

DOI: 10.28934/jwee26.12.pp144-168


JEL: G23, G53, J16, L26

ORIGINAL SCIENTIFIC PAPER

Beyond Access: Entrepreneurial Capabilities and Business Context in Shaping P2P Lending Usage among Women-Led MSMEs in an Emerging Economy




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ABSTRACT

While fintech expansion has reduced formal credit barriers for women entrepreneurs, increased access does not uniformly translate into opportunity-oriented growth. Challenging access-centric assumptions, this study conceptualizes peer-to-peer (P2P) lending usage as a capability- and context-dependent learning process rather than a universal enabler. Drawing on the Resource-Based View and

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Contingency Theory, the study examines how individual capabilities, financial literacy, entrepreneurial orientation, and digital finance experience and business characteristics jointly shape P2P lending usage and financial performance among women-led MSMEs. Survey data from 185 women entrepreneurs in Central Java, Indonesia, were analyzed using partial least squares structural equation modeling (PLS-SEM). The results show that financial literacy, entrepreneurial orientation, and prior digital finance experience significantly enhance P2P lending usage, while business context complements its use. Urban-based firms exhibit higher usage, whereas culinary enterprises primarily use P2P lending for short-term working capital. Importantly, P2P lending usage positively affects financial performance. The findings highlight that fintech supports women's entrepreneurial upgrading only when individual capabilities align with contextual business conditions, offering implications for capability-based policy and entrepreneurship education.

KEYWORDS: *women entrepreneurship, P2P lending usage, entrepreneurial capabilities, business context, emerging economy*

Introduction

In emerging economies, women's entrepreneurship develops within structurally constrained financial systems characterized by limited collateral, gendered credit asymmetries, and uneven institutional infrastructures. Although often portrayed as necessity-driven and financially marginalized, women are increasingly integrating digital financial tools into their businesses. Yet this expansion in digital access does not consistently translate into opportunity-oriented upgrading or sustained growth (Oliveira et al., 2025). Within this landscape, peer-to-peer (P2P) lending has emerged as a significant financial innovation by reducing traditional credit barriers through unsecured, digitally mediated financing mechanisms.

Cross-country evidence from 49 developing economies confirms that alternative finance mechanisms positively influence female entrepreneurship (Coronel-Pangol et al., 2024). Country-level studies further show that digital financial literacy shapes women's intention to adopt P2P platforms in India (Moray et al., 2024), while digital financial services generate stronger business outcomes for women entrepreneurs in Nigeria (Rizal, 2025). These findings affirm the strategic importance of digital finance in expanding women's entrepreneurial participation across emerging markets. However, they also reveal a persistent paradox: expanded access to digital finance does not automatically generate entrepreneurial upgrading.

Indonesia provides a compelling context to examine this paradox. MSMEs contribute approximately 61% of the national GDP, with 64.5% managed by women, primarily in culinary, service, and creative sectors (Ministry of Women's Empowerment and Child Protection, 2025). Rapid growth in P2P lending has widened credit access (Koomson et al., 2022; Junarsin et al., 2023), and women now account for 55.48% of borrowers (OJK, 2024). Nevertheless, many women-owned MSMEs remain concentrated in survival-oriented activities, and women's financial literacy remains slightly below that of men (Sindhvani & Dhawan, 2021). This mismatch suggests that digital inclusion alone may increase participation without necessarily transforming business trajectories.

Existing research offers partial explanations. The Resource-Based View (RBV) emphasises internal capabilities (Deekshitha et al., 2026) such as financial literacy (Lusardi & Mitchell, 2014; Soekarni et al., 2024), entrepreneurial orientation (Lumpkin & Dess, 1996), and digital experience as key drivers of technology adoption and performance (Alnsour, 2022; Cumming et al., 2022). Conversely, contextual perspectives highlight how industry characteristics, firm age, and geographic ecosystems shape financing needs and opportunities (Warren-Smith & Jackson, 2004; Cowling et al., 2018; Phillipson et al., 2019; Koomson et al., 2022). While both streams provide valuable insights, they are often examined in isolation. This analytical separation limits understanding of how internal capabilities operate within specific business contexts, particularly in emerging economies where institutional constraints and gendered barriers intersect.

Fintech research in women's entrepreneurship, therefore, remains fragmented. Capability-based explanations may overstate individual agency, whereas contextual approaches risk underestimating the strategic role of entrepreneurial competencies. What remains insufficiently explored is how individual capabilities and business characteristics jointly shape strategic P2P lending usage and, ultimately, entrepreneurial upgrading.

To address this gap, this study integrates the Resource-Based View and Contingency Theory within a unified empirical framework. Rather than treating context as a moderating variable, individual capabilities and business characteristics are conceptualized as complementary and mutually reinforcing dimensions that jointly shape the use of P2P lending. Accordingly, the study investigates the extent to which financial literacy, entrepreneurial orientation, and prior fintech experience, alongside firm-specific characteristics, namely industry type, geographic location, and firm

age, influence the strategic utilization of P2P lending among women-led MSMEs in Central Java, Indonesia. By embedding digital finance usage within both capability-based and contextual dimensions, this study advances a more integrated understanding of women's entrepreneurship in emerging economies. It demonstrates that entrepreneurial upgrading depends not solely on expanded financial access but on the alignment between internal capabilities and business-specific conditions. In doing so, the study clarifies the conditional role of digital finance in enabling transformation within structurally constrained environments.

Literature Review

This study employs an integrated Resource-Based View (RBV) and Contingency Theory framework to examine P2P lending usage and financial performance among women-owned MSMEs in Indonesia. RBV Theory (Barney, 1991) emphasizes that competitive advantage derives from valuable, rare, inimitable, and non-substitutable resources; accordingly, financial literacy, entrepreneurial orientation, and P2P lending experience constitute key intangible capabilities that support strategic financial decision-making and access to alternative financing (Bajwa et al., 2025; Fatoki, 2012), particularly within strengthening digital ecosystems in emerging ASEAN economies (Warokka et al., 2025). Complementing RBV, Contingency Theory highlights that performance outcomes depend on the alignment between internal capabilities and external conditions. Accordingly, this shaping process occurs in ways unique to each SME and its specific environment, rather than following an overarching best-practice model (McAdam et al., 2019). Business characteristics such as industry type, geographic location, and firm age act as contingency factors shaping the effectiveness of P2P lending utilization, as variations in ecosystem development influence access to networks and financing (Deakins & Bensemann, 2019; Junarsin et al., 2023). Integrating these perspectives provides a concise yet holistic explanation of how individual capabilities drive fintech usage while contextual conditions complement its impact on financial performance among women-led MSMEs (Ferreira & Ferreira, 2024).

Individual Capabilities and the Usage of P2P Lending

The use of digital financial services such as P2P lending by women MSME entrepreneurs is influenced by key individual characteristics, particularly financial literacy, entrepreneurial orientation, and prior experience with fintech. These attributes shape personal capabilities that affect how entrepreneurs assess the risks and benefits of alternative financing and their ability to effectively access and utilize digital technologies in business activities. From a Resource-Based View (RBV) perspective (Barney, 1991), financial literacy, entrepreneurial orientation, and fintech experience can be considered intangible resources with strategic value in financial decision-making. When these resources meet the VRIN criteria, valuable, rare, inimitable, and non-substitutable, they provide women entrepreneurs with a competitive advantage in leveraging digital finance to enhance business sustainability and performance.

Extensive empirical evidence supports this relationship. Financial literacy plays a significant role in shaping financial decision-making (Lusardi & Mitchell, 2014) and encourages the usage of digital financial services (Gonzalez, 2023; Lestari et al., 2025; Mahastanti et al., 2025a; Oh & Rosenkranz, 2020; Popoola, 2025), while also contributing to business growth among female entrepreneurs (Popoola, 2025). Entrepreneurial orientation, encompassing innovation, proactivity, and risk-taking, has been shown to positively influence technology usage, financing choices, and entrepreneurial performance (Fatoki, 2012; Muindi & Masurel, 2022) with MSMEs exhibiting higher entrepreneurial orientation being more inclined to utilize P2P lending platforms (Cumming et al., 2022). Additionally, prior experience with digital financial services enhances trust and confidence in fintech usage, as it reduces uncertainty and increases user efficacy, thereby encouraging more intensive usage of digital finance (Zaimovic et al., 2025).

Based on the theories and empirical findings, the following hypotheses are put forward:

- H1:** Financial literacy has a positive influence on the use of P2P lending among women MSME entrepreneurs.
- H2:** Entrepreneurial orientation has a positive influence on the use of P2P lending among women MSME entrepreneurs.

H3: Experience in using digital finance platforms has a positive influence on the use of P2P lending among women MSME entrepreneurs.

Business Characteristics and the P2P Lending Usage

The usage of P2P lending by MSMEs is influenced not only by individual capabilities but also by structural and contextual business characteristics, including industry type, geographic location, and firm age, which shape financing needs, risk perceptions, information access, and the feasibility of digital financial services. Contingency Theory provides a relevant framework, emphasizing that organizational decisions are context-dependent rather than universally optimal (Tosi & Slocum, 1984). Accordingly, business type, such as the food and beverage sector (Najib et al., 2021), location (Deakins & Bensemann, 2019; Phillipson et al., 2019; Tiwasing, 2021), and firm age (Supardianto et al., 2019; Xiang et al., 2018) function as key contingencies shaping fintech-based financing strategies. For example, MSMEs in urban areas are generally more likely to adopt fintech due to greater exposure to technology and information.

This perspective can be complemented by the Resource-Based View (RBV), which suggests that certain business characteristics may function as competitive advantages when they meet VRIN criteria. Longer business experience, for example, reflects accumulated capabilities and reputational capital that enhance credibility with P2P platforms and investors, while specific industries, such as culinary businesses, often exhibit stable cash flows that align well with installment-based P2P lending schemes. Empirical evidence supports these arguments: Wu and Peng (2024) show that urban enterprises use fintech more rapidly due to superior digital infrastructure; Xiang et al. (2018) find that business age positively affects access to digital financing; and Najib et al. (2021) demonstrate that culinary MSMEs display distinct financing patterns driven by recurring short-term capital needs. Similarly, Novianti et al. (2025) confirm that industry characteristics significantly influence fintech usage, as differences in capital intensity, cash cycles, and business models determine the suitability of P2P lending, particularly for sectors with short cash cycles such as trade and culinary businesses.

Based on the theoretical arguments and empirical support, the hypotheses proposed are as follows:

H4: The type of industries (culinary/non-culinary) influences the use of P2P lending among women MSME entrepreneurs.

H5: The business location (urban/rural) influences the use of P2P lending among women MSME entrepreneurs.

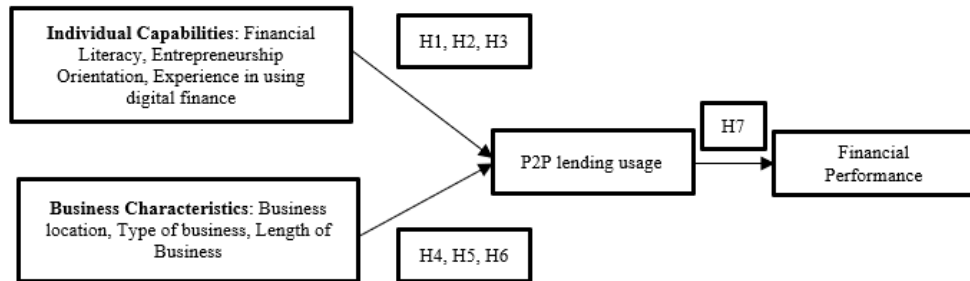
H6: The length of the business has a positive influence on the use of P2P lending among women MSME entrepreneurs.

The Influence of P2P Lending Usage on the Financial Performance of Women-Owned MSMEs

Small business financial management theory highlights access to financing as a critical driver of productivity and sustainability, as broader funding enables MSMEs to strengthen working capital, expand production capacity, and support business growth. Peer-to-peer (P2P) lending, as a digital financial innovation, addresses financing constraints faced by MSMEs lacking collateral (Coakley & Huang, 2020), particularly women-managed enterprises that often experience limited asset ownership and gender bias in formal financial systems. Consequently, P2P lending offers a more inclusive, rapid, and flexible financing alternative for women entrepreneurs (Dhiman et al., 2025; Rita et al., 2021). Prior studies consistently demonstrate that P2P lending positively affects MSME financial performance (Mahastanti et al., 2025b) by improving working capital, production capacity, and market expansion (Abbasi et al., 2021; Coakley & Huang, 2020). However, empirical evidence focusing specifically on women-managed MSMEs remains limited, despite their distinctive characteristics, such as more cautious risk-taking, varying levels of financial literacy, and strong entrepreneurial motivation. These features highlight the relevance of examining how effectively P2P lending can enhance financial performance, thereby providing a basis for the proposed hypothesis.

H7: The use of P2P lending has a positive impact on the financial performance of MSMEs managed by women.

Figure 1: Research Model



Source: Authors

Figure 1 illustrates the conceptual framework integrating the Resource-Based View and Contingency Theory. Internal capabilities and contextual business characteristics are posited as key determinants of P2P lending usage, which in turn is hypothesized to influence financial performance among women-led MSMEs.

Methodology

Sample and Data Collection

The study was conducted in Salatiga, Surakarta, and Semarang Regency, Central Java, Indonesia, regions with substantial access to P2P lending. The rural–urban classification is based on administrative status and infrastructural development. Surakarta, currently positioned as an emerging metropolitan hub under Indonesia’s 2025–2029 national development plan, is categorised as urban, while Salatiga and Semarang Regency are classified as non-metropolitan (rural) areas due to comparatively lower levels of financial and digital infrastructure integration. Using the Slovin formula with a 10% margin of error, a sample of 185 MSME respondents was determined, comprising 76 respondents (41%) from rural areas and 109 (59%) from urban areas. This sample size met the minimum requirement for structural equation modeling with five or fewer constructs (≥ 100 samples) as recommended by Hair (2021). Primary data were collected through a one-month on-site survey involving eight enumerators. Eligible respondents were MSME owners who had previously accessed P2P loans and had operated their businesses for at least two years to enable assessment of financial performance growth.

Variable Measurements

The research model includes multiple exogenous variables and two endogenous variables. Financial literacy was conceptually adapted from Susan (2020) and operationalised as perceived financial capability, measured using Likert-scale items that capture women entrepreneurs' self-assessed understanding and application of financial concepts in business contexts. The initial measurement items and results of the pilot test are presented in Appendix Table A1. P2P lending usage was defined as the strategic behavioural utilisation of P2P platforms, encompassing perceived convenience and security, frequency of platform access for information searching, escalation of loan amounts, and the use of funds for business capital (Mahastanti et al., 2025a). Digital experience was conceptualised as accumulated exposure to multiple fintech services (e.g., digital payments and alternative funding), reflecting prior learning rather than mere frequency of P2P use. Financial performance was measured using four indicators from Rita and Nastiti (2024), and entrepreneurial orientation was adopted from Covin and Wales (2012). Business characteristics, location (1 = urban; 0 = rural), industry type (1 = culinary; 0 = non-culinary) (Karadag, 2017), and business age were treated as exogenous variables. All reflective constructs were measured on a 10-point Likert scale ranging from 1 ("strongly disagree") to 10 ("strongly agree").

Estimation Model

Based on the formulation of the hypotheses that have been proposed, two estimation models are presented as follows:

$$\text{P2P usage} = \beta_1\text{FL} + \beta_2\text{EO} + \beta_3\text{E} + \beta_4\text{TI} + \beta_3\text{BC} + \beta_4\text{LB} + \delta_1 \quad (1)$$

$$\text{FP} = \beta_5 \text{P2P Usage} + \delta_2 \quad (2)$$

In this study, FL denotes Financial Literacy, and EO represents Entrepreneurial Orientation. In addition, Experience (E), Type of Industry (TI), Business City of Origin (BC), and Length of Business (LB). The dependent variable, Financial Performance (FP), captures the overall financial condition and performance of the MSMEs. Structural equation modelling was conducted using partial least squares structural equation

modelling (PLS-SEM), incorporating both measurement (outer) and structural (inner) model assessments. The analysis was performed using a one-tailed test with a 5% significance level ($\alpha = 0.05$), based on theoretical directional hypotheses, and employed a basic bootstrapping procedure with 500 subsamples to estimate path coefficients and their statistical significance. The measurement model was evaluated through convergent validity, discriminant validity, and reliability assessments. Convergent validity was confirmed using outer loadings, composite reliability, and average variance extracted (AVE), while discriminant validity was assessed using the heterotrait–monotrait ratio (HTMT), with results reported in Appendix Table A2. Discriminant validity was further confirmed using the Fornell–Larcker criterion (see Appendix Table A4). To assess potential common method bias, the inner VIF approach proposed by Kock & Lynn (2012) was applied. This procedure estimates VIF values by modelling each latent construct as an endogenous variable. All VIF values were below the recommended threshold of 3.3, indicating that common method bias was unlikely to threaten the validity of the findings in Appendix Table A3.

Results

Table 1 provides an overview of the respondents' demographic and business profiles, offering contextual insight into the characteristics of women-led MSMEs included in the sample.

Table 1: Profile of the Respondents' Descriptive Statistics

Category	Total	Percentage
Age		
18 - 25	79	43%
26 - 45	86	46%
46 - 70	20	11%
Total	185	100%
Length of Business		
2-<3 years	64	35%
3-<6 years	74	40%
6-<10 years	32	17%
≥10 years	15	8%
Total	185	100%
Type of Industry		
Culinary	111	60%

Non-culinary	74	40%
Total	185	100%
City of Origin		
Rural	76	41%
Urban	109	59%
Total	185	100%
Frequency of Online Borrowing in 1 Year		
1 - 3 times	170	92%
4 - 8 times	13	7%
More than 8 times	2	1%
Total	185	100%
Loan Amount		
Up until IDR 1 million	54	29%
IDR 1 million – <IDR 5 million	88	48%
IDR 5 million – <IDR 10 million	37	20%
≥ IDR 10 million	6	3%
Total	185	100%
Education Level		
Elementary School	2	1%
Middle School	19	10%
High School	110	59%
Diploma	54	29%
Total	185	100%

Source: Authors' calculations

This data illustrates that the majority of women MSME entrepreneurs in Indonesia are still concentrated in the informal sector, particularly in the culinary sector (60%). This suggests that women tend to start businesses based on the domestic skills they have mastered, such as cooking, which require relatively little initial capital and can be run from home. This characteristic is further reinforced by education data, which show that the majority of entrepreneurs have a high school education (59%), reflecting their limited access to formal entrepreneurship training or broader job opportunities. The dominant age of businesses, in the range of 3–6 years, indicates that most are still in their early stages of growth, with potential but also vulnerability to market uncertainty and limited access to financing.

Geographically, women in urban areas are more likely to start informal businesses (59%), indicating that the urban context provides more opportunities, market access, and the courage to start a business than rural areas. However, their financing patterns remain very limited: online loans

are borrowed only once or up to 3 times a year (92%), and loan amounts are mostly between IDR 1 and 5 million (48%). This profile indicates that women entrepreneurs in the informal sector represent a potential segment but still require education-based interventions and the facilitation of safe and productive digital financial access.

Table 2: Descriptive Statistics of the Research Variables

Variable	Average
Financial Literacy	7.20
Use of P2P Lending	6.22
Financial Performance	7.13
Entrepreneurial Orientation	7.06

Source: Authors' calculations

Table 2 presents the descriptive statistics of the main research variables used in the analysis. As presented in Table 2, women-owned MSMEs exhibit relatively strong financial literacy (7.20), yet this knowledge has not been fully translated into systematic financial practices. The moderate use of P2P lending (6.22) suggests that fintech is mainly employed as a short-term coping mechanism rather than a strategic growth tool, particularly in necessity-driven sectors such as culinary businesses with recurrent working capital needs. Nevertheless, women entrepreneurs report sound financial performance (7.13), indicating that P2P lending supports business survival and operational continuity. At the same time, women-owned MSMEs demonstrate a relatively high entrepreneurial orientation (7.06), especially in innovation and autonomy, largely due to their concentration in the culinary sector, where accumulated tacit knowledge from domestic food preparation and household management enhances their capacity to innovate and exercise autonomous business decision-making, suggesting latent potential for opportunity-oriented development if supported by more strategic financial practices.

Table 3 presents the results of the reliability and validity tests for the measurement model.

Table 3: Reliability and Validity Tests

Item	Loading	Cronbach's Alpha	Average Variance Extracted (AVE)	Composite Reliability Coefficient (CR)	Outer VIF
Financial Performance					
FP 1	0.921				3.473
FP 3	0.925	0.881	0.809	0.927	3.818
FP 4	0.849				1.861
Financial Literacy					
FL 1	0.776				1.606
FL 5	0.738	0.793	0.618	0.866	1.350
FL 6	0.818				1.886
FL 7	0.809				1.909
Entrepreneurial Orientation					
EO 1	0.776				2.768
EO 2	0.795				2.801
EO 3	0.796				3.166
EO 6	0.874				4.034
EO 7	0.825	0.936	0.637	0.946	2.766
EO 8	0.862				3.637
EO 9	0.801				3.097
EO 10	0.802				2.957
EO 12	0.737				4.212
EO 13	0.696				3.810
P2P Lending Usage					
L1	0.722				1.676
L2	0.785				1.892
L3	0.757	0.813	0.573	0.870	2.070
L4	0.817				2.176
L5	0.699				1.338

Source: Authors' calculation

Table 4 reports the goodness-of-fit indices of the structural model.

Table 4: Goodness-of-Fit Model

Criterion	Parameter	Practical Rule
Standard Root Mean Square Residual	0.067	SRMR < 0.1
R- Square P2P Lending Usage	0.408	R ² > 0.1
R- Square P2P Financial Performance	0.189	R ² > 0,1

Source: Authors' calculation

The measurement model assessment confirms that all constructs meet the validity and reliability criteria recommended in PLS-SEM. All indicator loadings exceed 0.70, except for one entrepreneurial orientation item (EO13 = 0.696) and one P2P lending item (L5 = 0.699), which remain acceptable for exploratory research (Hair et al., 2021). All constructs demonstrate adequate convergent validity, with AVE values above 0.50, and strong internal consistency, as reflected by composite reliability values exceeding 0.87 and Cronbach's alpha values above 0.79. In addition, full collinearity VIF values for all constructs are below the threshold of 5, indicating no multicollinearity concerns. The structural model also exhibits an acceptable level of fit, with an SRMR value of 0.070, suggesting good overall model fit (Hu & Bentler, 1999). The R² value for P2P lending usage is 0.408, indicating that the model explains 40.8% of the variance in this endogenous construct, which can be considered moderate and acceptable in behavioral research. Similarly, the R² value for financial performance is 0.189, suggesting that the model explains 18.9% of the variance in financial performance. These results demonstrate that both the measurement and structural models are robust and suitable for hypothesis testing.

Table 5 presents the results of the statistical tests conducted to examine the proposed hypotheses.

Table 5: Statistical Test Results

Criterion	Initial Regression Model			Robustness Test		
	Parameter	T-Statistic	P-value	Parameter	T-Statistic	P-value
Individual Characteristic and P2P Lending Usage						
Financial Literacy (H1)	0.422	5.223	0.000***	0.422	5.356	0.000***
Entrepreneurial Orientation (H2)	0.200	2.332	0.010***	0.200	2.195	0.014***
Experience (H3)	0.160	2.507	0.006***	0.160	2.483	0.007***
Business Characteristics and P2P Lending Usage						
Type of Industry (H4)	(-0.171)	3.269	0.001***	(-0.171)	3.320	0.000***
Business City of Origin (H5)	0.103	1.686	0.046**	0.103	1.780	0.038**
Length of Business (H6)	-0.009	0.168	0.433	-0.009	0.173	0.431
P2P Lending Usage, Control Variable and Performance						
P2P Lending Usage (H7)	0.423	6.007	0.000***	0.420	5.650	0.000***
Owner Education	-	-	-	0.102	1.528	0.064*
Loan Amount	-	-	-	-0.009	0.131	0.448

Source: Processed data from 2026

Note: *(sig. 10%), ** (sig. 5%), *** (sig. 1%). The data were analysed using SmartPLS with a one-tailed test at a 5% significance level ($\alpha = 0.05$) and a basic bootstrapping procedure.

Discussion

The findings (Table 5) demonstrate that financial literacy (H1) and entrepreneurial orientation (H2) significantly promote the use of P2P lending among women-led MSMEs in Central Java, particularly in the food and beverage sector. The sample is dominated by young women entrepreneurs aged 18–45 who have operated their businesses for less than five years, indicating an emerging cohort that is increasingly open to digital financing solutions. Despite limited formal education, most respondents exhibit adequate managerial capability by leveraging practical skills, especially in culinary businesses that align closely with their everyday experiences. The strong performance of the knowledge dimension of financial literacy (score 7.5) reflects solid conceptual understanding (Gonzalez, 2023; Oh & Rosenkranz, 2020). Entrepreneurial orientation is likewise pronounced, particularly in innovation and autonomy, reinforcing prior evidence that women’s entrepreneurial capacity is often shaped by experiential learning rather than formal credentials (Cumming et al., 2022; Fatoki, 2012). In this context, experience with financial technology (H3) positively influences P2P lending usage, as familiarity with digital platforms reduces uncertainty and increases confidence. P2P lending thus functions as an inclusive financing mechanism that aligns with the needs of women micro-entrepreneurs, supporting earlier findings on gender-responsive financial innovation (Burga et al., 2021).

Importantly, the intensity of P2P lending varies across business characteristics. The negative association between the food and beverage sector and P2P lending usage (H4) indicates that women entrepreneurs in culinary businesses tend to use smaller loan amounts than those in non-culinary sectors. This reflects the structural nature of culinary enterprises, where working capital requirements are predominantly short-term and recurrent rather than investment-oriented. As such, P2P lending is utilized selectively to address immediate liquidity needs rather than as a source of long-term financing (Mahastanti et al., 2025a; Novianti et al., 2025). Geographic differences further reinforce this pattern (H5), as MSMEs located in urban areas exhibit higher usage rates due to a more supportive entrepreneurial ecosystem, consistent with prior evidence on the role of local context in fintech diffusion (Tiwasang, 2021).

Finally, the findings suggest an important motivational transition among women MSME owners. While many initially engage in

entrepreneurship out of necessity, over time, this motivation can shift toward an opportunity-driven approach when accompanied by adequate personal capabilities and a clear understanding of business characteristics. The positive and significant impact of P2P lending usage on financial performance (H7) confirms that digital financing can enhance revenue stability and business growth when appropriately aligned with industry needs (Abbasi et al., 2021; Coakley & Huang, 2020; Mahastanti et al., 2025a; Mishra & Sahoo, 2025). Overall, the discussion underscores that women's effective use of P2P lending is shaped by the complementation between individual capabilities, sectoral dynamics, and local ecosystems, offering important insights for policies aimed at strengthening women's entrepreneurship through inclusive digital finance.

Conclusion

This study shows that P2P lending usage among women-owned MSMEs in Central Java reflects resource mobilisation dynamics typical of emerging economies characterised by institutional constraints and uneven financial access. In line with the Resource-Based View, financial literacy, entrepreneurial orientation, and fintech experience function as intangible capabilities that enable strategic digital finance utilisation. Integrating Contingency Theory, these capabilities are most effective when aligned with business characteristics such as industry type and location. Culinary enterprises exhibit more cautious engagement, whereas MSMEs operating within stronger entrepreneurial ecosystems demonstrate higher uptake. P2P lending usage is positively associated with financial performance, indicating that entrepreneurial upgrading depends on the alignment between internal capabilities and structural conditions rather than financial access alone. These findings underscore the importance of capability development, experiential fintech learning, and context-sensitive policy interventions.

However, as the study relies on cross-sectional, self-reported data, the observed relationships, particularly between P2P usage and financial performance, should be interpreted as associative rather than causal. Reverse causality and omitted-variable bias, including firm size and baseline profitability, cannot be fully excluded. Future research should incorporate theoretically grounded structural controls, such as firm size, initial assets, prior entrepreneurial experience, and access to alternative financing, to

reduce endogeneity and strengthen causal interpretation in emerging-economy contexts.

Acknowledgement

This study was financially supported by the Directorate of Research, Technology, and Community Service, Directorate General of Higher Education, Research, and Technology, Ministry of Education, Culture, Research, and Technology, under Grant No. 108/E5/PG.02.00.PL/2024.

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Article history: Received: January 22, 2026

Accepted: April 2, 2026

First Online: April 3, 2026

Appendix

Table A1: Pilot Test Financial Literacy Measurement

Dimension	Item Code	Measurement Item	Outer Loading
Behaviour	FL1	I regularly evaluate my business's financial performance (e.g., revenue, profit, and outstanding debt).	0.745
	FL2	I am able to repay my business debts on time.	0.586 (deleted)
	FL3	I have insurance coverage to protect my business assets (e.g., vehicle insurance, property/fire insurance).	0.439 (deleted)
Attitude	FL4	I consider debt to be an important instrument for business expansion.	0.566 (deleted)
	FL5	I recognise that borrowing involves substantial risk, even when it is necessary to increase business capital.	0.680
Skills	FL6	I am able to accurately calculate loan interest.	0.773
	FL7	I can accurately estimate my future business capital requirements.	0.804
Knowledge	FL8	I make consistent efforts to allocate funds regularly for debt repayment.	0.575 (deleted)
	FL9	I have a good understanding of basic accounting record-keeping.	0.557 (deleted)

Source: Authors' calculations

Table A2: Heterotrait-Monotrait Ratio of Correlations

	EO	E	FL	FP	LB	BC	P2P Lending Usage	TI
EO								
E	0.043							
FL	0.844	0.166						
FP	0.842	0.098	0.799					
LB	0.055	0.132	0.106	0.036				
BL	0.154	0.084	0.064	0.119	0.073			

	EO	E	FL	FP	LB	BC	P2P Lending Usage	TI
P2P Lending Usage	0.591	0.147	0.683	0.487	0.076	0.060		
TI	0.159	0.044	0.144	0.096	0.068	0.099	0.302	

Source: Authors' calculations

Table A3: Inner VIF Values

	FP	P2P Lending Usage
EO		2.209
E		1.079
FL		2.225
FP		
LB		1.036
BL		1.051
P2P Lending Usage	1.000	
TI		1.049

Source: Authors' calculations

Table A4: Fornell-Larcker

	FP	LB	BL	P2P Lending Usage	TI
EO					
E					
FL					
FP	0.899				
LB	-0.015	1.000			
BL	-0.113	-0.073	1.000		
P2P lending Usage	0.423	-0.029	0.054	0.757	
TI	-0.090	-0.068	-0.099	-0.270	1.000

Source: Authors' calculations