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THE EFFECT OF MSME CREDIT ON BUSINESS SUSTAINABILITY: THE MEDIATING ROLE OF FINANCIAL INCLUSION IN RURAL BANKING (A STUDY AT BKK WONOSOBO)

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Abstract

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in contributing to economic growth, job creation, and poverty alleviation. Nevertheless, the sustainability of MSMEs continues to face various challenges, particularly limited access to financing and formal financial services. Rural Banks (BPRs), including BKK Wonosobo, play an important role in improving MSMEs' access to financing through credit distribution, which is expected to support business sustainability. However, the effectiveness of credit in enhancing business sustainability is presumed to depend not only on the amount of financing provided but also on the level of financial inclusion among MSME entrepreneurs.

This study aims to analyze the effect of MSME credit on business sustainability by positioning financial inclusion as a mediating variable among MSME customers of BKK Wonosobo. The study employs a quantitative approach using secondary data obtained from sustainability reports and primary data collected through surveys and questionnaires distributed to MSME entrepreneurs receiving credit from BKK Wonosobo. Data were analyzed using Structural Equation Modeling (SEM) to examine both direct and indirect relationships among variables.

The findings indicate that MSME credit has a positive and significant effect on business sustainability. MSME credit also positively affects financial inclusion, while financial inclusion positively influences business sustainability. Furthermore, financial inclusion is proven to mediate the effect of MSME credit on business sustainability, indicating that improved access to, usage of, and utilization of formal financial services strengthens the benefits of credit in supporting the sustainability of MSMEs.

The findings highlight the strategic role of Rural Banks not only as financial intermediary institutions but also as agents of sustainable economic development. This study contributes to the literature on MSME financing and financial inclusion by explaining the mechanism through which MSME credit enhances business sustainability through the mediating role of financial inclusion. Practically, the findings are expected to provide input for BKK Wonosobo and other rural banks in designing more inclusive financing policies to support MSME sustainability and regional economic development.

Keywords: MSME credit, financial inclusion, business sustainability, rural bank, sustainable business

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role as the backbone of Indonesia's national economy, particularly in employment generation and contribution to Gross Domestic Product (GDP) (Ministry of Cooperatives and SMEs, 2024). Nevertheless, one of the persistent obstacles hindering MSME growth is limited access to formal financing (World Bank, 2023). Rural Banks (BPRs), which have officially undergone institutional reorientation through Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector (P2SK Law), possess unique characteristics in the form of relationship banking specifically designed to

accommodate grassroots economic actors (Financial Services Authority, 2024). MSME credit distribution by BPRs is considered capable of stimulating working capital and investment. In line with the Resource-Based View (RBV) Theory, financial capital is a strategic asset that, when managed optimally, creates competitive advantage and ensures long-term business sustainability (Barney & Clark, 2021; Sari & Wijaya, 2023).

In this context, rural banks play an important role in bridging the financing gap through credit distribution and enhancing financial inclusion. The following table presents the economic performance of PT BPR BKK Wonosobo for the 2024–2025 period.

Table 1. Financial and Economic Performance of PT BPR BKK Wonosobo (Perseroda), 2024–2025

Indikator	2024 (Rp)	2025 (Rp)	Pertumbuhan (%)
Total Assets	236.344.492.606	260.020.228.589	10,02
Total Loans Disbursed	193.423.948.062	219.198.023.417	13,33
Third-Party Funds (Savings + Deposits)	176.832.906.282	205.209.733.785	16,05
Savings	103.149.152.282	130.614.125.485	26,64
Time Deposits	73.683.754.000	75.588.554.000	2,58
Total Liabilities	205.348.997.067	228.564.531.989	11,31
Total Equity	30.995.495.539	31.455.696.600	1,48
Operating Income	35.126.886.817	41.722.297.546	18,78
Net Profit	3.562.558.179	3.310.247.604	-7,08

Source: Processed data, 2026

Based on the published report of PT BPR BKK Wonosobo (Perseroda), there was an increase in total assets, loans disbursed, and third-party funds during the 2024–2025 period. Total assets grew by 10.02%, loans increased by 13.33%, and third-party funds rose by 16.05%. However, net profit declined by 7.08%. This condition indicates an imbalance between business growth and profitability achievement, suggesting that business expansion has not been fully accompanied by improved profitability.

This phenomenon indicates the need to strengthen governance, risk management, and internal auditor capabilities to ensure that business growth is accompanied by improved efficiency and financial performance. PT BPR BKK Wonosobo, as a regional bank, demonstrates its commitment to sustainable finance by increasing credit distribution to MSMEs and environmentally friendly sectors. The bank integrates economic, social, and environmental aspects (profit, people, planet) into its operations. In addition, the bank actively promotes financial literacy and inclusive financial services for the community.

However, credit distribution alone does not automatically guarantee business sustainability if it is not accompanied by improvements in the financial capabilities of business owners. This is where financial inclusion becomes highly important. Financial inclusion is not merely about access but also encompasses the usage and quality of financial products (Global Findex, 2022). According to the Pecking Order Theory, easier access to banking services shifts MSMEs' financing preferences from high-risk informal sources to more stable formal financing (Myers, 2021). Previous studies have shown that credit has a direct positive impact on business performance (Pratama & Setiawan, 2022). Meanwhile, other studies argue that credit becomes most effective when business owners are financially included, such as having active savings accounts, utilizing digital payment systems, and receiving financial literacy from lending institutions (Rahman et al., 2023; Tambunan, 2024). These differing findings create a research gap that underlies the importance of positioning financial inclusion as a mediating variable.

The following is Table 2 showing the financial ratio performance of PT BPR BKK Wonosobo.

Table 2. Portfolio Performance Based on Financial Ratios (2025)

Financial Ratio	Value (%)
Capital Adequacy Ratio (CAR)	91.58
Allowance for Productive Asset Losses to Productive Assets Ratio	11.69
Net Non-Performing Loan (Net NPL)	1.54
Gross Non-Performing Loan (Gross NPL)	21.52
Return on Assets (ROA)	13.23
Operating Expenses to Operating Income (BOPO)	143.40
Net Interest Margin (NIM)	29.26
Loan to Deposit Ratio (LDR)	107.27
Cash Ratio	22.35

Source: Processed data, 2026

Based on Table 2, PT BPR BKK Wonosobo recorded an LDR of 107.27% and a BOPO ratio of 143.40% in 2025, indicating significant liquidity pressure and operational inefficiency requiring management attention. These conditions present an interesting phenomenon for further research regarding internal auditor capability, digital technology utilization, and the effectiveness of risk management at PT BPR BKK Wonosobo.

The scope of this study is limited to MSME entrepreneurs who are active debtors of PT BPR BKK Wonosobo, Central Java, by observing sustainability indicators that encompass not only financial aspects (profit) but also non-financial aspects such as asset growth, crisis resilience, and digitalization adoption.

Despite this, empirical studies examining the relationship between MSME credit, financial inclusion, and business sustainability within the context of rural banking remain limited. Therefore, this study aims to fill this gap by analyzing the mediating role of financial inclusion.

The novelty of this research lies in three main aspects. First, it contextualizes the new role of BPRs following the implementation of the 2023 P2SK Law, under which BPRs are expected to expand technology-based services. Second, unlike previous studies that mainly focus on commercial banks, this study focuses on the rural banking ecosystem, which has distinct sociological proximity to MSMEs. Third, this study integrates modern business sustainability indicators that are adaptive to the post-pandemic era and digital economic transformation rather than merely measuring short-term business survival.

Theoretically, this research contributes to strengthening the literature on financial management and entrepreneurship by extending the application of the Resource-Based View Theory and Pecking Order Theory to micro-enterprises in developing countries. Practically, the study is expected to serve as an evaluation tool for BPR management in designing credit schemes that focus not only on loan disbursement but also on financial inclusion and literacy assistance programs. For MSME entrepreneurs, the study provides strategic insights into the importance of utilizing banking services comprehensively to maintain business stability. For regulators (the Financial Services Authority and Bank Indonesia), the findings may serve as recommendations for policies supporting the acceleration of digital financial inclusion in the rural banking sector.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Theoretical Foundation

Resource-Based View (RBV) Theory

The Resource-Based View states that firms can achieve sustainable competitive advantage when they possess resources that are valuable, rare, difficult to imitate, and well organized (Barney, 1991; Barney & Clark, 2021). In the context of MSMEs, bank credit serves as a strategic financial resource supporting business operations and development. This theory also emphasizes dynamic capabilities, namely a firm's ability to adapt to changes in the business environment (Teece, 2020). In this study, financial inclusion is viewed as a dynamic capability that optimizes the utilization of credit to improve efficiency and business sustainability.

Pecking Order Theory

The Pecking Order Theory explains that firms prioritize internal financing before seeking external financing such as credit (Myers & Majluf, 1984). For MSMEs facing capital constraints and information asymmetry, access to formal credit through Rural Banks (BPRs) is crucial for business development. Through increased financial inclusion, MSMEs can obtain more efficient financing access, strengthen their capital structure, and support business sustainability (Myers, 2021; Tambunan, 2024).

Business Sustainability (Y)

Business sustainability refers to the long-term ability of a business entity to maintain financial performance growth, operational resilience, and market adaptability amid economic uncertainty without compromising future stability. It is measured through stable profitability growth, increases in assets and employment, resilience during crises, and readiness to adopt technology. Sari and Wijaya (2023) evaluate business sustainability from the perspective of internal financial capability as a source of competitive advantage. Wang et al. (2025) measure the long-term survival rate of micro-enterprises based on the stability of capital allocation.

MSME Credit (X)

MSME credit refers to working capital or investment financing provided by formal financial institutions (in this case, BPRs) to overcome liquidity constraints and operational financing problems faced by small businesses.

Main indicators include application procedures, loan amount suitability, loan tenor flexibility, and reasonable interest rates. Pratama and Setiawan (2022) argue that easing formal financing constraints linearly increases retained earnings of micro-enterprises. The Financial Services Authority (2024) also emphasizes the intermediary function of BPRs in sustainably financing productive sectors.

Financial Inclusion (M)

Financial inclusion refers to the condition in which MSME entrepreneurs have access to, availability of, and active utilization of various formal financial products and services (such as bank accounts, digital transactions, cash recording, and financial literacy). It can be measured through product availability, accessibility, usage frequency, and perceived quality or financial literacy. Global Findex (2022) defines financial inclusion as a major driver of financial resilience through digital payment adoption. Hasan et al. (2025) likewise describe digital financial inclusion as a dynamic capability that modernizes MSMEs' operational cash management.

Relationships Among Variables and Hypothesis Development

1. The Effect of MSME Credit on Business Sustainability

Credit is a vital instrument for overcoming liquidity constraints among small business owners. Through additional working capital and investment from BPRs, MSMEs can increase production capacity, upgrade technology, and expand market reach (Financial Services Authority, 2024). From the RBV perspective, sustainable capital management creates operational stability. Previous studies by Pratama and Setiawan (2022) and Wang et al. (2025) demonstrate that easing credit constraints positively correlates with profitability growth and long-term resilience. Accordingly:

H1: MSME credit has a positive and significant effect on business sustainability.

2. The Effect of MSME Credit on Financial Inclusion

Credit distribution by formal financial institutions automatically integrates MSMEs into the formal banking ecosystem. The credit application process requires entrepreneurs to have bank accounts, understand interest mechanisms, and utilize other financial products such as digital transfers and savings accounts (Global Findex, 2022). These activities directly improve the usage and accessibility dimensions of financial inclusion. Rahman et al. (2023) found that intensive interactions between borrowers and rural banks increase financial literacy and digital financial adoption. Therefore:

H2: MSME credit has a positive and significant effect on financial inclusion.

3. The Effect of Financial Inclusion on Business Sustainability

Financial inclusion enables MSMEs to manage financial risks more systematically. Through access to savings accounts, digital payment platforms, and microinsurance products, MSMEs can separate personal and business finances and maintain transparent cash flow records (Tambunan, 2024). Such transparency and digital adoption facilitate strategic decision-making and adaptability, which are core elements of dynamic capabilities under the RBV framework (Teece, 2020). Ozili (2023) and Nguyen et al. (2026) confirm that higher financial inclusion reduces transaction costs and improves operational efficiency, thereby enhancing business sustainability.

H3: Financial inclusion has a positive and significant effect on business sustainability.

4. The Mediating Role of Financial Inclusion in the Relationship Between MSME Credit and Business Sustainability

Logically, capital injection through credit will not optimally improve business sustainability if MSMEs continue managing their finances traditionally and remain isolated from the banking system. Financial inclusion functions as a transmission mechanism strengthening the impact of credit. When BPRs provide credit (X), MSMEs become integrated into the formal financial ecosystem (M), utilizing digital payment systems and liquidity management. These enhanced financial capabilities enable better allocation of credit funds toward asset growth and long-term efficiency (Y) (Sari & Wijaya, 2023). Li and Peng (2024) and Hasan et al. (2025) found that financial inclusion partially or fully mediates the relationship between formal financing access and sustainable business performance.

H4: Financial inclusion significantly mediates the effect of MSME credit on business sustainability

RESEARCH METHODS

Research Design

This study adopts a quantitative approach with a causal-associative (exploratory-confirmatory) research design to empirically test causal relationships among MSME Credit (X), Financial Inclusion (M), and Business Sustainability (Y). Based on the time dimension, the study is cross-sectional, with data collected during a single period through questionnaires.

Population and Sample

The target population consists of MSME entrepreneurs registered as active borrowers at BPR BKK Wonosobo, Central Java. Since the exact population size is unknown, the sample size was determined using the Lemeshow formula or Hair et al.'s (2019) SEM guideline of five to ten respondents per indicator. A total of 58 valid respondents were analyzed. Purposive sampling was employed using the following criteria:

1. MSMEs operating for at least two years.
2. Active borrowers of BPR for at least one year.

Data Collection and Instrument Development

Primary data were collected through structured questionnaires distributed physically and digitally (Google Forms). A five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) was used.

The variables were measured as follows:

1. MSME Credit (X): Ease of application procedures, loan amount suitability, loan tenor flexibility, and reasonable interest rates.
2. Financial Inclusion (M): Product availability, accessibility, usage, and perceived quality/financial literacy.
3. Business Sustainability (Y): Stable profitability growth, business growth (assets and employment), operational resilience during crises, and technology adoption readiness.

A pilot test involving 30 respondents outside the sample was conducted to ensure face validity and preliminary reliability.

Data Analysis

Data analysis in this study was conducted in two main stages using the latest version of SmartPLS software. Variance-based Structural Equation Modeling (PLS-SEM) was employed because the research model includes a mediating variable and does not require strict assumptions of data normality. The analysis consisted of the following stages:

1. Measurement Model Evaluation (Outer Model)

This stage aimed to assess the validity and reliability of the research instruments:

a) Convergent Validity:

Convergent validity was assessed by examining the indicator loadings and the Average Variance Extracted (AVE). Each indicator was required to have a loading factor greater than **0.70**, while the AVE value for each construct had to exceed **0.50**.

b) Discriminant Validity:

Discriminant validity was evaluated using the **Fornell–Larcker criterion**, whereby the square root of the AVE for each construct should be greater than its correlations with other constructs, or by the **Heterotrait–Monotrait Ratio (HTMT)**, which should be below **0.90**.

c) Reliability Assessment:

Construct reliability was assessed using **Cronbach's Alpha** and **Composite Reliability (CR)**. Both measures were required to exceed the recommended threshold of **0.70**, indicating satisfactory internal consistency.

2. Structural Model Evaluation (Inner Model) and Hypothesis Testing

This stage was conducted to evaluate the relationships among the latent variables and to test the proposed hypotheses. The structural model evaluation consisted of the following analyses:

a) Coefficient of Determination (R^2):

The coefficient of determination (R^2) was used to assess the extent to which the endogenous and mediating variables were explained by the exogenous variables.

b) Predictive Relevance (Q^2):

Predictive relevance (Q^2) was evaluated to determine the predictive capability of the structural model. A Q^2 value greater than zero indicates that the model has satisfactory predictive relevance.

c) Hypothesis Testing (Path Coefficients):

The proposed hypotheses were tested using the bootstrapping procedure by examining the path coefficients, t-statistics ($t > 1.96$), and p-values ($p < 0.05$) at the 5% significance level.

d) Mediation Effect Testing:

The mediating role of Financial Inclusion (M) in the relationship between MSME Credit (X) and Business Sustainability (Y) was examined using the Specific Indirect Effects analysis available in SmartPLS. The significance of the indirect effect was evaluated through the bootstrapping procedure

RESULTS AND DISCUSSION

The outer model evaluation was conducted to ensure that the research instrument met the requirements of convergent validity, discriminant validity, and internal consistency reliability before proceeding to the structural model assessment (Hair et al., 2019). The results of the outer model evaluation are comprehensively summarized in Table 3.

Table 3. Outer Model Results

Variabel (Construct)	Indicator	Outer Loading	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted	Remark
MSME Credit (X)	X1.1	0,785	0,812	0,877	0,641	Valid & Reliable
	X1.2	0,814				Valid & Reliable
	X1.3	0,790				Valid & Reliable
	X1.4	0,812				Valid & Reliable
Financial Inclusion (M)	M1.1	0,762	0,845	0,896	0,683	Valid & Reliable
	M1.2	0,841				Valid & Reliable
	M1.3	0,853				Valid & Reliable
	M1.4	0,847				Valid & Reliable
Business Sustainability (Y)	Y1.1	0,820	0,861	0,906	0,707	Valid & Reliable
	Y1.2	0,854				Valid & Reliable
	Y1.3	0,833				Valid & Reliable
	Y1.4	0,856				Valid & Reliable

Source: Processed data, 2026.

As presented in Table 3, the results indicate that all indicators achieved outer loading values greater than 0.70. In addition, the Average Variance Extracted (AVE) values for all latent constructs exceeded the recommended threshold of 0.50, confirming satisfactory convergent validity. Furthermore, both Cronbach's Alpha and Composite Reliability (CR) values were above the recommended cut-off value of 0.70, demonstrating adequate internal consistency reliability. Discriminant validity was also established, as the Fornell–Larcker criterion, cross-loadings, and the Heterotrait–Monotrait Ratio (HTMT < 0.90) all met the recommended thresholds. Therefore, the measurement model was considered valid and reliable, indicating its suitability for subsequent structural model assessment

Structural Model Evaluation and Hypothesis Testing

The structural model assessment was performed to evaluate the hypothesized relationships among the latent constructs and to test the proposed hypotheses using the bootstrapping procedure in SmartPLS.

Table 4. Summary of Direct Effect Hypothesis Testing

Hypothesis	Jalur Hubungan (Path)	Path Coefficient	t-Statistik	p-Value	Result

H1	MSME Credit → Business Sustainability	0,314	3,425	0,001	Supported
H2	MSME Credit → Financial Inclusion	0,642	8,114	0,000	Supported
H3	Financial Inclusion → Business Sustainability	0,485	5,210	0,000	Supported
H4	MSME Credit → Financial Inclusion	0,311	4,188	0,000	Supported (Mediation)

Source: Processed data, 2026.

Based on the results presented in Table 4, all proposed hypotheses were supported. The findings indicate that all hypothesized relationships are positive and statistically significant, as evidenced by t-statistics greater than 1.96 and p-values lower than 0.05.

Table 5. Mediation (Indirect Effect)

Structural Path (Path)	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (|O/STDEV|)	P-Values	Remarks
MSME Credit (X) → Financial Inclusion (M) → Business Sustainability (Y)	0,311	0,315	0,074	4,188	0,000	Significant (Mediation)

Source: Primary data processed using SmartPLS, 2026.

As shown in Table 5, the mediation analysis produced an original sample estimate of 0.311, indicating a positive indirect effect of MSME Credit on Business Sustainability through Financial Inclusion. Furthermore, the bootstrapping results yielded a t-statistic of 4.188 (> 1.96) and a p-value of 0.000 (< 0.05), demonstrating that the mediating effect of Financial Inclusion is statistically significant. Accordingly, Hypothesis 4 (H4) is supported.Research Model (PLS-SEM Output)

The path coefficients indicate that:

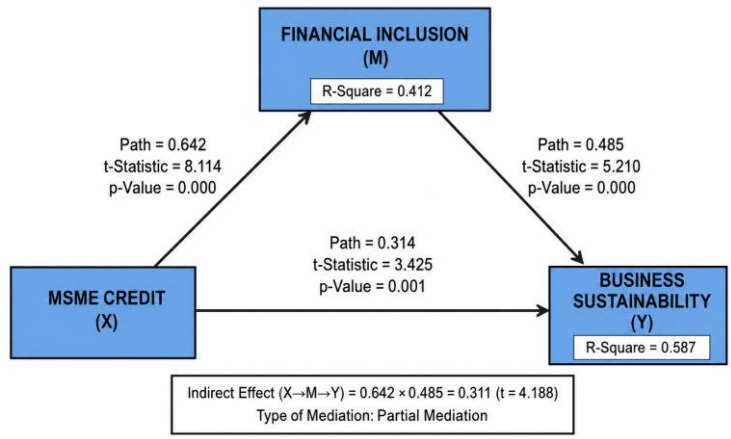


Figure 1. Research Model (PLS-SEM Output)

As illustrated in Figure 1, the values shown along the structural paths represent the path coefficients, t-statistics, and p-values. The indirect effect of MSME Credit on Business Sustainability through Financial Inclusion was estimated at 0.311 (0.642 × 0.485) and was statistically significant ($t = 4.188$, $p < 0.001$). Because both the direct effect of MSME Credit on Business Sustainability ($\beta = 0.314$, $p < 0.05$) and the indirect effect through Financial Inclusion ($\beta = 0.311$, $p < 0.05$) are statistically significant, the mediation is identified as **partial mediation**. This finding indicates that Financial Inclusion partially explains the relationship between MSME Credit and Business Sustainability while the direct effect of MSME Credit remains significant.

Table 6. Coefficient of Determination ***(R-Square)***

Endogenous Variable	*R-Square (R^2)*	*R-Square Adjusted*	Predictive Strength
Financial Inclusion **(M)**	0,412	0,408	Moderate
Business Sustainability **(Y)**	0,587	0,581	Moderat (Mendekati Kuat)

Source: Processed data, 2026.

The R^2 value of 0.412 indicates that MSME Credit explains 41.2% of the variance in Financial Inclusion. Meanwhile, MSME Credit and Financial Inclusion jointly explain 58.7% of the variance in Business Sustainability, categorized as moderate approaching strong (Hair et al., 2019). The remaining 41.3% is explained by variables outside the model.

Discussion

The findings demonstrate that MSME Credit provided by Rural Banks positively and significantly affects MSME Business Sustainability. This confirms that access to formal financing strengthens operational capacity, improves productivity, and enhances business resilience amid market uncertainty. Theoretically, these findings support the Resource-Based View, which considers financial capital a strategic resource for sustainable competitive advantage.

The study also confirms that MSME Credit positively affects Financial Inclusion. Credit serves not only as a source of capital but also as a mechanism for integrating MSMEs into the formal financial system. Interaction with banking institutions enhances financial literacy, the use of banking products, and digital financial services, thereby reducing information asymmetry and expanding participation in the formal financial sector.

Furthermore, Financial Inclusion positively and significantly affects Business Sustainability. MSMEs with better access to formal financial services are better able to manage cash flows, improve transaction efficiency, and strengthen business governance. From a dynamic capabilities perspective, financial inclusion represents an adaptive capability enabling MSMEs to respond to changing business environments and digital transformation.

The primary finding of this study is that Financial Inclusion significantly and partially mediates the relationship between MSME Credit and Business Sustainability. This suggests that credit becomes more effective in promoting business sustainability when accompanied by greater integration of MSMEs into the formal and digital financial ecosystem. Thus, business sustainability depends not only on access to capital but also on entrepreneurs' ability to utilize financial services productively and sustainably

CONCLUSION

Based on the findings, MSME Credit has a positive and significant effect on Business Sustainability in Rural Banks (BPRs). Credit strengthens MSME operations and resilience. MSME Credit also positively affects Financial Inclusion, indicating that formal financing enhances MSMEs' participation in formal financial services. Financial Inclusion likewise positively and significantly influences Business Sustainability. MSMEs with greater access to formal financial services tend to achieve more stable and sustainable business performance. Moreover, mediation analysis reveals that Financial Inclusion partially mediates the relationship between MSME Credit and Business Sustainability. Therefore, business sustainability is influenced not only by access to credit but also by the degree of MSME integration into the formal and digital financial ecosystem.

Implications

Practically, BPRs are encouraged to transform their conventional business models into hybrid-digital ecosystems so that credit distribution can be integrated with digital payment systems (e-payments) and digital financial recording for MSMEs to achieve stronger business sustainability.

Research Limitations

This study has several limitations. It was conducted only at PT BPR BKK Wonosobo, limiting the generalizability of the findings. Additionally, the research model explains only 58.7% of the variance in Business Sustainability, indicating that other factors outside the model also influence the variable. Furthermore, the cross-sectional design cannot capture long-term behavioral changes among MSMEs.

Suggestions for Future Research

Future studies are recommended to expand the geographical scope to improve generalizability. Additional variables such as digital capability, market orientation, or government support may also be incorporated. Longitudinal research designs are recommended to better analyze the long-term effects of credit and financial inclusion on business sustainability

BIBLIOGRAPHY

Barney, J. B. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–120. https://doi.org/10.1177/014920639101700108

Barney, J. B., & Clark, D. N. (2021). Resource-based theory: Creating and sustaining competitive advantage. Oxford University Press.

Global Findex. (2022). Financial inclusion, digital payments, and resilience in the age of COVID-19. World Bank Group.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hasan, M., Uddin, M. S., & Rahman, M. M. (2025). Digital financial inclusion and MSMEs sustainability: Evidence from an emerging economy. Journal of Financial Economic Policy, 17(2), 145–163.

Ministry of Cooperatives and Small and Medium Enterprises. (2024). Report on the development of micro, small, and medium enterprises (MSMEs) in Indonesia. Ministry of Cooperatives and SMEs of the Republic of Indonesia.

Li, X., & Peng, Y. (2024). Financing constraints, financial inclusion, and the sustainable growth of small and medium enterprises. Sustainability, 16(4), 1721. https://doi.org/10.3390/su16041721

Myers, S. C. (2021). The pecking order, financing asymmetric information, and capital structure. Journal of Economic Perspectives, 35(3), 112–134.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics, 13(2), 187–221. https://doi.org/10.1016/0304-405X(84)90023-0

Nguyen, T. H., Nguyen, P. M., & Tran, T. K. (2026). Deepening financial inclusion and business survival post-crisis: A dynamic capabilities perspective. International Journal of Bank Marketing, 44(1), 89–108.

Financial Services Authority. (2024). Roadmap for the development and strengthening of Rural Banks (BPR) 2024–2028: Sustainable finance implementation. OJK RI.

Ozili, P. K. (2023). Financial inclusion research around the world: A review. Forum for Social Economics, 52(2), 117–139. https://doi.org/10.1080/07343469.2022.2049254

Pratama, A., & Setiawan, B. (2022). The effect of bank credit distribution on the performance and sustainability of MSMEs. Indonesian Journal of Accounting and Finance, 19(2), 201–218.

Rahman, M. A., Islam, M. S., & Chowdhury, S. (2023). Rural banking and financial inclusion: How credit accessibility shapes digital financial literacy among smallholders. Journal of Rural Studies, 102, Article 103091. https://doi.org/10.1016/j.jrurstud.2023.103091

Sari, D. P., & Wijaya, K. (2023). Analysis of financial capability as a source of competitive advantage in sustainable MSME businesses. Journal of Entrepreneurship Management, 25(1), 45–56.

Tambunan, T. (2024). MSMEs in Indonesia: Financial constraints, formal credit, and institutional framework post-P2SK law. ISEAS – Yusof Ishak Institute.

Teece, D. J. (2020). Handbook of dynamic capabilities and strategic management. Edward Elgar Publishing.

Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector (P2SK Law). State Gazette of the Republic of Indonesia, 2023 No. 4.

Wang, L., Zhang, H., & Liu, Q. (2025). Credit relaxation, retained earnings, and the long-term survival of micro-enterprises. Small Business Economics, 64(3), 431–452.

World Bank. (2023). Small and Medium Enterprises (SMEs) finance: Improving SME access to finance and funding for development. World Bank Document. https://bprbkkwonosobo.co.id/publikasi