International Journal of Business, Law, and Education
Publisher: IJBLE Scientific Publications Community Inc.
E-ISSN : 2747-1985
IJBLE
Volume 7, Number 2, 2026
https://ijble.com/index.php/journal/index

Managerial and Environmental Factors on the Risk of Loan Default in Micro-Enterprises

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ABSTRACT
In Indonesia, micro-enterprises play a strategic role in the national economy. In fact, the sustainability of micro-enterprises often faces challenges due to the high risk of loan default. This study aims to examine the role of managerial and environmental factors as two key determinants of the risk of loan default in micro-enterprises. A narrative literature review method was used to analyze eight scientific articles published between 2016 and 2025 that were relevant to the research topic. The study found that managerial factors such as financial literacy, business planning, and cash flow management influence the ability of micro-entrepreneurs to repay loans. Meanwhile, environmental factors such as macroeconomic conditions, government policies, and social dynamics can strengthen or weaken the financial stability of micro-enterprises. The implications of this research demonstrate the importance of strengthening managerial capacity and creating a conducive business environment as key strategies to reduce the risk of loan default

Keywords:
managerial factors; environmental factors; loan default risk; micro enterprises; business sustainability

DOI. https://doi.org/10.56442/ijble.v7i2.1492

INTRODUCTION

In Indonesia, micro-enterprises play a strategic role in the national economy because they absorb labor, stimulate the local economy, and serve as a primary source of income for low-income communities. However, the sustainability of micro-enterprises often faces serious challenges in terms of access to financing and the ability to meet credit obligations. Loan defaults in the micro-enterprise segment not only impact the financial health of lending institutions but also hamper economic growth and weaken financial institutions' trust in the micro-enterprise sector. According to Giannopoulos et al. (2022), the default rate in micro-enterprises is influenced by a combination of internal factors within the entrepreneur and external conditions that shape the business environment.

Managerial factors are a key determinant of default risk because they reflect the business owner's ability to manage finances, plan business strategies, and allocate resources efficiently. Research by Worokinasih & Potipiroon (2019) indicates that weaknesses in financial management practices, such as lack of financial records and inability to plan cash flows, are the dominant causes of late debt payments. This is reinforced by the findings of Rohmana et al. (2024), who stated that the experience, education, and managerial skills of micro-entrepreneurs significantly influence the success rate of loan repayment. Meanwhile, a study by Adugna (2022) underscores the importance of credit information management and managerial evaluation in reducing default risk in the small and micro business sector.

In addition to managerial factors, external environmental conditions also play a significant role in determining the ability of micro-enterprises to meet financial obligations. An unstable economic environment, fluctuating raw material prices, and changes in government policy can increase the risk of non-performing loans. According to Zhao and Lin (2023), macroeconomic factors such as inflation, interest rates, and market conditions are important variables in predicting the risk of default on micro-enterprise loans. Adbi's (2024) study also found that the social environment and local community pressures can influence loan repayment behavior, particularly in communities with high levels of social dependency. Conversely, Endris's (2022) research shows that limited access to formal financing institutions and an unfavorable business environment increase the risk of default in developing countries.

Various previous studies have shown that a combination of internal and external factors determines the ability of micro-enterprises to survive and meet their financial obligations. Research by Bob et al. (2018) emphasized the need to strengthen the managerial capacity of micro-enterprises as a key strategy in reducing non-performing loans. Meanwhile, a study by Kiros (2022) showed that social factors such as community support, relationships between business actors, and local norms significantly influence loan repayment success. Therefore, debt repayment failure in micro-enterprises cannot be viewed solely as a financial issue, but rather as a result of a complex interaction between managerial capacity and the dynamics of the business environment.

Based on the above description, this study aims to comprehensively examine the managerial and environmental factors that influence default risk in micro-enterprises through a narrative literature review approach. The study focuses on exploring the latest empirical findings that discuss the relationship between managerial capacity, external conditions, and debt repayment success in micro-enterprises across various developing country contexts. This research is expected to provide theoretical contributions by strengthening understanding of the determinants of default risk and providing practical implications for financial institutions, policymakers, and micro-enterprises in designing more sustainable and adaptive financing strategies to environmental changes.

METHOD

This study uses a narrative literature review approach to identify and analyze managerial and environmental factors that influence the risk of default in micro-enterprises. This approach was chosen because it can synthesize previous research findings narratively to illustrate the relationships between variables based on diverse social, economic, and institutional contexts. This method provides a comprehensive understanding of how internal managerial capabilities and external environmental conditions contribute to the success or failure of debt repayment in the micro-enterprise sector.

The literature search process was carried out systematically through several reputable scientific databases, including Google Scholar, ScienceDirect, Emerald Insight, Taylor & Francis Online, and Semantic Scholar. The search was conducted using a combination of keywords tailored to the research topic, such as: "managerial factors and loan default in micro enterprises"; "environmental factors and credit risk in MSMEs"; "microfinance repayment performance"; "resource-based view and managerial capability in micro business" and "loan default determinants in micro and small enterprises". The inclusion criteria applied in the literature selection include: Articles written in English or Indonesian; published within the last ten years (2015-2025); Included in peer-reviewed scientific journals; have a primary focus on the discussion of default risk, managerial factors, or the micro business environment; and Available in full text.

The exclusion criteria were set for articles that only discussed microcredit descriptively without linking it to managerial capacity or environmental factors, as well as articles that did not empirically explain the determinants of default risk. The initial search yielded 62 relevant articles based on the combination of keywords. After screening based on title, abstract, and relevance to the research focus, eight primary articles met the inclusion criteria for further review. The literature synthesis process was carried out through the following stages:

1. grouping research findings based on managerial and environmental factors;
2. comparing empirical findings to identify similarities and differences between studies;
3. analyzing the relationship between internal and external variables on default rates; and
4. formulating a conceptual framework explaining the relationship between managerial and environmental factors and default risk in micro-enterprises.

Table 1 displays the stages of the selection process until 8 articles were found.

TABLE 1: The Stages of The Selection Process

Stage	Criteria	Total
1	Initial search results match keywords	62
2	Article title does not contain keywords	(38)
3	Article is not full text	(0)
4	Does not specifically discuss research variables	(16)
	Total eligible articles	8

The analysis was conducted with reference to the Resource-Based View (RBV) theoretical framework, which conceptually explains that managerial capability is an internal resource that determines the resilience of micro-enterprises, while external environmental conditions act as contextual variables that influence the effectiveness of these resources. Through a narrative literature review approach, this study is expected to provide a deep and systematic understanding of how the interaction between managerial and environmental factors shapes the risk of default in micro-enterprises, as well as serve as a conceptual basis for the development of sustainable micro-financing policies.

RESULTS AND DISCUSSION

Results

Table 2 displays the identities of the eight main articles reviewed in this study. Article identity is based on the author's name, year of publication, article title, and journal name.

TABLE 2: The Identities of Main Articles

No	Author	Year	Title	Journal Name
1	Jaroslav Belás, Sergej Vojtovič, Aleksandr Ključnikov	2016	*Microenterprises and Significant Risk Factors in Loan Process*	*Economics & sociology*
2	Daudi Kitomo, Robson Likwachala1 & Cornelio Swai	2020	*Financial Management Practices Among Micro Enterprises and their Implications for Loan Repayment: A Case of Solidarity Group Lending of DCB Commercial Bank in Dar es Salaam*	*International Journal of Economics and Finance*
3	Arzi Adbi, Matthew Lee, Jasjit Singh	2021	*Community influence on microfinance loan defaults under crisis conditions: Evidence from Indian demonetization*	*Strategic Management Journal*
4	Yuetong Zhao, Deqin Lin	2023	*Prediction of Micro- and Small-Sized Enterprise Default Risk Based on a Logistic Model: Evidence from a Bank of China*	*Sustainability*
5	John Nkwoma Inekwe	2019	*Lending Risk in MFIs: The Extreme Bounds of Microeconomic and Macroeconomic Factors*	*Journal of Small Business Managemen*
6	Agus Supriyadi, Muhammad Saifi, Maria Goretti Wi Endang NP	2023	*The Effect of Financial Literacy on Loan Repayment Performance of MSMEs: A Literature Review*	*KnE Social Sciences*
7	Muhamad Shafwan Hanif, Anik Sri Widawati	2024	Analisis Determinan Kredit Macet Pada UMKM di Indonesia	Jurnal Riset Entrepreneurship
8	Ratih Hadiantini dan Ayu Nike Retnowati	2022	Analisis Faktor yang Mempengaruhi Risiko Gagal Bayar Debitur pada Lembaga Keuangan Mikro Menggunakan Regresi Logistik dan Ant Colony Optimization (ACO)	Jurnal Publikasi Ilmiah Matematika

Belás et al. (2016) analyzed significant factors influencing credit risk in micro-enterprises. This study found that the age of the company and the entrepreneur's education level significantly influenced the perception of credit risk and the level of understanding of bank loan terms. Meanwhile, the entrepreneur's gender factor did not significantly influence the assessment of default risk. Through a survey, this study showed that more than 60% of micro-enterprises perceived credit risk to increase during the economic crisis, indicating the high sensitivity of small businesses to macroeconomic changes. These results align with previous literature that confirms that small companies are more vulnerable to liquidity risk and limited access to credit.

The main findings of Belás et al.'s (2016) study indicate that the majority of micro-entrepreneurs do not fully understand the credit conditions set by banks, and only around 25% of respondents stated they fully understood the loan requirements. This lack of understanding indicates an information asymmetry between financial institutions and micro-entrepreneurs, which ultimately increases the risk of default. This situation is exacerbated by the perception that credit granting procedures are not transparent, which was acknowledged by more than half of respondents. This study emphasizes the importance of managerial and environmental factors in influencing the risk of default in micro-entrepreneurs.

Based on the Resource-Based View (RBV) theory, managerial skills and financial knowledge of entrepreneurs are crucial internal resources for maintaining debt repayment continuity. Meanwhile, from an external perspective, the transparency of financial institutions and macroeconomic stability serve as contexts that determine the extent to which these internal resources can be utilized effectively. The results of Belás et al.'s (2016) study provide empirical evidence that the risk of default is influenced not only by financial capacity but also by a combination of internal (managerial capacity) and external (transparency of the credit system and economic conditions) factors. The author needs to report the results in sufficient detail so that the reader can see which statistical analysis was conducted and why, and later to justify their conclusions.

Research by Kitomo et al. (2020) shows that the two most dominant financial management practices are cash holding (73.8%) and short-term investment (38.8%), while other practices such as working capital management, capital budgeting, fixed asset management, and payback period are relatively rarely implemented. Regression analysis revealed that 70% of the variation in loan repayment capacity is influenced by cash holding and short-term investment variables, with a significance value of $p = 0.000$ ($R^2 = 0.707$). This means that cash management practices play a substantial role in loan repayment capacity, while short-term investments actually reduce short-term repayment capacity by diverting business liquidity. The study found that most micro-entrepreneurs keep their money in cash at home or through digital wallets such as M-Pesa and TigoPesa, rather than in bank accounts. This condition reflects low levels of financial literacy and low trust in formal banking institutions. As a result, micro-entrepreneurs lack understanding of cash budgeting techniques, accounting analysis, and capital planning, which play a crucial role in maintaining cash flow and the ability to repay loans on time. These results support the Resource-Based View (RBV) theory, where managerial skills and financial literacy are considered strategic internal resources that determine the resilience of micro-enterprises to external pressures. Entrepreneurs with the ability to manage liquidity well are able to maintain business sustainability and meet their financial obligations. On the other hand, limited accounting and financial planning skills lead to cash misallocation and failure to meet payment schedules. This study also identified three main obstacles to loan repayment: business losses (82.6%), late payments from customers (67.5%), and difficulty managing the attendance of loan group members (72.6%). These factors strengthen the argument that the risk of default in micro-enterprises is multidimensional, encompassing both internal (managerial and financial literacy) and external (business environment and group social structure) aspects.

Adbi & Lee (2024) found that community social and environmental factors had a significant influence on the risk of microloan default in India during the demonetization crisis period of 2016. This study used data on more than two million micro borrowers and showed that social interconnectedness within loan groups contributed to collective default patterns. The regression results show that each increase in the number of group members who fail to repay a loan increases the likelihood that other members in the group also experience default. This shows that high social solidarity between borrowers can be a double-edged sword, because on the one hand it strengthens payment discipline, but on the other hand it accelerates the spread of default behavior when economic pressure increases.

Adbi & Lee's (2024) findings show that social dynamics and the external environment play a major role in shaping the financial behavior of micro business actors, especially when a group lending system is implemented. Unstable macroeconomic conditions resulting from the liquidity crisis worsen the ability of business actors to fulfill payment obligations, and in this situation, community influence actually strengthens the domino effect of default among borrowers. The results of this research also show that the default rate increased up to 20 times compared to the pre-crisis period, indicating the high sensitivity of micro businesses to changes in the economic environment.

Research conducted by Zhao & Lin (2023) found that financial and non-financial factors simultaneously have a significant effect on the risk of default in micro and small businesses in China. This research uses the logistic regression method with a sample of 2,492 micro and small businesses that obtained loans from one of the commercial banks in Gansu Province during the 2017-2019 period. The regression results show that financial ratios such as the quick ratio, total asset turnover, return on net assets, sales growth rate, and total asset growth rate have a significant negative influence on the possibility of default, while the loan term and loan amount have a positive influence on increasing the risk of default. These findings indicate that the better the liquidity capabilities, asset efficiency and profitability of a business, the less likely the business is to experience default.

Zhao & Lin (2023) also found that non-financial indicators such as business ownership form, company size, loan acquisition method, and the owner's education level play a significant role in determining credit risk. Family-managed microbusinesses tend to have a lower risk of default than non-family businesses due to the emotional bond and shared responsibility for business sustainability. Meanwhile, loans obtained through collateral (mortgage) and pledges have been shown to reduce the risk of default, while unsecured loans or loans with long tenors increase the probability of default. The implications of this study emphasize that credit risk analysis in microbusinesses cannot rely solely on financial ratios but must also consider managerial characteristics and the business environment. Banks need to conduct a comprehensive evaluation of borrowers' managerial capabilities, collateral value, and industrial sector conditions to minimize the potential for non-performing loans. Based on this study, it can be concluded that managerial factors and the external environment play a central role in determining the risk of default in microbusinesses, and the logistic model used has proven effective as an early prediction tool for detecting potential credit risk in microfinance institutions. Research conducted by Inekwe (2019) found that microeconomic and macroeconomic factors jointly influence default risk in microfinance institutions (MFIs) in 106 countries. Using the Extreme Bounds Analysis (EBA) method on 1,246 MFIs, the results showed that at the micro level, regulation, cost per loan, loan amount per borrower, and number of loan officers were significantly associated with default risk. Meanwhile, at the macro level, the time required to start a business and the quality of human resources were shown to be key determinants in reducing default rates. These findings suggest that increasing borrowing costs tend to increase default risk due to higher interest burdens, while increasing educational capacity and entrepreneurial skills can strengthen financial management capabilities and repayment commitment. The coefficient of determination of the model indicates that the combination of micro and macro variables provides significant explanatory power for variations in credit risk across countries. The implications of this study confirm that the success of microfinance institutions in reducing default risk is highly dependent on regulatory effectiveness, operational cost efficiency, and improving the quality of human resources as key managerial factors.

Supriyadi et al. (2024) found that financial literacy significantly influences loan repayment performance and business performance in micro, small, and medium enterprises (MSMEs). This study reviewed various previous studies and concluded that financial knowledge, attitudes, and financial behavior of business managers are the main factors determining their ability to manage business credit and maintain smooth loan payments. The results of the study indicate that high financial literacy helps MSMEs understand loan costs, manage cash flow, and use working capital efficiently, thereby reducing the risk of default. Furthermore, business performance was also identified as an important mediating variable bridging the relationship between financial literacy and loan repayment ability. These findings indicate that improving financial literacy not only directly impacts repayment discipline but also indirectly through increased profitability and business growth. The implications of this study emphasize the need to integrate financial literacy development into microfinance programs so that business actors have adequate managerial capacity to manage loans and maintain business sustainability. Based on the results of this study, it can be concluded that financial literacy is a dominant factor in determining the success of micro-enterprise loan repayments and serves as the basis for empowerment strategies and strengthening the financial capacity of MSMEs in developing countries.

Research conducted by Hanif et al. (2024) found that credit growth, interest rates, working capital loans, and MSME gross domestic product (GDP) significantly influence the level of non-performing loans in micro, small, and medium enterprises in Indonesia. Using secondary data from the Financial Services Authority (OJK), Bank Indonesia, and the Central Statistics Agency (BPS) for the period 2011-2022, this study applied multiple linear regression analysis using EViews 10 software. The results showed that credit growth and interest rates have a negative relationship with the level of non-performing loans, meaning that increases in both variables tend to decrease the non-performing loan ratio. Conversely, working capital loans and MSME GDP have a positive effect on the increase in non-performing loans, indicating that unplanned expansion of working capital loans and excessively rapid economic growth can increase the risk of default. The coefficient of determination (R^2) of 68.2% indicates that the four variables significantly explain the variation in non-performing loans, while the remaining variables are influenced by other factors such as macroeconomic conditions and banking policies. The implications of this study emphasize that managerial management in credit distribution and monitoring of working capital utilization are key to reducing the risk of default. Based on these results, it can be concluded that the stability of the MSME financing system is strongly influenced by a combination of managerial factors and the macroeconomic environment. Therefore, financial institutions need to apply the principle of prudence and strengthen risk analysis before disbursing financing to the micro sector.

Hadiantini & Nike (2022) found that age, number of dependents, collateral value, loan amount applied for, and loan repayment period significantly influence the risk of default in microfinance institutions in Bandung. This study used logistic regression with the Ant Colony Optimization (ACO) algorithm to analyze historical debtor data consisting of 100 consumer loan samples. The analysis showed that the higher the debtor's age and collateral value, the lower the probability of default. Meanwhile, increasing the number of dependents, loan size, and loan term increased the probability of default. The coefficient of determination (R^2) of 93.5% indicates that these five variables explain almost all of the variation in non-performing loan risk. This finding confirms that managerial factors and individual characteristics of debtors play a significant role in determining loan repayment capacity in microfinance institutions. The implications of this research emphasize the importance of assessing the creditworthiness of prospective borrowers, considering personal and social aspects, not just financial data alone.

Discussion

The Resource-Based View (RBV) theory, introduced by Barney (2001), emphasizes that an organization's strengths and resilience are determined by its internal capabilities in managing valuable, rare, inimitable, and non-substitutable (VRIN) resources. In the context of micro-enterprises, internal resources are not limited to physical capital or financial assets, but rather lie in managerial capacity, knowledge, entrepreneurial skills, and the business owner's adaptability to the dynamics of the business environment. According to Freeman et al. (2021), companies that optimize their internal resources will have greater resilience to external risks, including the risk of credit default. Therefore, the RBV theory provides the rationale that successful debt repayment in micro-enterprises depends not only on capital size but also on the ability of managers or business owners to effectively manage, utilize, and develop these internal resources.

In a managerial context, the RBV theory explains that the competency of micro-enterprise managers is a strategic resource that is difficult for competitors to imitate. The ability to plan cash flow, maintain regular financial records, manage inventory, and assess spending priorities are internal capabilities that differentiate entrepreneurs who maintain liquidity from those at risk of default. Putri et al. (2020) found that micro-enterprises' failure to repay loans is generally caused by weak financial planning and irregular business administration. Similar findings by Husnah et al. (2025) indicate that education level, experience, and managerial skills significantly influence successful loan repayment. This confirms that, within the RBV framework, managerial factors act as intellectual assets that provide a competitive advantage for the sustainability of micro-enterprises.

RBV theory also emphasizes the importance of dynamic capabilities, namely an organization's capacity to adapt, integrate, and reconfigure internal resources in response to environmental changes (Lukovszki et al., 2020). Micro-enterprises are reflected in the ability of business owners to adjust their business strategies to changing economic conditions, government policies, or market fluctuations. Entrepreneurs with adaptive capabilities tend to be able to maintain financial performance and meet their credit obligations, even when facing significant external pressures. A study by Zhao and Lin (2023) confirmed that businesses with the ability to adapt to changes in the economic environment have a lower risk of default than those who are passive and dependent on specific market conditions.

Based on this description, the Resource-Based View theory provides a relevant conceptual framework for explaining the relationship between managerial factors and default risk in micro-enterprises. Internal resources, in the form of knowledge, experience, and managerial skills, are the primary determinants of a micro-enterprise's ability to maintain cash flow, meet credit obligations, and adapt to external environmental pressures. Weaknesses in managing internal resources will increase a business's vulnerability to economic shocks and ultimately increase the likelihood of default.

A review of various articles indicates that managerial and environmental factors play a central role in determining the risk of default in microenterprises. Managerial skills such as financial literacy, cash flow management, and sound business planning have been shown to contribute to maintaining smooth loan repayments and reducing the risk of non-performing loans. Meanwhile, environmental factors such as macroeconomic conditions, government policies, and social and community dynamics also influence the stability of micro-enterprises in meeting their financial obligations. Empirical studies reviewed indicate that the combination of these two factors creates a synergistic effect on micro-enterprise resilience. In a supportive environment, managerial skills can function optimally to maintain payment performance, while in an unstable economic situation, managerial weaknesses can increase the likelihood of default. Thus, the interaction between internal and external factors is key to understanding the risk of default in micro-enterprises. This finding aligns with the Resource-Based View (RBV) theory, which emphasizes the importance of strengthening managerial capacity as a strategic resource, as well as the need for a conducive business environment so that this potential can be optimally utilized to create financial sustainability.

CONCLUSION

Based on the results of a review of various studies, it can be concluded that managerial and environmental factors are the main determinants in reducing the risk of default in micro-enterprises. Managerial factors such as financial management skills, financial literacy, and business planning play a direct role in maintaining payment discipline, while environmental factors such as economic conditions, government policies, and social support indirectly influence business stability. This narrative review confirms that the success of micro-enterprises in meeting financial obligations depends heavily on the synergy between internal strengths and supportive external conditions. Strengthening managerial capacity and creating a conducive business environment are key to maintaining business sustainability and reducing the risk of default.

The results of this study cannot be separated from the context of the internal and external support environments of the micro-enterprises studied previously.

Furthermore, default risk is influenced by local norms and social dynamics of specific communities (e.g., India or Ethiopia), so the results cannot be generalized, as the articles used for the review were also research limited to developing countries with similar characteristics.

Future research should further examine the effectiveness of integrating financial literacy development directly into microfinance programs. Furthermore, future research could delve deeper into the personal and social aspects of micro-entrepreneurs, so that they do not rely solely on financial data to assess creditworthiness.

Declarations

Acknowledgements: The author thanks academic reviewers and colleagues who may provide comments during the journal submission process.
Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.
Competing interests: The authors declare no competing interests.
Data availability: The dataset may be requested from the corresponding author subject to institutional permission and confidentiality requirements.

Reference

Adbi, A., & Lee, M (2024). *Community influence on microfinance loan defaults under crisis conditions: Evidence from Indian demonetization*. *October 2021*, 535–563. https://doi.org/10.1002/smj.3558

Adugna, M. (2022). Factor Affecting Loan Repayment Performance of Micro and Small Scale Enterprises in Western Ethiopia: The Case of Oromia Credit and Saving Share Company (Ocssco) Shambu Branch. *International Journal of Economics & Management Sciences*, *11*(1), 1–10. https://doi.org/10.37421/2162-6359.2022.11.616

Barney, J. B (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*. https://doi.org/10.1016/S0149-2063(01)00115-5

Belás, J., Vojtovič, S., & Ključnikov, A (2016). *Microenterprises and Significant Risk Factors in Loan Process*. *9*(1), 43–59. https://doi.org/10.14254/2071-789X.2016/9-1/3

Bob, S., Juma, B., Isaac, N. N., & Zainabu, T (2018). Borrowers characteristics, credit terms and loan repayment performance among clients of microfinance institutions (MFIs): Evidence from rural Uganda. *Journal of Economics and International Finance*. https://doi.org/10.5897/jeif2017.0848

Endris, E (2022). Loan repayment performance of micro and small-scale enterprise: evidence from North Wollo Zone, Ethiopia. *Heliyon*, *8*(12), e12085. https://doi.org/10.1016/j.heliyon.2022.e12085

Freeman, R. E., Dmytriyev, S. D., & Phillips, R. A (2021). Stakeholder Theory and the Resource-Based View of the Firm. *Journal of Management*. https://doi.org/10.1177/0149206321993576

Giannopoulos, V., Aggelopoulos, E., & Georgopoulos, A (2022). Borrower characteristics and loan performance: evidence from micro and small Greek firms. *International Journal of Banking, Accounting and Finance*. https://doi.org/10.1504/IJBAAF.2022.121547

Hadiantini, R., & Nike, A (2022). *Analisis Faktor yang Mempengaruhi Risiko Gagal Bayar Debitur pada Lembaga Keuangan Mikro Menggunakan Regresi Logistik dan Ant Colony Optimization (ACO)*. *4*.

Hanif, M. S., Widawati, A. S., & Ekonomi, P (2024). *Analisis determinan kredit macet pada umkm di indonesia*. *7*(1), 31–45. https://doi.org/10.30587/jre.v7i1.7036

Husnah, H., Nurdin, D., Kasim, M. Y., Nofal, M., & Munawarah, M (2025). Analysis of the Financial Performance of Micro Enterprises "Lalampa Toboli" Based on Resource-Based View (RBV). *Montenegrin Journal of Economics*, *21*(1), 205–219. https://doi.org/10.14254/1800-5845/2024.21-1.16

Inekwe, J. N (2019). *Lending Risk in MFIs : The Extreme Bounds of Microeconomic and Macroeconomic Factors Lending Risk in MFIs : The Extreme Bounds of Microeconomic and Macroeconomic Factors*. *2778*. https://doi.org/10.1111/jsbm.12401

Kiros, Y. W (2022). Determinants of Loan Repayment Performance of Micro and Small Enterprises: Empirical Evidence from Somali Regional State, Ethiopia. *The Journal of Entrepreneurial Finance*, *24*(2). https://doi.org/10.57229/2373-1761.1411

Kitomo, D., Likwachala, R., & Swai, C (2020). Financial Management Practices Among Micro Enterprises and their Implications for Loan Repayment: A Case of Solidarity Group Lending of DCB Commercial Bank in Dar es Salaam. *International Journal of Economics and Finance*, *12*(12), 122. https://doi.org/10.5539/ijef.v12n12p122

Lukovszki, L., Rideg, A., & Sipos, N (2020). Resource-based view of innovation activity in SMEs: an empirical analysis based on the global competitiveness project. *Competitiveness Review*, *31*(3), 513–541. https://doi.org/10.1108/CR-01-2020-0018

Putri, Y. E., Utomo, C., Indryani, R., Rahmawati, C. B. N. F., & Rohman, M. A (2020). Pelatihan Manajemen Keuangan UMKM Konstruksi di Surabaya untuk Keberlanjutan Kinerja Usaha. *Seminar Nasional Penelitian Dan Pengabdian Kepada Masyarakat*, *2*(c).

Rohmana, L., Wulandari, P., Indonesia, U., & Barat, J (2024). *The Factors Of Determining Repayment Performance In Individual Loan For Small*. *4*(07), 5726–5733.

Supriyadi, A., Saifi, M., Goretti, M., & Endang, W (2024). *The Effect of Financial Literacy on Loan Repayment Performance of MSMEs : A Literature Review*. *2024*, 228–246. https://doi.org/10.18502/kss.v9i11.15779

Worokinasih, S., & Potipiroon, W (2019). Microfinance repayment performance of SMEs in Indonesia: Examining the roles of social capital and loan credit terms. *Journal of Behavioral Science*, *14*(1), 28–45.

Zhao, Y., & Lin, D (2023). Prediction of Micro- and Small-Sized Enterprise Default Risk Based on a Logistic Model: Evidence from a Bank of China. *Sustainability (Switzerland)*. https://doi.org/10.3390/su15054097