

Research Article

Bridging the Financing Gap: Comparative Effects of Fintech Lending and Bank Credit on MSME Financial Performance

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Abstract. This study explores the effects of fintech lending and bank credit on the financial performance of Micro, Small, and Medium Enterprises (MSMEs) in Medan City, Indonesia. The fast digital revolution in the financial sector has positioned fintech lending as an alternate financing source alongside conventional bank credit, which has historically functioned as the major formal funding vehicle for MSMEs. Despite the rising distribution of both financing schemes, their contribution to sustainable and equitably distributed financial performance among MSMEs remains ambiguous, highlighting the necessity for empirical inquiry. This study employs a quantitative explanatory method employing purposive sampling, targeting MSME owners who have received bank credit and/or fintech lending services. The sample size was determined using the Lemeshow formula for an unknown population, resulting in 100 respondents. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software, combining measurement model evaluation, structural model assessment, and hypothesis testing through bootstrapping processes. This study contributes to the financial inclusion and MSME financing literature by providing comparative empirical evidence on the effectiveness of digital and conventional finance in increasing MSME financial performance. The findings are likely to offer practical insights for MSME actors, financial institutions, and policymakers in designing more flexible, inclusive, and sustainable financing strategies.

Keywords: Bank Credit; Financial INC; Financial Performance; Intech Lending; MSMEs.

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1. Introduction

Micro, Small and Medium Enterprises (MSMEs) have a critical function as the basic basis of the national economy (Khairumi et al., 2025). This sector provides more than 60% to the national Gross Domestic Product (GDP) and absorbs more than 97% of the national labor based on data from the Ministry of Cooperatives and SMEs of the Republic of Indonesia. The paper demonstrates that sustainability and expansion of MSMEs are crucial variables in sustaining economic stability, expanding income distribution and encouraging inclusive development (Khairani et al., 2025). However, despite their crucial role, MSMEs still face various structural impediments including lack of access to institutional sources of financing that can promote business expansion and boost competitiveness (Hou et al., 2024).

One of the basic problems is the constraint of financing, which directly affects the operational capacity and financial performance of MSMEs (Khairani, Munthe, et al., 2026). In Pecking Order Theory perspective, business players prefer to use internal finance sources before external financing. However, MSMEs are usually capital poor, which makes dependency on external sources of funding inevitable (Dewi et al., 2025). The Resource-Based View (RBV), on the other hand, suggests that access to external financial resources is a strategic asset that may enhance operational efficiency, strengthen capital structure and develop durable competitive advantage (Harianto, Azman, et al., 2025).

The digital transformation of the financial system impacts the financing pattern of MSMEs with the presence of fintech lending as an alternative financing outside of

conventional bank credit (Amelia et al., 2025). Fintech lending provides faster access to capital, more flexibility in processes and a digital-based system, which is more adaptable to the needs of small enterprises (Pakpahan et al., 2024). This service is called Information Technology-Based Joint Funding Service (LPBBTI) in Indonesia under the supervision of Financial Services Authority (Khairani, Djohan, et al., 2026). Bank credit, on the other hand, continues to be the dominant source of formal financing, with a more steady level of regulation, relatively lower interest rates, but with more complex procedures and tougher collateral requirements (Sindy et al., 2026).

These two sources of finance are growing and this is a very important trend. Data from the Financial Services Authority (OJK), Bank Indonesia and the Ministry of Cooperatives and SMEs show that the value of fintech lending grew from IDR 0.03 trillion in 2015 to IDR 719.34 trillion in 2024, while bank credit for MSMEs grew from IDR 795.9 trillion to IDR 1,382.6 trillion in the same timeframe. The ratio of fintech financing to bank credit also jumped from 0.004% to 52.028%. However, the increase has not been entirely matched by a stable and continuous increase in the number of MSMEs, revealing a mismatch between increasing access to financing and its effectiveness in boosting real business success.

Empirically, earlier work has found mixed results. Some studies have indicated that fintech lending can accelerate access to capital and boost MSME productivity. However, some studies have demonstrated that the high cost of digital finance might affect business profitability (Anggara et al., 2026). Similarly, bank financing has been found to have a good effect on business growth but it is sometimes difficult for small-scale MSMEs to acquire (Harianto, Febrina, et al., 2025). This circumstance demonstrates an empirical gap, which is the inconsistency of the research results about the impact of these two types of funding on MSME financial performance (Nasib et al., 2023).

There is also a huge research void in the literature. The majority of earlier studies evaluated fintech lending and bank credit individually, without comparing them in a single empirical model. However, understanding the extent to which digital financing and traditional financing differ in efficacy in the context of digital financial revolution is critical for enabling more flexible MSME financing strategies. Theoretical limitation of the studies of the integration of Pecking Order Theory and Resource-Based View in explaining MSME financing preferences also exists, especially in the emerging markets such as Indonesia.

Based on these phenomena and gaps, the novelty of this study is the simultaneous and comparative analysis of the effect of fintech lending and bank credit on the financial performance of MSMEs in Medan City. This research is different from prior studies that only analyze partial links, but also finds sources of financing that are more helpful in boosting MSME financial performance. This research is anticipated to contribute to the academic literature on digital finance, financial inclusion and SME funding. Practically, the research findings are expected to provide a basis for discussion for MSMEs, financial institutions and regulators to construct a more inclusive, efficient and sustainable finance ecosystem.

2. Literature Review

MSME Financial Performance

Financial performance is the measure of how well a corporation uses its financial resources to generate profits, maintain liquidity, and ensure long-term sustainability (Ginting et al., 2026). Financial performance of MSMEs is often linked to revenue growth, profitability, asset growth and operational efficiency (Chanoago et al., 2025). Recent studies have revealed that financial performance is an important indication of firm sustainability as it reflects the effectiveness of managerial decisions, resource allocation, and market adaption (Fajaryati et al., 2026). For MSMEs, it has been more vital to get external finance to determine financial success while in a market environment with high level of competition and uncertainty (Ayuni et al., 2026). Therefore, financial success is the dependent variable for the effectiveness of financing schemes (H et al., 2026).

Fintech Lending

Fintech lending is an innovation of financial services based on digital technology that provides a faster, easier, and more flexible financing mechanism for Micro, Small, and Medium Enterprises (MSMEs). Therefore, it has become a strategic option in overcoming the limitations of conventional financing access that has been hindered by collateral

requirements, complicated administrative procedures, and relatively long disbursement times (Yan, 2025). From an operational perspective, the presence of fintech lending enables MSMEs to obtain additional working capital more efficiently to support production, distribution, marketing, and business expansion efforts, thus improving cash flow stability and adaptability to market dynamics (Rahman, 2024). Importantly, the effectiveness of fintech lending depends not only in the timeliness of access to capital but also in the ability to generate transaction cost efficiencies and increase financial inclusion for business actors that were previously less accessible to formal financial institutions (Ming et al., 2025). This is in accordance with the theory of financial inclusion which suggests that access to inclusive financial services is a basic factor in driving business growth, increasing productivity, and improving the sustainability of MSME financial performance in the face of increasingly dynamic business competition (Junarsin et al., 2023).

Bank Credit

Bank credit is the most established external financing source and has a solid regulatory structure for Micro, Small, and Medium Enterprises (MSMEs) in promoting business sustainability and development (Sheng, 2021). In general, bank credit is more competitive in terms of interest rates, longer payment tenors and more stable financing schemes. Hence, bank credit provides long-term funding certainty (Gourène et al., 2025). Previous research have demonstrated that access to bank credit positively affects the growth, profitability and investment capability of MSMEs (Muzindutsi, 2022). Adequate capital support helps MSMEs to improve their production capacity, market share, and operational efficiency, which in turn influences their financial success (Huang et al., 2025). However, there are still several impediments to access to bank loans, such as rigorous collateral requirements, difficult credit worthiness screening processes and administrative procedures that need relatively significant time (D'Apollito et al., 2024). This condition illustrates that although bank credit has a strategic role as a formal financing vehicle, its effectiveness is highly influenced by ease of access, the quality of risk management, and the ability of MSMEs to achieve the financing norms imposed by banking institutions (Alvi et al., 2024).

3. Method

This study used a quantitative explanatory technique which is to analyze the causal relationship between fintech lending, bank credit, and the financial performance of MSMEs in Medan. The explanatory design was selected to explore the extent of the influence of external sources of financing on the financial results of business. The research was conducted on January to June 2026. This activity includes the preparation of the instrument, pilot testing, data gathering, data processing and data analysis. The research location is Medan and the reason for choosing the place of this research is because Medan is a crucial location as one of the main economic centers in Sumatra with a high concentration of MSMEs and the increasing use of digital and traditional financing.

The population is all MSMEs in Medan that have gotten fintech loans and/or bank credit. The exact number of such businesses was not specifically established, so this study used non-probability purposive sampling technique. The selection of the respondents is based on the criteria of the respondent, namely, operating in Medan, at least 1 (one) year in business, and have experience in using formal finance. Sample size was calculated by using the Lemeshow formula with a 95% confidence level and 10% margin of error with a minimum sample size of 96 respondents which was rounded up to 100 respondents for the improved dependability. Primary data were acquired using a standardized questionnaire with a five-point Likert scale. Secondary data were gathered from the Financial Services Authority, Bank Indonesia, government reports, and related literature.

The data analysis was done by using smart PLS software through Partial Least Square Structural Equation Modeling (PLS-SEM) approach. The reason for choosing this method is that it is suitable for predictive analysis, can be used with relatively small sample sizes and does not require rigorous data normality assumptions. The analytical procedure was descriptive statistics, evaluation of the outer model and evaluation of the inner model. Convergent validity was evaluated using factor loadings (≥ 0.70) and Average Variance Extracted (AVE ≥ 0.50) and reliability through Cronbach's Alpha and Composite Reliability (≥ 0.70). Path coefficients, R^2 and effect size (f^2) were used to examine the structural linkages.

Hypothesis testing was performed by bootstrapping with significance level of t-statistic >1.96 and p-value <0.05.

4. Results and Discussion

Outer Model

Convergent Validity Test

Table 1. Outer Loading Test.

Indicator	Fintech Lending	Financial Performance	Bank credit	Information
FL1	0.740			Valid
FL2	0.745			Valid
FL3	0.702			Valid
FL4	0.814			Valid
FL5	0.834			Valid
FL6	0.771			Valid
KK1		0.72		Valid
KK2		0.816		Valid
KK3		0.789		Valid
KK4		0.821		Valid
KK5		0.780		Valid
KK6		0.808		Valid
KK7		0.870		Valid
KP1			0.786	Valid
KP2			0.827	Valid
KP3			0.775	Valid
KP4			0.793	Valid
KP5			0.771	Valid
KP6			0.737	Valid
KP7			0.760	Valid

The data analysis was done by using smart PLS software through Partial Least Square Structural Equation Modeling (PLS-SEM) approach. The reason for choosing this method is that it is suitable for predictive analysis, can be used with relatively small sample sizes and does not require rigorous data normality assumptions. The analytical procedure was descriptive statistics, evaluation of the outer model and evaluation of the inner model. Convergent validity was evaluated using factor loadings (≥ 0.70) and Average Variance Extracted (AVE ≥ 0.50) and reliability through Cronbach's Alpha and Composite Reliability (≥ 0.70). Path coefficients, R^2 and effect size (f^2) were used to examine the structural linkages. Hypothesis testing was performed by bootstrapping with significance level of t-statistic >1.96 and p-value <0.05.

Table 2. Construct Validity Test.

Variable	Average Variance Extracted (AVE)
Fintech Lending	0.591
Financial Performance	0.643
Bank Credit	0.607

Based on the data reported in Table 2, the Average Variance Extracted (AVE) values for the constructs of Fintech Lending, MSME Financial Performance, and Bank Credit are 0.591, 0.643, and 0.607, respectively. All AVE values exceed the suggested threshold of 0.50, suggesting satisfactory convergent validity. These findings reveal that each construct is capable of explaining more than 50% of the variance in its respective indicators, confirming that the latent variables appropriately capture the conceptual dimensions being examined. Specifically, the Fintech Lending construct explains 59.1% of indicator variance, while MSME Financial Performance and Bank Credit explain 64.3% and 60.7%, respectively. Among the three constructs, MSME Financial Performance displays the best explanatory

power, indicating stronger construct representation. Overall, these results confirm that all constructs meet the validity requirements and are eligible for additional reliability testing and structural model evaluation.

Discriminant Validity Test

Table 3. Fornell-Larcker Criterion.

Variable	Fintech Lending	Financial Performance	Bank Credit
Fintech Lending	0.769		
Financial Performance	0.798	0.802	
Bank Credit	0.869	0.817	0.779

Based on the results shown in Table 3, the square root of the Average Variance Extracted ($\sqrt{\text{AVE}}$) for Fintech Lending, MSME Financial Performance, and Bank Credit is 0.769, 0.802, and 0.779 accordingly. The discriminant validity was assessed by the Fornell-Larcker criterion which requires that the $\sqrt{\text{AVE}}$ value of each construct be higher than the correlations of the construct with other constructs. However, the results show that a few inter-construct correlations are higher than the corresponding $\sqrt{\text{AVE}}$ values. For example, the Fintech Lending construct has the correlation of 0.798 with Financial Performance and 0.869 with Bank Credit, which are higher than the $\sqrt{\text{AVE}}$ value of 0.769. The Bank Credit construct also reveals correlations higher than its $\sqrt{\text{AVE}}$ value. These results reveal that the constructs are highly associated and not sufficiently separate from each other, which indicates that discriminant validity has not been adequately demonstrated using the Fornell-Larcker criterion. Thus, the further evaluation using the HTMT ratio is required to provide further evidence to the discriminant validity of the measurement model.

Inner Model

R-Square

Table 4. R-Square.

Variable	R-Square Adjusted
Fintech Lending and Bank Credit → MSME Financial Performance	0.693

The results in table 4 show that the corrected R-Square value for the MSME Financial Performance construct is 0.693. The conclusion shows that Fintech Lending and Bank Credit together explain 69.3% of the variance of MSME Financial Performance, while the remaining 30.7% is influenced by other variables outside the scope of this study. Hair et al. (2022) classed the R-Square values of 0.75, 0.50, and 0.25 as substantial, moderate, and weak, respectively. Therefore, the R-Square value of 0.693 obtained shows that the structural model has a moderate to strong explanatory power and has shown excellent predictive performance. The results show that the fintech lending and bank credit have substantial effect on the financial performance of MSMEs. The suggested model can explain the financial performance of MSMEs in a good percentage.

Table 5. Effect Size (f^2).

Variable	MSME Financial Performance
Fintech Lending	0.108
Bank Credit	0.205

Based on the results in Table 5, the effect size (f^2) of Fintech Lending on MSME Financial Performance is 0.108 and the effect size of Bank Credit is 0.205. Hair et al. (2022) reported that tiny, medium, and large effect sizes are represented by f^2 values of 0.02, 0.15, and 0.35, respectively. The results demonstrate that Fintech Lending has a small effect on MSME Financial Performance. This means that Fintech Lending does affect financial performance, but the relative effect in the structural model is still small. Meanwhile, bank credit has a medium effect size, which means a bigger and more important effect on the improvement of MSME Financial Performance. The comparatively larger f^2 value of Bank Credit demonstrates that conventional financing has a more important effect than fintech lending in explaining the differences of MSME financial outcomes and emphasizes its greater strategic importance in promoting business sustainability and financial success.

Table 6. Path Coefficient Results.

Relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (O/STDEV)	P-Values
Fintech Lending -> Financial Performance	0.363	0.371	0.123	2.96	0.003
Bank Credit -> Financial Performance	0.501	0.497	0.12	4.179	0

As shown in the direct effect results in Table 6, both Fintech Lending and Bank Credit have a favorable and significant effect on MSME Financial Performance. The path coefficient of Fintech Lending is 0.363 with t-statistic of 2.960 and p-value of 0.003, which implies that the link is statistically significant at 5% level. This result demonstrates that the expansion of fintech lending will result in higher financial performance as a result of faster access to funds, easier application procedures, and more flexible financing mechanisms. Its effect size ($f^2 = 0.108$), however, shows a rather tiny contribution. Meanwhile, Bank Credit has a higher path coefficient of 0.501 with t-statistic of 4.179 and p-value of 0.000 which confirms a positive and highly significant link. Its effect size is medium ($f^2 = 0.205$) and shows a stronger contribution than fintech loans. The results indicate that both sources of funding are crucial, but bank credit is still the more dominating factor in determining the financial performance of MSMEs, particularly in terms of supporting long-term business growth, investment capacity and financial sustainability.

Discussion

The Impact of Fintech Lending on MSME Financial Performance

The findings of empirical testing demonstrate that Fintech Lending has a positive and substantial effect on the financial performance of MSMEs, with a path coefficient value of 0.363, a t-statistic value of 2.960, and a p-value of 0.003. Since the value of the t-statistic is more than 1.96 and the p-value is less than 0.05. The findings of this study are consistent with the research (Ahmad et al., 2025) which also reveals that fintech may improve the efficiency of financing and speed up the growth of businesses. Fintech is the key driver to increase financial inclusion for small business actors (Purnamasari & Anggraini, 2025). Fintech lending can play a major role in speeding the availability to working capital for MSMEs in developing nations (Haryadi et al., 2025). Digital lending can reach company groups who were previously unserved by traditional banks (Rahayu et al., 2025)

The outcomes of this study have substantial managerial implications for MSMEs, Fintech firms, and regulators. For MSMEs, fintech financing provides a strategic alternative to acquire working capital swiftly, flexibly, and effectively, especially when access to bank credit is still limited. Therefore, MSMEs must increase their digital financial literacy to select lawful platforms, comprehend the cost structure of loans, and employ the funds productively to support operations and business progress. The findings underline the need for fintech companies to improve cost transparency, system security and service flexibility to better serve the demands of MSMEs. In the meantime, these results can be used as a basis for regulators such as the Financial Services Authority (OJK) to increase regulation, supervision, and education to build a more equitable, secure and sustainable digital financing ecosystem for the growth of MSMEs.

The Influence of Bank Credit on the Financial Performance of MSMEs

The empirical testing findings obtained the value of the path coefficient of 0.501, the value of t-statistic of 4,179 and p-value of 0.000, meaning that bank credit has a positive and substantial effect on the financial performance of MSMEs, hence H2 is approved. This finding is consistent with a study (D'Apolito et al., 2024) which found that access to formal financing boosts the profitability of MSMEs. Also, (Huang et al., 2025) observed that bank borrowing enhances the productivity of small firms. Then (Muzindutsi, 2022) which confirms the contribution of credit to cash flow stability. Finally (Mugiati, 2024) which proves the good effect of bank loans on the expansion of firm assets. The key driver for improving the financial performance of MSMEs is access to external finance (Hai et al., 2023) .

This study has a significant managerial consequence for MSMEs in Medan. These findings demonstrate that bank loan has a crucial role in enhancing the financial performance of MSMEs by strengthening working capital, increasing production capacity, and stabilizing cash flow. Thus, MSMEs in Medan need to be more proactive in creating long-term partnerships with banking institutions, improving the quality of financial records and reporting, and enhancing business governance to meet the established lending standards. Additionally, MSMEs must use bank financing wisely, not only for short-term operational needs, but for company expenditures such as developing new products, expanding into new markets, and modernizing manufacturing equipment.

5. Conclusion

The result of this study shows that there is a positive and significant influence of Fintech Lending and Bank Credit to the financial performance of MSMEs in Medan. It has been proven that fintech lending may help improve financial performance through ease of access, speed of disbursement and flexibility of digital services which meet the working capital needs of MSMEs. But the share of fintech loans is still rather tiny. On the other hand, the influence of bank credit is greater and more dominant, which implies that bank financing is still a major and more stable source of capital for business sustainability and growth. The findings of this study confirm the strategic relevance of the mix of digital and conventional financing in increasing the competitiveness and financial resilience of MSMEs. Theoretically, the findings of this study contribute to the applicability of the Pecking Order Theory and Resource-Based View (RBV) in explaining MSME financing behavior and its impact on financial performance.

The managerial implication of this research implies that MSMEs in Medan should be more selective and strategic in choosing the source of finance in accordance with their company demands. Fintech lending is suitable for short-term liquidity demands because of its quick and flexible approach, but bank credit is better suited for financing long-term investment and business expansion. Therefore, the quality of financial governance, the company records and financial literacy are key aspects for MSMEs to access both financing sources optimally. Furthermore, the partnership between financial institutions and fintech companies should be increased to develop financing schemes that are more inclusive, adaptable and targeted to MSME needs.

The limitations of this study are the regional scope which is only limited to Medan City, the sample size is very small, and the research variables only cover two sources of finance. Hence, future study is proposed to broaden the regional coverage, increase the number of respondents and include other characteristics such as financial literacy, digital technology adoption, entrepreneurial attitude and innovation potential to produce a more comprehensive and explanatory model.

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