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FINTECH USER SATISFACTION AS AN INTERMEDIARY: ANALYSIS OF THE INFLUENCE OF FINANCIAL LITERACY, EASE OF USE, AND TRUST ON USER LOYALTY IN MSMES

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Abstract: *The growth of financial technology (fintech) has transformed MSME operations, particularly in accessing financial services. This study analyzes the impact of financial literacy, ease of use, and trust on fintech user satisfaction and their role as mediating variables in fostering user loyalty among MSMEs. Using a quantitative approach, data were collected via an online questionnaire from 100 SME respondents in Yogyakarta. Structural Equation Modeling-Partial Least Squares (SEM-PLS) was employed to examine the relationships between variables. The findings reveal that financial literacy, ease of use, and trust have a positive and significant influence on user satisfaction. Moreover, user satisfaction has a positive and significant mediating effect on the relationship between financial literacy, ease of use, trust, and user loyalty. This indicates that improving these factors enhances user satisfaction, which subsequently strengthens user loyalty to fintech platforms. This study underscores practical implications, urging fintech providers to enhance accessibility, security, and transparency to boost user satisfaction. It also recommends that governments and educational institutions implement inclusive financial literacy programs to encourage broader fintech adoption among MSMEs. The study contributes to technology adoption literature by emphasizing user satisfaction as a critical mediator in establishing long-term loyalty. Future research should explore broader regions, larger sample sizes, and additional variables such as digital competence for deeper insights into fintech adoption dynamics.*

Keywords : Financial Literacy, Ease of Use, Trust, Loyalty, Satisfaction, Fintech, MSMEs

INTRODUCTION

The growth of fintech (financial technology) has become a global phenomenon, transforming how MSMEs operate. In the context of MSMEs, factors such as financial literacy, ease of technology use, and trust in fintech platforms are critical elements influencing user satisfaction. Financial literacy helps users understand service features, while ease of use reduces technical barriers to accessibility. Trust, on the other hand, ensures that users feel secure when transacting with this technology. However, to achieve sustainable user loyalty, user satisfaction serves as a key intermediary that must be addressed (Candraningrat et al., 2021).

Fintech plays a significant role in supporting MSME growth, particularly in developing countries. Data from the World Bank shows that fintech has facilitated financial service access for more than 60% of MSMEs in Southeast Asia (Bank, 2020). In developed countries like Singapore, fintech platforms are recognized for their ability to enhance financial transaction efficiency and support better decision-making by MSMEs (Abbasi et al., 2021). For example, over 50% of MSMEs using fintech services in Jordan reported improved operational efficiency within the first two years of adoption. This phenomenon highlights that solid financial literacy, combined with ease of use and trust in services, forms the key pillars in enhancing user satisfaction and loyalty to fintech platforms (Al-Okaily et al., 2023).

In Indonesia, fintech has emerged as a primary solution for MSMEs to overcome limited access to formal financial services. Data from the Indonesian Fintech Association (AFTECH) indicates that fintech users in Indonesia reached over 90 million in 2023, with a significant portion comprising MSME players (Aftech, 2023). Financial literacy among Indonesian MSMEs, though improving, still faces significant challenges, particularly in remote areas. Moreover, while ease of use is a major attraction of fintech, user trust is often hindered by issues of data security and transaction transparency. These factors can influence user satisfaction and loyalty toward fintech services (Yakob et al., 2021).

In Yogyakarta, the development of fintech is increasingly apparent, especially among MSMEs. According to data from the Bank Indonesia Yogyakarta Regional Office, over 70% of MSMEs in the region utilize fintech services to support their business operations. However, the varying levels of financial literacy among MSMEs in Yogyakarta present a significant challenge. Surveys reveal that more than 40% of MSME players in Yogyakarta still struggle to understand fintech service features, particularly in the informal sectors such as street vendors and local craftsmen (Mufarih et al., 2020). Despite the ease of use offered by fintech, challenges in building trust remain significant, particularly among new users. Yogyakarta holds significant economic potential, with MSMEs serving as the primary drivers of the local economy. However, gaps remain in the utilization of fintech among MSMEs, particularly concerning trust and financial literacy. Another challenge is ensuring that the ease of technology use can be accessed by all community layers, including rural business actors. Financial education programs organized by the government and private sector have yet to optimally reach all MSMEs in the region. Consequently, user satisfaction with fintech in Yogyakarta is still far from reaching its full potential.

Fintech user satisfaction is a critical indicator influencing user loyalty to these platforms. Previous studies show that good financial literacy helps users optimize service features, ultimately enhancing satisfaction (Yang et al., 2023). Ease of technology use also plays a significant role, as intuitive and accessible services encourage users to frequently utilize fintech platforms. Trust is the foundation supporting user loyalty, as a sense of security in transactions strengthens the long-term relationship between users and service providers (Purwanto et al., 2020). However, evidence suggests that not all these factors directly and significantly impact user satisfaction or loyalty. For example, research in Nepal indicates that high financial literacy does not always correlate with high satisfaction levels, especially if users find service features too complex (Khanal et al., 2023). Similarly, although ease of use is often a key attraction, a lack of trust can hinder the potential for user loyalty. Therefore, the relationship between financial literacy, ease of use, trust, satisfaction, and loyalty warrants further investigation.

From a theoretical perspective, financial literacy, ease of use, and trust can be examined through the Technology Acceptance Model (TAM) and Customer Satisfaction Theory. TAM explains how perceptions of ease of use and trust influence technology adoption, while Customer Satisfaction Theory emphasizes that customer satisfaction is a key factor in building loyalty. This study addresses the research problem by integrating both theoretical frameworks to explore the mediating role of user satisfaction in the relationship between financial literacy, ease of use, trust, and fintech user loyalty (Davis, 1989; Oliver, 2014). This research aims to fill existing literature gaps by analyzing how financial literacy, ease of use, and trust influence fintech user satisfaction among MSMEs in Yogyakarta and how satisfaction acts as a mediating variable for user loyalty. The study contributes not only theoretically but also practically, especially for fintech service providers and policymakers in designing more effective strategies to enhance user satisfaction and loyalty.

THEORETICAL FRAMEWORK AND HYPOTHESES
Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was first developed by Fred Davis in 1989 to understand the factors influencing user acceptance and adoption of technology (Davis, 1989). This model focuses on two primary components: perceived usefulness and perceived ease of use. Perceived usefulness reflects the extent to which

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an individual believes that using a particular technology will enhance their performance, while perceived ease of use refers to how effortless and uncomplicated an individual finds the technology to use. In this study, the concepts of perceived ease of use and perceived usefulness from TAM are applied to analyze financial literacy, ease of use, and trust as factors affecting the acceptance of fintech by MSMEs. Perceptions of the ease and benefits of using fintech play a pivotal role in increasing adoption rates through the TAM perspective, ultimately boosting user satisfaction and fostering loyalty toward the platform. Therefore, understanding these relationships through TAM enables this study to identify how these factors influence user attitudes and satisfaction in the context of fintech adoption.

Customer Satisfaction Theory (CST)

Customer Satisfaction Theory (CST) explains that customer satisfaction arises from users' evaluation of their experiences with a product or service compared to their initial expectations (Oliver, 2014). This theory emphasizes the comparison between users' expectations and the reality of the service received. When the delivered service meets or even exceeds these expectations, users experience satisfaction, which leads to loyalty—where they are likely to repeatedly use the same service and recommend it to others. In the fintech context, user satisfaction is highly dependent on factors such as ease of use, security, trust, and service quality. This study aims to explore the extent to which user satisfaction can act as a mediating variable between factors such as financial literacy, ease of use, and user trust in fintech and their loyalty by applying the Customer Satisfaction Theory. Understanding this is crucial to designing and enhancing fintech services to meet user expectations, drive satisfaction, and build long-term loyalty.

Financial Literacy

Financial literacy is defined as an individual's ability to comprehend fundamental financial concepts, identify and assess risks, and make informed decisions to manage financial resources effectively to achieve desired financial goals (Lusardi & Mitchell, 2011). For MSME actors, financial literacy plays a critical role, as they must manage cash flow efficiently, make sound investment decisions, and handle debt responsibly. Without adequate financial literacy, MSMEs risk facing financial management challenges that can lead to bankruptcy or business failure. In the fintech context, financial literacy affects the extent to which users understand the benefits and risks associated with using these financial technologies. Fintech users can develop greater trust in leveraging these services with a sufficient understanding of risks, benefits, and basic financial concepts. Financial literacy empowers users to identify suitable financial products and make informed decisions to utilize technology-based services to support their business sustainability. Indicators of Financial Literacy in this study include: a) Basic financial knowledge: Measuring the understanding of concepts such as compound interest, inflation, and risk diversification. b) Financial planning and management: The ability to create budgets, track cash flow, and prioritize expenses. c) Awareness of financial risks: Recognizing financial risks, such as default possibilities or market changes. d) Utilization of financial products: The ability to select and use financial products suited to business needs.

Perceived Ease of Use

Perceived ease of use is one of the key factors in technology acceptance, as described in the Technology Acceptance Model (TAM) proposed by Davis in 1989 (Davis, 1989). This concept refers to users' belief that a technology will be easy to understand and use without requiring excessive effort or technical complexity. In the fintech context, ease of use is crucial in encouraging user adoption since user-friendly technology provides a positive experience. Ease of use directly relates to user-friendly interfaces, intuitive navigation, and quick, hassle-free processes. If fintech services incorporate features and elements that simplify access and understanding, user satisfaction will increase, ultimately fostering loyalty toward the service. Indicators of Perceived Ease of Use in this study include: a) Intuitive interface: Providing an easily navigable interface with clear symbols or instructions. b) Clarity of usage instructions: Ensuring the information and guidance provided by fintech services are straightforward to follow. c) Processing speed: The ability of technology to process transactions or services quickly without interruptions. d) Minimal technical barriers: Reducing issues such as bugs, system errors, or high hardware requirements.

Trust

Trust in the fintech context is defined as users' belief that the fintech services they use are secure, reliable, and consistent in meeting their needs transparently and professionally (Gefen et al., 2003). Trust is a crucial element in fintech services, involving financial transactions and sensitive user data, which, if not well-protected, can lead to significant vulnerabilities and risks. Users tend to use fintech services only when they trust that these services are dependable and capable of fulfilling their financial needs without disappointment. Trust involves several critical aspects, including data security, transparency, compliance with regulations, and consistent service

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quality. Without trust, fintech users may hesitate to engage with the service, even if it offers attractive and innovative features. Thus, building trust becomes a strategic aspect for fintech providers to retain users and foster positive customer relationships. Indicators of Trust in this study include: a) Service reliability: Consistency and punctuality of services provided by fintech providers. b) User data security: Assurance that users' personal and financial information is protected from threats like data theft. c) Compliance with regulations: Adherence to government regulations, such as those set by the Financial Services Authority (OJK). d) Operational transparency: Clear information on fees, risks, and service terms provided by fintech providers.

Fintech User Satisfaction

User satisfaction is a subjective evaluation performed by individuals based on their experience with fintech services, comparing their expectations before using the service with the experience during use (Oliver, 1980). User satisfaction is a critical determinant of fintech's success in retaining users. Satisfied users are likely to engage in repeat transactions, develop higher trust, and recommend the service to others. User satisfaction can be measured through various aspects, such as how well the fintech service meets user needs, service speed, and ease of access. Fintech providers can identify areas for improvement to support user convenience, reduce access barriers, and build long-term loyalty by understanding user satisfaction. Indicators of User Satisfaction in this study include: a) Alignment of services with needs: The degree to which service features meet user business needs. b) Service quality: User experiences regarding speed, accuracy, and reliability of the services provided. c) Ease of access: The ability to access services anytime and anywhere. d) Comfort during use: Users feel comfortable and confident using the application.

Fintech User Loyalty

Fintech user loyalty is defined as users' commitment to continue using the same fintech services in the long term and to recommend these services to others (Reichheld, 2004). User loyalty is a key indicator of fintech success in building sustainable customer relationships. Highly loyal users tend to exhibit repeat usage behaviour, strong trust in the service, and a preference for continuing with the same fintech service despite the availability of many alternatives. Loyalty is linked to both user satisfaction and positive experiences with fintech services, encompassing service speed, security, ease of use, and transparency. To build user loyalty, fintech services must ensure high-quality, secure services that meet user expectations effectively. Indicators of User Loyalty in this study include: a) Repeat usage: Consistently using the same service for transactions. b) Recommendation to others: Recommending the service to friends or family. c) Preference for specific services: Strong preference to continue using the application despite alternatives. d) Adherence to fintech brands: Loyalty manifested through a willingness to keep using the service despite minor challenges.

The Relationship Between Research Variables

Financial literacy refers to the extent to which individuals understand basic financial concepts, manage financial flows, and wisely utilize financial technology. As fintech users, MSMEs with high financial literacy levels tend to be more confident and possess sufficient knowledge to optimize fintech services. Research (Lusardi & Mitchell, 2011) indicates that good financial literacy plays a crucial role in enhancing user comfort and satisfaction when accessing various financial services, particularly digital technologies like fintech services. Adequate understanding of fund management and financial risks fosters a more satisfying experience when transacting through fintech, thereby increasing user satisfaction. Positive financial literacy also enables users to effectively evaluate the features and benefits of fintech, driving higher satisfaction levels.

H1: Financial literacy has a positive influence on the satisfaction of fintech usage among MSMEs.

Ease of use is a key factor in determining fintech user satisfaction, especially for MSMEs with varying levels of technology adoption. According to the Technology Acceptance Model (TAM) introduced by (Davis, 1989), ease of use plays an essential role in shaping users' acceptance of new technologies. A simple interface, intuitive navigation, and fast, barrier-free access create a positive user experience. Research by (Venkatesh et al., 2012) supports that a user-friendly interface encourages users to feel comfortable and satisfied while transacting through fintech services. Users who can easily understand and operate fintech services are more likely to use them consistently, ultimately affecting their satisfaction. Therefore, ease of use is a positive factor influencing fintech user satisfaction among MSMEs.

H2: Ease of use has a positive influence on the satisfaction of fintech usage among MSMEs.

User trust in fintech services focuses on the belief that these services are safe, reliable, and capable of protecting their data effectively. Research by (Gefen et al., 2003) states that trust plays a positive role in shaping user satisfaction, particularly as users with trust in the security and transparency of services are more likely to have

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positive experiences. Trust is associated with data security, service reliability, regulatory compliance, and operational transparency. Users who trust fintech services feel more at ease and confident that risks like data breaches or transaction failures are minimized (Aldboush & Ferdous, 2023). This fosters a more comfortable and satisfying experience, ultimately driving user satisfaction. Fintech service providers can positively enhance user satisfaction by building high trust.

H3: Trust has a positive influence on the satisfaction of fintech usage among MSMEs.

High user satisfaction with fintech services often serves as a primary factor driving user loyalty to continue using these services over the long term. Based on the theory proposed by (Batra & Keller, 2016), user satisfaction influences users' desire for repeat purchases and recommendations to others. Positive experiences when using fintech services encourage users to build strong relationships with service providers and become regular customers. Research (Reichheld, 2004) also emphasizes that high satisfaction fosters loyalty by building trust and excellence in user experiences. Therefore, user satisfaction motivates users to continue using the same fintech services, even when alternative services are available. This demonstrates that satisfaction is a crucial foundation for building user loyalty among MSMEs.

H4: Fintech satisfaction has a positive influence on user loyalty among MSMEs.

Adequate financial literacy provides positive advantages for fintech users, both in financial understanding and ease of utilizing fintech services. Previous research, such as that conducted by (Uthaileang & Kiattisin, 2023), shows that individuals with high financial literacy are more confident when accessing technology-based services. This literacy allows them to better understand the benefits and features of fintech services, leading to usage satisfaction. User satisfaction then acts as a mediator between financial literacy and user loyalty. Positive experiences stemming from sufficient literacy encourage users to remain loyal to fintech services and recommend them to others (Kini et al., 2024). In other words, financial literacy helps shape satisfaction, which underpins long-term user loyalty.

H5: Financial literacy has a positive influence on fintech user loyalty among MSMEs through user satisfaction.

Ease of use can enhance user satisfaction, which in turn fosters user loyalty to fintech services. Previous research by (Venkatesh et al., 2003) indicates that users tend to be more loyal to services they perceive as easy to use and feature a user-friendly interface. This ease includes intuitive navigation, barrier-free access, and quick, effective services. Positive experiences derived from this ease create user satisfaction, encouraging them to consistently use fintech services for their needs (Kee et al., 2024). In other words, when users find fintech services quickly accessible and free from technical obstacles, they are more likely to build sustainable relationships and loyalty toward the service.

H6: Ease of use has a positive influence on fintech user loyalty among MSMEs through user satisfaction.

High trust in fintech services functions as an essential factor in driving user satisfaction and fostering long-term loyalty. Based on previous research, such as that by (Gefen et al., 2003), trust built through data security, service transparency, and regulatory compliance enhances user satisfaction. These positive experiences subsequently drive user loyalty to continue using the same fintech services. Users who trust the security and integrity of services are more likely to experience high satisfaction and choose to transact continuously (Taufiq-Hail et al., 2023). Thus, trust serves as a pathway influencing user satisfaction and enhancing loyalty, particularly in the context of MSMEs relying on technology to support their financial activities.

H7: Trust has a positive influence on fintech user loyalty among MSMEs through user satisfaction.

RESEARCH METHODS
Research Design

This study adopts a quantitative research approach to the analysis of the influence of financial literacy, perceived ease of use, and trust on user loyalty among MSME users, with fintech user satisfaction serving as a mediating variable. The quantitative approach was selected because it allows for structured, objective, and measurable data collection, which is essential for statistical analysis to explore the relationships between these variables. To examine these relationships, a survey design was employed, given its efficiency in gathering data from a large population in a short period. Data collection was carried out through online questionnaires using Google Forms, from early August to early November 2024, targeting MSMEs owners and managers in Yogyakarta who are actively engaging with fintech services. This approach was selected for its cost-effectiveness, ease of distribution, and ability to access a geographically dispersed population. The survey used a Likert scale to evaluate participants' perceptions related to financial literacy, perceived ease of use, trust, user satisfaction, and user loyalty. This standardized and systematic survey approach facilitated data analysis, enabling the identification of patterns and

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trends among MSME respondents. The research aims to examine how financial literacy, perceived ease of use, and trust on user loyalty among MSME users, with fintech user satisfaction serving as a mediator.
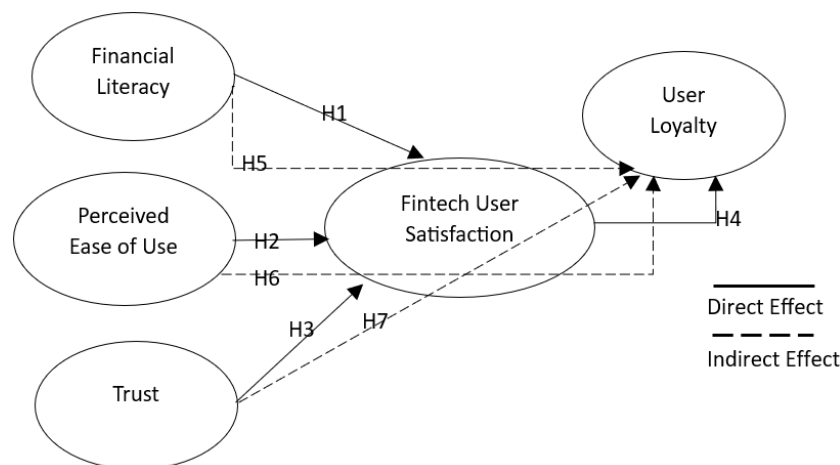

Figure 1. Research Model

Research Sample

The research sample for this study consists of MSME owners and managers in Yogyakarta actively utilizing financial technology (fintech) services and meeting specific inclusion criteria. A purposive sampling technique was employed to ensure that selected participants were aligned with the study's objectives. The inclusion criteria required participants to: actively use fintech, represent MSMEs entities in Yogyakarta, and have familiarity with financial literacy, ease of use, trust in fintech platforms, and a perception of their satisfaction and loyalty toward fintech services. Conversely, the exclusion criteria filtered out participants with limited interaction with fintech, low financial literacy, minimal technology usage, or behaviours that did not align with the study's fintech engagement objectives. Following these criteria, the study successfully recruited a final sample of 100 participants from an initial pool of 111 respondents who met all inclusion criteria. This purposive sampling ensures that the findings are representative of the context of fintech usage among MSMEs in Yogyakarta while allowing the results to be generalized to similar small business fintech adoption contexts.

Data Analysis

For data analysis, Structural Equation Modeling - Partial Least Squares (SEM-PLS) was used, facilitated by SmartPLS 3.0 software. This statistical technique was chosen because it can handle complex relationships between multiple latent variables, even with small to medium-sized sample groups. SEM-PLS provides insights into the relationships among financial literacy, perceived ease of use, trust, user satisfaction, and user loyalty while accounting for mediation effects. The analysis followed several key stages. First, the measurement model (outer model) was evaluated to ensure the validity and reliability of the latent constructs. Convergent validity was assessed by verifying these indicators loaded strongly onto their respective constructs (loadings ≥ 0.70). Discriminant validity was also checked to ensure the constructs measured distinct concepts. Reliability was assessed through Cronbach's alpha and composite reliability to confirm consistency across the measures.

Next, the structural model (inner model) was analyzed. The R-squared (R^2) value was computed to evaluate the explanatory power of the independent variables (financial literacy, perceived ease of use, and trust) on the dependent variable (user loyalty) and the mediator (user satisfaction). Additionally, Q-squared (Q^2) was calculated to assess the model's predictive relevance. These analyses allowed the researchers to determine how well the theoretical model aligned with the data. Finally, hypothesis testing was conducted using path coefficients derived from SEM-PLS. The path coefficients represent the relationships' strength and direction in the hypothesized model. Mediation analysis was performed to examine the role of user loyalty as a mediating variable between financial literacy, ease of use, trust, and user satisfaction.

The combination of SEM-PLS with SmartPLS 3.0 software allowed for the simultaneous analysis of both the measurement and structural models. This statistical approach provided comprehensive insights into the hypothesized relationships while ensuring the findings' robustness and credibility. Through this analysis, the study was able to test the research hypotheses and validate theoretical relationships in the MSMEs fintech usage context

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of Yogyakarta. This methodological approach offers empirical evidence that strengthens the study's findings, contributes to theoretical discussions, and provides practical insights into fintech user satisfaction and loyalty among MSMEs.

Table 1. Demographic Respondents

Demographic		Frequency	Percentage
Firm Age	1-5 years	20	20%
	6-10 years	45	45%
	11-15 years	26	26%
	>15 years	9	9%
Gender	Male	59	59%
	Female	41	41%
MSMEs Industry	Culinary	41	41%
	Creative	30	30%
	Tourism	29	29%
FinTech utilization	KoinWorks	30	30%
	GoPay	29	29%
	Moka	24	24%
	LandX	17	17%
E-commerce Platforms	Tokopedia	25	25%
	Shopee	52	52%
	Bukalapak	13	13%
	Lazada	10	10%
Business Location	Yogyakarta	100	100%

Source: (Data processing, 2024)

The demographic profile of MSMEs in Yogyakarta reveals several key insights. The majority of MSMEs operate in the 6-10 years firm age range (45%), followed by 11-15 years (26%), and only a small percentage have been operating for more than 15 years (9%). Regarding gender, 59% of business owners are male, while 41% are female. In terms of industries, 41% of MSMEs are in the culinary sector, followed by 30% in the creative industries, and 29% in the tourism sector. Among fintech utilization, KoinWorks leads with 30%, followed by GoPay (29%), Moka (24%), and LandX (17%). When analyzing e-commerce platforms, Shopee dominates with 52%, while Tokopedia follows with 25%, and smaller portions rely on Bukalapak (13%) and Lazada (10%). All surveyed MSMEs are located within Yogyakarta, emphasizing the region's concentrated entrepreneurial activity. This demographic highlights the strategic use of fintech and e-commerce platforms to support business operations and financial transactions among MSMEs in Yogyakarta.

RESULTS AND DISCUSSION
Inner Model Evaluation

The evaluation of the inner model is a critical step in Structural Equation Modeling-Partial Least Squares (SEM-PLS) analysis. This phase builds upon the foundation established during the outer model evaluation, ensuring that constructs are valid and reliable before proceeding to analyze relationships within the structural model. The emphasis here is on confirming the robustness and integrity of the constructs, which allows for accurate and meaningful interpretations of the hypothesized relationships.

Convergent Validity

Convergent validity assesses whether the indicators of a particular construct strongly correlate and effectively represent the same latent variable. This is achieved when the loading factors for each indicator are greater than 0.70, a threshold commonly accepted in SEM-PLS analysis. Using SmartPLS 3.2, the loading factors for all indicators were analyzed, and, as displayed in Table 2, they consistently exceeded the 0.70 threshold. This finding signifies that the indicators adequately converge to measure their intended constructs, confirming the achievement of convergent validity. This evaluation establishes a solid foundation for further analysis by ensuring that all items within each construct align closely with their underlying theoretical dimensions.

Discriminant Validity

Discriminant validity, on the other hand, ensures that constructs are sufficiently distinct from one another by evaluating whether the square root of the Average Variance Extracted (AVE) for a construct is higher than its correlations with other constructs. This metric is crucial for verifying that each construct captures a unique conceptual domain and does not overlap excessively with others. The results, summarized in Table 3, reveal that

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the square roots of AVE values for all constructs are greater than their inter-construct correlations, thereby meeting the discriminant validity criteria. This indicates that the constructs are conceptually independent and accurately delineate the theoretical boundaries of the model.

Reliability Test

Reliability testing examines the internal consistency and stability of the constructs using measures such as Cronbach's Alpha and Composite Reliability. For constructs with reflective indicators, values exceeding 0.60 are generally deemed acceptable, as they demonstrate a consistent and reliable representation of the underlying variables. As shown in Table 2, all constructs in the model achieved Cronbach's Alpha and Composite Reliability values above this threshold. These results confirm that the constructs are both internally consistent and reliable, reinforcing the credibility of the measurement model.

Table 2. Measurement Model Analysis

Variable	Item	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
Financial Literacy (FL)	FL.1	0,844	0,759	0,727	0,641
	FL.2	0,808			
	FL.3	0.753			
	FL.4	0,712			
Perceived Ease of Use (PEU)	PEU.1	0,846	0,759	0,774	0,650
	PEU.2	0,766			
	PEU.3	0.773			
	PEU.4	0,708			
Trust (TR)	TR.1	0,882	0,740	0,766	0,622
	TR.2	0,790			
	TR.3	0.724			
	TR.4	0,710			
Financial User Satisfaction (FUS)	FUS.1	0,877	0,791	0,777	0,618
	FUS.2	0,725			
	FUS.3	0.755			
	FUS.4	0,726			
User Loyalty (UL)	UL.1	0,800	0,747	0,703	0,672
	UL.2	0,798			
	UL.3	0.722			
	UL.4	0,718			

Source: *Output* Smart-PLS 3.0 (Data processing, 2024)

Outer Model Evaluation

The next stage of Structural Equation Modeling-Partial Least Squares (SEM-PLS) analysis focuses on the evaluation of the structural or inner model. This involves assessing the model's explanatory and predictive power using metrics such as R-square, Q-square, and hypothesis testing. These assessments collectively determine how well the model explains and predicts the relationships among the constructs, ensuring its validity and utility in addressing the research objectives.

R-square

The R-square value serves as an indicator of the proportion of variance in the endogenous variables that are explained by the exogenous variables in the model. According to the results presented in Table 4, the R-square value for Fintech User Satisfaction is 0.548, indicating that Financial Literacy, Perceived Ease of Use, and Trust collectively account for 54.8% of the variance in this construct. The remaining 45.2% is influenced by variables not included in this study. Similarly, the R-square value for User Loyalty is 0.535, demonstrating that the combined effects of Financial Literacy, Perceived Ease of Use, Trust, and Fintech User Satisfaction explain 53.5% of the variance in User Loyalty, leaving 46.5% to external or unexplored factors. According to (Hair et al., 2011), an R-square value exceeding 0.50 is considered indicative of moderate to strong explanatory power, which validates the capability of this model to provide meaningful insights into the relationships among the variables.

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Table 3. Discriminant Validity

Var/Ind	FL	PEU	TR	FUS	UL
FL.1	**0,844**	0,329	0,412	0,435	0,447
FL.2	**0,808**	0,396	0,394	0,459	0,429
FL.3	**0.753**	0,328	0,474	0,453	0,338
FL.4	**0,712**	0,337	0,376	0,329	0,439
PEU.1	0,317	**0,846**	0,349	0,334	0,355
PEU.2	0,328	**0,766**	0,391	0,443	0,318
PEU.3	0,485	**0.773**	0,376	0,374	0,357
PEU.4	0,465	**0,708**	0,433	0,388	0,377
TR.1	0,419	0,468	**0,882**	0,426	0,431
TR.2	0,423	0,449	**0,790**	0,447	0,384
TR.3	0,538	0,447	**0.724**	0,437	0,394
TR.4	0,489	0,468	**0,710**	0,492	0,348
FUS.1	0,541	0,360	0,476	**0,877**	0,329
FUS.2	0,422	0,421	0,414	**0,725**	0,382
FUS.3	0,425	0,448	0,412	**0.755**	0,497
FUS.4	0,428	0,453	0,510	**0,726**	0,384
UL.1	0,448	0,477	0,488	0,446	**0,800**
UL.2	0,501	0,395	0,395	0,398	**0,798**
UL.3	0,409	0,311	0,476	0,315	**0.722**
UL.4	0,438	0,349	0,485	0,432	**0,718**

Source: *Output* Smart-PLS 3.0 (Data processing, 2024)

Q^2 Predictive Relevance

Predictive relevance is evaluated using the Q-square (Q^2) statistic, which measures the model's ability to predict the observed values of endogenous constructs. A Q^2 value greater than 0 signifies that the model possesses adequate predictive capability. Using the R-square values obtained, the Q^2 value can be calculated as follows:

$Q^2 = 1 − (1−R1^2)(1−R2^2)$

Substituting the values,

$Q^2 = 1 − (1−0.548)(1−0.535)$

$Q^2 = 1 − (0.449×0.421)$

$Q^2 = 1 − 0. 0.21018$

$Q^2 = 0.78982$

This Q^2 value of 0.789 reflects the model's robust predictive accuracy, affirming its capacity to reliably predict outcomes for Fintech User Satisfaction and User Loyalty.

Table 4. R-Square Test

No	Variable	R-Square
1	FUS	0,548
2	UL	0,535

Source: *Output* Smart-PLS 3.0 (Data processing, 2024)

Hypothesis Testing

Hypothesis testing is performed to evaluate the statistical significance of the relationships between constructs in the model. Path coefficients are examined, and a P-value threshold of less than 0.05 is typically used to determine significance. The results, detailed in Table 5, demonstrate that all proposed hypotheses meet this criterion, confirming that the relationships among variables are statistically significant. These findings underscore the validity of the hypothesized model and its relevance in explaining the dynamics between Financial Literacy, Perceived Ease of Use, Trust, Fintech User Satisfaction, and User Loyalty.

DISCUSSION

The relationship between financial literacy and fintech user satisfaction in MSMEs

The first hypothesis in Table 5 indicates that financial literacy plays a positive and significant impact in enhancing satisfaction with the use of financial technology (fintech) services among MSMEs in Yogyakarta. This finding supports previous research that found similar results (Uddin & Nasrin, 2023). Financial literacy, which includes basic financial knowledge, financial planning and management, financial risk awareness, and the use of financial products, serves as a crucial foundation for MSMEs in optimizing fintech services. When MSMEs have a good understanding of financial management and the risks involved, they are more capable of assessing the

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suitability of fintech services for their business needs, leading to greater satisfaction with the quality of services provided. For example, platforms such as KoinWorks, which offer peer-to-peer lending-based financing, are highly suitable for MSMEs with well-developed financial planning, as they can choose the financing scheme that best matches their capabilities and needs.

Table 5. Hypothesis Testing Results

Hypothesis	Path Coefficient	T Value	P Value	Decision
FL -> FUS	0,545	6,529	0,000	Accepted
PEU -> FUS	0,478	5,624	0,000	Accepted
TR -> FUS	0,425	4,924	0,000	Accepted
FUS -> UL	0,361	4,328	0,000	Accepted
FL -> FUS -> UL	0,333	2,415	0,015	Accepted
PEU -> FUS -> UL	0,208	2,497	0,035	Accepted
TR -> FUS -> UL	0,206	2,891	0,025	Accepted

Source: *Output* Smart-PLS 3.0 (Data processing, 2024)

Additionally, the ability to plan and manage finances effectively allows MSMEs to use fintech services like GoPay or Moka efficiently for their daily transactions. MSMEs with a good understanding of cash flow management can take advantage of features such as automated reporting and transaction management, improving access and convenience when using these services (Athia et al., 2023). For example, GoPay facilitates quick and secure digital payment integration, which is essential for MSMEs dealing with consumer preferences for non-cash payments. MSMEs are also more confident using platforms like LandX for equity-based investment or financing with a good understanding of financial risks, as they understand the potential gains and risks involved. Moreover, the correct use of financial products enables MSMEs to maximize the benefits of fintech services, such as inventory management and automated financial reporting through Moka. These features allow MSMEs to increase operational efficiency, which contributes to user satisfaction with the accessibility and comfort of fintech services. The quality of services provided by fintech, such as system reliability and responsive customer service, is also a crucial factor supporting user satisfaction.

Financial literacy improves MSMEs' ability to choose fintech services that align with their needs while enhancing their user experience. This is evident in how a deep understanding of basic finance, planning, and risk can guide MSMEs in Yogyakarta to select fintech platforms like KoinWorks, GoPay, Moka, or LandX that are most relevant to their specific needs, resulting in high satisfaction with fintech services. This finding emphasizes the importance of financial literacy as a prerequisite for optimizing fintech benefits in supporting the growth and sustainability of MSMEs.

The relationship between ease of use and fintech user satisfaction in MSMEs

The second hypothesis in Table 5 shows that the ease of use of financial technology (fintech) services has a positive and significant impact on user satisfaction among MSMEs in Yogyakarta. This finding supports previous research that found similar results (Krah et al., 2024). This ease of use is reflected in indicators such as intuitive interfaces, clear usage instructions, process speed, and minimal technical barriers. MSMEs, which often face limitations in human resources and time, prioritize digital solutions that are easy to access and use efficiently without requiring complicated training. For example, platforms like GoPay offer a simple, intuitively designed interface that allows MSME owners to quickly process transactions without extensive technical guidance. This contributes to ease of access and comfort when using the service, especially for MSMEs in the culinary sector that deal with high transaction volumes daily.

Furthermore, clear usage instructions on platforms like Moka allow MSME owners in the creative or tourism sectors to manage inventory and sales reports independently. Users can understand features such as automatic transaction recording and real-time data reporting with clear instructions, improving service quality in terms of speed and reliability. When MSMEs feel that fintech services efficiently meet their needs without technical obstacles, they tend to feel more satisfied and loyal to the platform (Sharma et al., 2024). Process speed is another important element that enhances user satisfaction, especially on platforms like KoinWorks, which enables MSMEs to access financing with a quick and transparent verification process. This is particularly helpful for MSMEs that need urgent funding, such as for increasing stock or supporting market expansion. Minimal technical barriers, such as system failures or complicated usage, also play a key role in enhancing user experience on platforms like LandX, which provides investment-based financing with a simple and secure digital process.

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The combination of intuitive interfaces, clear instructions, speed, and minimal technical barriers ensures that fintech services are more relevant and comfortable for MSMEs to use. This is evident in how platforms like GoPay, Moka, KoinWorks, and LandX offer experiences that align with the needs of MSMEs, maintaining high service quality and providing access that is highly valued by business owners in Yogyakarta. As a result, satisfaction with fintech usage increases significantly, which in turn strengthens MSMEs' trust and engagement with these digital platforms. Thus, ease of use becomes a crucial factor supporting the successful adoption of fintech by MSMEs in this region.

The relationship between trust and fintech user satisfaction in MSMEs

The third hypothesis in Table 5 indicates that trust in financial technology (fintech) services has a positive and significant impact on user satisfaction among MSMEs in Yogyakarta. This finding supports previous research that obtained similar results (Roh et al., 2024). Trust is built through indicators such as service reliability, user data security, regulatory compliance, and operational transparency, forming a strong foundation for the relationship between MSMEs and fintech providers. For example, platforms like KoinWorks, which offer digital-based financing services, are known for having transparent operational processes, including information on interest rates and payment schedules, which makes MSMEs feel secure and comfortable using the platform for their funding needs. KoinWorks' reliability in providing quick access to financing also ensures that its services align with the needs of users, particularly for MSMEs in urgent need of working capital.

User data security is a crucial aspect in building trust in fintech, especially on platforms like GoPay and Moka, which are widely used by MSMEs in the culinary and creative sectors. Advanced security features such as two-factor authentication and data encryption provide peace of mind to business owners when making daily transactions or managing customer data. When MSMEs feel that their data is well protected, their comfort level in using fintech services increases significantly (Nurhayani et al., 2024). This also contributes to better service quality, as users do not have to worry about the risks of data breaches or unsafe transactions. Regulatory compliance is another key indicator in building trust, particularly on platforms like LandX, which operates in the equity-based investment sector. LandX provides legal certainty and protection for MSMEs using its services by ensuring that its operations comply with applicable regulations, such as those set by the Financial Services Authority (OJK). This legal assurance provides added security, supporting the alignment of services with user needs and strengthening long-term trust.

Operational transparency is also essential for improving user satisfaction. For example, Moka provides real-time, transparent financial reports, allowing MSMEs to easily monitor their business performance. Easy access to clear and reliable information creates a positive user experience and fosters loyalty to fintech services (Karim et al., 2022). Trust built through reliability, security, compliance, and transparency provides a solid foundation for MSMEs to continue using FinTech services as an operational support tool. Platforms like KoinWorks, GoPay, Moka, and LandX demonstrate how trust can be a key driver in creating user satisfaction with fintech among MSMEs in Yogyakarta. Fintech platforms can enhance comfort and service quality, building strong relationships with MSMEs by reliably meeting user needs, protecting data, complying with regulations, and maintaining transparency. This, in turn, contributes to the sustainability and growth of digital technology adoption within the small and medium enterprise ecosystem.

The relationship between fintech user satisfaction and user loyalty in MSMEs

The fourth hypothesis in Table 5 indicates that satisfaction with fintech services has a positive and significant impact on user loyalty among MSMEs in Yogyakarta, as reflected in indicators such as service alignment with needs, service quality, ease of access, and user comfort. This finding supports previous research that obtained similar results (Alnsour, 2022). High satisfaction drives loyalty, which is reflected in repeat usage, recommendations to others, preference for certain services, and brand compliance with fintech platforms. Demographic data shows that the majority of MSMEs in Yogyakarta operate in the culinary sector (41%), which has high daily transaction needs, thus relying on fintech like GoPay to simplify digital payment processes. Users feel more comfortable and are likely to use the service repeatedly with features like easy access and services tailored to the needs of the culinary business.

The creative and tourism industries, which contribute 30% and 29% of the MSME respondents, are also greatly supported by platforms like Moka and KoinWorks. Moka provides a point-of-sale (POS) solution that allows MSMEs to manage transactions, inventory, and financial reports efficiently. Satisfaction with this service, which meets the specific needs of creative and tourism MSMEs, encourages users to recommend it to their business peers. This is further strengthened by KoinWorks' reliability in providing quick and secure access to financing and building loyalty to the FinTech brand through preference and repeated usage. Ease of access is a key factor that

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strengthens the relationship between satisfaction and loyalty, especially in sectors with high time pressures, such as culinary. MSMEs using GoPay can process transactions quickly and without technical barriers, creating a positive user experience. The level of comfort when using this service increases the likelihood that users will remain loyal to the platform, as seen in the high user loyalty to FinTech in Yogyakarta. Additionally, MSMEs using LandX as an equity-based financing solution tend to recommend the platform to other business owners, thanks to its operational transparency and quality service.

Service alignment with needs also plays a crucial role in building loyalty. MSMEs in Yogyakarta, most of which fall into the 6-10 years business age category (45%), demonstrate a more mature adoption of fintech compared to newer MSMEs. They tend to choose fintech services that can support their business needs sustainably. Fintech that consistently delivers quality service, like Moka with real-time data integration or GoPay with user loyalty programs, further strengthens brand compliance. Satisfaction with fintech services, driven by service alignment, quality, ease of access, and comfort, directly increases user loyalty among MSMEs in Yogyakarta. Repeat usage, recommendations to others, and preference for certain services are clear indicators of how fintech platforms like GoPay, Moka, KoinWorks, and LandX meet user needs and build lasting relationships with MSMEs across sectors. This demonstrates the strategic role of fintech in supporting the sustainability and growth of the MSME ecosystem through loyalty driven by user satisfaction (Taneja et al., 2024).

The relationship between financial literacy and fintech user loyalty in MSMEs through user satisfaction

The fifth hypothesis in Table 5 shows that financial literacy has a positive and significant effect on fintech user loyalty in MSMEs in Yogyakarta, with user satisfaction as a mediating variable. This finding supports previous research that found similar results (Amnas et al., 2024). Financial literacy, which includes basic financial knowledge, financial planning and management, financial risk awareness, and the use of financial products, helps MSME actors understand the benefits and potential risks of the fintech services they use. This creates user satisfaction through indicators such as service alignment with needs, service quality, ease of access, and comfort levels when using the service. High satisfaction then increases user loyalty, reflected in repeat usage, preference for specific services, recommendations to others, and adherence to the fintech brand.

MSMEs in the culinary sector (41% of respondents) demonstrate higher financial literacy levels due to their need for strict cash flow management. In this case, fintech services like GoPay play a significant role as an easily accessible digital payment solution that offers features tailored to daily transactional needs. Financial literacy enables users to understand the benefits of services such as automatic financial reporting and loyalty programs offered by GoPay, which enhances user satisfaction and encourages repeat usage. Meanwhile, the creative sector (30%) and the tourism sector (29%) tend to utilize platforms like Moka and KoinWorks. Good financial literacy helps MSME actors in these sectors make efficient use of financing features from KoinWorks and manage income reports provided by Moka, thereby increasing satisfaction with these fintech services and promoting brand preference.

The respondent demographics also show that most MSMEs are in the 6-10 years business age category (45%), where more mature financial literacy tends to support better decision-making in choosing and using fintech services. A good understanding of financial risk management and the use of financial products allows them to maximize the benefits of platforms like LandX, which offers investment opportunities with measured risk. Transparency and LandX's compliance with regulations enhance trust and satisfaction, which ultimately strengthens loyalty through recommendations to other business partners. User satisfaction built through financial literacy directly impacts user loyalty (Rashid et al., 2020). For example, the ease of access offered by fintech services such as GoPay or Moka provides a positive user experience, while high-quality services such as quick financing from KoinWorks encourage recommendations and preference for this platform. MSMEs in Yogyakarta with higher financial literacy can optimally utilize various fintech services, which can improve operational efficiency and strengthen long-term relationships with fintech service providers.

Financial literacy plays a strategic role in increasing fintech user loyalty in Yogyakarta's SMEs through user satisfaction. MSMEs feel satisfied and demonstrate loyalty reflected in repeat usage and promoting services to others by understanding and effectively utilizing fintech services. The combination of financial literacy and relevant fintech services, such as GoPay, Moka, KoinWorks, and LandX, creates a digital ecosystem that supports the sustainability and growth of MSMEs across various sectors.

The relationship between ease of use and fintech user loyalty in MSMEs through user satisfaction

The sixth hypothesis in Table 5 shows that ease of use has a positive and significant effect on fintech user loyalty in MSMEs in Yogyakarta, with user satisfaction as a mediating variable. This finding supports previous research that found similar results (Sukandar & Hermawan, 2022). Ease of use includes indicators such as intuitive

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interfaces, clear instructions, speed of process, and minimal technical barriers. These factors contribute to a positive user experience, creating satisfaction through services that align with needs, consistent quality, easy access, and high comfort levels. This satisfaction then increases loyalty to the fintech platform used, reflected in repeat usage, recommendations to others, preference for specific services, and adherence to the fintech brand.

MSMEs in Yogyakarta, the majority of which are in the culinary sector (41%), heavily rely on fintech services like GoPay to facilitate daily transactions. GoPay's intuitive application interface, fast payment process, and minimal technical barriers provide a simple and efficient user experience. This increases user satisfaction, especially since the service meets their business needs for real-time transactions and automatic financial reporting. This satisfaction drives loyalty, as seen in MSME actors who continue to use GoPay as their primary choice and recommend it to customers and business partners. In the creative sector (30%) and tourism sector (29%), MSMEs frequently use platforms like Moka for payment management and financial reporting. The clarity of usage instructions and the easy-to-understand features of the Moka app are key advantages that enhance user satisfaction. For example, MSMEs in the creative sector use Moka to manage sales during art exhibitions or events, where ease of use of the technology becomes a key success factor. Satisfaction with Moka's features encourages users to remain loyal to this platform, even when they have other options available.

The respondent demographics show that most MSMEs are in the 6-10 years business age category (45%), a group that is more familiar with digital technology. They prioritize fintech services that are easy to use to support efficient business operations. For instance, MSME actors in this business age often use KoinWorks for access to financing, with its intuitive interface and fast application process. The satisfaction derived from this ease of use encourages loyalty to KoinWorks, as seen in repeat usage and recommendations to other MSME communities. Fintech user loyalty in MSMEs is also supported by fintech services that meet expectations of ease of access, such as LandX, which offers investment features with simple navigation. MSMEs that feel comfortable using this platform tend to continue using it for business capital management while recommending the platform to their business partners. Ease of use plays an important role in increasing fintech user loyalty through user satisfaction (Metilda & D Shamini S, 2022). MSMEs in Yogyakarta that are satisfied with their experience using fintech services such as GoPay, Moka, KoinWorks, and LandX demonstrate strong loyalty to these platforms. The combination of user-friendly interfaces, fast processes, minimal technical barriers, and high-quality services ensures that MSME needs are met, creating long-term mutually beneficial relationships between users and fintech service providers.

The relationship between trust and fintech user loyalty in MSMEs through user satisfaction

The seventh hypothesis in Table 5 shows that trust has a positive and significant effect on fintech user loyalty among MSMEs in Yogyakarta, with user satisfaction as a mediating variable. This finding supports previous research that revealed similar results (Chawla et al., 2023). Trust is reflected in indicators such as service reliability, user data security, regulatory compliance, and operational transparency, which ensure that users feel safe and comfortable when using FinTech. When trust is established, users become satisfied because their needs are met through quality services, easy access, and comfort during platform usage. This satisfaction ultimately influences user loyalty, as reflected in repeat usage, recommendations to others, preferences for certain services, and adherence to the fintech brand.

MSMEs in Yogyakarta, particularly in the culinary sector (41%) and the creative sector (30%), heavily rely on fintech services like GoPay and Moka to support their daily transactions and business management. The reliability of GoPay in ensuring smooth transactions without disruptions, as well as the security of user data through advanced encryption, builds trust among MSMEs. This is particularly important for culinary business owners who handle large-scale daily transactions, ensuring that the service meets their operational needs. The high level of trust in GoPay increases user satisfaction, which in turn fosters loyalty, reflected in recommendations to customers and business networks.

In the tourism sector (29%), MSMEs often use platforms like LandX to access business capital. LandX's operational transparency in explaining investment risks and fundraising processes increases trust in the platform among MSMEs. The security of data and LandX's compliance with applicable regulations provide additional assurance to users. MSMEs in this sector feel satisfied because the platform facilitates financing and provides clear legal protections. This satisfaction drives loyalty, as business owners continue to choose LandX as their primary financial partner. MSMEs that have been in business for 6-10 years (45%) tend to be more selective in choosing reliable fintech services. For instance, KoinWorks has become the preferred choice for financing due to its transparent system, risk minimization, and smooth transaction processes. Trust in KoinWorks' ability to manage loans and maintain data confidentiality increases user satisfaction. MSMEs satisfied with this service are more likely to use the platform repeatedly and recommend it to other business colleagues.

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Demographic data shows that 59% of respondents are male, who, in the context of business, often act as the primary decision-makers in selecting fintech services. Trust becomes a key factor for them in ensuring that the platform they use is safe, transparent, and meets business needs. This explains their strong preference for fintech services like GoPay and KoinWorks, which have proven reliability in the market. Thus, trust plays a crucial role in building fintech user loyalty among MSMEs in Yogyakarta. When MSMEs feel that the fintech services they use are reliable, safe, transparent, and compliant with regulations, they will feel satisfied (Suryono et al., 2021). This satisfaction becomes the primary foundation for driving long-term loyalty to these fintech services. Fintech platforms like GoPay, Moka, KoinWorks, and LandX have successfully built user trust through reliable and secure services, creating mutually beneficial relationships between users and service providers.

Relationship of research findings with the theory used (TAM and CST)

The influence of financial literacy, ease of use, and trust on fintech user loyalty among MSMEs in Yogyakarta through user satisfaction can be explained through the Technology Acceptance Model (TAM) and Customer Satisfaction Theory (CST). TAM explains that Perceived Ease of Use and Perceived Usefulness are key factors in technology adoption. Financial literacy influences Perceived Usefulness, as good financial knowledge helps MSMEs understand the benefits of fintech platforms like KoinWorks and GoPay in supporting financial management and business financing. Ease of use, through intuitive interfaces and fast processes like those on Moka and GoPay, strengthens Perceived Ease of Use, making it easier for users to integrate fintech into their daily operations. Meanwhile, trust in the reliability and security of platforms like LandX influences perceptions of both benefits and ease of use, building confidence that FinTech can meet business needs with minimal risk.

Furthermore, Customer Satisfaction Theory explains how user satisfaction is created when initial expectations are met or even exceeded by actual experiences. Financial literacy raises user expectations about the benefits of services, while ease of use ensures that the experience with platforms like GoPay and Moka is smooth, with no technical barriers. Trust, supported by data security and transparency of services like those on LandX, builds a sense of security that enhances user satisfaction. This satisfaction becomes the foundation for user loyalty, such as repeat usage, recommendations to others, and preference for specific fintech services. Thus, the integration of financial literacy, ease of use, and trust that leads to satisfaction drives user loyalty and strengthens the role of fintech in supporting the sustainability of MSMEs in Yogyakarta.

CONCLUSION

This study examines the impact of financial literacy, ease of use, and trust on fintech user satisfaction, which mediates user loyalty among MSMEs in Yogyakarta. Financial literacy enhances users' ability to optimize fintech, ease of use ensures smooth transactions, and trust fosters confidence in platform security. User satisfaction serves as a critical link, driving loyalty through repeat usage, preference, and positive referrals. The findings underscore fintech's role in improving operational efficiency and business sustainability for MSMEs in developing regions. The study contributes to the theory by extending the Technology Acceptance Model (TAM) and Customer Satisfaction Theory, emphasizing user satisfaction as a mediator. Practically, it offers insights for fintech providers, policymakers, and educators. Fintech platforms should focus on user-friendly interfaces, robust security, and transparency. Governments and fintech providers should promote financial literacy programs for MSMEs, while educators integrate fintech literacy into entrepreneurship training to enhance adoption and growth. Future research should explore tailored fintech solutions for specific sectors like culinary and tourism, incorporate digital literacy in training, and address the digital divide through local partnerships. Examining other mediators like digital competence or entrepreneurial attitudes could provide a broader perspective on fintech adoption. The study has limitations, including its focus on Yogyakarta, a sample size of 100 MSMEs, and reliance on cross-sectional data. Future research should adopt longitudinal designs, involve diverse regions, and explore additional variables such as customer support quality or market competition to deepen insights into fintech's impact on MSMEs.

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