



Fintech utilization, financial management behavior, and MSMEs' financial performance: Does financial literacy matter?

Putu Sri Arta Jaya
Kusuma^{1*}

I Kadek Mahesa
Artha Pradeva²

^{1,2}Universitas Pendidikan Nasional, Denpasar, Indonesia.

¹Email: sriarta@undiknas.ac.id

²Email: pradevaa40@gmail.com



(+ Corresponding author)

ABSTRACT

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This research assesses the impact of innovative financial technologies—specifically Fintech Payments and Peer-to-Peer (P2P) Lending—along with financial management behavior on the financial performance of Micro, Small, and Medium Enterprises (MSMEs) in Denpasar, Indonesia. Additionally, it examines the moderating role of financial literacy in these relationships. Primary data were collected through structured questionnaires from 400 MSME owners/managers who met specific operational and adoption criteria. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the structural model, evaluate construct validity and reliability, and assess moderating effects. The study reveals that Fintech Payments, P2P Lending, and financial management behavior all have positive and significant impacts on MSMEs' financial performance. However, financial literacy moderates these effects differently: it weakens the impact of Fintech Payments on financial performance while strengthening the relationships of P2P Lending and financial management behavior with financial performance. These findings suggest that MSMEs benefit from adopting sound financial management practices and P2P lending technologies, particularly when supported by adequate financial literacy. From a policy perspective, fostering financial literacy and integrating behavioral finance with FinTech adoption strategies can enhance MSMEs' financial sustainability. Future research is encouraged to explore additional variables influencing MSME financial outcomes and to expand empirical evidence across broader contexts. This study advances the understanding of behavioral and technological factors in MSME financing using the Theory of Planned Behavior as a theoretical framework.

Contribution/Originality: The major contribution of this study lies in integrating financial literacy as a moderating factor in the relationship between FinTech adoption, financial management behavior, and MSME financial performance, providing empirical evidence from a developing urban context and advancing behavioral finance within the Theory of Planned Behavior framework.

1. INTRODUCTION

MSMEs (Micro, Small, and Medium Enterprises) are essential for innovation, job creation, and economic growth around the world. This paper studies MSMEs documented around the world, especially in Bali, Indonesia, where they are economically and culturally important. MSMEs are the world's greatest economic supporters, accounting for more than 50% of employment and being the main contributor of national income in many countries (Talom & Tengeh, 2020). Such MSMEs are the engines of innovation, sustained economic development, and economic

downturn stability (Sleiman et al., 2021). These enterprises also promote sustainable economic growth and positively impact developing countries' GDP (Coffie, Hongjiang, Mensah, Kiconco, & Simon, 2021).

Unlike bigger companies, MSMEs are more adaptable and can quickly come up with new products (Sharma, Ilavarasan, & Karanasios, 2024). Their part in enhancing economic resilience and decreasing poverty during the COVID pandemic was highlighted when many MSMEs turned to digital (Yanto, Kiswanto, Baroroh, Hajawiyah, & Rahim, 2022). During tough times, the fast-growing global digitization and the MSMEs capacity to offer financial services to low-income and unbanked people have supported MSMEs to survive (Mavlutova et al., 2023).

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in the economy of Indonesia by generating income of 9,580 trillion IDR, capturing 61 percent of the Gross Domestic Product (GDP), and absorbing 97 percent of the total workforce. The Ministry of Cooperatives and SMEs states that 65.5 million MSMEs exist, comprising 99 percent of the total business entities in Indonesia (Coordinating Ministry for Economic Affairs of the Republic of Indonesia, 2023). Although MSMEs are very important, they still face a lack of financing, insufficient basic infrastructure, and weak management skills (Zuhroh et al., 2024). The barriers of insufficient financial management and accounting skills among many MSME owners affect their business decisions and the sustainability of their enterprises negatively (Ratnawati, Rokhman, Rochayatun, Meldona, & Rahayu, 2023). Business owners face barriers due to the combination of insufficient strategic planning and understanding of the financing tools available to them, which Zulfikar, Astuti, and Ismail (2022) note can improve their business outcomes over the long term.

As for the potential of MSMEs in Bali, the most promising are the 389,684 MSME units recorded in 2023, with Denpasar City accounting for the most at 69,491 units, positioning the city as one of the key providers of emerging local business opportunities and enhancing the economic welfare of its people.

MSMEs in Denpasar are among the key economic players, but they are also facing the most severe discontinuity in the equilibrium of their net economic productivity due to the overacceleration of economic and technological changes impacting the micro, small, and medium enterprises (MSMEs) sector. Financial performance can be defined as the ability of MSMEs to control and manage the available finances to accomplish the set objectives (Lestari, Purnamasari, & Setiawan, 2020). Denpasar offers greater geographical advantages than the other areas of Bali in the use of digital infrastructure and financial technologies. Unfortunately, a high number of MSMEs continue to struggle with outdated financial technologies and insufficient formal financing available to them. According to Aditya and Rita (2024), these inadequacies contribute to operational inefficiency as well as decreased financial solvency and adaptive market responsiveness.

Mergers of FinTech and MSMEs solidify financial processes and mitigate the impact of volatility in markets, as stated by the Coordinating Ministry for Economic Affairs of the Republic of Indonesia (2023). When MSMEs combine digital financial services with a solid literacy of financial products and risks, they become operationally more efficient (Choiruddin, Pratikto, Murwani, & Restuningdiah, 2025; Haryadi, Hamat, Adnan, Latifah, & Angraini, 2025). Furthermore, this integration enhances MSMEs' strategic business and financial decision-making, improves financial stability, and fosters sustainable growth (Haryadi et al., 2025; Munawar, 2025). Business records, debt, and budget management by MSME managers improve the evaluation of business performance and the ability to secure credit (Gunawan, Jufrizen, & Pulungan, 2023).

The development of financial technology (fintech) assists in improvements in MSME practices, such as the adoption of digital payment systems that streamline processes and reduce costs (Muhtarom, 2022). Furthermore, peer-to-peer (P2P) lending platforms assist MSMEs in obtaining alternative, operational, and business development financing (Sartika, Setyadi, Jaya, Fitriani, & Septianasari, 2024). However, the absence of spending control and overshooting of funds are among the challenges that hinder MSMEs from fully utilizing fintech solutions (Hidayatullah, 2024). Moreover, employing FinTech payment systems for the first time provides MSMEs with an opportunity to improve their financial performance by optimizing their transaction processes and operational costs and by increasing sales to a wider market (Ningsih, Erlina, Muda, & Atmanegara, 2025).

Owners of micro, small, and medium enterprises (MSMEs) adapting to the fintech paradigm need to adjust their financial management behaviours, as this has an impact on performance. For example, planning, budgeting, and proper resource allocation (what the authors refer to as “financial management”) can help MSMEs enhance the adoption of fintech, improve operational efficiency, and lower financial risk (Handayani, Murniningsih, & Hidayah, 2022). The financial management shortcomings of the vast majority of MSMEs result in poor financial performance. The clear signs of financial mismanagement point to a significant barrier to the sustainability of MSMEs.

Despite the prior studies documenting the impact of FinTech on MSME performance, the impact of FinTech adoption on MSME financial performance remains under-explored theoretically and empirically. The bulk of research has treated fintech use (or financial literacy) in isolation, resulting in a lack of behavioural explanatory frameworks that articulate the influence of FinTech on MSME financial performance (Choiruddin et al., 2025; Haryadi et al., 2025). Most studies document a positive relationship between FinTech and MSME performance. However, they do not explain whether the performance improvements are because of FinTech or because of the financial management behaviour of MSME owners.

Moreover, while the importance of financial literacy in the success of MSMEs is recognized (Gunawan et al., 2023), it is almost always treated as an independent variable and not as an interacting variable that defines the success of FinTech adoption. Thus, the literature is quiet on the question of whether financially literate MSME owners succeed in transforming FinTech payment systems and P2P lending into effective liquidity management, cost efficiency, and profit. This creates a theoretical gap in the behavioral dimensions of FinTech adoption and financial performance (Haryadi et al., 2025) that is sufficiently unexplored.

Additionally, previous research, in most cases, has not included financial management behavior as a key explanatory variable. In not considering this factor, the existing literature has offered little guidance to policymakers and practitioners on the degree to which digital financial services should be complemented with behavioral and/or capacity building. There is also a significant lack of empirical evidence from developing countries, especially in urban areas, where the digitalization of MSMEs is accelerating.

This study aims to fill in these gaps by attempting to merge the literature on fintech payment systems, P2P lending, financial management behavior, and financial literacy as a moderation variable. This research advances the intersection of behavioral finance and the adoption of technology theories by defining the effect of FinTech on MSME owners, influenced by their financial literacy. Furthermore, this study contributes to the body of literature by employing Denpasar City, the MSME and FinTech ecosystem, to understand the contextual role of financial literacy, whether as a barrier or a bridge, on the FinTech-performance nexus.

Financial literacy influences the relationships among the use of fintech, financial management behavior, and MSMEs' financial performance. More financially literate MSME owners adopt the use of FinTech to improve their financial management (Assanniyah & Setyorini, 2024). Hence, the objective of this research is to examine financial literacy as a moderating variable and to ascertain the influence of FinTech payment systems, P2P lending, and the behavioral financial management of MSMEs on their financial performance. Denpasar City is the ideal research site due to its MSME and FinTech ecosystem.

This study aims to answer the following questions:

1. What is the direct impact of FinTech payments, financial management behavior, and peer-to-peer (P2P) lending on the financial performance of MSMEs?
2. How does financial literacy moderate these direct relationships?

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) links psychological factors to real financial behaviors to help explain why MSMEs adopt FinTech. The Theory of Planned Behavior states that an individual's behavior is driven by an

intention, shaped by an attitude towards the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991). This theory applies to the use of FinTech because adopting a technology needs a positive perception and the ability to use digital financial products.

In this context, the positive attitude of MSME owners towards FinTech payments and P2P lending systems in this case is derived from thinking of them as useful, efficient, and secure. The belief that this technology is efficient and secure increases the intentions of FinTech adoption in conducting business. Subjective norms explain the social and market pressure from customers, colleagues, and regulators, which leads MSMEs to consider the use of digital financial services an imperative. On the other hand, financial control is the entrepreneurs' belief in their ability to use FinTech, which is a direct result of their financial literacy.

Financial literacy improves MSME owners' evaluation of financial services, online transaction management, and borrowing decisions, reinforcing FinTech adoption and effective financial management behaviors. Consistent with TPB, positive attitudes, favorable norms, and high perceived control strengthen the integration of FinTech into financial decision-making, enhancing liquidity, cost efficiency, and financial performance (Ningsih et al., 2025).

Thus, TPB explains the impact of financial literacy-enabled FinTech payments, financial management behaviors, and P2P lending adoption on MSMEs' financial performance.

2.2. Fintech Payment

The impact of financial technology (fintech) on traditional financial systems has been profound, particularly in the area of payments. The advent of mobile payment systems and e-wallets has been instrumental in facilitating fast, safe, and inclusive payments and has been critical in meeting the needs of a rapidly changing customer base. This paper reviews the most recent scholarly work on the multifaceted nature of payments in fintech, focusing on the elements surrounding the acceptance and use of fintech payments, digital financial infrastructures and their consequences, and the effects on and relevance to businesses and consumers.

Mobile payment systems present an example of effective fintech solutions, and therefore, the barriers to their adoption are of concern to businesses implementing such systems and to academics researching consumer behavior. User acceptance of mobile payments is largely influenced by the perceived trust and security associated with their use. Sleiman et al. (2021) say there is a strong and positive correlation between the levels of trust and the adoption of mobile payments, and therefore, the adoption of such payment systems should increase with strengthened security features (Sleiman et al., 2021). Hwang, Park, and Shin (2021) state, Advanced technologies are used to develop the mobile payment services in such a way that users can use them with a high level of trust and feel relaxed (Hwang et al., 2021).

Demographics do shape mobile payment acceptance; Agárdi and Alt (2024) note the differences in acceptance and the impact of age, with younger generations (like Generation Z) being more receptive to mobile payments than their older counterparts (Agárdi & Alt, 2024). This understanding of age differences is important for developing specific marketing approaches that provide differentiated services to specific demographic groups.

The importance of fintech in fostering financial inclusion, especially in unbanked and underbanked populations, is significant. Lutfi et al. (2021) posit that for people in varied social and economic classes, digital initiatives in the inclusion of finance are significant (Lutfi et al., 2021). This claim is also noted by Mavlutova et al. (2023), who argue that, for the disadvantaged, digitalization of the financial services industry improves efficiency and sustainability and helps in the uplift of marginalized populations (Mavlutova et al., 2023).

2.3. Peer-to-Peer (P2P) Lending

We often use online lending services that connect us directly with lenders who offer loans. Based on our credit and payment history, these services often do not use traditional banking services like credit scores. Such lending applications and services offer many small and medium enterprise (MSME) businesses payment solutions that

traditional banking services cannot offer. MSME businesses often do not have the necessary credit history or a solid enough payment history. They require loans without providing collateral, and these services offer loans at a faster rate than banks. The financial service industry has integrated these applications within its core services as the industry adds the use of technology (Sukma, Purwandari, & Lukita, 2024).

Another added aspect of technology is the direct effect peer-to-peer (P2P) lending services have on MSME financing. They connect MSMEs with individual and institutional lenders directly without the use of the banking system (Mathur & Sharma, 2025). Greater financial accessibility means that businesses can finance their services and goods with credit. In these cases, the industry seeks to finance the product itself to ensure distribution rather than to finance the consumer. This financing of industry or financing of product growth has historically led to the economic improvement of a country (Mathur & Sharma, 2025). Offering loans during economic depression periods has also had a positive impact on financial inclusion, especially within MSMEs (Haryadi et al., 2025).

2.4. Financial Management Behaviour

The behavior of MSME owners encompasses a range of activities such as financial planning, budgeting, control of daily expenditures, and saving. Behavioral finance suggests that financial decisions are influenced by factors beyond rationality, such as psychology, biases, and habits, which can lead to undesirable financial outcomes.

In the Theory (TPB), financial management behavior is described in terms of attitudes toward financial activities, subjective financial norms, and controllable behavioral finances, which in turn describe the level of intent the MSME owner has in managing finances. There is an association between the financial behavior of micro, small, and medium enterprises (MSMEs) owners in Indonesia and persistently low levels of saving, investing, and planning financially for the future, which are all a result of a more consumption-oriented culture.

An MSME owner's positive behavior in managing finances is essential in achieving and maintaining financial stability for the MSME, optimizing the use of resources, and minimizing the risk of financial distress. On the contrary, negative behavior in any of the management functions is threatening to the performance of the business and to the MSME's sustainability in the long run (Kurniati, Rosanti, & Hudaya, 2023).

Undoubtedly, the financial management and planning behavior of MSMEs is important in ensuring the long-term sustainability of business ventures (Haryadi et al., 2025). This includes planning, recordkeeping, and budgeting; in other words, the MSMEs also need to focus on prudent allocation of their financial resources, make financially sound investments, and minimize financial risks (Haryadi et al., 2025).

The effective management of the finances of the MSMEs depends on the financial management skills that the leaders of such enterprises possess; hence, it determines the good financial management practices that they are able to adopt and their adjustment to the prevailing economic conditions (Nugraheni, Darma, & Muhammad, 2025). The financial management of the MSMEs that is effective ensures that there is a good cash flow, that financial resources are controlled, and are at the disposal of the enterprise (Gunawan et al., 2023). This financial oversight behavior is reactive and mitigates financial pressure, which means that the MSMEs are able to address their financial deficiencies and strengthen their financial position to be profitable for a long time (Sari, Nugroho, & Rahmiyati, 2023).

2.5. Financial Literacy

The understanding a person has regarding how to make sound financial decisions to attain peace of mind is defined as financial literacy. The more a person is financially literate, the better he or she will be at managing financial resources, thereby avoiding illegal or high-risk investing, planning emergency funds, and budgeting. Financial literacy goes a long way when it comes to helping a person deal with financial problems and is essential for establishing long-term financial health.

The ability to perceive the economy for appropriate decision-making is called financial literacy, and it has a great impact on a person's financial decision-making and processing of the economy (Sari et al., 2023). This, for managers

of MSMEs, means being able to record financial statements, handle, and budget, which are the basic foundations of measuring the success of a business and obtaining external financing (Gunawan et al., 2023). On the other hand, financial illiteracy tends to result in poor allocation of capital, which makes it difficult to finance the business. This is detrimental to the potential growth of the business and the ability to sustain it in the long term (Munawar, 2025). On the other hand, financial literacy improves the ability of the business to withstand shocks and to provide MSME owners with the skills to avoid financial problems and to deal with shocks in the economy (Munawar, 2025).

2.6. MSME Financial Performance

The results of a company's operational and investment activities over a given period are reflected in the financial performance of the MSMEs. Typically, an evaluation of financial performance entails the analysis of the company's financial statements and the use of financial ratios to measure the company's level of success and financial viability. Evaluation of MSMEs' financial performance is important for the sustainability of the business, attracting investors, and promoting growth and innovation. An evaluation of financial performance is an essential groundwork to enhance the business strategies of the company in the future (Lestari et al., 2020).

2.7. Hypothesis

2.7.1. Fintech Payment and MSME Financial Performance

Fintech Payments has introduced a modern payment management service that is at the forefront of innovation in the financial industry. This service offers the management of payment solutions that allow micro, small, and medium enterprises (MSMEs) to improve their payment processes through a broad and flexible range of payment customization options. Applying the Theory of Planned Behavior (TPB) in this context, we can argue that MSME payment system adoption is determined by the social pressure of the pacing technology innovations. Based on the works of Astari and Candraningrat (2022) and Kusuma and Putri (2023), there is evidence to suggest that the use of fintech payments has a significant impact on the financial performance of MSMEs, and this is supported by the number of transactions processed through the adoption of fintech payment solutions. Thus, the hypothesis is set as follows:

H₁: Fintech payment has a positive effect on MSME financial performance.

2.7.2. Peer-to-Peer (P2P) Lending and MSME Financial Performance

P2P (peer-to-peer) lending is a form of financing that places borrowers and lenders at the same electronic table, where the platform offers services as an intermediary and keeps financial institutions (i.e., banks) out of the equation. For MSMEs, P2P lending is a more efficient and cheaper way of obtaining funds, especially since they tend to struggle with the lending criteria of conventional banks. From a TPB perspective, the MSME P2P lending adopter's motivation stems from the perceived benefits of P2P lending as opposed to traditional banking. P2P lending positively contributes to the financial performance of MSMEs and is supported by Aditya and Rita (2024) and Hidayatullah (2024) as improved funding access allows MSMEs to grow and develop their businesses.

H₂: Peer-to-peer (P2P) lending has a positive effect on MSME financial performance.

2.7.3. Financial Management Behavior and MSME Financial Performance

The range of financial activities, such as planning, budgeting, controlling, and fund saving, gives all MSME financial management behaviors the same activities. Rational factors, individual habits, and psychological factors all play a role in why sound financial management, as Dandy and Azmansyah (2021) suggest, exists. In the context of TPB, the significance of MSME financial management depends on the attitude of the entrepreneur to the extent of achieving desirable levels of financial performance. The views of Asyifa and Dermawati (2024) and Handayani et al. (2022) illustrate the range of financial management behaviors and their impact on the financial performance of MSMEs.

H₁: Financial management behavior has a positive effect on MSME financial performance.

2.7.4. Fintech Payment, MSME Financial Performance, and the Moderating Role of Financial Literacy

The TPB suggests that, in the context of strong financial literacy, the utilization of fintech payment systems will maximize the overall MSME financial performance. Moreover, given the strong financial literacy of MSMEs, the subjective norms steering the acceptance of fintech payments will likely be even more pertinent. Such understanding helps MSMEs maximize the potential of financial technology. In studies conducted by Astari and Candraningrat (2022) and Kusuma and Putri (2023), it was ascertained that financial literacy functions as an intermediary in the relationship between the adoption of fintech payment systems and MSMEs' financial performance.

H₂: Financial literacy strengthens the relationship between fintech payment and MSME financial performance.

2.7.5. Peer-to-Peer (P2P) Lending, MSME Financial Performance, and the Moderating Role of Financial Literacy

Enhanced financial literacy enables MSMEs to better understand and fully leverage the benefits of P2P lending, which aids in financing and producing better financial results. Within the TPB context, the SME financing advantages of P2P lending are amplified by the level of financial literacy. Aditya and Rita (2024) and Hidayatullah (2024) demonstrate that financial literacy strengthens the relationship between P2P lending and the financial performance of MSMEs.

H₃: Financial literacy strengthens the relationship between peer-to-peer (P2P) lending and MSME financial performance.

2.7.6. Financial Management Behavior, MSME Financial Performance, and the Moderating Role of Financial Literacy

Sufficient financial literacy enables MSMEs to enhance their retention of daily cash flow management. Relating to the Theory of Planned Behavior (TPB), the case of financial management and the rationale behind financial decisions are the most pronounced with more financial literacy, which fosters more positive financial behavior among MSMEs. Asyifa and Dermawati (2024) and Handayani et al. (2022) studied the relationship between financial management behavior and the financial performance of MSMEs and confirmed that such a relationship is strengthened by financial literacy.

H₄: Financial literacy strengthens the relationship between financial management behavior and MSME financial performance.

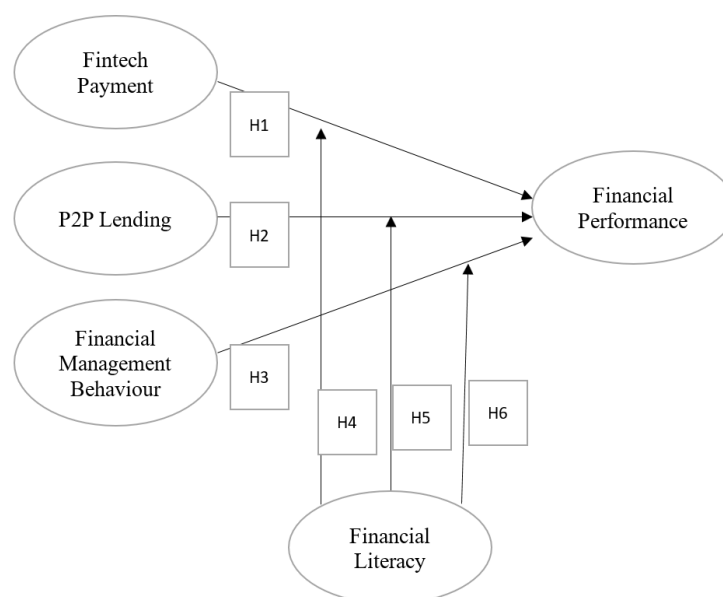


Figure 1. Research model.

Figure 1 illustrates the proposed conceptual framework of the study, showing the moderating role of financial literacy in the relationships between fintech payment, P2P lending, financial management behaviour, and financial performance.

2.8. Method

This research uses a quantitative methodology by means of a cross-sectional survey to assess the relationship between fintech payments and peer-to-peer (P2P) lending and financial management behaviour, financial literacy, and financial performance of MSMEs. The cross-sectional design is suitable for this research, as it describes the collection of data about individual perceptions, attitudes, and self-reported behaviors in a single instance, thus providing a glimpse of the current state of practices, FinTech adoption, and the resulting financial performance for MSMEs (Ningsih et al., 2025).

The structural model in this study is formulated as follows:

$$FP = \alpha + \beta_1 FTP + \beta_2 P2P + \beta_3 FMB + \beta_4 FL + \beta_5 (FTP \times FL) + \beta_6 (P2P \times FL) + \beta_7 (FMB \times FL) + e \quad (1)$$

Where:

FP = Financial Performance.

FTP = Fintech Payment.

P2P = Peer-to-Peer Lending.

FMB = Financial Management Behaviour.

FL = Financial Literacy.

β_1 – β_7 = Path coefficients.

α = Intercept (constant term).

e = Error term.

Denpasar City is selected as the empirical context of the study, as it is the economic center of Bali and has the highest density of MSMEs. In 2022, there were about 31,826 MSMEs in Denpasar; however, most of these enterprises had not yet embraced financial technology, such as fintech payment systems and P2P lending, which could have impacted their financial performance (Aprialita, Putri, & Hasthoro, 2024). This situation presents Denpasar as a valuable context for understanding the financial impact of FinTech adoption by MSMEs.

The population sample consists of all micro, small, and medium enterprises (MSMEs) located in Denpasar City. This study used purposive sampling because respondents needed to satisfy specific criteria related to the objectives of the study, including MSMEs that had been operating for at least one year, had adopted fintech solutions in their business operations, and maintained a separation between their business and personal finances. The study sample included 400 respondents, which is within the optimum and accepted range for the PLS-SEM (Partial Least Squares Structural Equation Modeling) technique, which suggests a sample size of 200 to 500 for an adequate quantitative examination of the intricacies of the structural model (Hair, Hult, Ringle, & Sarstedt, 2019; Hair, Risher, Sarstedt, & Ringle, 2019).

The data for the study were obtained as primary data through the use of a completely structured questionnaire, which was distributed to the respondents who qualified for the study. The questionnaires had study variables that were formulated to provide feedback to the researcher concerning varied attitudes, which in this case were quantitatively assessed through a 5-point Likert scale of "strongly disagree", "disagree", "neutral", "agree", and "strongly agree". The methodology of this study was to assist in the more precise measurement of a latent construct and enable the researcher to undertake the analysis of several variables simultaneously. The questionnaires items used to measure each construct, along with their sources, are presented in Table 10 in the Appendix. The table provides further details on how the constructs were measured in this study.

The data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique. This technique is used for studies that are more of a forecasting nature with complex models and in circumstances in

which the researcher is analyzing the data with limited confidence about the normality of the data (Miswanto et al., 2024). The analysis was conducted based on the two-stage evaluation approach.

As the first step, the evaluation of the measurement model was aimed at assessing construct validity and reliability through the lenses of convergent validity, discriminant validity, composite reliability, and Cronbach's alpha. The structural model was then assessed using the coefficient of determination (R^2), the predictive relevance (Q^2), and the Goodness of Fit (GoF) to evaluate the model's adequacy and predictive ability.

The t-statistics were used to test the hypothesis at a 5% significance level, and the moderation analysis was used to examine the interaction of financial literacy on the relationships among fintech payment, P2P lending, financial management behavior, and financial performance. Overall, the use of PLS-SEM together with the evaluation techniques used enables the model to be tested empirically, and the results to be tested to give insight into the financial position of MSMEs and the adoption of financial technology.

For this research, the study variables were examined using instruments from previous studies. The study utilized the payment attributes from Kusuma, Muafi, and Kholid (2023), who examined usefulness, ease of payment, transaction speed, security, and operational efficiency from the perspective of MSMEs. The attributes of peer-to-peer (P2P) lending were measured based on the efficiency of time, convenience to the borrower, data safety, speed of processing, and practical use of the digital lending platform, as described by Sukma et al. (2024). The financial behavior scale that examined MSMEs budgeting, spending, saving, investing, and managing debt was obtained from Maulidia and Mustaqim (2024). The attributes of MSMEs financial literacy as described by Trisuci (2023) were examined based on basic financial knowledge, the knowledge of saving, borrowing, financial protection, and investing, and the attributes of MSMEs financial performance as defined by Lestari et al. (2020) of liquidity, solvency, leverage, and profitability were also used. Each of the respondents used Likert scale items to assess the measurement items proposed, and the respondents were MSME owners/managers who have first-hand knowledge of the financial and operational aspects of the firms.

3. RESULTS AND DISCUSSION

3.1. Respondent Characteristics

This section presents the demographic profile of the respondents included in the study. The respondents are described based on their gender, business sector, business location, and annual turnover. These characteristics provide an overview of the sample and help describe the background of the business owners who participated in the study before the main statistical analyses are conducted. Table 1 presents the demographic characteristics of the respondents based on gender, business sector, business location, and annual turnover.

Table 1. Respondent Characteristics (n = 400).

Characteristic	Category	Frequency	Percentage (%)
Gender	Female	259	64.8
	Male	141	35.3
Business Sector	Fashion	149	37.3
	Culinary	144	36.0
	Others*	107	26.7
Business Location	South Denpasar	154	38.5
	North Denpasar	103	25.8
	West Denpasar	72	18.0
	East Denpasar	71	17.8
Annual Turnover	< IDR 100 million	100	25.0
	IDR 100–300 million	159	39.8
	> IDR 300 million	141	35.3

Note: *Others include laundry services, fisheries, plantations, and livestock businesses.

Table 2. Estimated outer loading values of the measurement model.

Indicators	Fintech Payment_	Financial Performance_	Financial Literacy_	P2P Lending_	Financial Management Behaviour_	Financial Literacy_ x Fintech Payment_	Financial Literacy_ x Financial Management Behaviour_	Financial Literacy_ x P2P Lending_
Fintech Payment_1	0.731							
Fintech Payment_2	0.773							
Fintech Payment_3	0.757							
Fintech Payment_4	0.891							
Fintech Payment_5	0.755							
Financial Performance_1		0.866						
Financial Performance_2		0.913						
Financial Performance_3		0.910						
Financial Performance_4		0.869						
Financial Literacy_1			0.840					
Financial Literacy_2			0.884					
Financial Literacy_3			0.871					
Financial Literacy_4			0.860					
P2P Lending_1				0.826				
P2P Lending_2				0.911				
P2P Lending_3				0.868				
P2P Lending_4				0.871				
P2P Lending_5				0.872				
Financial Management Behaviour_1					0.904			
Financial Management Behaviour_2					0.909			
Financial Management Behaviour_3					0.917			
Financial Management Behaviour_4					0.790			
Financial Literacy_ x P2P Lending_								1.000
Financial Literacy_ x Fintech Payment_						1.000		
Financial Literacy_ x Financial Management Behaviour_							1.000	

3.2. Outer Model Evaluation (Measurement Model)

3.2.1. Convergent Validity

Table 2 presents the results of the convergent validity test as measured by factor loading values. Based on the obtained output, all indicator outer loadings exceed 0.70, indicating that the data satisfy the criteria for convergent validity and demonstrate a strong level of measurement validity.

Table 3. Discriminant validity test results.

Variables	Fintech Payment_	Financial Performance_	Financial Literacy_	P2P Lending_	Financial Management Behaviour_
Fintech Payment_	0.784				
Financial Performance_	0.725	0.890			
Financial Literacy_	0.730	0.645	0.864		
P2P Lending_	0.559	0.548	0.467	0.870	
Financial Management Behaviour_	0.637	0.668	0.681	0.416	0.881

3.2.2. Discriminant Validity

The AVE values for each construct in the table above demonstrate that all constructs attain a score of discriminant validity, as they exceed the minimum threshold of 0.50. Moreover, the Fornell-Larcker criterion ascertains that each construct's AVE square root surpasses its correlations with all the remaining constructs. Having established that the test for discriminant validity yielded positive results, we are able to evaluate the cross-loadings. This involves the analysis of the correlation of an indicator with its respective construct relative to the correlations it maintains with other constructs. If an indicator is more loaded on a construct than on other constructs, it implies that the construct, in this case, explains the indicator(s) better than other constructs. The results from cross-loading are as follows:

Table 4. Cross-Loading Values of the Estimated Model.

Indicators	Fintech Payment_	Financial Performance_	Financial Literacy_	P2P Lending_	Financial Management Behaviour_	Financial Literacy_ x Fintech Payment_	Financial Literacy_ x Financial Management Behaviour_	Financial Literacy_ x P2P Lending_
Fintech Payment_1	0.731	0.486	0.667	0.407	0.350	-0.108	0.006	-0.050
Fintech Payment_2	0.773	0.550	0.534	0.408	0.430	0.013	0.087	0.068
Fintech Payment_3	0.757	0.570	0.390	0.438	0.611	-0.120	0.029	-0.070
Fintech Payment_4	0.891	0.671	0.667	0.487	0.587	-0.282	-0.181	-0.105
Fintech Payment_5	0.755	0.542	0.615	0.445	0.487	-0.233	-0.227	-0.048
Financial Performance_1	0.763	0.866	0.583	0.560	0.660	-0.291	-0.192	-0.145
Financial Performance_2	0.602	0.913	0.524	0.510	0.559	-0.167	-0.017	-0.059
Financial Performance_3	0.637	0.910	0.605	0.478	0.613	-0.232	-0.074	-0.151
Financial Performance_4	0.544	0.869	0.580	0.378	0.525	-0.180	0.025	-0.094
Financial Literacy_1	0.668	0.610	0.840	0.362	0.634	-0.208	-0.139	-0.047
Financial Literacy_2	0.647	0.572	0.884	0.373	0.526	-0.087	-0.049	-0.018
Financial Literacy_3	0.608	0.579	0.871	0.500	0.630	-0.094	0.058	-0.039
Financial Literacy_4	0.588	0.434	0.860	0.372	0.550	-0.113	-0.001	-0.065
P2P Lending_1	0.451	0.417	0.385	0.826	0.363	0.001	0.050	-0.132
P2P Lending_2	0.451	0.494	0.363	0.911	0.307	-0.068	-0.046	-0.282
P2P Lending_3	0.516	0.508	0.346	0.868	0.334	-0.134	-0.078	-0.298
P2P Lending_4	0.503	0.476	0.465	0.871	0.462	0.034	0.007	-0.205
P2P Lending_5	0.507	0.481	0.475	0.872	0.350	-0.065	-0.034	-0.208
Financial Management Behaviour_1	0.560	0.574	0.617	0.283	0.904	-0.064	-0.003	-0.057
Financial Management Behaviour_2	0.574	0.592	0.621	0.382	0.909	-0.090	0.038	-0.043
Financial Management Behaviour_3	0.561	0.629	0.583	0.413	0.917	-0.008	0.127	0.004
Financial Management Behaviour_4	0.549	0.558	0.580	0.385	0.790	-0.104	0.045	0.010
Financial Literacy_ x P2P Lending_	-0.055	-0.129	-0.047	-0.262	-0.024	0.659	0.533	1.000
Financial Literacy_ x Fintech Payment_	-0.194	-0.250	-0.148	-0.056	-0.073	1.000	0.777	0.659
Financial Literacy_ x Financial Management Behaviour_	-0.080	-0.082	-0.042	-0.027	0.061	0.777	1.000	0.533

Table 4 displays that each indicator's cross-loading values onto their respective constructs are greater than their cross-loading values onto other constructs. Based on these findings, it can be concluded that each construct demonstrates better predictive capability for its own block of measures compared to other blocks, thereby confirming adequate discriminant validity.

Table 5. Average variance extracted.

Variables	Average Variance Extracted (AVE)
Fintech Payment_	0.614
Financial Performance_	0.792
Financial Literacy_	0.747
P2P Lending_	0.757
Financial Management Behaviour_	0.777

Table 5 presents the average variance extracted (AVE) values for each construct.

3.2.3. Convergent Validity Assessment

Based on the output of the testing results above, all variables exhibit values greater than 0.5. Accordingly, each variable can be considered valid.

Table 6. Composite Reliability and Cronbach's Alpha Test Results.

Variables	Cronbach's Alpha	Composite Reliability	Note
Fintech Payment_	0.841	0.852	Reliable
Financial Performance_	0.913	0.921	Reliable
Financial Literacy_	0.888	0.895	Reliable
P2P Lending_	0.919	0.923	Reliable
Financial Management Behaviour_	0.903	0.906	Reliable

Table 6 presents the results of the composite reliability and Cronbach's alpha tests for all constructs.

3.2.4. Composite Reliability and Cronbach's Alpha

From Table 6, it can be observed that all variables have composite reliability values greater than 0.7 and Cronbach's alpha values exceeding 0.6. Therefore, it can be concluded that each variable demonstrates satisfactory reliability.

Table 7. Evaluation of the Inner Structural Model.

Dependent Variable	R Square	R Square Adjusted
Financial Performance_	0.649	0.643

Table 7 presents the coefficient of determination (R^2) values for the endogenous constructs. The results indicate the explanatory power of the structural model.

3.3. Structural Model Testing (Inner Model)

3.3.1. R-Square (R^2) Test

The R^2 value attributed to financial performance stands at 0.649. Using the benchmark established by Chin (as cited in Ghazali and Latan (2022)), this sits squarely in the middle category. This suggests that, in aggregate, the fintech payment, peer-to-peer (P2P) lending, financial management behavioral model, and the financial literacy model account for 64.9% of the variation in financial performance. It follows that 35.1% of financial performance is a function of other factors not captured in the model, for instance, payment gateways and financial inclusion.

Table 8. Goodness of fit evaluation.

Variables	Cronbach's Alpha	Communality
Fintech Payment_		0.784
Financial Performance_	0.649	0.890
Financial Literacy_		0.864
P2P Lending_		0.870
Financial Management Behaviour _		0.881
Average	0.649	0.857

3.3.2. Structural Model Evaluation Using Goodness of Fit (GoF)

Table 8 presents the goodness-of-fit evaluation results of the proposed model. The Goodness of Fit (GoF) calculation yields a value of $\sqrt{(AR^2 \times A.Com)} = \sqrt{(0.649 \times 0.857)} = \sqrt{0.556} = 0.745$. This result indicates that the global model demonstrates strong predictive power and falls within the large (strong) model category.

Table 9. Hypotheses and statistical testing results.

Hypothesis	Direct Relation	Original Sample (O)	T Statistics (O/STDEV)	P Values	Note
H1	Fintech Payment-Financial Performance	0.312	6.285	0.000	Significant
H2	Peer-to-Peer Lending-Financial Performance	0.224	6.189	0.000	Significant
H3	Financial Management Behaviour-Financial Performance	0.300	7.437	0.000	Significant
H4	Financial Literacy x Fintech Payment-Financial Performance	-0.246	5.821	0.000	Significant
H5	Financial Literacy x Peer-to-Peer Lending- Financial Performance	0.074	2.077	0.038	Significant
H6	Financial Literacy x Financial Management Behaviour-Financial Performance	0.104	2.262	0.024	Significant

3.4. Hypothesis Testing

Table 9 presents the hypothesis testing results. The path coefficient of Fintech Payment ($\beta = 0.312$) indicates that higher levels of fintech payment adoption are associated with improved MSMEs' financial performance. Considering that the construct was measured using a Likert scale ranging from 1 to 5, an increase reflects a meaningful shift in respondents' perceptions and usage intensity regarding the usefulness, convenience, speed, and security of fintech payment services. This finding suggests that stronger adoption and more favorable perceptions of fintech payments moderately enhance financial outcomes among MSMEs.

The coefficient for P2P Lending ($\beta = 0.224$) also demonstrates a positive relationship with financial performance, although its magnitude is smaller compared to Fintech Payment. This implies that access to alternative financing through P2P lending contributes positively to MSMEs' financial outcomes, but its influence is relatively less substantial.

Financial Management Behavior ($\beta = 0.300$) exhibits a coefficient close in magnitude to Fintech Payment, indicating that prudent financial practices, such as budgeting, cash-flow management, and financial planning, are almost equally important in improving MSMEs' financial performance.

Regarding the moderating effects, Financial Literacy negatively moderates the relationship between Fintech Payment and Financial Performance ($\beta = -0.246$). This finding indicates that the positive impact of fintech payment adoption becomes weaker at higher levels of financial literacy. One possible explanation is that financially literate MSME owners may already possess effective financial management capabilities and, therefore, rely less on fintech payment systems to improve performance.

In contrast, Financial Literacy positively moderates the relationships between P2P Lending and Financial Performance ($\beta = 0.074$), as well as between Financial Management Behavior and Financial Performance ($\beta = 0.104$). These results suggest that higher financial literacy strengthens the benefits derived from alternative financing and disciplined financial management practices.

In terms of relative importance, Fintech Payment ($\beta = 0.312$) and Financial Management Behavior ($\beta = 0.300$) appear to have the strongest effects on MSMEs' financial performance, while P2P Lending ($\beta = 0.224$) has a comparatively smaller, yet still significant, contribution. Furthermore, the negative moderating effect of Financial Literacy on the Fintech Payment–Financial Performance relationship ($\beta = -0.246$) is relatively stronger than its positive moderating effects on P2P Lending and Financial Management Behavior.

3.5. Discussion

To begin with, the findings establish that the use of digital payment technologies has a positive influence on the financial performance of MSMEs. This result shows that the adoption of digital payments is not only useful from the perspective of transactional activities but also serves as an operational mechanism that enhances efficiency, increases the speed of cash inflow, and simplifies the coordination of everyday operational activities. By improving liquidity and cash flow (fintech payments reduce the speed of transaction delays and simplify payments), the financial performance of an MSME is improved (Ningsih et al., 2025). From the perspective of financial and operational control, MSMEs must understand that digital payment technologies (fintech payments) ought to be used as a pay-for operational strategy rather than being regarded as a technological advance. From this perspective, support institutions for MSMEs ought to focus on integrated digital payment systems within a simplified financial management framework rather than on cash-flow systems. This finding also supports the Theory of Planned Behavior (TPB) with respect to the fact that subjective norms and perceived behavioral control, shaped (in most cases) by contemporary market competition and technology availability, translate positive intentions into achieved results (Haryadi et al., 2025; Nugraheni et al., 2025).

Second, the role of P2P lending in improving financial performance demonstrates the importance of alternative sources of financing for MSMEs in overcoming their structural credit constraints. P2P lending, unlike traditional banks, offers more flexible, less stringent, and quicker access to funding, which helps MSMEs manage their cash flow better and make growth investments (Gunawan et al., 2023; Mathur & Sharma, 2025). This shows that P2P lending is more of a financial facilitator than a substitute for bank lending. The financial implication is that MSMEs must use P2P financing for more strategic purposes, such as funding productive activities rather than financing immediate consumptive activities. For both platform providers and regulators, the study suggests that these lending policies and frameworks should be focused more on transparency in order to promote access while mitigating risk. In line with TPB, a favorable attitude towards alternative financing, along with increased ease of access, positively reinforces MSMEs to make financing choices that promote sustainable performance (Aditya & Rita, 2024; Hidayatullah, 2024).

Third, the findings reveal that the level of financial management behavior positively correlates with the financial performance of the MSMEs, showing that the internal behavioral self-discipline within the MSMEs is an essential factor in achieving success. MSMEs that practice budgeting, monitoring, and financial controls are likely to manage their resources economically and manage their debts and other financial obligations even amidst an economic crisis (Haryadi et al., 2025; Ratnawati et al., 2023; Sari et al., 2023). This shows that financial technology and even external financing would be meaningless without good financial behavior. From an organizational standpoint, the MSMEs must focus on improving their internal financial processes, while the training institutions should emphasize the need to solidify the financial knowledge so that the MSMEs form good financial habits. Consistent with the TPB, positive financial self-discipline would lead to more intentional self-discipline activities and improve the financial performance of the MSMEs (Asyifa & Dermawati, 2024; Handayani et al., 2022).

The dynamic of the fintech payment and financial performance relationship and the negative moderating impact of financial literacy are very significant in terms of understanding the implications of the adoption of fintech. Financial literacy seems to lead to more prudent and, therefore, more selective financial payment systems and, in that sense, reduces the adoption of payment systems, resulting in the declining marginal return in terms of performance (Haryadi et al., 2025; Ningsih et al., 2025; Sari et al., 2023). That the financially literate MSMEs seem to attain some level of efficiency through traditional financing means that fintech payment systems are not game-changing but are merely supplementary. For MSMEs who are financially literate, fintech providers and policy-makers must devise solutions to digital payments that ensure greater value, not just greater convenience. This outcome supports the previous studies' findings that a lack of financial literacy is a factor that tends to decrease the positive relationship between performance and the impact of fintech technologies (Kurniasari & Lestari, 2024; Pranoto, Mas'adah, & Sulistyowati, 2024).

Fifth, financial literacy is found to reinforce the positive effects of P2P lending and financial management behavior on financial performance. This suggests that with sufficient financial knowledge, MSMEs are better equipped to assess the finance management deadlines, control payment obligations, and manage the allocation of resources efficiently to maximize the benefit of the other financing alternatives (Gunawan et al., 2023; Haryadi et al., 2025). Furthermore, MSMEs that possess sufficient financial knowledge are more able to transform consistent financial management into better performance outcomes (Munawar, 2025; Wahyundaru et al., 2024). Therefore, one of the practical implications is that financial literacy training should be developed to enhance knowledge, as well as the decision-making capability in the areas of financing and financial control. In line with TPB, better perceived behavioral control strengthens MSMEs' capability to transform informed intentions into real positive financial behavior (Asyifa & Dermawati, 2024; Handayani et al., 2022).

4. CONCLUSION

The first thing to note is the positive impact MSME's financial performance received from Fintech payments. This outcome shows that the digital payment adoption process goes beyond the creation of payment methods as a transactional mechanism, but rather as a structuring pattern, which increases operational efficiency, accelerates cash inflows, and decreases coordination friction in the day-to-day activities of businesses. Fintech payments enhance the management of the inflow and outflow of cash to businesses, the stability of income, and the overall performance of the business financially by streamlining business processes and reducing delays. From this point, Ningsih et al. (2025) highlight the managerial implications of considering digital payments as a tool to control business processes better. Concerning the Theory of Planned Behavior, this finding reconfirms the essence of the planned actions in line with the recognized norm of the market and the level of technology available for the business, wherein the adoption of a technology and its integration into the business processes serve a specific purpose (Haryadi et al., 2025; Nugraheni et al., 2025).

The positive impact from P2P lending on MSME's financial performance illustrates how valuable these alternative financing options are to close the structural credit gaps. MSMEs have a better chance of working on their cash flows and making investments in their growth because of the rapid and less restrictive funding access from P2P systems versus traditional banking systems (Gunawan et al., 2023; Mathur & Sharma, 2025). It is these financial enabling functions of P2P lending (rather than simply providing bank-replacement financing) that are of particular importance. For practical purposes, this means that MSMEs need to focus P2P lending resources on more productive purposes rather than on immediate consumptive needs. For policymakers and P2P platform operators, this finding highlights the need for frameworks for P2P lending that are clear and easy to comply with in order to promote access while protecting against the associated risks. As predicted by the TPB, the more MSMEs perceive financing options positively and feel that they can control the outcomes associated with financing, the more they take up financing options that support sustainable performance (Aditya & Rita, 2024; Hidayatullah, 2024).

Third, the results reaffirm the meaning of internal behavioral discipline as one of the key drivers of the success of MSMEs. It shows, among other things, that the greater the level of financial management behavior, the greater the financial performance achieved by the MSMEs. The more budgetary, monitoring, and control practices an MSME adopts, the more likely it is that it will manage its resources, reduce its liabilities, and create a buffer to protect itself against the uncertainties of the economy (Haryadi et al., 2025; Ratnawati et al., 2023; Sari et al., 2023). This result suggests that sound financial management behavior independently contributes to improving MSMEs' financial performance. From an internal management perspective, MSMEs need to strengthen their financial management practices, whereas educators and trainers in the financial discipline should aim to develop the participants' hands to perform financially disciplined practices. In the context of TPB, this is indicative of the fact that the more positive the financial discipline, the more intentional practices are exhibited, ultimately leading to a more positive financial performance (Asyifa & Dermawati, 2024; Handayani et al., 2022).

Fourth, the intricacies of the adoption of fintech are made clear by the negative moderating effect of financial literacy on the relationship between fintech payment and financial performance. Financial literacy leads to more cautious and fintech payment-system selective adoption, thereby lowering any positive performance improvement from system adoption (Haryadi et al., 2025; Ningsih et al., 2025; Sari et al., 2023). This may mean that financially literate MSMEs, through their traditional financial options, already attain sufficiency and view fintech payments as an addition rather than as a disruptive system. This means that MSMEs that are financially sophisticated or literate require more than digital payments, and need for fintech providers and policymakers to limit their offer to payment systems that have demonstrable value-adding benefits other than offering convenience. This is in line with previous evidence where some researchers noted that financial literacy, to some extent, can impede the performance of technology-enabled financial solutions (Kurniasari & Lestari, 2024; Pranoto et al., 2024).

Fifth, financial literacy positively reinforces the impact of P2P lending and financial management behavior on financial performance. This means that with financial knowledge, MSMEs enhance their assessment of financing conditions, management of repayment responsibilities, and efficient resource allocation to maximize the benefits of possible financing (Gunawan et al., 2023; Haryadi et al., 2025). Additionally, the positive impact of disciplined financial management on the performance of MSMEs is significant and illustrates the ease and strength of the impact that financially literate MSMEs can have (Munawar, 2025; Wahyundaru et al., 2024). In practical terms, this means that financial literacy programs need to go beyond the knowledge component and focus more on the decision-making processes related to financing and financial control. In congruence with the TPB, the MSMEs' perceived behavioral control increases as the more informed they are, the more financial actions they are able to take (Asyifa & Dermawati, 2024; Handayani et al., 2022).

5. IMPLICATIONS

The study is innovative within the context of the Theory of Planned Behavior as it demonstrates the smoothing effect of cognitive capability (in this case, financial literacy) on asymmetrically shifting both tech and behavior outcomes. While the logic of this study is sound, it shows that fintech adoption and financial literacy policy practices should be aligned so that MSMEs act on the digital financial tools in a responsible and sustainable manner.

6. RESEARCH LIMITATIONS AND FUTURE RESEARCH

The study's principal limitation is the MSMEs in Denpasar City and the use of the cross-sectional design. Future research should expand the coverage area, use longitudinal design approaches, and integrate financial performance indicators in order to enhance the literature on fintech-MSME performance.

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Appendix

Table 10. Survey items and sources for each construct.

Construct	Indicator	Source Reference	Questionnaire
Fintech Payment	1. Usefulness, 2. Ease of payment, 3. Transaction speed, 4. Security, and 5. Operational efficiency	Kusuma et al. (2023)	1. I feel that using fintech payments helps improve the efficiency of my business financial transactions. 2. I feel that fintech payments make my business payment process easier compared to conventional payment methods. 3. The use of fintech payment enables me to conduct financial transactions more quickly. 4. I have less confidence in the security of fintech payments as a means of conducting my business financial transactions. 5. Fintech payment makes the financial management of my business more efficient.
Peer-to-Peer (P2P) Lending	1. Efficiency of time, 2. Convenience to the borrower, 3. Data safety, and 4. Speed of processing, and 5. Practical use of the digital lending platform	Sukma et al. (2024)	1. The use of P2P lending helps save my time in obtaining business funding. 2. I feel comfortable using P2P lending as a financing solution for my business. 3. I am confident that my personal and financial data are secure when using P2P lending services. 4. The process of applying for and disbursing funds through P2P lending is fast and efficient. 5. P2P lending does not provide a practical way to obtain business funding.
Financial Management Behaviour	1. Budgeting, 2. Spending, 3. Saving, investing, and insurance 4. Managing debt	Maulidia and Mustaqim (2024)	1. I regularly prepare financial budgets to ensure that my business cash flow remains under control. 2. I try to save money and manage my business spending wisely. 3. I never set aside a portion of my business income for savings, investments, and insurance. 4. I ensure that my business obligations, such as installments or bills, are paid on time.
Financial Literacy	1. Basic financial knowledge 2. Saving and borrowing, 3. Financial protection, and 4. Investing	Trisuci (2023)	1. I have a good understanding of basic financial concepts, such as income, expenses, and business cash flow. 2. I do not understand the proper way to manage business savings and the various loan options available. 3. I understand the importance of protection or insurance in safeguarding my business against unexpected risks. 4. I understand various types of investments and investment methods that can increase my business profits.
Financial Performance	1. Liquidity, 2. Solvency, 3. Leverage, and 4. Profitability	Lestari et al. (2020)	1. My business has sufficient liquidity to meet short-term obligations on time. 2. My business has a good ability to fulfill long-term obligations and business debts. 3. I use leverage (the use of debt) effectively to improve my business's financial performance without adding excessive risk. 4. My business generates stable and adequate profits over time.

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