

BEYOND EASE OF USE: TRUST AND SERVICE FEATURES AS KEY DRIVERS OF E-WALLET ADOPTION IN THE HALAL DIGITAL ECONOMY

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ABSTRACT

The expansion of financial technology has accelerated the transition toward a cashless society in Indonesia, where digital wallets and QRIS have become increasingly popular among consumers. For Halal Micro, Small, and Medium Enterprises (MSMEs), adopting digital wallet services is not only a matter of efficiency but also of maintaining consumer trust and ensuring compliance with sharia principles. Despite its potential, adoption remains uneven, requiring further investigation into the key determinants that shape halal MSME owners' decisions. This study aims to analyze the influence of ease of use, trust, and service features on the decision of halal MSME owners to provide digital wallet services. A quantitative approach was employed, with data collected from 60 halal MSME owners in Samarinda through purposive sampling. Structural Equation Modeling–Partial Least Squares (SEM-PLS) was applied to test the hypothesized relationships. A quantitative approach was employed using purposive sampling, involving 60 halal MSME owners in Samarinda. Data were collected through questionnaires and analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS). The results reveal that perceived ease of use does not significantly affect decisions, whereas trust and service features have a significant positive influence. The study highlights a novel insight that, within the halal digital ecosystem, trust and superior service features outweigh ease of use as critical determinants of e-wallet adoption among MSMEs in emerging markets.

Keywords: Halal digital economy; E-wallet adoption; Halal MSMEs; Trust in digital finance; Service innovation; Emerging markets

INTRODUCTION

The rapid advancement of financial technology (fintech) has significantly transformed transaction systems around the world (Golubev & Ryabov, 2021; Jalal et al., 2024; Kumari & Devi, 2022), and Indonesia is no exception (Jameaba, 2020; Manawar et al., 2023; Safitri, 2020; Suryono et al., 2020). Over the past decade, the country has experienced remarkable growth in the adoption of cashless payment systems (Hendrawan et al., 2023; Puspitasari & Salehudin, 2022; Septiningrum et al., 2024). Supported by the massive penetration of smartphones (Mumtaza et al., 2020; Rui et al., 2023), internet accessibility, and government policies promoting digitalization, payment behaviors have shifted dramatically from cash-based transactions to electronic payments (Allam, 2020; Khan et al., 2021; Prihatmoko, 2025). According to Bank Indonesia, the volume of electronic money circulation has continued to surge annually, reflecting a strong momentum toward a cashless society. Among various innovations, digital wallets such as GoPay, OVO, Dana, and the nationally standardized Quick Response Code Indonesian Standard (QRIS) have emerged as the most widely used fintech products, providing secure, efficient, and convenient payment alternatives (Hamzah Muchtar et al., 2024; Hwang et al., 2021; Yudhistiro & Liem, 2025). These developments mark a pivotal change in the country's financial landscape and highlight the growing reliance on fintech in everyday life.

For Micro, Small, and Medium Enterprises (MSMEs), particularly those operating within the halal sector, the adoption of digital wallet services carries strategic importance (Arner et al., 2022; Humaira et al., 2020). MSMEs are the backbone of Indonesia's economy, contributing significantly to employment creation, poverty alleviation, and regional economic growth (Azzahra et al., 2025; Nursini, 2020; Tambunan, 2023). Within this group, halal MSMEs hold a special position as they cater to the needs of Muslim consumers in the world's largest Muslim-majority country. Adopting digital wallets enables halal MSMEs to streamline transactions, reduce operational costs, expand customer bases, and improve

competitiveness in an increasingly digital economy. Beyond these business advantages, providing sharia-compliant payment options also strengthens consumer trust, since for Muslim customers, halal assurance is expected not only in the products they consume but also in the mechanisms of financial transactions.

Nevertheless, despite these opportunities, the adoption of digital wallets among halal MSMEs remains uneven. Many entrepreneurs face barriers such as limited digital literacy (Hermansyah et al., 2025; Rujitoningtyas et al., 2024; Suyanto et al., 2023), uncertainty about the security of digital platforms (Amoozad Mahdiraji et al., 2023; Mahdiraji et al., 2023), and hesitation regarding the alignment of fintech services with Islamic financial principles. These concerns are amplified by the fact that consumer trust in halal products extends beyond the physical product to include the transparency, fairness, and compliance of the payment systems employed. In practice, this means that a halal MSME owner's decision to adopt digital wallet services is not solely determined by the ease of use or availability of the technology but is also closely tied to perceptions of reliability, security, and religious compatibility (Riofita, 2025; Sari & Supiandi, 2023). This makes the adoption process in the halal sector more complex than in conventional businesses.

The academic literature provides useful insights into the determinants of fintech adoption, though findings often vary across contexts. Research has shown that ease of use, trust, and perceived benefits are recurring variables that shape adoption behavior. For instance, Abrilia and Sudarwanto (2020) found that convenience and service quality significantly influenced the adoption of the DANA e-wallet in Surabaya. Similarly, Tolat (2022) emphasized the importance of trust and perceived usefulness in shaping consumers' willingness to adopt OVO in Yogyakarta. Studies on QRIS adoption among MSMEs in Denpasar and Yogyakarta (Ambudhi, 2024; Pebyarni, 2024) revealed that perceptions of usefulness, trust, and risk play critical roles, though results are not always consistent. An extended TAM approach further confirmed that trust strongly influences attitudes toward QRIS adoption, ultimately driving behavioral intention. These findings align with broader models such as the Unified Theory of Acceptance and Use of Technology (UTAUT), which underscores perceived usefulness, ease of use, and trust as central factors in technology adoption.

However, most of these studies focus on general MSMEs or consumer adoption, without paying specific attention to the distinctive context of halal enterprises. The halal business ecosystem introduces additional layers of expectation and responsibility. Halal MSMEs must satisfy conventional criteria of efficiency and competitiveness while simultaneously ensuring compliance with Islamic ethical and legal principles. This includes avoiding elements such as *riba* (interest), *gharar* (uncertainty), and *maysir* (gambling), as well as ensuring transparency and fairness in financial dealings. The absence of focused research on how halal MSMEs navigate these dual considerations business pragmatism and religious compliance represents a critical gap in the literature. Understanding this dynamic is especially relevant in Indonesia, where the halal economy is gaining momentum both domestically and internationally.

Another underexplored dimension is the role of service features in influencing adoption decisions. Digital wallets today are not limited to simple payment functions; they often integrate value-added services such as loyalty programs, cashback, QRIS interoperability, and linkage with e-commerce platforms. For MSMEs, these features can reduce operational burdens, improve customer engagement, and enhance market visibility. From a halal perspective, the assurance that these features are transparent and sharia-compliant further enhances their appeal. Therefore, the decision-making process among halal MSME owners is shaped not only by the usability of the technology but also by the credibility and innovativeness of its features.

Given these gaps, this study is designed to analyze the determinants influencing halal MSME owners' decisions to provide digital wallet services, focusing specifically on the roles

of ease of use, trust, and service features. By concentrating on halal MSMEs in Samarinda, East Kalimantan, the research provides localized insights into how fintech adoption unfolds in a Muslim-majority context where halal assurance is paramount. Theoretically, the study contributes to extending the literature on digital financial adoption by integrating considerations from halal business practices. Practically, the findings offer guidance for policymakers, regulators, and fintech providers to design inclusive, secure, and sharia-compliant digital payment solutions that empower halal MSMEs and strengthen their competitiveness in Indonesia's rapidly evolving digital economy.

LITERATURE REVIEW

Digital Wallet Adoption

Digital wallets (e-wallets) have become a major driver of cashless economies, enabling users to conduct fast, secure, and efficient transactions through mobile devices. Their adoption is influenced by technological perceptions and contextual factors such as culture, regulation, and consumer trust. Recent studies highlight that e-wallet adoption in emerging markets is shaped by perceived usefulness, ease of use, and trust, while also being moderated by socio-economic and ethical factors (Sharma et al., 2023; Kumar et al., 2021). In the context of halal MSMEs, adoption decisions must balance efficiency and competitiveness with compliance to sharia principles, which adds a unique layer of consumer expectation (Hudaefi, 2020).

Ease of Use

Perceived ease of use reflects the degree to which users believe that interacting with a system is simple and effortless. Empirical studies since 2019 consistently demonstrate that ease of use is positively associated with intention to adopt mobile wallet services (Kumar et al., 2021). However, recent findings suggest that in markets with high digital literacy, ease of use is often taken for granted, and its effect on actual adoption may be weaker compared to other factors (Sharma et al., 2023). This implies that for halal MSME owners, usability is important but may not be the strongest determinant of adoption.

Trust

Trust has emerged as one of the most critical variables influencing fintech adoption. It refers to the confidence in the reliability, transparency, and security of digital platforms. Research shows that trust significantly predicts sustainable use of mobile wallets, especially in emerging economies where concerns over fraud and data privacy are prominent (Sharma et al., 2023). In halal MSMEs, trust is twofold: technical trust in the platform's security and religious trust in its compliance with Islamic principles. Consumers demand that digital payments uphold fairness, transparency, and sharia compliance, making trust a non-negotiable factor in adoption (Kumar et al., 2021; Hudaefi, 2020).

Service Features

Service features encompass the range of value-added functionalities in digital wallets, including QRIS interoperability, loyalty programs, and e-commerce integration. Recent studies confirm that features significantly enhance the perceived value of mobile wallets and strengthen adoption decisions (Sharma et al., 2023). For halal MSMEs, service features not only improve operational efficiency but also provide reassurance when aligned with ethical and religious standards. Features that enhance credibility and market reach are therefore considered as important as trust itself.

HYPOTHESIS

Based on the literature and theoretical reasoning, this study proposes the following hypotheses: **H1:** Ease of use has a significant positive effect on halal MSME owners' decisions to provide digital wallet services. According to Davis in the Technology Acceptance Model (TAM) theory, perceived ease of use is one of the main factors in encouraging technology acceptance. In the context of digital payments, research shows

that the easier a technology is to use, the higher the likelihood of its adoption (Venkatesh et al., 2003; Oliveira et al., 2016). Therefore, it is hoped that the ease of use of digital wallets can increase the decision of halal MSMEs to provide these services. **H2:** Trust has a significant positive effect on halal MSME owners' decisions to provide digital wallet services. Trust is an important determinant in the adoption of digital-based technologies, especially in financial transactions involving security and privacy risks (McKnight et al., 2002; Pavlou, 2003). Recent studies also confirm that trust is the most dominant factor in the adoption of Islamic fintech and digital wallets in emerging markets (Manniam, 2024; Future Business Journal, 2023). In the context of halal MSMEs, trust is not only related to transaction security, but also compliance with sharia principles, so trust is expected to have a significant effect on the decision to provide digital wallet services. **H3:** Service features have a significant positive effect on halal MSME owners' decisions to provide digital wallet services. Service features such as transaction speed, integration with merchants, and incentives (cashback, promos) have been proven to increase perceived value and encourage technology adoption (Zhou, 2011; Oliveira et al., 2016). Other research also shows that service innovation and feature quality are key factors for the success of digital wallets, especially for MSMEs that prioritize efficiency and customer attraction (de Luna et al., 2019; Khan & Abideen, 2023). Therefore, the superior the features offered, the higher the likelihood of halal MSMEs to provide digital wallet services.

METHODS

This study employed a quantitative research design to examine the determinants influencing halal MSME owners' decisions to provide digital wallet services. The population consisted of halal MSMEs operating in Samarinda, East Kalimantan, with a purposive sampling technique applied to obtain 60 respondents who met specific criteria, namely owners of halal-certified MSMEs that had experience with digital wallet transactions. Data were collected through structured questionnaires using a five-point Likert scale to measure three independent variables ease of use, trust, and service features and one dependent variable, the decision to provide digital wallet services. The validity and reliability of the measurement items were assessed prior to hypothesis testing. Data analysis was conducted using Structural Equation Modeling with the Partial Least Squares (SEM-PLS) approach, enabling simultaneous evaluation of the measurement model and structural model to determine the significance of hypothesized relationships.

RESULTS

Analysis of respondent characteristics was used to obtain an overview of the respondent being studied. This research involves halal MSMEs in Samarinda City. A total of 60 respondents were divided into groups based on respondents' names, gender, age, business name, length of business, and digital wallets used.

Table 1. Number Of Samples By Gender

Gender	Sum
Man	16 People
Woman	44 People
Total	60 People

Source: Processed Primary Data (2025)

From table 1, the majority of respondents in this study are based on the dominant gender, namely 44 respondents, while men number 16 people. The data shows that female business actors dominate the MSME sector, especially those engaged in the culinary business. The high participation of women in MSMEs is in line with the increase in the use of digital technology in business activities. Women are generally more responsive to digital trends, especially when it comes to transactions. This supports the great potential in the adoption of digital wallets among female business actors, because digital wallets are

considered to facilitate payments, shorten transaction times, and provide ease of financial recording without the need to meet directly with customers. From table 2, it can be seen that the majority of respondents in this study based on age were 16 respondents between 21 and 30 years old, followed by 32 people aged 31 to 40 years, and then 11 people over 40 years old. Meanwhile, the youngest age, namely 17 to 20 years old, amounted to 1 person. This research reinforces the fact that most MSME actors are at a productive age and are technologically literate. Young people are usually more open to digital changes and innovations, including in using digital wallets as an alternative to payment for their businesses.

Based on the data in table 3, it is recorded that the distribution of respondents based on business experience shows that the largest number comes from halal MSMEs with a business life of less than 1 to 3 years as many as 26 respondents, while the least number are business actors with less than 1 year of experience as many as 1 respondent. The data shows that the majority of MSME actors are still relatively new to the business world. This can be an indicator that novice business actors are more open to the use of technology, including digital wallets, because they do not have a complex financial system and tend to look for more efficient and flexible transaction methods. On the other hand, MSME actors who have been running a business for a long time may be more conservative or need more time to adapt to new technology. However, if experienced business actors realize the benefits of digital wallets in supporting operational efficiency and financial record-keeping, they also have the potential to become active users of the service.

From table 4, it shows that the majority of respondents in this study are based on the use of digital wallet services, the type of service that is most widely used by MSME actors is QRIS as many as 59 respondents. followed by the use of mobile banking such as Brimo, BSI Mobile, Livin, and BCA Mobile as many as 31 respondents. Meanwhile, the use of other popular digital wallets was in lower numbers, such as GOPAY with 22 respondents, DANA with 14 respondents, OVO with 11 respondents, and ShopeePay which was only used by 8 respondents. The data shows that the high use of QRIS in the integrated payment system provided by Bank Indonesia has been successfully adopted widely by MSME actors. This could be due to the massive socialization of QRIS, its ease of use, and its flexibility that allows consumers to pay through various digital wallet applications without having to have a special account on each platform. The use of QRIS also reduces the need for additional devices, making it very efficient for micro business actors who prioritize low operational costs.

Table 2. Number Of Samples By Age

Age	Sum
17 to 20 years old	1
21 to 30 years old	16
31 to 40 years old	32
>40 years old	11
Total	60

Source: Processed Primary Data (2025)

Table 3. Number Of Samples By Length Of Operation

Long Term of Effort	Sum
< 1 year	1
< 1 to 3 years old	26
< 4 to 7 years old	20
>7 years old	13

Source: Processed Primary Data (2025)

Table 4. Number Of Samples Using Digital Wallet

Types of Digital Wallets	Sum
DANA	14
THIS	11
GoPay	22
Shopeepay	8
QRIS	59
M-Banking (Brimo, BSI Mobile, Livin, BCA Mobile)	31
Total	145

Source: Processed Primary Data (2025)

This study implements the data analysis method carried out, namely the Partial Least Square Structural Equation Modelling technique (PLS-SEM) through two stages of model evaluation. These stages include: Testing Data Quality Through Outer Model Assessment (Measurement Model). The analysis used in this study utilizes SmartPLS software with several stages of measurement model evaluation as follows, outer model or measurement model, namely: convergent validity, discriminant validity, and consistency reality.

Convergent Validity

The initial measurement process carried out aims to evaluate the level of positive correlation between the indicator and the measured construct. This evaluation is carried out by analyzing the loading factor value of the data processing results. In the exploration stage of the study, the measurement scale with a loading factor value between 0.50 to 0.60 is still acceptable as an indication of an adequate correlation between the measurement item and the construct in question. Based on the minimum loading factor criteria of 0.6 that has been set, the results of data processing through SmartPLS show the following data.

Table 5. Measurement Model

	Service Features	Facilities	Belief	Preparation Decision
X1.1		0.802		
X1.2		0.909		
X1.3		0.861		
X2.1			0.866	
X2.2			0.867	
X2.3			0.808	
X3.1	0.850			
X3.2	0.776			
X3.3	0.860			
Y.1				0.886
Y.2				0.844
Y.3				0.863

Source: Processed Primary Data (2025)

From the table 5, it can be seen that the results of each indicator show that the significance level of 7% is fulfilled and all indicator variables have a loading factor value that exceeds 0.7 (>7). The outer loading value of all variable indicators X1, X2, X3, AND Y > 0.7, then the results of the analysis of all indicators meet the validity criteria with a factor loading

value above 0.7, meaning that it shows a strong correlation between each measurement item and the latent construct it represents.

Discriminant Validity

The discriminant validity test aims to determine whether each indicator in the variable being studied has a specific value and is only related to the indicator in the variable itself, not to indicators from other variables that are undesirable or underrepresented. Discriminant validity is important so that constructs do not overlap and do not measure the same concept. To ensure the good and qualified discriminant validity of a model, it is indicated by the root value of AVE (average variance extracted) of each construct that the value exceeds the correlation between the constructs rather than the correlation of that construct with other latent variables in the model. The analysis method used by applying the Fornell Larcker criterion method as the second stage. The following results of the Fornell Larcker criterion test through SmartPLS can be explained as follows.

From the Table 6, we judge that the overall indicator has a higher value when describing the variable itself than with other variables in the same matrix. From the table, it can be seen that the provision decision has the highest value of 0.865 than other variables in the same column, namely the service feature variable which has a value of 0.781, convenience of 0.726, and trust of 0.755. Similarly, the service feature has a value of 0.829 which is greater than the other three variables such as ease of having a value of 0.757, trust of 0.732, and the decision to provide 0.781 in the same column as the service feature. Or correlation service features with ease, trust, and decision to provide a digital wallet is smaller than the root AVE service features. The same is also seen in the root of AVE of other variables, namely the convenience factor has an AVE root value of 0.859 which is higher than the other three variables such as service features of 0.757, trust of 0.739, and decision to provision of 0.726. This shows that the convenience factor has met the validity of the discriminant. The trust factor had an AVE value of 0.847 which was higher than the three correlations with service features of 0.732, convenience of 0.739, and provision decision of 0.755. Therefore, the belief variable is declared to be valid discriminatory. Based on the analysis of the table above, it can be concluded that the data model used in this study has met the standards and criteria set, that the model concept has good discriminative validity.

Model Collinearity Test

The collinearity test is performed to ensure that there is no high multicollinearity between the free variables in the model. The acceptable VIF value in the study is generally < 5 so it is considered that there is no collinearity problem. The following table shows the collinearity value. From table 7, it can be concluded that the collinearity test has a value below the number 3, which ranges from 1,465 to 2,604. This value is still far from the maximum tolerance limit used, which is > 5 . So, it can be concluded that there is no multicollinearity between the indicators in this test. Therefore, each indicator in the construct is able to explain its respective latent variables independently and does not influence each other excessively.

Composite Reliability

The specific CR (Composite Reliability) value that can or can be accepted in the study is around 0.70. Constructs are considered to have high realism if the composite reliability value is 0.70. The composite reliability value table can be seen as follows. Based on table 8, it can be concluded that all constructs in the study meet the criteria of reliability and validity. This can be seen from Cronbach's alpha value which is above 0.7, with a value range between 0.775 to 0.831, which shows that the variables in each indicator have high internal consistency. The composite reliability value also showed satisfactory results, which was above 0.7 for all constructs, with the highest value of 0.899 in the provision decision variable. This shows that the variables have a high combined reality. Meanwhile, the Average Variance Extracted (AVE) value for all constructs is above the minimum value of 0.5, which is between 0.688 to 0.748 which indicates that each construct has met the

validity due to more than 0.5. Based on these results, it can be concluded that all constructs in the model have met the requirements for reliability and validity.

Table 6. Results Data Fornell Larcker Criterion

	Service Features	Facilities	Belief	Preparation Decision
Service Features	0.829			
Facilities	0.757	0.859		
Belief	0.732	0.739	0.847	
Preparation Decision	0.781	0.726	0.755	0.865

Source: Processed Primary Data (2025)

Table 7. Collinearity Test Results

Indicator	Bright
X1.1	1.556
X1.2	2.604
X1.3	2.191
X2.1	2.026
X2.2	2.073
X2.3	1.465
X3.1	1.573
X3.2	1.518
X3.3	1.810
Y.1	2.198
Y.2	1.756
Y.3	1.940

Source: Processed Primary Data (2025)

Table 8. Cronbach Alpha And Composite Reality Results Data

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Service Features	0.775	0.791	0.868	0.688
Facilities	0.820	0.823	0.894	0.737
Belief	0.803	0.802	0.884	0.717
Preparation Decision	0.831	0.831	0.899	0.748

Source: Processed Primary Data (2025)

Structural Model Testing (Inner Model)

The testing of the research model through the Structural Model (Inner Model) approach aims to analyze the causal relationship between constructs, determine the significance and R-Square values in the model being studied. This model assessment is carried out using R-square as a tool to measure the strength of the model in explaining the variation of dependent constructs, as well as performing T tests and examining the significance of the coefficient of structural path parameters to understand the relationships between constructs. The assessment of the research model using the PLS method, began by analyzing the R-Square for each dependent latent variable. The following table presents

the results of the R-Square estimate using PLS.[1.] In table 9, it can be seen that the R-Square value for the provision decision variable is 0.the-Square value is 0.676. This value shows that 69.3% of the variability of the construct of the decision provides can be explained by the independent constructions in the model. So these results show that the R-Square value of 0.693 is in the high category, which means that the model has a pretty good predictive ability in explaining the decision to provide. This study verified the hypothesis through the analysis of output path coefficients resulting from bootstrapping analysis with SmartPLS. The following test stages are carried out using the following method.

Table 9. R-Square Value

	R Square	R Square Adjusted
Preparation Decision	0.693	0.676

Source: Processed Primary Data (2025)

Table 10. Hypothesis Test Results Data

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Hypotheses
Facilities Results Prepare ->	0.176	0.172	0.147	1.196	0.232	Rejected
Trust Results Provide ->	0.324	0.320	0.128	2.527	0.012	Accepted
Service Features Decision Provide ->	0.410	0.427	0.137	2.993	0.003	Accepted

Source: Processed Primary Data (2025)

From the results of the analysis presented in table 10, conclusions can be drawn regarding hypothesis testing as follows: H1 Hypothesis Testing (It is suspected that the convenience variable does not have a significant effect on the decision to provide). Based on the table, it can be seen that the coefficient value is 0.176, the T-Statistic value is recorded at 1.196, while the P-value is 0.232, this shows that the P-value > 0.05 (greater than 0.05). So the alternative hypothesis of H1 is not accepted. So convenience does not have a significant effect on the decision to provide. H2 Hypothesis Test (Trust has a significant effect on the decision to provide). Referring to the table above, it can be seen that the coefficient value reaches 0.324, the T-Statistical value is 2.527 and the P-value is 0.012, which means that the P-value < 0.05 (less than 0.05), then H2 is accepted. This shows that the higher the level of user trust, the greater the influence it has on the decision to provide. So trust has a significant effect on the decision to provide. H3 Hypothesis Testing (It is suspected that service features have a significant effect on the decision to provide). Based on the table above, it is seen that the coefficient value is 0.410, the T-Statistic value is 2.993 and the P-value is 0.003, which means that the P-value < 0.05 (less than 0.05), then H3 is accepted. So trust has a significant effect on the decision to provide.

The findings of this study show that the ease of use is not enough to encourage halal MSMEs to provide digital wallet services. This is in line with several previous studies that affirm that ease of use only plays an important role in the early stages of adoption, but is not a key determinant of sustainable decisions, especially in the context of businesses with

financial risks (Oliveira et al., 2016; de Luna et al., 2019). KM halal tends to pay attention to the aspects of security, data protection, and the credibility of service providers in deciding on the adoption of digital wallets. These findings are consistent with the literature that emphasizes trust as a key determinant in fintech adoption, especially in the Islamic finance sector, where sharia compliance is an additional dimension of trust (Pavlou, 2003; Manniam, 2024). Additionally, service features play a crucial role in the digital wallet provisioning decision. Features such as fast transactions, integration with various merchants, and promotions (cashback, discounts) increase added value and attractiveness for MSMEs. These results support the research of Zhou (2011) and Khan & Abideen (2023) who emphasized that service quality and innovative features are key factors in the successful adoption of e-wallets. Overall, this study strengthens the evidence that in the context of halal digital economy, MSME decisions are not only determined by convenience, but rather by the aspect of trust and service excellence. This means that to encourage the adoption of e-wallets among halal MSMEs, service providers need to focus on improving security, transparency, sharia compliance, and innovating features that are relevant to business needs.

The results of the SEM-PLS analysis reveal that the three tested variables—ease of use, trust, and service features exhibited different levels of influence on the decision of halal MSME owners to provide digital wallet services. Specifically, the path coefficient for ease of use was not statistically significant, indicating that perceived convenience alone does not drive halal MSME owners to adopt digital payment solutions. This suggests that while usability is considered a basic expectation, it is not sufficient to encourage decision-making among entrepreneurs who face broader concerns related to consumer trust and business alignment with sharia principles. In contrast, both trust and service features were found to have significant positive effects on adoption decisions. Trust emerged as a critical determinant, emphasizing the importance of security, transparency, and credibility in digital payment platforms for halal business owners. Similarly, service features such as QRIS integration, loyalty programs, and e-commerce connectivity were shown to strongly enhance the willingness of MSME owners to provide digital wallet services, as they add tangible value to business operations and consumer engagement. These findings underscore that halal MSMEs place greater emphasis on reliability and value-added functionality rather than on simplicity of use, highlighting a distinct adoption pattern shaped by both business and religious considerations.

Discussion

The findings of this study highlight that ease of use does not significantly influence halal MSME owners' decisions to provide digital wallet services. This result contrasts with several adoption studies in emerging economies that consistently report ease of use as a strong determinant of fintech adoption (Kumar et al., 2021). One possible explanation is that for halal MSME owners in Samarinda, usability has already become a baseline expectation, reducing its discriminating power in shaping adoption decisions. In other words, digital wallet platforms are generally perceived as user-friendly, and thus entrepreneurs prioritize other, more critical factors in their decision-making processes. Trust was found to be a decisive factor, aligning with prior research which demonstrated that security, reliability, and transparency are essential for sustainable digital wallet adoption in emerging markets (Sharma et al., 2023). For halal MSMEs, trust extends beyond technical security to encompass sharia compliance, as entrepreneurs must reassure Muslim consumers that their transactions avoid elements of *riba*, *gharar*, and *maysir*. This finding strengthens the argument that fintech adoption in halal businesses cannot be fully explained by conventional technology acceptance models unless ethical and religious considerations are explicitly integrated.

The significance of service features further underscores the practical dimension of digital wallet adoption. Features such as QRIS interoperability, loyalty programs, and integration with e-commerce platforms provide tangible business value, improving operational

efficiency and customer engagement. This result complements international evidence that perceived benefits are as critical as trust in determining adoption behavior (Kumar et al., 2021; Sharma et al., 2023). For halal MSMEs, innovative features that are transparent and ethically aligned not only attract customers but also build confidence in digital payments as a legitimate extension of halal business practices. Thus, fintech providers and policymakers must recognize that fostering adoption requires not only usability but also credibility and value-added services that resonate with the principles of halal entrepreneurship.

CONCLUSION

This study investigated the determinants influencing halal MSME owners' decisions to provide digital wallet services in Samarinda, Indonesia, focusing on ease of use, trust, and service features. The findings revealed that ease of use did not significantly affect adoption decisions, whereas trust and service features had strong positive effects. These results indicate that halal MSME owners view usability as a given, but prioritize credibility, security, and value-added features when considering the adoption of digital payment systems. The study demonstrates that digital wallet adoption in halal businesses is shaped not only by technological convenience but also by religious and ethical considerations that reinforce consumer trust. Theoretically, this research contributes to the literature on fintech adoption by extending established models such as TAM and UTAUT into the context of halal business practices, emphasizing the interplay between technology acceptance and sharia compliance. Practically, the findings provide guidance for policymakers and fintech providers to design inclusive, trustworthy, and sharia-compliant digital payment solutions. Strengthening consumer trust through transparent policies, enhancing service features such as QRIS integration, and ensuring compliance with Islamic financial principles will be critical to empowering halal MSMEs in the digital economy. In turn, this can accelerate financial inclusion, increase competitiveness, and support the broader national agenda of digital transformation.

REFERENCES

- Allam, Z. (2020). The Forceful Reevaluation of Cash-Based Transactions by COVID-19 and Its Opportunities to Transition to Cashless Systems in Digital Urban Networks. *Surveying the Covid-19 Pandemic and Its Implications*, 107–117. <https://doi.org/10.1016/B978-0-12-824313-8.00008-5>
- Amoozad Mahdiraji, H., Yaftiyan, F., Kamardi, A. A. A., Sadraei, R., & Jafari-Sadeghi, V. (2023). Understanding the Challenges of Adaptation of Digital Platforms by SMEs. *Academy of Management Proceedings*, 2023(1). <https://doi.org/10.5465/AMPROC.2023.13156abstract>
- Arner, D. W., Animashaun, S., Charamba, K., & Cai, Y. (2022). *MSME Access to Finance: The Role of Digital Payments* (SSRN Scholarly Paper No. 4138785). Social Science Research Network. <https://papers.ssrn.com/abstract=4138785>
- Azzahra, R. N., Larasati, P., Rizki, M., & Priyono, B. (2025). The Role of MSMEs in Driving Sustainable Development in Indonesia. *KnE Social Sciences*, 10(15), 643–657. <https://doi.org/10.18502/kss.v10i15.19218>
- Golubev, A., & Ryabov, O. (2021). Transformation of traditional financial companies into FinTech. *Proceedings of the International Scientific Conference - Digital Transformation on Manufacturing, Infrastructure and Service*, 1–7. <https://doi.org/10.1145/3446434.3446543>
- Hamzah Muchtar, E., Trianto, B., Maulana, I., Alim, M. N., Marasabessy, R. H., Hidayat, W., Junaedi, E., & Masrizal. (2024). Quick response code Indonesia standard (QRIS) E-payment adoption: Customers perspective. *Cogent Business & Management*, 11(1), 2316044. <https://doi.org/10.1080/23311975.2024.2316044>
- Hendrawan, M. R. N. A., Marits, S. A., & Herman, S. (2023). Development of Digital Payment Systems in Indonesia. *Jurnal Ilmiah Manajemen Kesatuan*, 11(3), 1335–1343.

- Hermansyah, H., Suhud, U., & Rizan, M. (2025). Empowering MSMEs in The Digital Era: A Systematic Literature Review on The Role of Digital Literacy. *Greenation International Journal of Economics and Accounting*, 3(2), 185–196. <https://doi.org/10.38035/gijea.v3i2.385>
- Humaira, L. L., Syamsudin, & Isa, M. (2020). *M-Wallet Adoption and SMEs Performance*. 29–35. <https://doi.org/10.2991/aebmr.k.201222.005>
- Hwang, Y., Park, S., & Shin, N. (2021). Sustainable Development of a Mobile Payment Security Environment Using Fintech Solutions. *Sustainability*, 13(15), 8375. <https://doi.org/10.3390/su13158375>
- Jalal, A., Al Mubarak, M., & Durani, F. (2024). Financial Technology (Fintech). In A. Hamdan & E. S. Aldhaen (Eds.), *Artificial Intelligence and Transforming Digital Marketing* (pp. 525–536). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-35828-9_45
- Jameaba, M.-S. (2020). *Digitization Revolution, FinTech Disruption, and Financial stability: Using the Case of Indonesian Banking Ecosystem to highlight wide-ranging digitization opportunities and major challenges* (SSRN Scholarly Paper No. 3529924). Social Science Research Network. <https://doi.org/10.2139/ssrn.3529924>
- Khan, F., Ateeq, S., Ali, M., & Butt, N. (2021). Impact of COVID-19 on the drivers of cash-based online transactions and consumer behaviour: Evidence from a Muslim market. *Journal of Islamic Marketing*, 14(3), 714–734. <https://doi.org/10.1108/JIMA-09-2020-0265>
- Kumari, A., & Devi, C. (2022). The Impact of FinTech and Blockchain Technologies on Banking and Financial Services. *Technology Innovation Management Review*, 12(1/2), 22010204. <https://doi.org/10.22215/timreview/1481>
- Mahdiraji, H. A., Yaftiyan, F., Abbasi-Kamardi, A., Jafari-Sadeghi, V., Sahut, J.-M., & Dana, L.-P. (2023). A synthesis of boundary conditions with adopting digital platforms in SMEs: An intuitionistic multi-layer decision-making framework. *The Journal of Technology Transfer*, 48(5), 1723–1751. <https://doi.org/10.1007/s10961-023-10028-8>
- Manawar, A., Lukita, C., & Meria, L. (2023). The Evolution of Financial Technology in Indonesia. *Startupneur Business Digital (SABDA Journal)*, 2(2), 192–206. <https://doi.org/10.33050/sabda.v2i2.367>
- Mumtaza, Q. M. H., Nabillah, S. I., Amaliya, S., Rosabella, Y., & Hammad, J. A. (2020). Worldwide mobile wallet: A futuristic cashless system. *Bulletin of Social Informatics Theory and Application*, 4(2), 70–75. <https://doi.org/10.31763/businta.v4i2.204>
- Nursini, N. (2020). Micro, small, and medium enterprises (MSMEs) and poverty reduction: Empirical evidence from Indonesia. *Development Studies Research*, 7(1), 153–166. <https://doi.org/10.1080/21665095.2020.1823238>
- Prihatmoko, G. (2025). Digital Payment Shifting in Micro and Small Business: Economic Opportunities and Market Impacts. *Sukuk: International Journal Of Banking, Finance, Management And Business*, 4(11), 63–79.
- Puspitasari, A., & Salehudin, I. (2022). *Quick Response Indonesian Standard (QRIS): Does Government Support Contribute to Cashless Payment System Long-term Adoption?* (SSRN Scholarly Paper No. 4076192). Social Science Research Network. <https://doi.org/10.2139/ssrn.4076192>
- Riofita, H. (2025). How Shariah-compliant digital payments influence Muslim customer's purchase decision for micro, small and medium enterprises (MSMEs) products through Sharia entrepreneurship principles. *Journal of Islamic Accounting and Business Research*. <https://doi.org/10.1108/JIABR-06-2024-0202>
- Rui, Z., Yang, C., Zhenying, G., & Bhaumik, A. (2023). A Look at The Rising Popularity of Cashless Economies Around the World. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 7(3), 16–32. <https://doi.org/10.31674/ijrtbt.2021.v07i03.002>
- Rujitoningtyas, C. N., Nugraha, E. R., Laksana, H. D., Apriyanto, Y., & Dewi, N. G. (2024). Enhancing Digital Literacy for Business Development in Micro, Small, and Medium Enterprises (MSMEs) through Banking Initiatives at the Rural Level in Indonesia. *Jurnal Akuntansi Dan Bisnis*, 10(02), 122–132.

- <https://doi.org/10.47686/jab.v10i02.735>
- Safitri, T. A. (2020). *The Development of Fintech in Indonesia*. 666–670. <https://doi.org/10.2991/assehr.k.200529.139>
- Sari, N. P., & Supiandi, S. (2023). Exploring the role of the digital economy in supporting the growth of the halal Small and Medium-sized Enterprise (SME) sector. *Journal of Enterprise and Development (JED)*, 5(Special-Issue-2), 535–547. <https://doi.org/10.20414/jed.v5iSpecial-Issue-2.8160>
- Septiningrum, L., Agustanta, N., Ahdiyana, M., Widiyanto, H. W., & Pambudi, A. (2024). The Theoretical Framework of Cashless Payment Systems in Indonesia: Analyzing Condition in Different Era's. *Natapraja*, 12(1), 25–42. <https://doi.org/10.21831/natapraja.v12i1.85298>
- Suryono, R. R., Budi, I., & Purwandari, B. (2020). Challenges and Trends of Financial Technology (Fintech): A Systematic Literature Review. *Information*, 11(12), 590. <https://doi.org/10.3390/info11120590>
- Suyanto, B., Sugihartati, R., Egalita, N., Mas'udah, S., Singgih, D. S., & Sudarso. (2023). Digital literacy and survival mechanism of micro-small enterprises in practicing sharing economy. *Cogent Social Sciences*, 9(2), 2245691. <https://doi.org/10.1080/23311886.2023.2245691>
- Tambunan, T. T. H. (2023). The Potential Role of MSMEs in Achieving SDGs in Indonesia. In H. Dasaraju & T. T. H. Tambunan (Eds.), *Role of Micro, Small and Medium Enterprises in Achieving SDGs: Perspectives from Emerging Economies* (pp. 39–72). Springer Nature. https://doi.org/10.1007/978-981-99-4829-1_3
- Yudhistiro, I. S., & Liem, C. (2025). Understanding SMEs' Preference for QRIS: Positioning Indonesian Fintech in the Global Financial Ecosystem. *FIRM Journal of Management Studies*, 10(1), 125–144. <https://doi.org/10.33021/firm.v10i1.6056>

