
WOMEN ENTREPRENEURS, DIGITAL PAYMENTS, AND THE PERFORMANCE OF MSMEs: EVIDENCE FROM INDONESIA MSMEs

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Abstract:

This study targets female owners of micro, small and medium-sized enterprises (MSMEs) who use digital payments, with a core focus on examining the effects of two digital-payment-related independent variables perceived ease of use and perceived usefulness on three categories of outcome variables: MSMEs satisfaction, intention to use digital payments, and MSMEs performance. This study adopts a quantitative correlational research design. Through convenience sampling, a type of non-probability sampling, 354 valid samples were collected. Partial least squares structural equation modeling (PLS-SEM) analysis was conducted using SmartPLS 3. The results indicate that all hypotheses were accepted. Perceived Ease of Use significantly influences Perceived Usefulness, MSMEs Satisfaction, and Intention to Use Digital Payment. Additionally, Perceived Usefulness significantly influences MSMEs Satisfaction and Intention to Use Digital Payment. The findings also indicate that MSMEs Satisfaction and Intention to Use Digital Payment significantly influence MSMEs Performance. These results confirm that the ease and usefulness of digital payments enhance satisfaction and usage intent, which ultimately contribute to improved performance among female MSMEs owners.

Key words: *Digital Payments, Technology Acceptance Model, MSMEs Satisfaction, Intention to Use, Performance of Women-Owned MSMEs.*

1. Introduction

This paper proposes that many developing countries position micro, small, and medium-sized enterprises (MSMEs) as a core cornerstone of their national economies. These enterprises can create value, optimize distribution, drive employment, and strengthen local resilience; after being upgraded through digitalization, innovation, and sustainable operation, they will become core strategic driving forces (Ashubwe et al., 2025). In this

context, women entrepreneurs hold a crucial position because their involvement in economic activities not only expands the entrepreneurial base but also drives more inclusive growth. However, the contributions of women entrepreneurs are not always fully realized because they often face limitations in financial and digital capabilities, as well as gender-based barriers that reduce their opportunities to effectively leverage technology and digital markets (Tetteh et al., 2025). Therefore, research on women-led MSMEs must be situated within a broader agenda encompassing digital transformation, financial inclusion, and the enhancement of MSMEs performance.

The growth of digital payments has become one of the most relevant forms of digital transformation for MSMEs, as it is directly linked to transaction activities, financial record-keeping, customer access, and operational efficiency. Over the past five years, the COVID-19 pandemic has accelerated the adoption of digital financial services, including digital payments, so the dynamics of SME transformation must be understood as a combination of pandemic shocks and post-pandemic consolidation (Cao, 2025; Gomes et al., 2025). Evidence from Indonesia indicates that digital financial inclusion can enhance SME performance through transaction facilitation, operational efficiency, optimization of financial activities, expanded access to financing, and broader market reach (Karankoti et al., 2025). Furthermore, the use of mobile money in business transactions can improve liquidity and expand access to trade credit, so that digital payments function not only as a transactional tool but also as economic infrastructure supporting working capital and business stability (Izuagbe et al., 2026).

Although digital payments have the potential to improve the performance of women-owned MSMEs, their benefits have not yet been fully realized due to limitations in access to financing, the quality of financial services, mentoring, financial and digital literacy, trust, security, infrastructure, and institutional support (Tandilino et al., 2025; Tetteh et al., 2025). Limited access to finance can also hinder business growth and reduce the adoption of digital financial services (Keshav & Sinha, 2026). In fact, the impact of microcredit on women's economic conditions may be limited if it is not supported by adequate loan structures and training (Tandilino et al., 2025). Therefore, an inclusive, secure, user-friendly digital payment ecosystem supported by financial and digital literacy is needed. Digital payments can reduce transaction friction, mitigate cash-related risks, accelerate payments, improve transaction record-keeping, and open access to digital financing (Campanella et al., 2026; Izuagbe et al., 2026), while financial literacy strengthens trust, decision-making, and business resilience.

The literature on technology acceptance explains that the adoption of digital payments among women-owned MSMEs is influenced by perceived ease of use and perceived usefulness. Perceived ease of use refers to the ease of learning and operating the technology, while perceived usefulness reflects its benefits in improving transaction efficiency, productivity, customer access, and financial management. Digital technology adoption is also influenced by enabling conditions, organizational readiness, effort expectancy, performance expectancy, trust, and security (Campanella et al., 2026; Cunningham & Petzer, 2026; Seitz et al., 2026). However, technology acceptance needs to evolve into satisfaction and the intention to continue using the technology. The continued use of mobile wallets is influenced by perceived usefulness, perceived ease of use,

information quality, trust, perceived security, and customer engagement (Trinh, 2025). Furthermore, the adoption of FinTech can strengthen financial inclusion and the intention to continue using the service, although the determinants differ between urban and rural areas (Musyaffi et al., 2024; Setiawan et al., 2026). Thus, for digital payments to have an impact on financial performance, their use must be consistent, satisfying, and integrated with business operations.

The existing literature has provided an important foundation regarding the digitalization of MSMEs, financial inclusion, and FinTech adoption, but research gaps remain. Many studies on digital payments focus more on user intent, satisfaction, or loyalty rather than on the performance of SMEs, particularly women-owned SMEs (Liddiana et al., 2026; Patten & Srinivas, 2026; Trinh, 2025). Current existing research in the digital finance field for micro, small, and medium-sized enterprises (MSMEs) has three core gaps. First, Karankoti et al., (2025) point out that many studies that link digital financial inclusion, FinTech adoption, and firm performance use overgeneralized constructs, and fail to distinguish digital payments from other types of digital financial services. Furthermore, Seitz et al., (2026) note that most studies adopt a cross-sectional design, leaving the correlation between core variables always unclear. The final gap is that there is a severe lack of research that takes women-owned SMEs as analysis units to build an association between perceptions of technology acceptance and MSMEs performance, a gap that Gomes et al., (2025) also corroborates.

Building on the context of existing research, this study focuses on the issue of digital payment adoption among small and medium-sized enterprises (SMEs) owned or managed by women. Its core objective is to analyze the internal correlations among five variables: the perceived ease of use of digital payments, perceived usefulness, enterprise satisfaction, usage intention, and MSMEs performance. This study innovatively integrates three perspectives female entrepreneurship, digital payments, and MSMEs performance into a unified technology acceptance model. It puts forward conceptual hypotheses that perceived ease of use positively improves three mediating variables, while satisfaction and usage intention drive enterprises' MSMEs performance. The scope of this study is restricted to relevant enterprises that already use digital payments to conduct their business operations. This research is expected to enrich studies on the technology acceptance model in this specific scenario, and also support stakeholders including governments and digital financial service providers in designing well-suited digitalization strategies.

2. Literature review

2.1. Digital Transformation and Women-Owned MSMEs

The general connotation of digital transformation, as defined in existing research by Ashubwe et al., (2025) and Tetteh et al., (2025), holds that this process can deliver four core gains for micro, small, and medium-sized enterprises (MSMEs); focusing on the specific subgroup of female entrepreneurs, research by Cao (2025) points out that this group faces four major digitalization barriers: limited access to financing, insufficient digital financial literacy, constrained business networks, and gender-based barriers. Research by Gomes et al., (2025) defines the digital financial capability of female entrepreneurs, and verifies that

this capability can build digital trust, improve decision-making quality, and strengthen the sustainability of entrepreneurial firms.

2.2. The Technology Acceptance Model as a Theoretical Framework

To explain users' technology use behavior in digital payment scenarios, this study selects the Technology Acceptance Model (TAM), proposed by Davis (1989), as its core analytical framework. This model is a widely applied classic theory in the field of information systems and technology adoption, and it centers on two core constructs: perceived usefulness, which refers to an individual's belief that using a technology can improve their performance; and perceived ease of use, which refers to the belief that using a technology does not require significant effort. A study by Auliandri et al., (2026). corroborates the core logic that ease of use can strengthen users' perceived benefits, and this framework can support the present study's analysis of digital payment users' adoption and continuous use behavior.

2.3. Perceived Ease of Use, Perceived Usefulness, SME Satisfaction, and Intention to Use Digital Payments

Drawing on Davis (1989) classic Technology Acceptance Model (TAM) framework, as well as cutting-edge research from Cao (2025), Campanella et al., (2026), Ashubwe et al., (2025), and Cunningham & Petzer (2026), this paper sorts out the core variable transmission mechanism in the digital payment scenarios of micro, small, and medium-sized enterprises (MSMEs): Perceived Ease of Use (PEOD) enables enterprises to adopt relevant systems without barriers, reduces operational burdens, and directly strengthens Perceived Usefulness (PUD); PUD then boosts transaction efficiency, optimizes cash flow, and improves sales record management, before passing through usage satisfaction to generate continuous usage intention. This dual effect underpins this paper's core proposition: the original TAM can be extended to sequentially connect three dimensions: technology acceptance, post-adoption evaluation, and the financial outcomes of MSMEs.

H1: Perceived ease of use of digital payments has a significant effect on perceived usefulness of digital payments.

H2: Perceived ease of use of digital payments has a significant effect on MSMEs satisfaction.

H3: Perceived ease of use of digital payments has a significant effect on the intention to use digital payments.

2.4. Perceived Usefulness, MSMEs Satisfaction, and Intention to Use Digital Payments

Perceived Usefulness refers to the degree to which operators of small, medium, and micro enterprises (SMEs) judge that digital payments can improve their business operation efficiency and productivity. Per the classic study by Davis (1989), the higher the perceived benefits of a technology, the stronger an enterprise's tendency to continue adopting that technology. This construct can also boost enterprise satisfaction through three dimensions including simplifying transaction processes, and the relevant inferences are supported by Campanella et al., (2026) and Cao (2025). From the perspective of TAM, it is the core

foundation for forming positive technology evaluations, and this conclusion is also supported by Ashubwe et al., (2025) and Nugraheni et al., (2026).

H4: The perceived usefulness of digital payments has a significant effect on the intention to use digital payments.

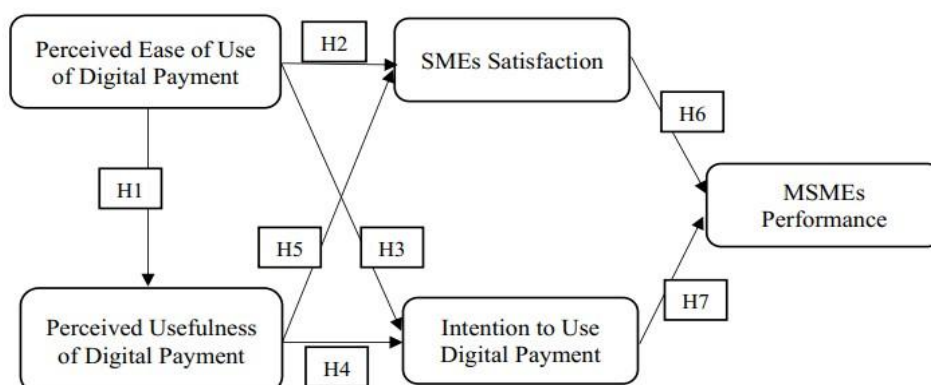
H5: The perceived usefulness of digital payments has a significant effect on MSMEs satisfaction.

2.5. MSMEs Satisfaction, Intention to Use Digital Payments, and MSMEs Performance

This study defines two core constructs in the field of digital payments for micro, small and medium-sized enterprises: the first is MSMEs satisfaction, which refers to business operators' positive evaluations of their user experience with digital payments. Cao (2025) points out that this construct can drive continued usage and unlock the commercial value of digital payments. In addition, usage intention of digital payments refers to an enterprise's behavioral readiness to integrate this tool into its operations. Drawing on the Technology Acceptance Model (TAM), Campanella et al., (2026) and Sultana et al., (2026) propose that this factor is a core predictor of actual usage, and can generate both organizational and financial benefits. Furthermore, (Nandnaba, 2026) notes that the synergy between the two constructs can boost transaction volume, revenue and cash flow, and improve overall MSMEs performance.

H7: The intention to use digital payments has a significant effect on MSMEs performance.

Figure 1. Conceptual Design



3. Methodology

3.1. Research Design

This study takes female owners and practitioners of micro, small, and medium-sized enterprises (MSMEs) in Indonesia who use digital payments in their daily business operations as its research subjects. A questionnaire survey was conducted using convenience sampling, a non-probability sampling method. Citing literature by Gravetter et al., (2021) and Khayer et al., (2020), this method is confirmed to be highly practical, fast to implement, low in execution difficulty, and suitable for technology adoption-related research.

For this study, 426 questionnaires were distributed, and 354 valid questionnaires were recovered, marking a valid response rate of 83.09%. This study employed a cross-sectional research design, with a single data source consisting solely of women-owned MSMEs. Follow-up work will categorize respondent characteristics across four dimensions: gender, age, enterprise ownership, and enterprise type. All respondents in this study were women (100%). By age, the majority of respondents were in the 21 to 30 age range (53.3%). Meanwhile, most MSMEs operated in the culinary sector (45.5%), followed by trade (22.8%), fashion (14.1%), services (9.9%), and beauty (7.7%).

This study has several limitations. First, the use of convenience sampling means that the sample does not fully represent all women-owned MSMEs in Indonesia and may introduce selection bias. Second, the cross-sectional study design only describes conditions at a single point in time and therefore cannot explain changes in digital payment usage behavior or the longitudinal development of MSME performance. Third, this study uses self-reported data from a single source, raising the possibility of respondent perception bias. Furthermore, the predominance of respondents from a specific age group and the food service sector limits the generalizability of the study's findings to all characteristics of women-owned MSMEs in Indonesia.

3.2. Research Instrument

The research instrument consists of a structured questionnaire comprising 24 items designed to measure Perceived Ease of Use, Perceived Usefulness, SME Satisfaction, Intention to Use Digital Payment, and MSMEs Performance. All items are measured using a 1–5 Likert scale, ranging from strongly disagree to strongly agree.

Table 1. Measurement of Variables

Variables	Codes	Statement
Perceived Ease of Use of Digital Payment (PEOD)	PEOD.1	I find digital payments easy to use in my business
	PEOD.2	I understand how to use digital payments without difficulty
	PEOD.3	I find digital payment systems easy to learn
	PEOD.4	I do not have any trouble using digital payments
	PEOD.5	I feel that using digital payments does not require much effort
Perceived Usefulness of Digital Payment (PUD)	PUD.1	I feel that using digital payments helps improve the efficiency of my business
	PUD.2	I have experienced the benefits of digital payments in speeding up my business transactions
	PUD.3	I use digital payments to increase my business productivity
	PUD.4	I believe digital payments help improve my business performance
	PUD.5	I feel that digital payments simplify the financial management of my business
Intention to Use Digital Payment (IUDP)	IUDP.1	I intend to use digital payments in my business on an ongoing basis
	IUDP.2	I plan to increase the use of digital payments in my business
	IUDP.3	I am willing to use digital payments for my business transactions
	IUDP.4	I have a strong desire to use digital payments
	IUDP.5	I would recommend the use of digital payments to other

business owners		
MSMEs Satisfaction (SMS)	SMS.1	I am satisfied with the increase in my business sales in recent times.
	SMS.2	I am satisfied with my business's ability to attract and retain customers.
	SMS.3	I am satisfied with the operational efficiency of my business in carrying out business activities.
	SMS.4	I am satisfied with my business's financial condition, particularly in terms of the profits generated.
	SMS.5	I am satisfied with my business's ability to manage cash flow in a stable manner.
MSMEs Performance	SMEs.1	My business decisions have become more effective when reviewing transaction reports from digital payments
	SMEs.2	Digital payments at my store can increase customer loyalty
	SMEs.3	Digital payments in my store can increase the number of customers who shop
	SMEs.4	Digital payments can improve my business's reputation

3.3. Data Analysis Techniques

Data analysis in this study employed Partial Least Squares-based Structural Equation Modeling (SEM-PLS) (Hair et al., 2019). This method was chosen because it is capable of handling complex research models with latent constructs, including Perceived Ease of Use, Perceived Usefulness, SME Satisfaction, Intention to Use Digital Payment, and SMEs Performance, while also being suitable for a medium sample size of 354 respondents. This study adopts a two-stage SEM-PLS analytical method. In the first stage, it tests the construct validity and reliability of the outer model against the standards of AVE > 0.5 and reliability > 0.7. In the second stage, it tests the variable paths and predictive power of the inner model. This method aligns with the extended TAM framework proposed by Memon et al., (2021), and can measure the relative contribution of each construct to the MSMEs performance of women-owned micro, small, and medium-sized enterprises (MSMEs).

4. Results/findings

4.1. Outer Model Results

In the outer model phase of this study, it is necessary to test the reliability and validity of the measurements of latent variables. The core eligibility thresholds are as follows: outer loading > 0.70, AVE > 0.50, CR and Cronbach's Alpha > 0.70, HTMT < 0.90, VIF < 5 under the conventional standard and < 3.3 under the strict standard.

Table 2. Outer Model Measurement Results

Constructs	Outer Loadings	Cronbach's Alpha	rho_A	CR	AVE
Perceived Ease of Use of Digital Payment					
PEOD.1	0.775	0.865	0.870	0.903	0.652
PEOD.2	0.864				
PEOD.3	0.857				

PEOD.4	0.817				
PEOD.5	0.715				
Perceived Usefulness of Digital Payment					
PUD.1	0.844				
PUD.2	0.824	0.907	0.908	0.931	0.729
PUD.3	0.882				
PUD.4	0.869				
PUD.5	0.847				
Intention to Use Digital Payment					
IUDP.1	0.859				
IUDP.2	0.855	0.885	0.887	0.916	0.686
IUDP.3	0.829				
IUDP.4	0.831				
IUDP.5	0.764				
MSMEs Satisfaction					
SMS.1	0.803				
SMS.2	0.811				
SMS.3	0.809	0.870	0.871	0.906	0.658
SMS.4	0.837				
SMS.5	0.796				
MSMEs Performance					
MSMEs.1	0.827				
MSMEs.2	0.863	0.871	0.871	0.912	0.720
MSMEs.3	0.857				
MSMEs.4	0.846				

This study carried out an outer model assessment, and preliminarily confirmed that all construct indicators met the required standards. Specifically, outer loading values ranged from 0.715 to 0.882, exceeding the minimum threshold of 0.70; average variance extracted (AVE) values ranged from 0.652 to 0.729, meaning all constructs had good convergent validity. Cronbach's α , rho_A, and composite reliability all exceeded 0.70, satisfying the reliability requirement. All constructs passed both reliability and validity checks, and are eligible to be used for the next stage of analysis.

To verify the discriminant validity of all constructs at the empirical level, this study employed the HTMT method to conduct the test, and set the conventional acceptable threshold at <0.90 and the strict acceptable threshold at <0.85.

Table 3. Discriminant Validity (HTMT)

Construct	IUDP	PEOD	PUD	SMEs
Perceived Ease of Use of Digital Payments	0.875			
Perceived Usefulness of Digital Payment	0.825	0.835		
MSMEs Performance	0.845	0.781	0.753	
MSMEs Satisfaction	0.738	0.653	0.626	0.768

Discriminant validity testing using the HTMT indicated that most inter-construct values fell within acceptable limits. However, the PEOD value for IUDP of 0.875 indicates conceptual closeness between the constructs. Nevertheless, PEOD and IUDP still have theoretical differences: PEOD describes ease of technology use, while IUDP represents behavioral intention to use technology. Thus, all constructs are retained in the research model.

Discriminant validity in this study was evaluated using the Fornell-Larcker criterion. This assessment determines whether each construct has sufficient empirical distinction from other constructs within the research model. The criterion is fulfilled when the square root value of the Average Variance Extracted (AVE) for each construct is higher than its correlation values with other constructs. This condition indicates that a construct shares greater variance with its own indicators compared to other latent variables, confirming that each construct captures a unique concept within the model.

Table 4. Discriminant Validity (Fornell-Larcker)

Construct	IUDP	PEOD	PUD	MSMEs	SMS
Intention to Use Digital Payment	0.828				
Perceived Ease of Use of Digital Payment	0.765	0.808			
Perceived Usefulness of Digital Payment	0.740	0.772	0.854		
SMEs Performance	0.643	0.660	0.697	0.849	
SMEs Satisfaction	0.547	0.568	0.578	0.670	0.811

Based on the results of the discriminant validity test using the Fornell-Larcker criteria in Table 4, the root-mean-square AVE values for each construct are higher on the diagonal than their correlations with other constructs. The $\sqrt{\text{AVE}}$ values range from 0.808 to 0.854, indicating that each construct is better at explaining its own indicators than the other constructs. In conclusion, all constructs meet the criteria for discriminant validity.

Model fit was assessed using SRMR and NFI. The model is considered good if the SRMR value is <0.08 , indicating a small difference between the actual correlation matrix and the model's predictions. Meanwhile, the recommended NFI value is >0.90 , so the model is considered to have a good level of fit.

Table 5. Model Fit

	Saturated Model	Estimated Model
SRMR	0.048	0.063
d_ULS	0.695	1.199
d_G	0.364	0.390
Chi-Square	728.749	745.956
NFI	0.877	0.875

Based on the model fit test results, the SRMR value for the saturated model is 0.048, while for the estimated model it is 0.063. Both values are still below the 0.08 threshold,

indicating that the model demonstrates a good level of fit. Meanwhile, the NFI values are 0.877 and 0.875, respectively, which are quite close to the 0.90 criterion.

Collinearity statistics were assessed using the Variance Inflation Factor (VIF) to determine the presence of multicollinearity among the predictor variables. The model is considered free of multicollinearity if the VIF value is <5, or <3.3 for a stricter criterion.

Table 6. Collinearity Statistics (VIF)

Indicator	VIF	Indicator	VIF	Indicator	VIF
PEOD.1	1.741	IUDP.1	2.543	MSMEs.1	1.882
PEOD.2	2.591	IUDP.2	2.529	MSMEs.2	2.315
PEOD.3	2.441	IUDP.3	2.137	MSMEs.3	2.375
PEOD.4	2.146	IUDP.4	2.154	MSMEs.4	2.121
PEOD.5	1.546	IUDP.5	1.716		
PUD.1	2.362	SMS.1	1.861		
PUD.2	2.167	SMS.2	2.065		
PUD.3	2.947	SMS.3	2.010		
PUD.4	2.787	SMS.4	2.179		
PUD.5	2.346	SMS.5	1.890		

The results of the Collinearity Statistics show that all VIF values for the indicators range from 1.546 to 2.947. These values remain below the 5 threshold, and even below the strict criterion of 3.3. Thus, the model does not indicate any multicollinearity issues among the indicators.

4.2. Inner Model Results

An evaluation of the internal model is conducted to examine the relationships among latent constructs in the structural model. This assessment can be performed by examining the path coefficients, R^2 , Q^2 , and the significance of the relationships. The R^2 value indicates the extent to which exogenous constructs can explain endogenous constructs, while a Q^2 value greater than 0 indicates the model's predictive ability. A relationship is considered significant if the p-value is less than 0.05 or the t-statistic is greater than 1.96.

This study first explains that the R-squared test is used to measure how well independent variables explain variation in a dependent variable. It clarifies that the R^2 value is positively correlated with a model's explanatory power, and cites the grading standard from Hair et al. (2021): 0.75 indicates strong explanatory power, 0.50 indicates moderate explanatory power, and 0.25 indicates weak explanatory power.

Table 7. R-Square Test Results

	Adjusted R-Square
MSMEs Performance	0.611
MSMEs Satisfaction	0.36
Intention to Use Digital Payment	0.649

This study relies on the adjusted R-squared statistic to first set the goodness-of-fit evaluation criteria, then verify the explanatory power of each core variable one by one: Intention to Use Digital Payment (0.649, moderate to strong), MSMEs Performance (0.611,

moderate to strong), MSMEs Satisfaction (0.360, moderate). The overall model has passed the validity assessment..

As a general quantitative model evaluation standard adopted across academia, the predictive relevance indicator Q^2 is used to assess a model's predictive ability for endogenous constructs. A Q^2 value greater than 0 indicates that the model has qualified predictive relevance, and the higher the value, the stronger the model's predictive power.

Table 8. Predictive Relevance (Q^2)

	SSO	SSE	$Q^2 (=1 - SSE/SSO)$
Intention to Use Digital Payment	1,770,000	990,091	0.441
Perceived Ease of Use of Digital Payment	1,770,000	1,770,000	
Perceived Usefulness of Digital Payment	1,770,000	1,065,772	0.398
MSMEs Performance	1,416,000	798,293	0.436
MSMEs Satisfaction	1,770,000	1,353,702	0.235

Based on the predictive relevance results, all endogenous constructs obtained a Q^2 value above 0. The Q^2 values ranged from 0.235 to 0.441. This indicates that the model has adequate predictive relevance, so the constructs in the model can be used to predict the research data.

4.3. Hypothesis Test Results

Path coefficients are used to test hypotheses and indicate the direction and strength of the relationship between variables. A hypothesis is considered significant if the p-value is < 0.05, the t-statistic is > 1.96 ($\alpha = 5\%$; two-tailed test), and the Bias-Corrected Confidence Interval (CI) does not cross the zero line. The larger the path coefficient value, the stronger the influence of the independent variable on the dependent variable (Hair et al., 2021).

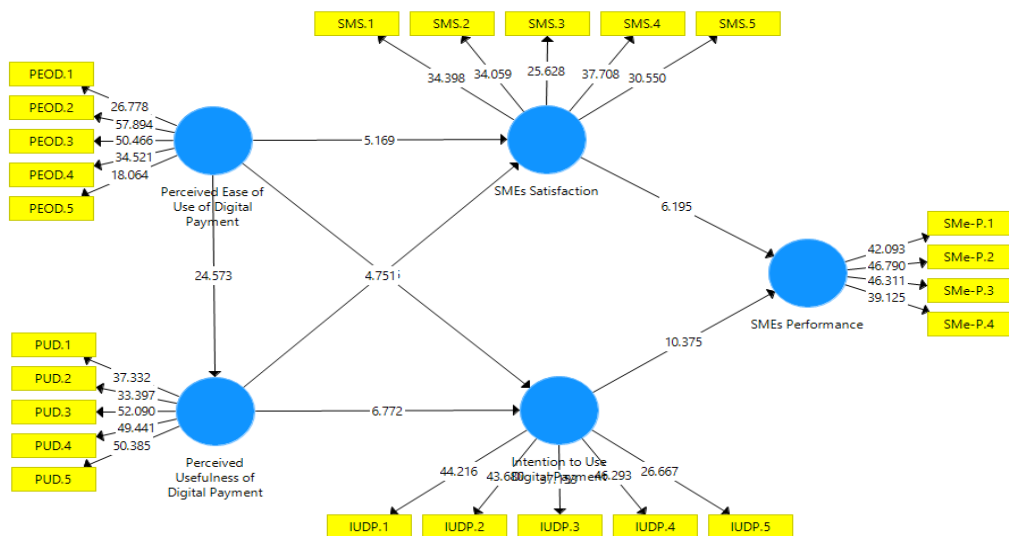
Table 9. Hypothesis Test Results

Path		Original Sample (O)	Sample Mean (M)	(STDEV)	T-Statistics	5%	95%	P-Values
PEOD > PUD	H1	0.742	0.743	0.030	24.573	0.677	0.796	0.000
PEOD > SMS	H2	0.341	0.342	0.066	5.169	0.001	0.217	0.000
PEOD > IUDP	H3	0.481	0.482	0.055	8.745	0.379	0.594	0.000
PUD > SMS	H4	0.305	0.305	0.064	4.751	0.173	0.422	0.000
PUD > IUDP	H5	0.382	0.382	0.056	6.772	0.268	0.488	0.000
SMS > MSMEs	H6	0.327	0.331	0.053	6.195	0.220	0.427	0.000
IUDP > MSMEs	H7	0.531	0.528	0.051	10.375	0.426	0.626	0.000

Based on the results of the hypothesis testing in Table 9, all paths of relationship between variables showed statistically significant results. This is evident from the *p-value* for

all hypotheses, which is 0.000 smaller than the significance level of 0.05. In addition, the *t-statistics* values for all paths are above the critical threshold of 1.96, so all research hypotheses are supported. The *original sample* values indicate a positive relationship across all constructs, with the strongest relationship found between PEOU and PUD ($\beta = 0.742$, $t = 24.573$), followed by PUD and IUDP ($\beta = 0.531$, $t = 10.375$) and PEOU and IUDP ($\beta = 0.481$, $t = 8.745$). The confidence interval results also show that the entire range of *confidence intervals* from 5% to 95% consists of positive values and does not cross zero, thereby reinforcing the stability and significance of the relationships between variables in the model. The results of the partial hypothesis testing indicate that the perceived ease of use and perceived benefits of digital payments are significantly associated with the usage intention and satisfaction of women-owned MSMEs in Indonesia in this study.

Figure 2. Bootstrapping Model



Based on the *bootstrapping* visualization, the *t-statistic* values for the indicators ranged from 18.064 to 57.804. These results indicate that all indicators make a significant contribution to reflecting their respective constructs. Meanwhile, the *t-statistic* values for the paths between constructs range from 4.751 to 24.573, all of which exceed the critical threshold of 1.96. Thus, all structural relationships in the research model can be considered statistically significant.

5. Discussions

5.1. The Effect of Perceived Ease of Use on Perceived Usefulness of Digital Payments

The research results show that Perceived Ease of Use (PEOU) has a significant effect on Perceived Usefulness (PUD) in the use of digital payments among Indonesian women-owned MSMEs in this study's sample. These findings indicate that the ease of

understanding and operating digital payment technology plays a role in shaping users' perceptions of the technology's benefits for business activities. When digital payment systems are perceived as easy to use, business owners tend to view the technology as more capable of supporting transaction efficiency and business operations management.

These results reinforce the Technology Acceptance Model (TAM), which explains that the perceived ease of use is a key factor in shaping the perceived benefits of a technology (Davis, 1989). In the context of MSMEs, ease of use can reduce barriers to technology adoption, particularly in transactional activities that require fast and practical processes. These findings align with previous research showing a positive relationship between ease of use and perceived benefits across various digital payment technologies (Asari & Rachmadani, 2026; Ashubwe et al., 2025; Tetteh et al., 2025).

Furthermore, the interpretation of these findings must take into account the characteristics of the study sample. The study respondents were predominantly MSMEs in the culinary sector (45.5%) and those aged 21–30 years (53.3%); thus, the relationship between ease of use and perceived benefits likely reflects the characteristics of business owners who are relatively familiar with the use of digital technology and consumer-based transactional activities. Therefore, these findings are best understood as empirical evidence specific to the context of women-owned MSMEs with characteristics similar to those in the study sample, rather than as representative of all women-owned MSMEs in general.

5.2. The Effect of Perceived Ease of Use of Digital Payments on SME Satisfaction

The research results show that Perceived Ease of Use of Digital Payment (PEOD) has a significant effect on the satisfaction of Indonesian women-owned MSMEs who were the sample in this study regarding their use of digital payments. These findings indicate that the ease of learning, understanding, and operating digital payment systems contributes to a better user experience. When technology can be used without complex barriers, MSMEs operators tend to have a more positive evaluation of the digital payment services they use.

These results extend the application of the Technology Acceptance Model (TAM) which originally explained technology acceptance through perceived ease of use and perceived benefits by demonstrating its relevance in explaining user evaluations following technology adoption. In the context of MSMEs, ease of use can reduce operational barriers and the technology adaptation process, thereby fostering user satisfaction. These findings are consistent with previous research that found ease of use to be one of the factors associated with satisfaction across various digital payment services (Ashubwe et al., 2025; Musyaffi et al., 2024; Tandilino et al., 2025).

The relationship between ease of use and satisfaction must be understood contextually. The respondents in this study were predominantly MSMEs in the culinary sector (45.5%) and those aged 21–30 (53.3%); thus, the findings more closely reflect the experiences of users with these characteristics. In addition, satisfaction with digital payments can also be influenced by other factors such as security, reliability, and service quality. Therefore, the results of this study cannot be directly generalized to all women-owned MSMEs in Indonesia.

5.3. The Effect of Perceived Ease of Use of Digital Payments on the Intention to Use Digital Payments

The results of this study indicate that Perceived Ease of Use of Digital Payment (PEOD) has a significant influence on the Intention to Use Digital Payment among the female MSME owners in this study's sample. These findings suggest that the perception of ease of use is a key factor in shaping business owners' willingness to continue using digital payments in their business activities. When digital payment technology is perceived as easy to understand and does not require significant effort to use, barriers to technology adoption tend to be lower.

This finding aligns with the Technology Acceptance Model (TAM), which explains that the perception of ease of use is a key belief influencing technology acceptance (Davis, 1989). In the context of MSMEs, ease of use can support the technology adaptation process by reducing learning complexity and operational challenges during the implementation of digital payments. These results are consistent with previous research showing a relationship between perceived ease of use and intention to use across various digital payment contexts (Asmara et al., 2023; Kottmann & Seitz, 2026; Najib & Fahma, 2020).

Essentially, this relationship must be understood within the context of the study sample's characteristics. The study respondents were predominantly MSMEs in the culinary sector (45.5%) and those aged 21–30 years (53.3%); thus, perceptions of ease of use are likely influenced by the respondents' level of familiarity with digital technology. In addition, the intention to use digital payments may also be influenced by other factors such as security, trust, and perceived benefits. Therefore, these findings represent the context of female MSME owners in the study sample and cannot be directly generalized to all female MSME owners with different characteristics.

5.4. The Effect of Perceived Usefulness of Digital Payments on the Intention to Use Digital Payments

The results of the study indicate that Perceived Usefulness (PUD) has a significant effect on the Intention to Use Digital Payment. These findings support the Technology Acceptance Model (TAM) developed by Davis (1989), which explains that the perceived benefits of technology are a key factor in shaping the intention to use it. In the context of Indonesian women-owned MSMEs the sample of this study the perception that digital payments offer benefits such as speeding up transactions, improving operational efficiency, and simplifying business activities contributes to the intention to use digital payments. However, the interpretation of the results must be limited to the sample characteristics, namely Indonesian SMEs dominated by the culinary sector (45.5%) and respondents aged 21–30 years (53.3%). These results mean that the findings cannot be directly generalized to all women-owned SMEs in Indonesia.

These results are consistent with research on the adoption of digital payments in various contexts, including restaurant SMEs, mobile payments, and FinTech payments (Musyaffi et al., 2024; Siagian et al., 2022; Sugandini et al., 2018). The relationship between PUD and usage intention remains contextual, as several studies have shown the role of other variables such as attitude and trust factors (Aquino et al., 2026; Nguyen et al., 2026).

5.5. The Effect of Perceived Usefulness of Digital Payments on MSME Satisfaction

The results of this study indicate that the Perceived Usefulness (PUD) of digital payments has a significant relationship with the satisfaction of Indonesian women-owned MSMEs who were the subjects of this study. Regarding the use of digital payments, these results indicate that perceptions of the technology's benefits such as speeding up transactions, simplifying reconciliation, and improving payment process efficiency are associated with more positive evaluations of usage. When digital payments are perceived as supporting business activities more effectively, SME operators particularly in Indonesia tend to express higher levels of satisfaction with the services they use.

These results support the application of the Technology Acceptance Model (TAM), which positions perceived usefulness as one of the key beliefs in technology acceptance. The findings of this study indicate that the relevance of perceived usefulness can also be observed in users' evaluations after the technology has been used. In the context of SMEs, the perceived benefits of digital payments may be related to operational efficiency and a better user experience. These results are consistent with previous studies on e-wallets, mobile wallets, mobile money, and SME e-payments, which found a positive and significant relationship between perceived usefulness and satisfaction (Asari & Rachmadani, 2026; Musyaffi et al., 2024).

The relationship between perceived usefulness and satisfaction still needs to be understood contextually. The respondents in this study were predominantly MSMEs in the culinary sector (45.5%) and those aged 21–30 years (53.3%); thus, the findings more closely reflect the experiences of users with these characteristics. Furthermore, some of the prior evidence comes from a consumer context, whereas this study assesses satisfaction from the perspective of MSME owners as business users. Therefore, the results of this study cannot be directly generalized to all women-owned MSMEs in Indonesia.

5.6. The Impact of MSMEs Satisfaction on MSMEs Performance

The research findings indicate that MSME satisfaction has a significant relationship with MSMEs performance. These results can be explained through the extended TAM perspective, in which satisfaction is understood as a post-use evaluation that reflects the user's experience after adopting the technology. In the context of Indonesian women-owned MSMEs the sample of this study the level of satisfaction with digital payments is associated with a better user experience, which can support the continued use of technology in business activities. Satisfaction with digital payment services may be linked to improvements in transaction quality, ease of customer service, and operational efficiency, which ultimately relate to perceptions of the business's performance.

These findings align with previous research showing a relationship between user satisfaction and MSME performance, including studies on MSMEs during the COVID-19 pandemic that found customer satisfaction is linked to MSMEs performance both directly and through digitalization and technology adoption (Nandnaba, 2026). Similar relationships have also been found among MSMEs in Oman and food delivery apps and indonesia digital payment MSMEs (Musyaffi et al., 2024; Rizal & Rahmadana, 2025; Tandilino et al., 2025;). However, the relationship between satisfaction and MSMEs performance still needs to be

understood contextually, as the impact of digital payment usage on financial performance is not always consistent across all studies.

The findings of this study are limited by the sample characteristics, namely Indonesian MSMEs where all respondents were women, with a predominance in the food sector (45.5%) and the 21–30 age group (53.3%). The cross-sectional study design and the use of self-reported data also limit the study's ability to draw causal conclusions regarding the relationship between satisfaction and financial performance. Other factors, such as market conditions, business strategies, digital literacy, and business characteristics, may also influence the financial performance of MSMEs.

5.7. The Effect of Intention to Use Digital Payments on the MSMEs Performance of MSMEs

The research findings indicate that the intention to use digital payments has a significant relationship with MSME performance. These results are consistent with the extended Theory of Acceptance and Use of Technology (TAM), which identifies intention as a key predictor of actual technology use. Among the Indonesian women-owned MSMEs in this study's sample, a stronger intention to use digital payments was associated with more consistent use of the technology in business activities. More intensive use of digital payments may be linked to improved transaction efficiency, the quality of business record-keeping, operational management, and customer interactions, thereby contributing to a more positive perception of overall MSME performance.

These findings are supported by research on the adoption of digital payments in Indonesia, which shows that the intention to adopt QRIS is significantly associated with MSME performance (Sultana et al., 2026). Similar evidence was also found in studies on payment systems in Indonesia and textile SMEs, which showed that behavioral intention is related to the actual use of technology and, in turn, is associated with MSME performance (Ashubwe et al., 2025; El-Tahan et al., 2026; Musyaffi et al., 2024).

Furthermore, the interpretation of these research findings must be limited to the characteristics of the sample, namely Indonesian SMEs with an all-female respondent group, a 45.5% dominance of the culinary sector, and a majority of respondents aged 21–30 years (53.3%). The cross-sectional study design and the use of self-reported data from a single source also limit the study's ability to draw causal conclusions. Other factors, such as business strategies, digital literacy, market conditions, and business sector characteristics, may also influence the financial performance of MSMEs.

6. Conclusions

This study confirms that adopting digital payments plays a critical role in improving the MSMEs performance of women-owned micro, small, and medium-sized enterprises (MSMEs). Built on the classic Technology Acceptance Model (TAM), we verified the causal pathway through which perceived ease of use and perceived usefulness transmit their effects on enterprises' MSMEs performance, satisfaction with and willingness to use digital payments. Digital payments are far more than a mere transaction tool; they act as a growth mechanism that boosts operational efficiency and cash flow. This conclusion echoes

previous research which verified that willingness to adopt the QRIS system can optimize the operational indicators of MSMEs.

6.1. Theoretical Implications

The classic Technology Acceptance Model was originally used to explain individuals' technology acceptance behaviors. This study expands its application boundaries to analyze the performance of women-owned micro, small, and medium-sized enterprises, the organizational subject of this research. TAM generally explains the relationship between perceived usefulness and perceived ease of use regarding the acceptance and use of technology. This study adds that post-use satisfaction and intention to use are important mechanisms linking the acceptance of digital payments to MSMEs performance. Thus, these findings support the extended TAM logic that (PUD, PEOD) leads to Satisfaction, which leads to Continuance/Use, which leads to Performance. Furthermore, these results align with evidence that TAM can serve as a bridging component between digital finance, financial inclusion, and MSMEs performance.

6.2. Practical Implications

In practical terms, the findings of this study underscore the need for digital payment service providers, the government, and MSME support institutions to design systems that are user-friendly, beneficial, secure, and relevant to the operational needs of women-owned MSMEs. User satisfaction must be improved, as it encourages sustained use and has the potential to boost business performance. Women SME owners also need to strengthen their digital literacy and consistently utilize digital payments so that the benefits accumulate in the form of increased transactions, revenue, cash flow, and the quality of financial record-keeping.

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