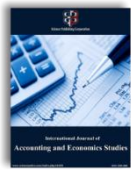
International Journal of Accounting and Economics Studies, 12 (8) (2025) 297-304

International Journal of Accounting and Economics Studies

Website: www.sciencepubco.com/index.php/IJAES
https://doi.org/10.14419/xr538s42
Research paper



The Rise of Digital Wallets: Adoption Patterns and Consumer Trust in Fintech Platforms

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Received: July 23, 2025, Accepted: September 2, 2025, Published: December 10, 2025

Abstract

Digital wallets have caused turmoil in the financial world by providing a convenient means of paying instead of conventional payment intermediaries. The long-term penetration, however, depends also significantly on the opinions of the users regarding the aspects of trust, security, and usability of it. This paper reviews behavioral and technological drivers of digital wallet adoption with particular attention to how consumer trust drives adoption intention. It was based on a quantitative, cross-sectional design with survey data provided by 389 participants in India, Indonesia, and Malaysia. To test the research hypotheses, several constructs, including Trust, Security, Ease of Use, and Adoption Intention, were measured in a validated scale using SPSS v22 by applying descriptive statistics, Pearson correlation, and multiple linear regression. The results show that the three predictors showed profound effects on Adoption Intention ($p < 0.001$), and Ease of Use showed the largest effect ($\beta = 0.39$), followed by Trust ($\beta = 0.34$), then Security ($\beta = 0.28$). The constructs had strong positive correlations ($r > 0.65$), and the Cronbach alpha values (> 0.85) indicated reliability. The results indicate that technological infrastructure is not enough; psychological variables, especially usability and trust, are the determinants in the long-term adoption. The implication is the need to focus on user-centered design, open security communication, and regulatory assistance. The future studies should be devoted to longitudinal attitude, demographic moderators, and the role of emerging technologies in digital wallet types of ecosystems.

Keywords: *Digital Wallets; FinTech Adoption; Consumer Trust; Mobile Payments; Technology Acceptance Model.*

1. Introduction

The last 10 years have allowed the financial environment to fundamentally shift, with the spread of digital technologies playing a key role in this process. Innovations that have been the most disruptive include the rise and standardization of the use of digital or electronic wallets, which have revolutionized the way people carry, exchange, and handle money. The combination of robust mobile technology, cloud platform, and broadband internet coverage has seen digital wallets grow in both developed and emerging economies (Yang et al., 2021; Oliveira et al., 2016). These systems enable consumers to make transactions without having to use physical cash or any cards, hence a paradigm shift in consumer financial behavior. The success of cross-border service providers, such as PayPal, Google Pay, and Apple Pay, as well as local systems, such as the UPI in India, signals a change in the expectations of users and financial behavior (George et al., 2023). This increase is directly associated with the more general trend of FinTech innovation based on efficiency, access, and inclusiveness in the financial services market (Komandla & Chilkuri, 2018).

The pandemic of COVID-19 also contributed to the increased use of digital wallets since customers and retailers valued more secure and hygienic methods of payment due to concerns with health and safety in the face of the pandemic (Celestin & Sujatha, 2024). Digital wallets are no longer seen as niche payment systems but are considered part of the financial ecosystem, which supports both micro-payments and high-value purchases in e-commerce (Faudzi et al., 2024). Despite this growth, adoption remains uneven. The issue of trust, ease of use, regulatory transparency, and, most importantly, security still discourages users (Aboobucker & Bao, 2018). Attrition is often a result of fears of fraud, data theft, poor customer service, etc. (Apaua & Lallie, 2022). Including trust, in general, is a determining factor in adoption, especially when it comes to developing markets where cybersecurity protection and consumer protection are still in the nascent stage (Shrestha & Tamang, 2023; Win, 2024). As the previous studies prove, the perception of risk and trust are at the core of the initial mobile financial technologies (Luo et al., 2010). Whereas certain platforms have gained the trust of consumers through their regulatory compliance

and reliability, others are not able to keep up with the growing expectations of consumers. This shows that being ready technologically is not enough, but behavioral and psychological aspects have to be in line to favor adoption.

The behavioral factors of using a digital wallet are well-represented through familiar adoption models. Technology Acceptance Model (Davis, 1989) strongly argued that usefulness and ease of use are important predictors that are likely to drive adoption, and more recently, the Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003) has injected an expanded measure that includes social influence and facilitating conditions to the mix, making it more wholesome. These models have been tested with respect to mobile payment by other authors, and they have concluded that adoption in different markets, such as India, is based on personal innovativeness and risk perceptions (Thakur & Srivastava, 2014). The empirical data on rural settings also show that adoption is determined by access, literacy, and local infrastructure.

The present study investigates digital wallet adoption and the role of trust, usability, and security in shaping consumer intentions. The study targets three highly penetrated markets that have heterogeneous socio-economic backgrounds (India, Indonesia, and Malaysia) to offer insights on adoption using validated models. Based on a survey of 389 respondents, it looks at user perceptions, behavioral intent, and adoption psychology, but not technical back-end considerations like encryption or blockchain.

Understanding the drivers and barriers of adoption is crucial for stakeholders across the FinTech ecosystem. To policymakers, the results could be used in the development of open regulatory systems that emphasize privacy (Sun, 2025). The results, as far as developers and financial institutions are concerned, underline the necessity of safe, accessible design that cultivates confidence and loyalty. Notably, digital wallets also promise to support financial inclusion through the widespread access of underserved populations that do not have standard banking systems (Jain & Jain, 2016). Lastly, the incorporation of TAM and UTAUT will enable the study to gain a better insight into the role that trust, usability, and security play in consumer adoption in the highly dynamic environment of digital financial system environments.

Research Objective:

- To analyze the impact of demographic and socio-economic variables on digital wallet adoption
- To explore how trust mediates the relationship between digital wallet functionality and user satisfaction
- To evaluate regulatory, technological, and psychological barriers to adoption across different regions

2. Literature Review

2.1. Evolution and global adoption of digital wallets

The digital wallet has changed the financial landscape of the global financial ecosystem since it has transformed the payment behavior and modified the financial relationship between geographies and demographics (Komandla & Chilkuri, 2018; Sun, 2025). At first, a digital wallet was seen as a convenient tool to use by technologically savvy consumers, but now it has become an incorporated part of daily life, especially in such countries where the use of the internet and smartphones has become overwhelming. UPI in India specifically has revolutionized the nation in terms of its digital payment context because it has taken most of the banks into its fold and has also made real-time payments a possibility (George et al., 2023). The transition, though, is not limited to transaction-related activities and affects the way consumers perceive financial behavior. According to Yang et al. (2021), utilitarian gains and environmental stimuli, including health and convenience, are strong determinants of usage decisions. The COVID-19 pandemic further accelerated the demands of these drivers since contactless transactions are an industry that is being demand globally at an unprecedented rate (Celestin & Sujatha, 2024). However, the adoption is still not equal: in Southeast Asia, low-income populations, especially female entrepreneurs, continue to adopt digital wallets to overcome financial gaps (Faudzi et al., 2024). Despite these trends indicating the potential of wallets as the drivers of financial inclusion, donors and organisations cannot ignore structural and psychological barriers, such as a deficit of trust, digital literacy, and an incompetent regulatory setting (Shrestha & Tamang, 2023). In addition, scholars note that digital wallets intersect with ESG priorities by reducing reliance on cash (thereby lowering environmental costs) and promoting social inclusion, thus positioning them as both financial innovations and contributors to sustainable development goals (Sun, 2025; Cuéllar, 2023)

2.2. Technology acceptance and behavioral factors

The behaviors of adoption are also frequently explored and assisted by the constructed models, such as the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology, which consider perceived usefulness, ease of use, and provision of conditions (Du et al., 2024; Oliveira et al., 2016). The two approaches, TAM and UTAUT, assume that more readily and useful technologies will be adopted by more people (Davis, 1989), and the latter adds the social influence and the conditions enabling (Venkatesh et al., 2003). The more recent improvements, like the Digital Service Usage Satisfaction Model, combine trust and satisfaction as a way of measuring the emotional usage drivers. Gao et al. (2018) identified that habit and satisfaction played critical roles in the further use of QR code payments in China and proved that post-adoption behavior is conditional on the accumulation of user experience. The demographics also complicate the adoption trends: age, income, and education are proven to influence consumer attitudes toward mobile wallets, especially in India. According to Jain & Jain (2016), the adoption of fintech among the younger Indians is closely intertwined with digital literacy, smartphone dependence, and propensity, and older or lower-educated users tend to stay reserved. The above results emphasize that heterogeneity should not be ignored when using TAM and UTAUT in new environments.

2.3. Consumer trust and security concerns

Security and trust are at the center of the digital wallet adoption hurdles. Contributing to the understanding of internet banking adoption, Aboobucker & Bao (2018) note that the perception of privacy, security, and usability is a significant element to the usage. Trust also decreases the psychological costs of using new payment technologies, and it is one of the most important enablers. Alhassan & Butler (2021) coined the concept of digital resilience that underscores the fact that faith in the capability of a platform to survive crises maintains long-term loyalty. Having secure services regularly reinforces the original trust and improves retention. However, perceptions of weak security remain a significant deterrent. Apaua & Lallie (2022) demonstrated that the absence of transparency in mobile security is likely to induce suspicion, especially when users cannot see fraud prevention and data protection systems. Developers must therefore balance technical robustness with effective communication. Emerging financial technologies, such as cryptocurrency-based wallets, add complexity. Although they provide anonymity and global transferability, they do not have any regulatory oversight, which undermines user trust

(Krause, 2025; Cuéllar, 2025). This implies that trust is both institutional and technical and, to an extent, is formed by governance and regulation.

2.4. Marketing, brand image, and platform loyalty

Beyond technical attributes, brand reputation and marketing strategies significantly influence adoption. Kartawinata et al. (2024) illustrated that trust in a brand and online marketing played a vital role in the success of Shopee Pay in Indonesia, with the level of user experience being decisive, as well as technological functionality. Good experiences can keep in check the levels of skepticism and promote loyalty, especially in competitive markets where different platforms use aggressive incentives like promotions and cashback (Molesworth et al., 2025). Brand equity thus becomes a differentiator in crowded markets. Usability also plays with branding: as Komandla & Chilkuri (2018) contend, platforms that combine multiple services, such as bill payments, transit, and food delivery, can be used to minimize mental processing load and increase stickiness. Such results highlight that functional utility alone cannot ensure long-term adoption, but it is also psychologically and relationally driven to develop consumer attachment.

2.5. Limitations and barriers to adoption

Despite their transformative potential, digital wallets face persistent barriers. Adoption is hindered by infrastructural issues, including poor internet connection stability and access to technical assistance, which is a problem in countries such as Myanmar (Win, 2024). Shrestha & Tamang (2023) identify the issue of digital illiteracy in marginalized regions, further explaining how it adds to exclusion despite the presence of wallets. Risks are also aggravated by a weak or fragmented regulatory framework in developing economies, which also makes users susceptible to fraud and misuse of their data. Cuéllar (2025) states that the wallets have to fulfil their promise of inclusion only when financial literacy and regulatory clarity can grow in tandem. The most sophisticated wallet systems, even despite all the advantages, may be swallowed in the whirlwind of poor policy support and ineffective education programs.

3. Methodology

3.1. Research design

The research design used in this paper was a quantitative and cross-sectional survey that was conducted to research the aspects that affect the adoption of digital wallets. A structured questionnaire was the main data collection tool, and to measure the ease of use, security, trust, and adoption intention, it had a few items. A five-point Likert-type scale was anchored at point 1, strongly disagree, and anchored at point 5, strongly agree. The reason why we chose such a form is that it is possible to gather the standardized responses on a large sample and to make the results reliable and comparable.

3.2. Sampling and data collection

The target population was active users of digital wallets in India, Indonesia, and Malaysia. The countries were chosen due to their high digital wallet penetration and due to their varied socio-economic characteristics, thus being pertinent contexts to investigate adoption behavior. In order to achieve this, a purposive sampling method was used, whereby all the respondents had previously used digital wallet transactions. Online distribution of questionnaires was done in 423 questionnaires, where 389 were assumed valid after removing incomplete responses. The participants were of a wide age bracket (18-55 years) and both sexes. The demographic characteristics of the sample distribution are well distributed in terms of age, levels of education, occupation, and the income category, as shown in Table 1.

Table 1: Demographic Profile of Respondents (N = 389)

Variable	Category	Frequency	Percentage
Gender	Male	210	54.0%
	Female	179	46.0%
Age	18–25 years	102	26.2%
	26–35 years	148	38.0%
	36–45 years	89	22.9%
	46–55 years	50	12.9%
Education	Graduate	202	51.9%
	Postgraduate	131	33.7%
	Other (Diploma/12th)	56	14.4%
Occupation	Student	94	24.2%
	Service (Private/Govt.)	185	47.6%
	Self-employed	73	18.8%
	Other	37	9.5%
Income (monthly)	< ₹25,000	82	21.1%
	₹25,000–50,000	143	36.8%
	₹50,001–100,000	111	28.5%
	> ₹100,000	53	13.6%

3.3. Measurement of constructs

The questionnaire was formulated using four of the key constructs of ease of use, security, trust, and intention to adopt. Three to four Likert-scale items were used to measure all constructs based on the perceptions of the participants. The items have been grounded and adapted to suit the case of a digital wallet in the surveys of other tools that have been considered valid in the adoption of technology. Table 2 outlines the description of the constructs, the number of items used, and an example of each of the items.

Table 2: Constructs and Measurement Items

Construct	No. of Items	Example Item (5-point Likert)
Ease of Use	4	"Digital wallets are easy to use for my transactions."
Security	4	"I feel my personal and financial data is secure in digital wallets."
Trust	4	"I trust digital wallets to function reliably every time I use them."
Adoption Intention	3	"I intend to continue using digital wallets regularly in the future."

Analysis of reliability at the preliminary testing indicated that the value of Cronbach's alpha of all constructs was higher than 0.80, which supports the fact that measurement items were internally consistent.

3.4. Data analysis procedure

The results were analyzed on SPSS v. 22. Summarising the demographics and the construct-level responses of participants was done by referring to the first estimate of descriptive statistics. Internal consistency of the measurement scales was tested by Cronbach's alpha, and construct validity was examined through exploratory factor analysis with the Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett test of sphericity to support the conclusion.

The relationship between these constructs was studied with the help of Pearson correlation analysis. Subsequently, a multiple regression analysis was utilized in order to test the predictive relevance of ease of use, security, and trust on the adoption intention. The mediation analysis was employed to establish how the intervening variable of trust mediated the relationship between the predictors, namely, the degree of theological traditionalism and intention to adopt. Additionally, a moderation analysis was carried out, whereby the effects of the demographic variables (age, income, and education) were observed on the predictors and adoption intention relationships. Lastly, robustness tests were performed using the variance inflation factor to determine whether the study findings are not subject to multicollinearity, the Harman single-factor test to determine the common-method bias, and Cook's distance to identify outliers in an attempt to justify the findings.

3.5. Ethical considerations

The research was carried out in compliance with the conventional ethics of social science studies. There was no obligation to participate, and the respondents were promised anonymity and confidentiality. At the beginning of the questionnaire, there was informed consent that explained that data would be utilised exclusively academically. No incentives were provided financially or otherwise, and the respondents were given the right to withdraw at any time.

4. Results

This section discusses the statistical results as follows: descriptive statistics, correlations, regression outcome, construct validity, diagnostics, mediation, moderation, and robustness checks.

4.1. Descriptive statistics

The positive attitude towards digital wallets in general was demonstrated in the descriptive statistics analysis. Adoption Intention was 4.30 (SD = 0.50), followed by Ease of use 4.20 (SD = 0.60), Trust 4.10 (SD = 0.70), and Security 3.90 (SD = 0.80). All constructs were moderately standardized, and this meant that there was significant homogeneity of response.

The reliability was good with the Cronbach alpha coefficients of .85 to .90, which means that the scales have high internal consistency. Table 3 reports these statistics; a visual summary of the mean scores across constructs is shown in Figure 1.

Table 3: Descriptive Statistics of Constructs (N = 389)

Construct	Mean	Standard Deviation	Cronbach's Alpha
Trust	4.10	0.70	0.88
Security	3.90	0.80	0.85
Ease of Use	4.20	0.60	0.87
Adoption Intention	4.30	0.50	0.90

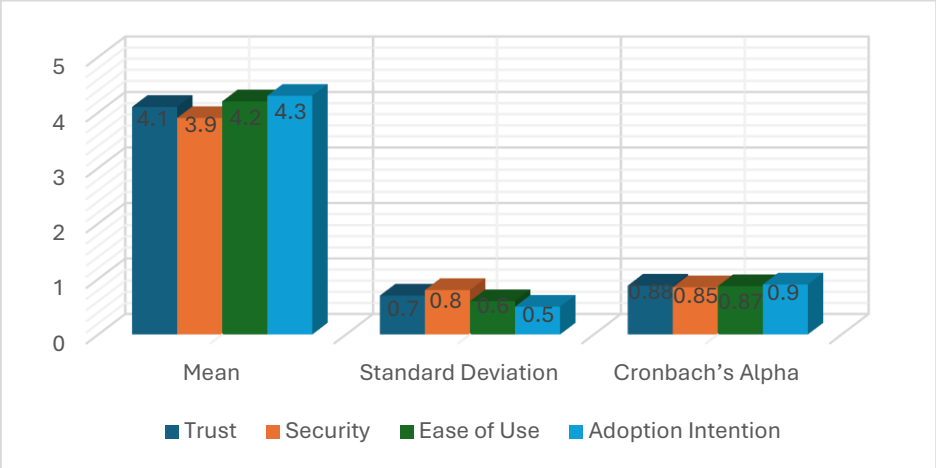

Fig. 1: Summary Statistics for Trust, Security, Ease of Use, and Adoption Intention.

4.2. Correlation analysis

The correlation analysis showed a positive and strong correlation among all the constructs. The highest correlation was with Ease of Use and Adoption Intention ($r = .78$, $p < .01$) and Trust ($r = .75$, $p < .01$). Trust and Security were highly associated ($r = .72$, $p < .01$) and so were Adoption Intention and Security ($r = .70$, $p < .01$). These findings, presented in Table 4, mean that the less cumbersome the wallets are to use and the more people feel they can trust them, the more successful was the adoption of it.

Table 4: Pearson Correlation Matrix

	Trust	Security	Ease of Use	Adoption Intention
Trust	1.00	0.72	0.68	0.75
Security	0.72	1.00	0.65	0.70
Ease of Use	0.68	0.65	1.00	0.78
Adoption Intention	0.75	0.70	0.78	1.00

4.3. Regression analysis

Multiple regression results indicated that all three predictors, including Ease of Use, Trust, and Security, were significant predictors of Adoption Intention ($p < .001$). The highest one was the Ease of Use ($\beta = 0.39$, $t = 7.80$), followed by Trust ($\beta = 0.34$, $t = 6.80$) and Security ($\beta = 0.28$, $t = 4.67$). These results support the hypothesized model. The details are provided in Table 5, and the relative strength of the predictors is illustrated in Figure 2 based on the t-values

Table 5: Multiple Linear Regression Results

Predictor	Beta Coefficient	Standard Error	t-value	p-value
Trust	0.34	0.05	6.80	<0.001
Security	0.28	0.06	4.67	<0.001
Ease of Use	0.39	0.05	7.80	<0.001

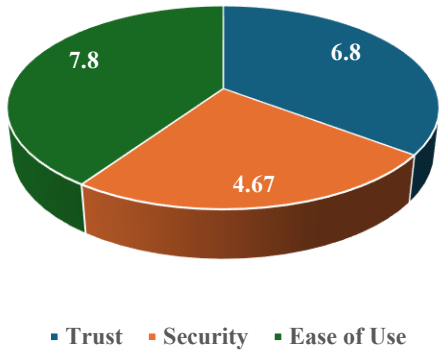

Fig. 2: T-Values of Key Predictors Influencing Digital Wallet Adoption.

4.4. Construct validity and reliability

The construct validity was checked by means of exploratory factor analysis. The Kaiser-Meyer-Olkin measure was 0.89, which was higher than the minimum requirement of 0.60, and the Bartlett test of sphericity was significant (χ^2 (210) = 1567.3, $p < .001$), indicating that the data were appropriate to undergo a factor analysis. As reported in Table 6, four factors were extracted as expected, together explaining 71.6% of the variance. All item loadings exceeded 0.70, supporting convergent validity, while the absence of problematic cross-loadings confirmed discriminant validity.

Table 6: Construct Validity Results (EFA)

Statistic	Value	Threshold	Conclusion
KMO	0.89	> 0.60	Adequate sampling
Bartlett's χ^2 (df = 210, p)	1567.3, p < .001	Sig.	Factorable correlation matrix
Factors Extracted	4	Expected	Structure confirmed
Variance Explained	71.6%	> 50%	Strong construct validity
Factor Loadings (range)	0.70–0.86	> 0.60	Convergent validity met

4.5. Model diagnostics

Diagnostic checks also indicated the strength of the regression model as revealed in Table 7. The values of VIF were 1.05-1.25, and there is no multicollinearity. Harman's single-factor test showed 28.4% variance, which is lower than the 50% mark, indicating that common method bias was not of great concern. The values of Cook's distance were less than 1.0, indicating that there were no influential outliers.

Table 7: Diagnostic Tests for Regression Model

Test / Statistic	Result	Threshold	Conclusion
Variance Inflation Factor	1.05–1.25	< 5.0	No multicollinearity
Harman's Single Factor	28.4%	< 50%	No common method bias
Cook's Distance	< 1.0	< 1.0	No influential outliers

4.6. Mediation analysis

The mediation tests were conducted on whether Trust mediated between the predictors and Adoption Intention. Table 8 shows that Trust partially mediated the relationship between Security (indirect β = .07, 95% CI [.03, .12]) and Ease of Use (indirect β = .07, 95% CI [.04, .11]) and Adoption Intention. Both Security and Ease of Use had considerable direct effects, and therefore, partial mediation. Figure 3 also shows this mediating pathway, where Trust is shown as an avenue through which usability and security influence adoption.

Table 8: Mediation Analysis with Trust as Mediator

Path	Direct Effect (β)	Indirect Effect (β)	95% CI	Mediation
Security → Adoption Intention (via Trust)	.21	.07	[.03, .12]	Partial
Ease of Use → Adoption Intention (via Trust)	.32	.07	[.04, .11]	Partial

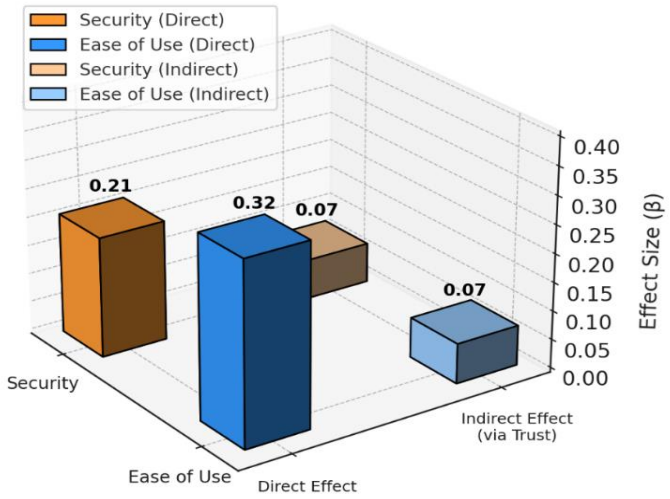

Fig. 3: Direct And Indirect Effects of Security and Ease of Use on Adoption Intention.

4.7. Moderation analysis

Demographic variables were also examined to measure their potential moderation of the relations between the predictors and the adoption intention. Table 9 shows the moderation analysis results that test the impacts of age, income, and education.

Table 9: Moderation Analysis of Demographic Variables

Predictor × Moderator	Interaction β	t	p	Interpretation
Ease of Use × Age	–.12	–2.10	.04	Stronger effect for younger users
Trust × Income	.05	0.88	.38	Not significant
Security × Education	.04	0.77	.44	Not significant

As indicated in the analysis (Table 9), the interaction of age and Ease of Use with Adoption Intention was significant (β = –.12, t = –2.10, p = .04). The negative interaction signifies that younger users were more affected by the usability in their adoption choices than older users. In comparison, there were no significant moderating effects on income and education (p > .05). This implies that these demographic variables have not played a significant role in the effect of trust and security in influencing the adoption intention.

Figure 4 represents the moderating influence of the age variable under which the relationship between the Ease of Use and Adoption Intention is mediated.

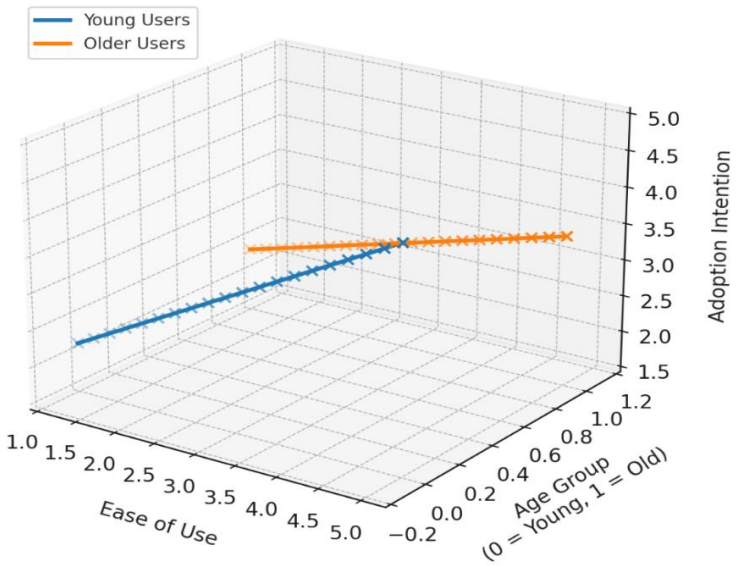

Fig. 4: Moderating Effect of Age on the Ease of Use–Adoption Intention Relationship.

4.8. Robustness checks

Robustness checks confirmed the stability of the findings. The construct adequacy was confirmed by factor analysis (KMO = 0.89; Bartlett χ^2 (210) = 1567.3, $p < .001$). Cronbach's alpha values (≥ .85) supported reliability. Multicollinearity was not a matter of concern (VIF range: 1.05 to 1.25). The single-factor test carried out by Harman showed that the first factor contributed only 28.4% of the variance, and a major common method bias was not present. It was confirmed by a split-sample test that the hierarchy of predictors (Ease of Use > Trust > Security) was stable across subsamples. These checks are summarized in Table 10.

Table 10: Robustness and Validity Checks

Test	Result
Cronbach's Alpha	All constructs ≥ .85 (see Table 3)
Factor Analysis	KMO = .89, Bartlett's χ^2 (210) = 1567.3, $p < .001$; 4 factors explained 71.6% variance
Multicollinearity	VIFs 1.05–1.25 (Table 7)
Common-Method Bias	First factor = 28.4% (<50%), no bias concern
Split-sample Check	Pattern of predictors stable (Ease > Trust > Security)

5. Discussion

The present research examined the digital wallet adoption pattern and how consumer trust, security, and ease of use affect the intention to adopt it. The findings confirmed high mean scores of all constructs, with the highest average scores recorded in Adoption Intention (M = 4.30) and Ease of Use (M = 4.20). Regression analysis revealed that all three predictors, which included Trust, Security, and Ease of Use, were significant contributors to adoption, and usability was the strongest predictor (β = 0.39). These findings indicate that acceptance is not always about the availability of technology; instead, the concern of psychological readiness, perceived trustworthiness, and ease of handling the platform is at the heart of consumer activity. The internal consistencies of the constructs were reinforced by the high values of Cronbach's alpha (> 0.85), which increased the robustness of observed patterns.

The findings are highly coherent with the previous studies, which have also repeatedly mentioned the importance of usability and perceived trustworthiness of fintech adoption (Aboobucker & Bao, 2018). Measuring these relationships with regression modeling, this study enhances the predictive validity of established constructs. The superiority of Ease of Use supports Oliveira et al. (2016), who stressed the importance of intuitive design and task simplicity in consumer decision making. The strongest predictor was not trust, but it was nevertheless significant (β = 0.34), which is consistent with previous literature pointing to the importance of trust in ensuring long-term engagement. Security was relatively less influential, but it made a significant contribution. This is like Apaua & Lallie (2022), who state that the users usually do not have technical knowledge of security protocols, which can undermine their direct impact, even though their role in the foundational aspects is crucial. The fact that the variable Trust is correlated with the variable Security rather strongly (r = 0.72) in the present study also contributes to the idea that the perceptions of security are key antecedents of consumer trust (Komandla & Chilkuri, 2018). Beyond usability and trust, digital wallets also align with ESG priorities by advancing financial inclusion, strengthening governance through transparent transactions, and reducing the environmental footprint of cash-based systems, thereby positioning them as both a fintech innovation and a tool for sustainable development. In combination, these results indicate that usability is the primary factor that determines short-term adoption, but trust and security factors are key to long-term loyalty and continuous interaction, as Yang et al. (2021) indicate.

The results of the demographic analysis showed that age moderated the correlation between Ease of Use and adoption intention, where respondents younger were more affected by the aspect of usability (β = -.12, $p < .05$). The finding evidences the earlier studies that digital-native generations are more responsive to the interface design and the convenience of technology. In contrast, factors like income and education were not important moderators of adoption patterns, indicating that attitudes towards trust and security are fairly consistent across socio-economic classes. It means that digital wallet adoption is not so much about financial ability or formal education but more about exposure to technology and digital familiarity.

The inclusion of respondents from India, Indonesia, and Malaysia also highlighted regional differences that contextualize the findings. The adoption in India is highly promoted by government-sponsored programs like Unified Payments Interface (UPI) and the regulatory check through the Reserve Bank of India, which boosts consumer confidence (George et al., 2023). The Indonesian market is highly competitive due to the rivalry between such platforms as GoPay, OVO, and ShopeePay, with the decisive role in the adoption process played by the aggressive promotion efforts and cashback mechanisms. Digital wallets in Malaysia play an active role in the financial inclusion of small firms and women business owners (Cuéllar, 2025). Such cross-national variations emphasize the need to design policy and products in relation to the local culture and regulations.

The results have significant implications for practitioners and policymakers. To developers, the findings will highlight the importance of user-centered design: an intuitive UI/UX, minimalistic design, and very simple onboarding can significantly increase adoption. Better trust can be achieved by having clear privacy policies, real-time fraud detection, and solid customer support (Kartawinata et al., 2024; Shrestha & Tamang, 2023). It is also important to communicate security features in a transparent way, as people need to know about protection to value it (Apaua & Lallie, 2022). For policymakers, implications vary by region. In India, the strengthening of RBI-led systems of digital security and consumer data protection will boost the confidence of the people. In Indonesia, the control over promotional activities, including cash back and loyalty rewards, may guarantee fair competition and awareness of the user trust. Digital wallets can be used to increase the financial inclusion of SMEs and female entrepreneurs in Malaysia through special initiatives to empower them. Another aspect that marketers and strategists must appreciate is that brand trust is important in competitive markets, as Kartawinata et al. (2024) point out. It will be critical to position digital wallets as secure and easy to use in the long run loyalty.

Although this study has been able to contribute, it still has gaps where other research can be done. The post-adoption behaviors could be traced in the longitudinal designs, showing the changes in trust, satisfaction, and loyalty over time that could be used to gain a deeper understanding. This is because future models can include other demographic moderators (income, education, geographic location) to represent user diversity more accurately (Faudzi et al., 2024; Win, 2024). The comparative cross-cultural studies may also shed light on the differences between the emerging economies and the developed markets (Sun, 2025). Furthermore, it would be possible to consider emotional and psychological determinants, like digital resilience to system failure or hacking (Alhassan & Butler, 2021), to deepen the behavioral understanding. Lastly, the new technology, such as blockchain, biomarker authentication, and artificial intelligence, also deserves to be explored as a means to achieve a higher level of usability and trust (Krause, 2025; Du et al., 2024). Collectively, these research directions will help contribute to theory and practice in fintech adoption and build resilient digital wallet ecosystems.

6. Conclusion

This paper explored the adoption behavior on digital wallets through the analysis of the functions of the variables Trust, Security, and Ease of Use as antecedents of intention to adopt. It employed a quantitative method; 389 valid responses were employed to confirm the model, and all three constructs were significant to enhance willingness to adopt and move on to use the digital wallet platforms. One of them, Ease of Use, has turned out to be the most powerful driver, whereas Trust and Security also produced significant effects. Such results verify that adoption is not a simple technological availability; psychological dimension that includes trust, perceived usefulness, and an assurance of protection have a key influence that defines consumer behavior. The implications are far-reaching. In developing circles, the implications of the results are the need to create a user-friendly design to enhance loyalty and to inform users about security to ensure that users are content with the approach. Such insights can be exploited by policymakers to implement the consumer protection frameworks that would focus on data privacy, fraud prevention, and user education. The marketers should instead work on brand trust by ensuring that they deliver service of similar quality and communicate ethically. Considerations include urging providers to focus on the human-centered design standards, introducing one of the recent changes to run real-time fraud warnings, introducing security awareness initiatives, and working with regulators may strengthen compliance and build trust among users. In future studies, it is recommended that future studies take a longitudinal approach to observe changes in platform loyalty and platform attrition, and increases in the demographic and cross-cultural comparisons, as well as examine emerging technologies like artificial intelligence and biometrics, and blockchain. All of these guidelines will further enhance awareness and progress of the digital wallet ecosystem in an increasingly digitalized financial environment.

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