraeni et al. 2019; Musannip Efendi Siregar et al. 2022; Narto, 2019), there are significant conceptual gaps in the existing literature. First, most previous studies have emphasized short-term performance (firm performance) rather than the long-term sustainability of MSMEs. Improvement in entrepreneurial skills, marketing and technology, as well as financial management, will inevitably improve business performance or outcomes. The existing literature tends to examine internal and external factors separately, without exploring the interaction mechanisms and synergistic effects between these two dimensions on MSME sustainability. For example, research on managerial capacity (Franco & Matos, 2015; Samuel et al. 2017), financial management (Karadag, 2015; Nyamao, 2012), and innovation capability (Pranowo et al. 2020; Suliyanto et al. 2019; Musannip Efendi Siregar et al. 2022) largely examines the direct influence of these factors on firm performance but fails to integrate how these internal factors interact with external pressures such as sustainability regulations, stakeholder demands, or global market changes to create holistic sustainability.

This research begins with an in-depth identification of the internal and external factors that contribute to the phenomenon, with a specific focus on the food and beverage accommodation sector and the processing industry, which are the dominant sectors in both districts. The internal factors used in this research are managerial capacity, financial capacity, and innovation capability. Based on several references, the parameters used to measure external factors in this research are government policies, access to financing, and technology and digitalization. In addition, this study uses environmental changes as a moderating

variable to examine the relationship between these two factors and the sustainability of MSMEs. As a practical implementation step, this research also involves collaboration with MSME associations, the Department of Cooperatives and MSMEs, and other MSME-supporting institutions to facilitate access to respondents and ensure the relevance of the findings to practical needs in the field. This collaboration not only serves to access data but also as a partner in the dissemination process of research results so that they can be directly utilized by MSME actors and policymakers.

The complexity of the interaction between these two factors is often not fully understood by stakeholders, resulting in efforts to strengthen MSMEs that tend to be partial and unsustainable in the long run. Development strategies that focus only on one aspect, whether internal or external, without considering the interrelationships and synergies between the two, often fail to have a significant and sustainable impact. The synergy between the internal strengths of MSMEs and external support can be optimized to create a resilient and sustainable business model for MSMEs. Therefore, this study seeks to produce a conceptual framework that can be used as a reference for formulating integrated and sustainable MSME development strategies. Ultimately, this study aims to determine the interaction of internal and external factors in creating synergies that support the sustainability of MSME businesses in the era of global competition.

METHODS

This study used a quantitative research design with an associative approach. This study seeks to identify the relationship between internal and external factors in the development and sustainability of MSME businesses in Indonesia. This study was conducted in West Kalimantan, specifically in Sambas Regency and Kubu Raya Regency. The data used were primary data. Primary data were obtained directly from MSME business owners. This study used closed questionnaires to obtain research data.

To collect data, the researchers used questionnaires given to MSME actors. The questionnaires could be filled out using g-form or directly. The questionnaires

used a Likert scale to measure the research instruments. The research will be conducted for six months, from June to November 2025. The population in this study consisted of all micro-scale MSMEs in the food and beverage accommodation and processing industry sectors located in Sambas Regency, totaling 2.089 MSMEs, and Kubu Raya, totaling 2.583 MSMEs. Thus, the total population in this study was 4.672 MSMEs. The sampling technique used was proportional random sampling using the Slovin formula to determine the minimum sample limit. Based on the minimum sample calculation results, this study used a sample of 200 MSMEs. The sampling criteria were MSMEs that had been operating for at least two years in the food and beverage accommodation sector and the manufacturing industry.

The analysis technique used in this study is Structural Equation Modeling (SEM) with Smart PLS. This study employs several methods to evaluate the measurement and structural models using Smart PLS. To assess indicator reliability, outer loadings are examined, where factor loadings of 0.5–0.6 are considered sufficient for preliminary research, while loadings exceeding 0.7 indicate that the indicator is highly valid and suitable for Structural Equation Modelling according to Chin. Convergent validity is measured using the Average Variance Extracted (AVE), where an indicator is considered valid when the AVE value is above 0.5. Internal consistency reliability is determined using composite reliability values, with constructs considered reliable when the composite reliability exceeded 0.7. The structural model is evaluated by first examining the collinearity between constructs using the Variance Inflation Factor (VIF), where multicollinearity is assessed based on VIF values that must be less than 5 according to Sarstedt & Cheah (2019). The coefficient of determination (R^2) is used to measure the model's predictive power, with values ≥ 0.75 considered strong, values between 0.50 and 0.74 considered moderate, and values between 0.25 and 0.49 considered weak according to Chin (Hair et al. 2021). Model fit is assessed using the Standardized Root Mean Square Residual (SRMR), where values less than 0.10 or 0.08 are considered suitable. Finally, path coefficients are analyzed to represent changes in endogenous (dependent) variables when exogenous (independent) variables changed by one unit, with results considered significant when the p-value is less than 0.05.

Internal Factors of SMEs

Internal factors reflect various aspects within the company, such as human resources, production capacity, marketing activities, and product innovation, which provide a comprehensive picture of the company's condition. Managerial capacity represents the proficiency and expertise of business managers or owners in efficiently administering organizational assets to achieve business goals. It includes the necessary expertise, understanding, and practical experience for planning, coordinating, directing, and supervising business activities (Ng and Kee, 2018). Financial capacity in MSMEs represents the ability of micro, small, and medium enterprise operators to obtain, manage, and optimize funding sources to carry out operational activities, develop their businesses, and achieve established business targets. This capacity describes the financial health of MSMEs, the availability of operational funds, and the ability to meet financial obligations in both the short and long terms (Karadag, 2015; Nyamao, 2012). Innovation capability demonstrates that every business endeavor possesses novelty and uniqueness (Hendayana et al. 2024).

H1: Managerial capacity has a significant effect on the sustainability of MSMEs business

H2: Financial capacity has a significant effect on the sustainability of MSMEs business

H3: Innovation capability has a significant effect on the sustainability of MSMEs business

External Factors of SMEs

The external environment represents forces outside the company that have a direct influence and importance to the company, such as the government, workers, creditors, trade associations, shareholders, and society. The government policy aspect consists of several measurement factors, such as ease of business licensing, provision of information, and development activities through relevant agencies. Fibriyani and Mufidah (2018) stated that government policy is an external factor that significantly influences MSME performance and sustainability. Access to finance refers to the capacity of individuals or businesses, particularly MSMEs, to obtain affordable and appropriate financial services that meet their needs, including credit, loans, savings, insurance, and other financial instruments from both formal and informal financial institutions. Financial access is a critical determinant of MSME survival and expansion (Sitharam & Hoque, 2016; Ratnawati, 2020).

H4: Government policy has a significant effect on the sustainability of MSMEs business

H5: Access to financing has a significant effect on the sustainability of MSMEs business

Environmental Change

Environmental change in the context of digital transformation denotes the dynamic evolution of external and internal factors influencing business operations, precipitated or expedited by digital technology adoption and digital transformation initiatives. Teng et al. (2022) stated that digital transformation represents an advanced level of organizational change built upon digitization, penetrating deeply into the company's core operations with the objective of establishing innovative business models. There are four main dimensions in digital transformation efforts (Hess et al. 2016): utilization of technology, changes in value creation and the impact of digital transformation, structural changes, and financial aspects related to the company's need to respond to core business (Suwanto et al. 2022).

H6: Environmental change has a significant effect on the sustainability of MSMEs business

H7: Environmental change can moderate the relationship between managerial capability and the sustainability of MSMEs business

H8: Environmental change can moderate the relationship between financial capacity and the sustainability of MSMEs business

H9: Environmental change can moderate the relationship between innovation capability and the sustainability of MSMEs business

H10: Environmental change can moderate the relationship between government policy and the sustainability of MSMEs business

H11: Environmental change can moderate the relationship between access to financing and the sustainability of MSMEs business

The research model that can be used as a basis for this study can be described in Figure 1. This model shows that MSME sustainability is directly influenced by internal factors (managerial, financial, and innovation capabilities) and external factors (government policy and financing access), with environmental change moderating these relationships. This demonstrates that MSMEs require both strong internal capacities and effective responses to external conditions for long-term viability.

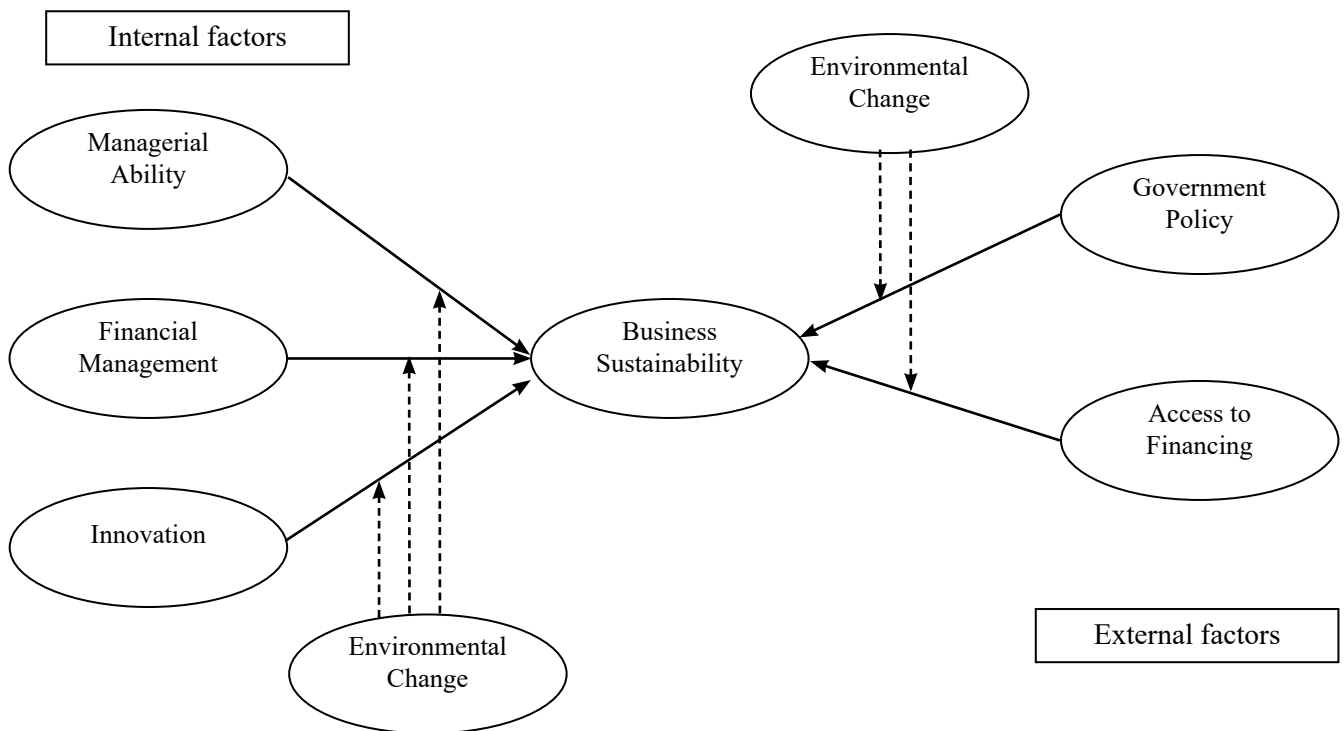


Figure 1. Research Framework

RESULTS

Respondent Characteristics

Table 1 shows the respondents' characteristics. Based on this, it can be identified that the majority of micro and small enterprises operate in the manufacturing industry with a percentage of 75%, and most micro and small enterprises have a turnover of IDR500,000 – IDR9,999,999 with a percentage of 53%. As many as 86.5% of micro and small enterprises have been running their businesses for 2-7 years. The majority of micro and small enterprises have 1-5 employees with a percentage of 85.5%. These findings indicate that the sample is predominantly composed of small-scale manufacturing businesses that are still in their early to mid-growth stages, as evidenced by the relatively modest turnover levels and limited workforce size. The concentration of businesses in the 2-7 year age range suggests that most respondents have moved beyond the initial start-up phase and have established some operational stability; however, they remain within the critical development period where access to resources, market

knowledge, and strategic management become crucial for sustained growth. The prevalence of businesses with 1-5 employees reflects the typical structure of micro and small enterprises in developing economies, where operations tend to be lean with limited organizational complexity. The dominance of the manufacturing sector among respondents is particularly significant, as this sector often requires more capital investment, technical skills, and supply chain coordination than service-based businesses, which may present unique challenges and opportunities in terms of financial management, technological adoption, and competitive positioning.

Outer Model

The outer model (or measurement model) in Smart PLS describes the relationship between latent variables and their indicators and is used to evaluate the validity and reliability of the indicators used in the research. One of the key components of the outer model is indicator reliability, which is assessed through outer loadings that show the strength of the relationship between an indicator and its latent variable.

Table 1. Respondent characteristics

Characteristics	Number	Percentage
Type of Business		
Processing Industry	150	75
Trade Industry	18	9
Services	29	14.5
Agriculture and Livestock	3	1.5
Business Turnover		
IDR 500,000 - IDR 9,999,999	106	53
IDR 10,000,000 - IDR 19,999,999	49	24.5
IDR 20,000,000 - IDR 29,999,999	22	11
IDR 30,000,000 - IDR 39,999,999	8	4
IDR 40,000,000 - IDR 49,999,999	8	4
IDR 50,000,000 - IDR 59,999,999	7	3.5
Business Duration		
2 - 7 years	173	86.5
8 - 13 years	25	12.5
14–19 years	1	0.5
20–25 years	1	0.5
Number of Employees		
1 - 5 people	171	85.5
6 - 10 people	52	26
11 - 15 people	25	12.5
16 - 20 people	1	0.5

Indicator Reliability, Convergent Validity, and Internal Consistency Reliability

Table 2 presents the results of the indicator reliability, convergent validity, and internal consistency reliability. The outer loading values for all indicators were greater than 0.7, indicating high validity. The Cronbach's α values for all variables are greater than 0.8, indicating very high reliability. The composite reliability values are greater than 0.7, and the AVE values are greater than 0.5, confirming that the constructs used are reliable and valid. The overall outer model testing demonstrated that the variables and all indicators used in this study are valid and reliable, thus providing a strong foundation for structural model analysis and hypothesis testing.

Inner Model

The inner model, also known as the structural model, in Smart PLS represents the relationships between latent variables or constructs in the research model and is used to test the hypotheses proposed in this study. The inner model evaluation focuses on assessing the predictive

capability and relationships between constructs to determine whether the theoretical framework is supported by empirical data. Overall, the inner model evaluation provides comprehensive insights into whether the proposed theoretical relationships are empirically supported and whether the model has adequate explanatory and predictive power to draw meaningful conclusions about the phenomena being investigated.

Variance Inflation Factor (VIF)

Table 3 presents the results of the VIF. The test results show that the VIF values for all the exogenous variables are less than 5. This indicates that there is no multicollinearity problem with the variables used in this study. This means that the independent variables in this study were not overly correlated with each other. This is important because it ensures that each variable can independently contribute to explaining variations in the dependent variable (business sustainability) without their effects being confused or inflated due to correlations with other variables.

Table 2. Indicator reliability, convergent validity, and internal consistency reliability

Variable	Outer Loading	Cronbach's α	CR	AVE
Access to Financing		0.863	0.898	0.594
AP1	0.862			
AP2	0.873			
AP3	0.877			
AP4	0.881			
AP5	0.846			
AP6	0.807			
Innovation		0.917	0.935	0.707
INV1	0.778			
INV2	0.824			
INV3	0.787			
INV4	0.835			
INV5	0.829			
INV6	0.835			
Managerial Skills		0.899	0.922	0.664
KM1	0.800			
KM2	0.750			
KM3	0.777			
KM4	0.794			
KM5	0.704			
KM6	0.796			
Government Capacity		0.900	0.923	0.668
KP1	0.773			
KP2	0.815			
KP3	0.838			
KP4	0.860			
KP5	0.864			
KP6	0.747			
Business Sustainability		0.928	0.944	0.736
KU1	0.765			
KU10	0.791			
KU2	0.751			
KU3	0.806			
KU4	0.792			
KU5	0.725			
KU6	0.764			
KU7	0.794			
KU8	0.777			
KU9	0.775			
Financial Management		0.926	0.937	0.599
PK1	0.816			
PK2	0.847			
PK3	0.867			
PK4	0.856			
PK5	0.861			
PK6	0.795			

Table 2. Indicator reliability, convergent validity, and internal consistency reliability (continue)

Variable	Outer Loading	Cronbach's α	CR	AVE
Environmental Change		0.858	0.904	0.701
PL1	0.813			
PL2	0.882			
PL3	0.817			
PL4	0.836			

Table 3. Variance Inflation Factor (VIF)

	Business Sustainability
Managerial Ability	4.530
Financial Management	4.641
Innovation	3.105
Government Policy	3.309
Access to Financing	2.924
Environmental Change	3.175

Coefficient of Determination (R^2)

Table 4 presents the results of the coefficient of determination. The coefficient of determination showed an R^2 value of 0.777. This result indicates that the construct used is very strong, and the model has high predictive power. This is a strong result because it indicates that the model has substantial explanatory power. In other words, the factors identified—managerial capability, financial management, innovation, government policy, access to financing, and technology and digitalization, moderated by environmental change—collectively account for more than three-quarters of the changes in SME business sustainability. This leaves only approximately 22.3% of the variation unexplained, which could be attributed to other factors not included in this model.

Goodness of Fit

Table 5 presents the goodness-of-fit results. The Goodness of Fit results reveal SRMR values of 0.062 and 0.065, indicating that the model demonstrates a good fit with the observed data. The Standardized Root Mean Square Residual (SRMR) measures the average difference between the observed correlations in the data and the correlations predicted by the model on a scale from 0 to 1, where smaller values indicate a better fit. Both values fall below the recommended threshold of 0.08, suggesting that the discrepancy between the theoretical model and actual data is minimal and acceptable. The consistency between these two values

further reinforces the model's stability and reliability, confirming its suitability for further interpretation and analysis.

Path Coefficients (Hypothesis Testing)

Path coefficients are the core of structural models in SEM-PLS, providing empirical evidence of causal relationships between constructs in the theoretical model being evaluated. Path coefficients represent the standardized regression weights that indicate both the strength and direction of the relationship between an exogenous (independent) variable and an endogenous (dependent) variable in the structural model. A path coefficient is considered statistically significant when the p-value is less than 0.05 (for a 95% confidence level) or less than 0.01 (for a 99% confidence level), indicating sufficient evidence to support the hypothesized relationship between constructs.

Table 6 presents the path coefficient results. Access to financing has a significant influence on the sustainability of MSMEs, especially micro-scale ones, due to several interrelated fundamental factors. Micro MSMEs generally start their businesses with very limited capital, often only saving personal savings or loans from family, so that when they need additional capital for daily operations such as purchasing raw materials, paying employee wages, or other operational costs, limited access to formal financing becomes a serious obstacle that can threaten the continuity of their businesses. In an era of global competition, where

competitors come not only from within the country but also from multinational companies with large resources, MSMEs that do not have good access to financing will struggle to compete with larger companies. Limited access to financing also impacts the ability of micro-SMEs to grow and develop because, without adequate capital injection, they cannot expand their businesses, diversify their products, or increase the production capacity needed to compete in the market. Based on these test results, Hypothesis 5 in this study is accepted, namely that access to financing as an external factor has a direct effect on the sustainability of MSMEs. The research results also show that environmental changes encompassing technology and digitalization affect the sustainability of MSME. This occurs because digital transformation has fundamentally changed the way of doing business. MSMEs that can adapt to technology can expand their market reach through digital platforms, improve operational efficiency through adequate systems, and provide more responsive services to customers. Environmental change represents a quasi-

moderating variable that functions as both an independent and a moderating variable simultaneously, whereby the research results indicate that the environmental change variable directly influences the sustainability of MSME businesses.

Research Model

The Figure 2 shows that from internal and external factors, access to financing as an external factor directly influences the relationship with the sustainability of MSMEs. In addition, environmental change as a moderating variable affects MSME sustainability. From this explanation, it indicates that the hypothesis 2 factor in this research is accepted. Furthermore, the moderation in this research takes the form of quasi moderation because, in addition to serving as a moderating variable, this variable can also be used as an independent variable that influences the sustainability of MSMEs.

Table 4. Coefficient of Determination (R²)

	R Square	Adjusted R Square
Business Sustainability	0.777	0.764

Table 5. Goodness of Fit Test

	Saturated Model	Estimated Model
Standardized Root Mean Square Residual (SRMR)	0.062	0.065

Table 6. Path Coefficients

	Original Sample (O)	Sample Mean (M)	STDEV	T Statistics	P Values
Access to Financing → Business Sustainability	0.178	0.189	0.082	2.177	0.030
Innovation → Business Sustainability	-0.092	-0.082	0.070	1.309	0.191
Managerial Ability → Business Sustainability	0.119	0.120	0.095	1.264	0.207
Government Capability → Business Sustainability	0.107	0.086	0.079	1.357	0.176
Moderating Effect 1 → Business Sustainability	-0.113	-0.080	0.089	1.281	0.201
Moderating Effect 2 → Business Sustainability	0.023	-0.026	0.114	0.197	0.844
Moderating Effect 3 → Business Sustainability	0.091	0.115	0.084	1.086	0.278
Moderating Effect 4 → Business Sustainability	-0.129	-0.056	0.146	0.887	0.376
Moderating Effect 5 → Business Sustainability	0.058	-0.003	0.118	0.489	0.625
Financial Management → Business Sustainability	0.057	0.072	0.091	0.631	0.529
Environmental Change → Business Sustainability	0.488	0.506	0.080	6.124	0.000

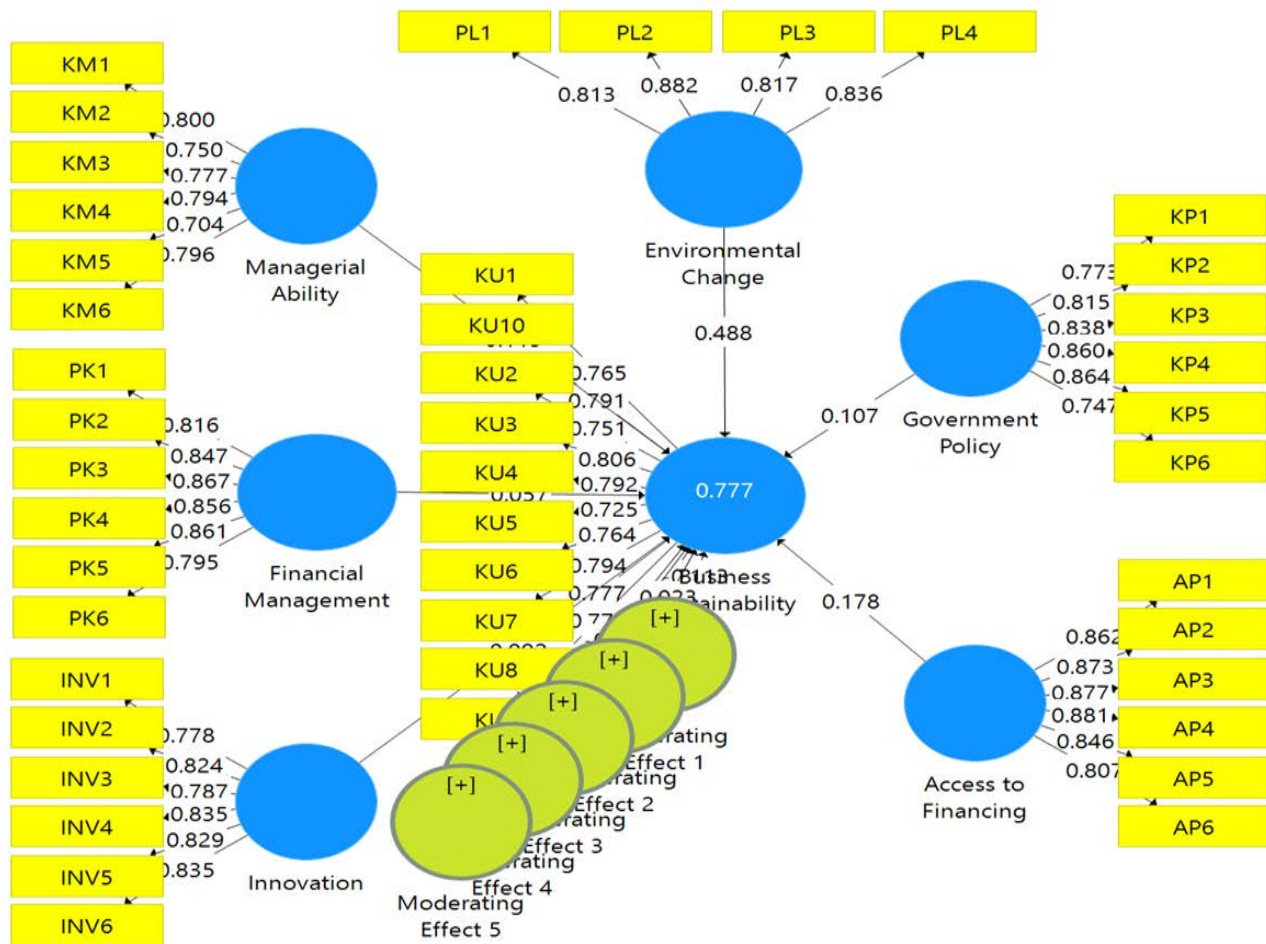


Figure 2. Research model

Managerial Implication

Based on these research findings, the key managerial implications for MSMEs in Indonesia emphasize the critical need for proactive financial management and adaptive capabilities. MSME owners must actively seek and secure diverse financing options, including traditional bank loans, government programs like Kredit Usaha Rakyat (KUR), microfinance institutions, and digital lending platforms, while maintaining proper financial records to improve creditworthiness. Simultaneously, managers should prioritize building organizational flexibility to respond to technological and market changes by adopting digital tools, e-commerce platforms, and social media marketing to expand market reach. This requires continuous investment in skill development through business management training, financial literacy programs, and technology education to enhance decision-making. Additionally, MSMEs should develop strategic partnerships with financial institutions, suppliers, and other businesses to strengthen their resource bases and market intelligence. Diversifying product offerings, customer segments, and

sales channels while systematically monitoring market trends, competitor activities, and consumer behavior will help reduce vulnerability to such environmental changes. Ultimately, sustainable MSME operations in Indonesia depend on the dual strategy of securing adequate financing and cultivating adaptive capacity to navigate the dynamic and increasingly digital business environment effectively.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

The sustainability of micro, small, and medium enterprises (MSMEs) is greatly influenced by two main interrelated factors, namely access to financing and the ability to adapt to changes in the business environment. Access to financing has a significant influence on the sustainability of micro MSMEs because of the limited initial capital possessed by most micro-entrepreneurs. The ability to adapt to changes in the business environment includes changes in the market,

the digital technology revolution, and changes in government regulations and policies. Changes in the market in terms of consumer preferences, product trends, and purchasing patterns can quickly threaten the sustainability of micro MSMEs, which usually focus only on very specific and limited market segments. When there is a shift in demand or the emergence of new competitors, they do not have a diversified strategy to survive the competition. The digital technology revolution creates enormous challenges because micro MSMEs must not only invest in expensive new technology but also develop digital capabilities that require time, training costs, and fundamental changes to business processes.

Recommendations

Future research could elaborate on financial factors and the use of digital innovation in examining their relationship with MSME business sustainability to obtain clearer and more significant results. In addition, increasing the sample size and expanding the research area are also interesting aspects to pursue in the future so that research results can be more comprehensive for MSMEs in the West Kalimantan region. Research on MSMEs in border areas is also an interesting topic for future exploration.

FUNDING STATEMENT: This research was supported by internal research funding from Universitas Muhammadiyah Pontianak.

CONFLICT OF INTEREST: The authors declare no conflicts of interest.

REFERENCES

- Adela, F. R. (2024). Analysis of Tax Policy Impact on Micro, Small and Medium Enterprises. *Literacy Notes*, 1(2).
- Afsar, B., F. Badir, Y., & Bin Saeed, B. (2014). Transformational leadership and innovative work behavior. *Industrial Management & Data Systems*, 114(8), 1270--1300. <https://doi.org/10.1108/IMDS-05-2014-0152>
- Aji, K. (2025, April 16). 8 Major Constraints of MSMEs in Export and How to Overcome Them. *Kyrim*. <https://kyrim.co.id/blog/kendala-ekspor-umkm/>
- Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2010). Formal versus Informal Finance: Evidence from China. *The Review of Financial Studies*, 23(8), 3048--3097. <https://doi.org/10.1093/rfs/hhq030>
- Beck, T., & Demirguc-Kunt, A. (2006). Small and medium-sized enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance*, 30(11), 2931--2943. <https://doi.org/10.1016/j.jbankfin.2006.05.009>
- Bisnis.com. (2024). Ministry of MSMEs Says Logistics Costs Are a Challenge. <https://ekonomi.bisnis.com/read/20241203/98/1821323/kementerian-umkm-sebut-biaya-logistik-jadi-tantangan>
- Bouazza, A. B., & Ardjouman, D. (2015). Establishing the Factors Affecting the Growth of Small and Medium-sized Enterprises in Algeria. 4(2).
- CNBC Indonesia. (2023). Teten Disappointed Many MSMEs Still Haven't Gone Digital, Why? *CNBC Indonesia*. <https://www.cnbcindonesia.com/tech/20200830201547-37-183127/teten-kecewa-banyak-umkm-masih-belum-go-digital-kenapa>
- Farid, Kadir, Abd. R., Mardiana Y, R., & Nursyamsi, I. (2017). The Effect of External and Internal Factors on Entrepreneurship Competency and Competitiveness of Micro, Small and Medium Enterprises (MSMEs) In Palu City. *Scientific Research Journal (SCIRJ)*, V(XII), 90--98.
- Fibriyani, V., & Mufidah, E. (2018). The Influence of External and Internal Factors on the Performance of SMEs in Pasuruan City. *Journal of Accounting*, 3(3), 873. <https://doi.org/10.30736/jpensi.v3i3.190>
- Franco, M., & Matos, P. G. (2015). Leadership styles in SMEs: A mixed-method approach. *International Entrepreneurship and Management Journal*, 11(2), 425--451. <https://doi.org/10.1007/s11365-013-0283-2>
- Gelchu, H. C., Udessa Gede, D., & Ethiopia. (2023). Factors Affecting Growth of Micro and Small Enterprises: A Case of Adola Woyu Town, Guji Zone Oromia Ethiopia. *International Journal of Social Science, Management and Economics Research*, 01(04), 19--41. <https://doi.org/10.61421/IJSSMER.2023.1402>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-80519-7>
- Hanggraeni, D., Ślusarczyk, B., Sulung, L. A. K., &

- Subroto, A. (2019). The Impact of Internal, External and Enterprise Risk Management on the Performance of Micro, Small and Medium Enterprises. *Sustainability*, 11(7), 2172. <https://doi.org/10.3390/su11072172>
- Hendayana, Y., El-Kafafi, S., Waskito, M., & Faeni, D. P. (2024). Business Networking, Innovation, and Firm Competitiveness: The Case of Handicraft Industry in Indonesia. *Integrated Journal of Business and Economics*, 8(2), 129. <https://doi.org/10.33019/ijbe.v8i2.924>
- Ismail Albalushi, K., & Naqshbandi, M. M. (2022). Factors Affecting Success and Survival of Small and Medium Enterprises in the Middle East. *Knowledge*, 2(3), 525--538. <https://doi.org/10.3390/knowledge2030031>
- Karadag, H. (2015). Financial Management Challenges In Small And Medium-Sized Enterprises: A Strategic Management Approach. *EMAJ: Emerging Markets Journal*, 5(1), 26--40. <https://doi.org/10.5195/emaj.2015.67>
- Kompas Cyber. (2023). 77.6 Percent of Indonesian MSMEs Still Do Not Get Credit Access. *KOMPAS.com*. <https://money.kompas.com/read/2021/04/21/163726326/776-persen-umkm-indonesia-masih-tidak-mendapat-akses-kredit>
- MSME Development Report December 2024.pdf. (n.d.).
- Latan, H. (2014). Structural Equation Model: Theory Implementation Amos 21.0. Alfabeta. <https://openlibrary.telkomuniversity.ac.id/pustaka/18645/model-persamaan-struktural-teori-implementasi-amos-21-0.html>
- Liedholm, C. E., & Mead, D. C. (2013). *Small Enterprises and Economic Development: The Dynamics of Micro and Small Enterprises*. Routledge.
- Musannip Efendi Siregar, Z., Nur Supriadi, Y., Setyo Pranowo, A., Ende, & Jayanti Harahap, N. (2022). A multidimensional approach in examining the role of self-efficacy on innovative work behavior: Evidence from the creative industry. *Problems and Perspectives in Management*, 20(2), 588--597. [https://doi.org/10.21511/ppm.20\(2\).2022.48](https://doi.org/10.21511/ppm.20(2).2022.48)
- Narto, N. (2019). Analysis of Internal and External Business Factors Affecting the Competitiveness of Songkok SMEs in Gresik Regency. *Jurnal Rekayasa Sistem Industri*, 4(2), 57--62. <https://doi.org/10.33884/jrsi.v4i2.1209>
- Nasution, N. R., Siregar, Z. M. E., & Pristiyono, P. (2021). The Effect of Job Autonomy on Employee Innovative Behavior: The Role of Job Satisfaction as Intervening Variable. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(2), 2846--2853. <https://doi.org/10.33258/birci.v4i2.1994>
- Ng, H. S., & Kee, D. M. H. (2018). The core competence of successful owner-managed SMEs. *Management Decision*, 56(1), 252--272. <https://doi.org/10.1108/MD-12-2016-0877>
- Nyabwanga Robert Nyamao. (2012). Effect of working capital management practices on financial performance: A study of small scale enterprises in Kisii South District, Kenya. *African Journal Of Business Management*, 6(18). <https://doi.org/10.5897/AJBM11.1418>
- Ontoraël, R., Suhadak, & Mawardi, M. K. (2017). Analysis Of The Influence Of External And Internal Environmental Factors On Business Performance: A Study On Micro Small And Medium Enterprises (MSMEs) Of Food And Beverage. *Russian Journal of Agricultural and Socio-Economic Sciences*, 66(6), 47--56. <https://doi.org/10.18551/rjoas.2017-06.05>
- Pranowo, A. S., Sutrisno, J., Sulastiono, P., & Siregar, Z. M. E. (2020). The Entrepreneurial Competency, Innovation Capability, and Business Success: The Case of Footware Industry in Indonesia. *Quality-Access to Success*, 21(178).
- Quartey, P., Turkson, E., Abor, J. Y., & Iddrisu, A. M. (2017). Financing the growth of SMEs in Africa: What are the constraints to SME financing within ECOWAS? *Review of Development Finance*, 7(1), 18--28. <https://doi.org/10.1016/j.rdf.2017.03.001>
- Rajamani, K., Akbar Jan, N., Subramani, A. K., & Nirmal Raj, A. (2022). Access to Finance: Challenges Faced by Micro, Small, and Medium Enterprises in India. *Engineering Economics*, 33(1), 73--85. <https://doi.org/10.5755/j01.ee.33.1.27998>
- Rampyapedi, K. P., & Adetunji, O. (2024). Business size moderation and internal factors mediation impacts on SME business performance. *The Southern African Journal of Entrepreneurship and Small Business Management*, 16(1). <https://doi.org/10.4102/sajesbm.v16i1.958>
- Ratnawati, K. (2020). The Influence of Financial Inclusion on MSMEs' Performance Through Financial Intermediation and Access to Capital.

- The Journal of Asian Finance, Economics and Business, 7(11), 205--218. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO11.205>
- Sarstedt, M., & Cheah, J.-H. (2019). Partial least squares structural equation modeling using SmartPLS: A software review. *Journal of Marketing Analytics*, 7(3), 196--202. <https://doi.org/10.1057/s41270-019-00058-3>
- Semuel, H., Siagian, H., & Octavia, S. (2017). The Effect of Leadership and Innovation on Differentiation Strategy and Company Performance. *Procedia - Social and Behavioral Sciences*, 237, 1152--1159. <https://doi.org/10.1016/j.sbspro.2017.02.171>
- Siregar, S. (2017). *Quantitative Research Methods: Complete with Comparison of Manual & SPSS Calculations*. Prenada Media.
- Sitharam, S., & Hoque, M. (2016). Factors affecting the performance of small and medium enterprises in KwaZulu-Natal, South Africa. *Problems and Perspectives in Management*, 14(2), 277--288. [https://doi.org/10.21511/ppm.14\(2-2\).2016.03](https://doi.org/10.21511/ppm.14(2-2).2016.03)
- Suliyanto, Novandri, W., & Suwaryo. (2019). The Influence of Market Orientation on Marketing Performances in Micro Small and Medium-Sized (MSMEs) Coconut Sugar Enterprises: The Role of Innovation. *Quality Access to Success*, 20(172).
- Suwanto, Sunarsi, D., & Achmad, W. (2022). Effect of Transformational Leadership, Servant Leadership, and Digital Transformation on MSMEs Performance and Work Innovation Capabilities. *Central European Management Journal*, 30(4). <https://doi.org/10.57030/23364890.cemj.30.4.71>
- Tambunan, T. (2019). Recent evidence of the development of micro, small and medium enterprises in Indonesia. *Journal of Global Entrepreneurship Research*, 9(1), 18.
- Teng, X., Wu, Z., & Yang, F. (2022). Research on the Relationship between Digital Transformation and Performance of SMEs. *Sustainability*, 14(10), 6012. <https://doi.org/10.3390/su14106012>
- Udin, U., Dananjoyo, R., & Isalman, I. (2022). The Effect of Transactional Leadership on Innovative Work Behavior: Testing the Role of Knowledge Sharing and Work Engagement as Mediation Variables. *International Journal of Sustainable Development and Planning*, 17(3), 727--736. <https://doi.org/10.18280/ijstdp.170303>
- Wulandari, A., Marcelino, D., Suryawardani, B., & Adithya, D. (2024). Digital Capability and Literacy for MSME Transformation: Perspectives of Digital and Business Performance. *Asia Pacific Management and Business Application*, 13(2), 109--128. <https://doi.org/10.21776/ub.apmba.2024.013.02.2>