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The Interplay of Personality and Technology Acceptance: A TAM Perspective on e-Wallet Adoption

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ABSTRACT

The rapid expansion of digital payment systems has transformed financial transactions globally, with e-wallets emerging as a critical component of the digital economy. Understanding user adoption behaviour has become essential not only for the financial institutions but also for technology providers to design effective digital payment solutions. However, existing literature lacks comprehensive examination of how individual personality traits influence the traditional technology acceptance model (TAM), specifically in the context of e-wallets. This study integrates TAM with selected Big Five personality traits to examine their moderating effect on e-wallet adoption intentions. The present study employed a survey-based approach collecting data from 186 respondents and analysed the relationship using structural equation modelling through SmartPLS 4, applying the consistent PLS approach for model validation. Results demonstrate the perceived usefulness and attitude significantly influence adoption intention, while perceived ease of use shows no significant impact. Further, agreeableness and extraversion significantly moderated the relationship between attitude and intention to use, revealing a crucial role played by personality traits in adoption decisions. These findings contribute to a deeper understanding of technology adoption behaviour and provides practical insights for fintech developers and marketers to tailor solutions based on user personality profiles in emerging markets like India.

Keywords: e-wallet adoption, fintech, technology acceptance, personality traits, PLS-SEM, emerging markets

INtroduction

With the advancement of smartphones and tablets, and growing broadband network applications, the world is witnessing extensive development of new services such as mobile-based transactions, virtual communities, and online content (Zhang & Lu, 2025, Al-Okaily et al., 2024; Agarwal et al., 2017). The convergence of communications technologies, smartphones, and banking systems has gradually replaced physical transactions with digital payment systems, and e-wallets are one of them (Rashid et al., 2025; Ruiz, 2023; Ariffin et al., 2021; Ghazali et al., 2018). In the Indian context, this is evident by the estimated value of e-wallet transactions, which have been estimated to be USD 2.5 trillion for the financial year 2023 (IBEF, 2024). According to BlueWeave Consulting (2022), the Indian e-wallet market was valued at USD 30.1 billion in 2020 and is estimated to grow at a compounded annual growth rate of 46.3%, generating USD 429.2 billion in revenue by the end of 2027. Considering the global usage of smartphones, the significance of the mobile e-wallet sector is likely to rise significantly (Ariffin et al., 2021; To et al., 2021).

E-wallets offer substantial benefits to consumers by enhancing convenience and transactional efficiency (Zaidan et al., 2025; Alam et al., 2021). Ghazali et al. (2018) emphasized that shopping using smartphones or e-wallets enhances customer experience by enabling them to make purchases at their convenience, anywhere, anytime, with no compulsion to visit physical stores. Additionally, Sankaran and Chakraborty (2021) highlighted that small payments using mobile wallets attract lower costs in comparison to payments made through credit cards. Such a situation is highly beneficial for customers as they not only manage to save time and money but also get access to a wide variety of product choices. Ramayanti et al., (2023) further asserted that mobile payments have huge potential and benefits to offer, which would remain underutilized if the value associated with them is not appropriately communicated. Considering the volume of global e-wallet transactions worldwide, it is critical to comprehend the wide range of prospects that have a significant influence on society (Zaidan et al., 2025; Chhonker et al., 2018).

While extensive research has been conducted on various factors influencing adoption of e-wallets worldwide, such as perceived enjoyment (Lee et al., 2023; To & Trinh, 2021); user satisfaction (Purnama et al., 2021), security (Wu et al., 2020), price value and trust (Alalwan et al., 2017), customer experience (Wang et al., 2019) and personal innovativeness (Senali et al., 2023; Pandey & Chawla, 2020; Ghazali et al., 2018), certain dimensions are still unexplored. Specifically, the role of personality traits in influencing e-wallet adoption is not yet fully understood. Although studies have examined factors like personal innovativeness and the Big Five personality traits in broader technology adoption contexts (Senali et al., 2023; Ghazali et al., 2018; Devaraj et al., 2008), their moderating effects, particularly in financial technologies like e-wallets, warrant deeper investigation. Senali et al., (2023) demonstrated the moderating role of personal innovativeness in financial technology adoption, suggesting the need to explore similar psychological variables. Furthermore, Srivastava & Singh (2023) highlighted the importance of the big five personality traits in the adoption of mobile payments, yet comprehensive insights into how these traits interact with established technology adoption constructs remain limited.

Against this backdrop, the present study seeks to address these gaps by investigating the moderating influence of personality traits, specifically agreeableness and extraversion, on the relationship between attitude and intention to adopt e-wallets. By demonstrating that individual differences condition how favourable attitudes are translated into adoption intentions, the study advances existing technology adoption research beyond conventional linear explanations. Empirically, it enriches the fintech and digital payment literature by providing evidence from an emerging market context and highlighting personality-driven heterogeneity among users, an aspect that remains underexplored in e-wallet adoption studies. Methodologically, the study reinforces the suitability of PLS-SEM for analysing complex behavioural relationships involving moderation and predictive assessment, with the use of PLSpredict further establishing the model's out-of-sample predictive relevance. From a practical standpoint, the findings offer actionable insights for businesses and technology managers by informing

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segmentation, platform design, and communication strategies aimed at fostering more inclusive, user-centric digital payment solutions.

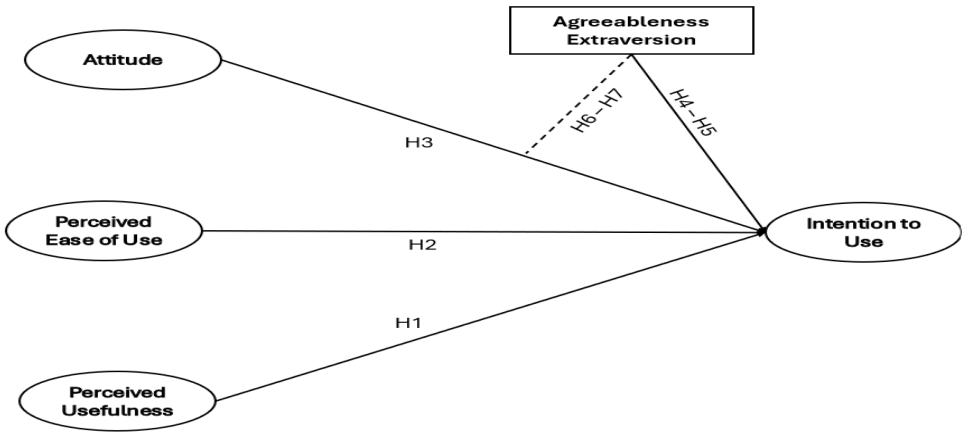
Building on these objectives and contributions, the remainder of the paper is organised as follows. The subsequent section delineates the theoretical framework and presents the research hypotheses by integrating TAM with selected dimensions of BFI. This is followed by the methodology section, which describes the research design, data collection procedure, measurement instrument, and data analysis techniques employed. Further, the results section presents empirical findings, including assessment of the measurement model, structural model, and moderation analysis. Thereafter, the discussion critically interprets the findings about extant literature, elucidating theoretical and managerial implications. The paper concludes by synthesizing the principal insights, highlighting limitations, and proposing directions for future studies.

THEORETICAL FRAMEWORK AND HYPOTHESES

The present study integrates Technology Acceptance Model (TAM) with selected dimensions of Big Five Indicators (BFI) to study the direct relationship of independent variables, perceived usefulness (PU), attitude (ATT), and big five personality traits: agreeableness (AG), and extraversion (EXT) with the dependent variable intention to use (IU). Additionally, the moderation effect of BFIs has been studied on ATT-IU relationship. This framework has been explained in Figure 1.

Figure 1

Conceptual Framework



Source(s): Created by authors.

Perceived Usefulness and Intention to Use

PU, a key concept from the TAM introduced by Davis (1989), explains how much an individual believes using a system will enhance their performance. In the mobile payment domain, PU is an important determinant because if individuals perceive these tools as helpful in saving time and effort, they are more likely to use them. For instance, research by Venkatesh & Davis (2000) showed that PU has a strong impact on the intention of the individuals to use technology, and this finding has been endorsed in later studies focusing on mobile payment services (Nirmawan & Astiwardhani 2021; Oliveira et al., 2016; Altwairesh & Aloud 2021). Further, Dewi et al. (2021) reinforced this argument by suggesting that users are more inclined to use mobile payment systems when they can see its advantages, like faster transactions and increased efficiency. Hence, it is proposed that,

H1: Perceived usefulness (PU) positively affects the intention to use (IU) e-wallets.

Perceived Ease of Use and Intention to Use

PEOU is another important construct of TAM introduced by Davis (1989). According to this framework, when users believe that technology is easy to use, they are more likely to adopt it. For instance, Venkatesh & Bala (2008) suggest that when individuals regard a system as simple and intuitive, their possibility to embrace the technology increases. In the domain of e-wallets, the ease with which users can conduct transactions, utilize the mobile application, and interact with a user-friendly interface significantly influences their overall user experience (Oliveira et al., 2016). The ease of interaction in return enhances their intention to operate the technology, as emphasized by Alalwan et al. (2016). Furthermore, Wilson et al. (2021) supported this argument by suggesting that when a system is easy to operate, it not only improves user satisfaction but also reduces the cognitive effort required for its use. Hence, it is proposed that,

H2: Perceived ease of use (PEOU) positively affects the intention to use (IU) e-wallets.

Attitude and Intention to Use

The Theory of Planned Behaviour (TPB), proposed by Ajzen (1991), establishes that the attitude of an individual towards a behaviour is a significant predictor of their intent to participate in that behaviour. Gbongli et al. (2019) define attitude as an individual's positive or negative feeling associated with technology. When applied to the context of e-wallet adoption, this theory suggests that a positive attitude regarding the convenience, security, and ease of use of e-wallets can significantly increase the likelihood of their adoption (Shin, 2009). Furthermore, empirical studies suggest that attitudes shaped by favourable user experiences, social influence, and targeted marketing efforts significantly impact individuals' intention to adopt e-wallets (Kim et al., 2010; Ming & Jais, 2022). Hence, it is proposed that,

H3: Attitude (ATT) positively affects the intention to use (IU) e-wallets.

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Personality Traits, Attitude, and Intention to Use

Although there is a dearth of recent scholarly studies investigating the moderating role of BFIs on the relationship between ATT and IU technology systems, existing literature offers a strong foundation for developing hypotheses. Agreeableness (AG), one of the dimensions of BFI, involves characteristics such as cooperation, compassion, and trust (DeYoung et al., 2010; McElroy et al., 2007). These attributes can significantly influence an individual's attitude and decision to adopt new technologies. Prior studies indicate that trust is a critical element in numerous technology adoption models, with consumers being more inclined to adopt technologies they perceive as secure and dependable (Gomez-Hurtado et al., 2025; Gefen et al., 2003). Highly agreeable individuals, due to their inclination for trust and cooperation, may find e-wallets appealing, as they are more receptive to the positive attributes of technologies that facilitate more convenient and beneficial financial transactions. This view is further strengthened by Kesharwani & Bisht (2012), who demonstrated that social influence and interpersonal trust, both closely linked to AG, are significant factors in the adoption of digital payment systems. Furthermore, Correa et al. (2010) found that individuals high in AG were more likely to engage with social media tools that foster positive social interactions. In the context of e-wallet adoption, agreeable individuals may exhibit greater trust in digital financial systems, which could lead to more favourable attitudes and an increased likelihood of adopting new technologies. Hence, it is proposed that,

H4: Agreeableness (AG) trait has an impact on the intention to use (IU) e-wallets.

H6: Agreeableness (AG) moderates the relationship between attitude (ATT) and intention to use (IU) e-wallets.

Extraversion (EXT) is another significant personality dimension characterized by sociability, assertiveness, and an inclination for social engagement (DeYoung et al., 2010; McElroy et al., 2007). It has been consistently associated with a more favourable attitude toward technologies that enhance social interaction and offer convenience. Research conducted by Ofori & Oduro-Asante (2022) states that extroverts are more likely to adopt technologies that simplify and streamline their social and economic interactions, a characteristic that aligns with the quick and efficient payment solutions provided by e-wallets. These findings are further supported by Lynn et al. (2017), who suggest that extroverts are often early adopters of new products and services, making them more willing to explore and embrace digital payment systems. Marbach et al. (2019) and Hughes et al. (2012) provide additional evidence that extraverts are more inclined to use technologies such as social networking platforms and communication tools, which align with their desire for connection and engagement. When applied to e-wallets adoption, this suggests that extraverts may be more likely to adopt the technology if it supports social commerce or enables peer-to-peer payments, enhancing their social interactions. Hence, it is proposed that,

H5: Extraversion trait has an impact on the intention to use e-wallets.

H7: Extraversion (EXT) moderates the relationship between attitude (ATT) and intention to use (IU) e-wallets.

METHODOLOGY

Data Collection

For this study on E-Wallet adoption intentions, only primary data was collected through a questionnaire, ensuring firsthand insights from participants. The data was gathered from a wide variety of people living in the Delhi-NCR region, ensuring a mix of demographic backgrounds. To make it convenient for participants, the questionnaire was shared both physically and online through Google Forms. Out of 300 people who were approached to collect data, 212 responded. However, some of these responses were incomplete, so after filtering those out, the final set of usable data included 186 participants. A convenience sampling method was used, allowing for easy reach of participants from diverse backgrounds, though it's important to note that this method might limit how representative the sample is of the broader population.

Survey Instrument

The survey used in this study was a well-structured questionnaire designed to explore various factors affecting people's intentions to adopt E-Wallets. The questionnaire included statements from nine constructs, namely, PU, PEOU, ATT, IU, AG, and EXT, to study the user behaviour towards e-wallets adoption. Items for PU, PEOU, ATT, and IU were adopted from the TAM scale developed by Davis (1989). These items have been widely used in technology adoption studies and were adapted to fit the context of e-wallet usage. Additionally, to understand how personality traits influence adoption, AG, and EXT dimensions from the Big Five Inventory (BFI) were incorporated, with items taken from John (1990). All the items were measured on a Likert scale, making it easy for respondents to provide consistent answers across different sections.

Data Analysis

The data for the present study was analysed using SmartPLS 4.0, which is considered as benchmark tool for multivariate analysis (Hair et al., 2018; Hair & Sarstedt, 2021). In the beginning, the data was subjected to CMB testing to ensure that CMB does not exist. Further, a two-stage approach was followed in this study, where the measurement model was tested to ensure the reliability and validity of the constructs. Convergent validity was confirmed through the Average Variance Extracted (AVE), and discriminant validity was evaluated using the Fornell-Larcker criteria and the Heterotrait-Monotrait (HTMT) ratio. To evaluate reliability, Cronbach's alpha, and composite reliability (CR) were measured. Further, the structural model was checked for multicollinearity by reviewing the Variance Inflation Factor (VIF), and the R2 value was measured to check how well the model explains the variance in the intention to use E-Wallets. Further, eight hypotheses related to the structural model were tested for statistical significance. Finally, a moderation analysis was performed to explore how the BFI indicators influenced the ATT-IU relationship. The model was also checked for goodness-of-fit by using standardized root mean square indices. Last, but not least, PLSpredict using the CVPAT approach was employed on the collected data to evaluate the predictive validity of the PLS-SEM model.

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RESULTS

Common Method Bias

At the outset, the data collected through the survey was checked for the presence of common method bias (CMB). CMB usually exists in primary data-based research when latent variables are measured on a similar type of scale. In the present study, latent variable items were measured on a five-point Likert scale with responses varying between strongly disagree to strongly agree. Kock (2015) suggests that in such cases, people tend to respond in a similar manner due to social desirability, thereby leading to common shared variances between different items. Hence, it was necessary to check the data for the presence of CMB. Kock & Lynn (2012) suggested that all inner VIF values of the model, including all latent variables as predictors of a random dependent variable, should be assessed to check CMB. For the present study, all the inner VIF values were reported between 1.209 to 2.598, all below the threshold of 3.3 as suggested by Kock (2015). Hence, no CMB was detected for the present study.

Assessment of Measurement Model

Convergent Validity: Two indicators are used to check the convergent validity of the instrument: factor loading values and the average variance extracted (AVE). Factor loadings of one of the items for the present study were reported to be 0.689 against the threshold value of 0.708. Hair et al. (2022) and Hair et al. (2019) suggest that these items should not be deleted from the instrument since the AVE for this construct was 0.693, above the threshold value of 0.50. Since all the constructs have AVE above 0.50 (Table 1), the convergent validity of the instrument is established.

Reliability: Cronbach's alpha and Composite Reliability values checked the instrument's reliability. As shown in Table 1, Cronbach's alpha value of the constructs used in the present study ranges from 0.850 to 0.941, which is above the threshold value of 0.7, as Hair et al. (2022) suggested. Additionally, the Composite reliability value of the current constructs, ranging from 0.871 to 0.943, is also higher than the threshold value of 0.7, as suggested by Hair et al. (2022). Hence, it can be deduced that the reliability of the instrument has been established.

Table 1

Reliability and Validity of Measurement Model

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Agreeableness (AG)	0.908	0.915	0.932	0.731
Attitude (ATT)	0.85	0.871	0.899	0.693
Extraversion (EXT)	0.861	0.872	0.9	0.643
Intention to Use (IU)	0.927	0.927	0.954	0.873
Perceived Ease of Use (PEOU)	0.941	0.943	0.958	0.849
Perceived Usefulness (PU)	0.936	0.939	0.949	0.758

Source(s): Created by authors.

Discriminant Validity: The discriminant validity of the instrument was assessed using cross-loadings, the Heterotrait-Monotrait (HTMT) ratio and the Fornell-Larcker criterion. Cross loadings indicated a high correlation of items within the construct rather than other constructs. Fornell & Larcker (1981) state that the square root of a particular construct's AVE should be higher than its correlation with any other construct in the framework (Hair et al., 2012), and results of the present study meet this criterion as depicted in Table 2. Additionally, HTMT ratios were checked to rule out problems with discriminant validity. All HTMT ratios, as indicated in Table 3, are below 0.85 (Hair et al., 2022; Henseler et al., 2015), thereby ruling out any issue with discriminant validity.

Table 2

Fornell-Larcker Correlation Matrix

	AG	ATT	EXT	IU	PEOU	PU
Agreeableness (AG)	0.855					
Attitude (ATT)	0.563	0.832				
Extraversion (EXT)	0.483	0.415	0.802			
Intention to Use (IU)	0.604	0.703	0.4	0.934		
Perceived Ease of Use (PEOU)	0.609	0.742	0.459	0.631	0.922	
Perceived Usefulness (PU)	0.7	0.669	0.483	0.695	0.796	0.871

Source(s): Created by authors.

Table 3

HTMT Approach

	AG	ATT	EXT	IU	PEOU	PU
Agreeableness (AG)						
Attitude (ATT)	0.621					
Extraversion (EXT)	0.530	0.465				
Intention to Use (IU)	0.650	0.785	0.440			
Perceived Ease of Use (PEOU)	0.647	0.818	0.500	0.674		
Perceived Usefulness (PU)	0.753	0.735	0.529	0.742	0.846	

Source(s): Created by authors.

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Assessment of Structural Model

Multicollinearity and Coefficient of Determination (R2): Multicollinearity among the independent variables was assessed through the Variance Inflation Factor (VIF) as suggested by Kleinbaum et al. (1988). In the context of PLS-SEM, a threshold value of 0.2 or below and a VIF value of 5 or above indicate a possibility of collinearity (Hair et al., 2011). The collinearity statistics obtained for the current study's outer model ranged from 1.419 to 4.665. Hence, there were no issues with multicollinearity in this instrument. According to Di Bucchianico (2008), the coefficient of determination (R2) is the proportion of variance in the endogenous variable explained by the combined effects of the exogenous variable. In other words, R2 is a measure of the explanatory power of the model. The R2 value and adjusted value of endogenous construct (IU) for the current study were reported to be 0.615 and 0.600 (Table 4), respectively, which is more than 0.26, indicating moderate explanatory power (Henseler et al., 2009; Hair et al., 2011).

Effect Size (f2) and Model Fit Assessment: The changes in R-squared value when a particular exogenous construct is eliminated from the model being tested can be used to estimate whether the eliminated construct has a significant impact on the endogenous constructs. This measurement is known as the f2 effect size. Cohen (2013) implies that f2 values of 0.02, 0.15 and 0.35 denote small, medium, and large effects, respectively. As per Table 4, the study concludes that ATT impacts IU the most, with an f2 value of 0.188, indicating a medium effect, followed by PU with a small to moderate effect with an f2 value of 0.093 and AG indicating a small effect with f2 value of 0.042. Further, the model was tested for goodness-of-fit (Table 4). For the purpose, standardized root mean square (SRMR) indices were used. The assessment demonstrates that the estimated model fits the data well. The original sample values for both the saturated (0.063) and the estimated model (0.064) are well below the commonly accepted threshold of 0.08, indicating an acceptable level of model fit (Hair et al., 2022; Kock, 2020; Henseler & Sarstedt, 2013).

Table 4

Explanatory Power & Model Fit

Explanatory Power: R Square		
Endogenous Variable	R Square	R Square Adjusted
Intention to Use (IU)	0.615	0.6
Effect Size: f Square		
Exogenous Variables	Intention to Use (IU)	
Agreeableness (AG)	0.042	
Attitude (ATT)	0.188	
Extraversion (EXT)	0.001	
Perceived Ease of Use (PEOU)	0.001	
Perceived Usefulness (PU)	0.093	
Model Fit		
	Saturated Model	Estimated Model
SRMR	0.063	0.064

Source(s): Created by authors.

Significance and Relevance of Structural Model Relationships: The hypotheses of this study, as well as the structural model, were assessed using the path coefficient as recommended by Hair et al. (2022). In this study, the significance of the findings was examined using 5,000 bootstrap subsamples drawn from 186 cases. A 5% significance level was used to test the structural model and related hypotheses. The confidence interval report was examined alongside the t-values (1.96) and p-values (0.05) to determine the significance of the relationships hypothesized. As shown in Table 5, four out of seven hypotheses of the proposed model were supported at a 5% significance level, and two were supported at a 1% significance level. The outcomes show that PU significantly influences IU (H1) with a t-statistic of 2.908. Similarly, a significant impact of ATT over IU (H3) was also established with a t-statistic of 4.916. However, the relationship between PEOU → IU, AG → IU and EXT → IU could not be established.

Table 5

Hypotheses Testing

Hypotheses	Relationships	t-values	p-values	Remarks
H1	PU → IU	2.908	0.004**	Supported
H2	PEOU → IU	0.323	0.747	Not Supported
H3	ATT → IU	4.916	0.000**	Supported
H4	AG → IU	1.95	0.051	Not Supported
H5	EXT → IU	0.317	0.752	Not Supported
Moderating effect of big five personality traits of relationship between attitude and intention to use e-wallets				
H6	AG*ATT → IU	2.381	0.017*	Supported
H7	EXT*ATT → IU	2.047	0.042*	Supported

Source(s): Created by authors.

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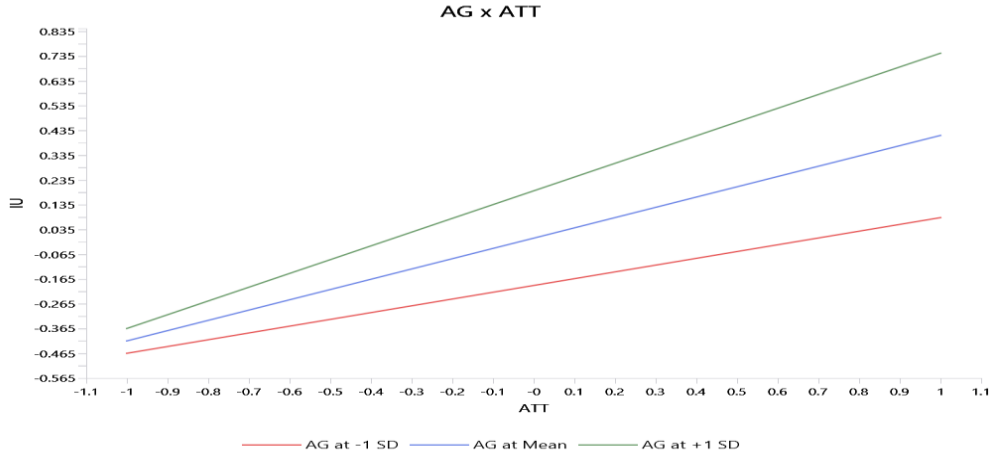
Moderation Effect

The moderating effect of two important dimensions of big five personality traits, AG and EXT, was also tested on the relationship between ATT and IU using simple slope analysis. The interaction graph in Figure 2 shows how AG moderates the relationship between ATT and IU. The figure shows that all three slopes are positive, indicating that, regardless of AG level, there is a positive relationship between ATT and IU. However, slopes differ in steepness, which confirms the presence of an interaction effect. The green line (AG at +1 SD) has the steepest slope, followed by the blue line (AG at mean), with the red line (AG at -1 SD) having the flattest slope. This suggests that the positive relationship between ATT and IU becomes stronger as AG increases. Conversely, when AG is low, the relationship between ATT and IU weakens.

Figure 2

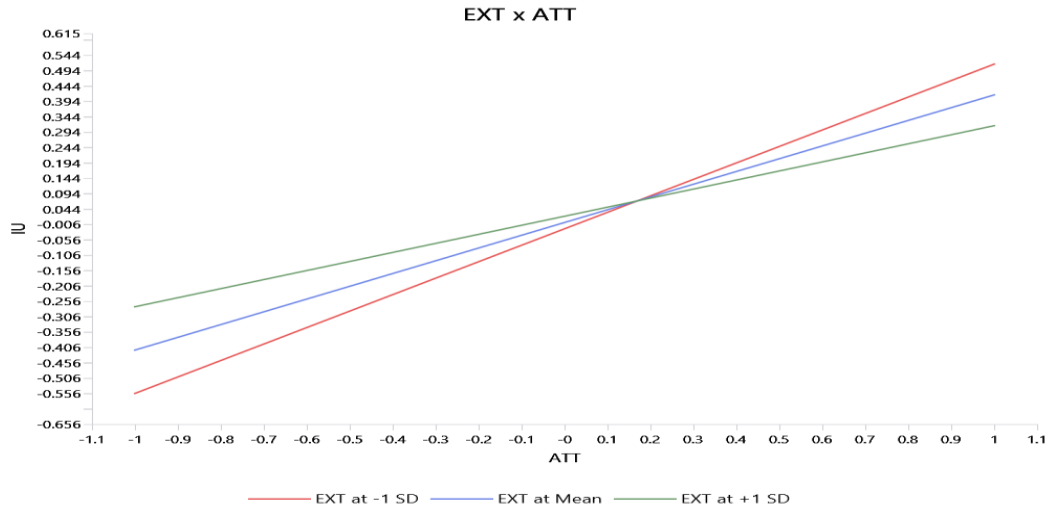
The moderating effect of agreeableness on relationship between attitude and intention to use.



Source(s): Created by authors.

Figure 3

The moderating effect of extraversion on relationship between attitude and intention to use.



Source(s): Created by authors.

Figure 3 depicts the moderation effect of EXT on ATT and IU. All three lines show positive slopes, indicating ATT positively predicts IU across all levels of EXT. The lines intersect around the centre of the graph. This crossing pattern indicates that the moderating effect of EXT changes direction depending on ATT values. At low levels of ATT, higher EXT values are associated with higher IU values, and the pattern reverses at high levels of ATT. This pattern demonstrates that EXT negatively moderates the ATT-IU relationship. Higher levels of EXT weaken the effect of ATT on IU, while lower levels of EXT strengthen this effect.

According to the results of simple slope analysis, the relationship between ATT and IU was moderated by both AG as well as EXT. As a result, hypotheses H6 and H7 were confirmed.

PLSpredict

The analysis of the Q^2predict metrics as presented in Table 6 reveals strong predictive validity for the PLS-SEM model across all three intention-to-use indicators (IU1, IU2, and IU3). With Q^2predict values of 0.492, 0.472, and 0.491, respectively, the model demonstrates substantial out-of-sample predictive power, significantly exceeding the threshold value of zero required for minimal predictive relevance (Hair et al., 2019). The comparative error metrics further validate the model's predictive capabilities, as the PLS-SEM approach consistently outperforms both the linear model benchmark and naive indicator average alternatives across all indicators (Shmueli et al., 2019). This superior performance is evidenced

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by lower RMSE and MAE values for the PLS-SEM model in all cases. For instance, IU1 shows a PLS-SEM RMSE of 0.619 compared to 0.71 for the linear model and 0.78 for indicator averages, aligning with the predictive assessment framework proposed by Sharma et al. (2022). Similarly, the MAE values for IU1 are 0.9, 1.093, and 0.87 for PLS-SEM, linear model, and indicator averages, respectively. The consistency of these results across all three indicators substantiates the robustness of the PLS-SEM model's predictive capabilities (Evermann & Tate, 2016), making it a reliable tool for forecasting user intentions in this context. These findings strongly support the practical applicability of the model for predictive purposes in real-world scenarios (Danks & Ray, 2018).

Table 6

PLSpredict Results

	Q^2predict	Prediction Error Comparison					
		PLS-SEM RMSE	PLS-SEM MAE	LM RMSE	LM MAE	IA RMSE	IA MAE
IU1	0.492	0.78	0.619	0.9	0.71	1.093	0.87
IU2	0.472	0.75	0.578	0.759	0.584	1.032	0.799
IU3	0.491	0.761	0.588	0.829	0.627	1.067	0.817

Source(s): Created by authors.

DISCUSSION

Based on the summary of the results presented in the previous section, it can be deduced that the research model proposed in the study showed predictive power in terms of adjusted R2, i.e. the coefficient of determination at a satisfactory level of 0.600. It is also noteworthy that the adjusted R2 value increased from 0.579 to 0.600 with the inclusion of personality traits as moderating variables in the research model. Further, reliability and validity parameters, along with all fit indices, were within the established range recommended by Hair et al. (2010). The present study integrated TAM and selected components of BFI to study the behaviour of customers' adoption of e-wallets. Seven hypotheses were formulated in the proposed model to understand the impact of the variables used in TAM and BFI on adoption intention, including the moderation effect of personality traits on the ATT-IU relationship. In the TAM model, PU was found to have a significant positive impact on IU, thereby supporting H1. This result is consistent with similar studies conducted by Zaidan et al. (2025), Astari et al. (2022) and Singh & Ghatak (2021) in Jordan, Indonesia and India, respectively. Furthermore, ATT was also found to have a significant positive impact on IU (H3), aligning with the results reported by Rashid et al. (2025), Astari et al. (2022) and Ming & Jais (2022) in India, Indonesia and Malaysia, respectively. These findings reinforce the core assertions of TAM, validating that positive perceptions of usefulness and favourable attitudes critically shape user intentions across different cultural contexts. However, the relationship between PEOU and IU (H2) could not be established. This deviation from conventional TAM expectations suggests that among Indian users, especially millennials and generation Z, technical literacy and familiarity with mobile platforms are high (Macedo, 2017), which might render perceived ease less critical compared to perceived usefulness. This finding was consistent with findings of Sharma et al. (2019) and Liebana-Cabanillas et al. (2017). Regarding the BFI traits, the direct relationship between AG, EXT, and IU (H4 and H5) was not supported, a finding aligned with Wicaksono et al. (2022). This suggests that individuals' decisions to adopt e-wallets are primarily driven by functional and experiential factors rather than inherent personality dispositions. While some studies, such as Agyei et al. (2020) and Kim et al. (2016), found direct relationships between personality traits and technology use, the current findings indicate that personality traits may exert their influence in a more nuanced manner, specifically by moderating existing relationships within TAM.

The moderation analysis revealed that AG (H6) and EXT (H7) significantly moderated the relationship between ATT and IU. Notably, it was observed that agreeableness strengthened the ATT-IU relationship, while extraversion weakened it. These findings bring important insights into understanding the heterogeneity of consumer behaviour in e-wallet adoption.

IMPLICATIONS

Theoretical Implications

This study offers several significant theoretical contributions. First, it extends TAM by integrating personality traits not simply as direct predictors, but as moderators that shape how attitudes influence behavioural intentions. This challenges the traditional framework of TAM (Davis, 1989; Venkatesh & Davis, 2000) and introduces an additional perspective, indicating that user personality traits must be considered when applying TAM to financial technology adoption. Second, the results advance the understanding of the role of individual differences in technology acceptance by showing that personality traits exert their influence indirectly. Specifically, AG positively moderates the ATT-IU relationship, consistent with theories linking trust, cooperation, and technology adoption behaviour (Gefen et al., 2003; Kesharwani & Bisht, 2012; Correa et al., 2010). On the other hand, EXT negatively moderates this relationship, suggesting that social motivation may dilute the effect of positive attitudes towards more solitary technologies like e-wallets (Ofori & Oduro-Asante, 2022; Lynn et al., 2017; Hughes et al., 2012). Third, the study addresses a key research gap, which, as per the best knowledge of the authors, no prior research has explored, i.e. exploring the moderating effect of personality traits on attitude-intention linkage in the specific context of e-wallet adoption. While prior research (Dalvi-Esfahani et al., 2020; Gill et al., 2020) has examined the moderation by personality in other technological contexts and a different set of independent variables, this application to e-wallets in emerging markets provides an important and unexplored extension of current knowledge. This study pushes forward theoretical frontiers by showing that technology adoption models must account for psychological and dispositional factors to fully capture behavioural intention dynamics.

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Practical Implications

The findings of the present study suggest that e-wallet service providers should prioritize emphasizing perceived usefulness over perceived ease of use in their marketing communications, particularly for millennials and generation Z. Personalization strategies based on personality profiles, like trust and social responsibility messaging for agreeable users and socially engaging features for extroverted users, could enhance adoption. E-wallet platform designs should accommodate utility-focused and socially driven user experiences to cater to diverse adoption motives. Policymakers and fintech strategists should focus on promoting the functional benefits and social trustworthiness of e-wallets to accelerate digital payment adoption in emerging markets.

CONCLUSION, LIMITATIONS AND DIRECTION FOR FUTURE RESEARCH

This study offers important insights into the adoption of e-wallets by integrating the TAM and key personality traits from the BFI. The findings reveal that the two critical components of TAM, PU and ATT, significantly and positively impact the behavioural intentions towards e-wallets. However, in contrast to previous studies (Astari et al., 2022; Senali et al., 2023), PEOU did not show a significant effect on IU, suggesting that in the Indian context, especially among millennials and generation Z, technical literacy and familiarity with mobile platforms might render perceived ease less critical compared to perceived usefulness. Although the study reported no direct significant relationship between the personality traits and IU, it brought novel contributions by exploring the moderating role of two BFI indicators on the ATT-IU relationship. The moderation effects of AG and EXT were particularly significant, with AG enhancing the ATT-IU relationship and EXT weakening it. These findings shed light on the importance of personality-driven nuances in technology adoption, indicating that while personality traits may not directly influence e-wallet usage, they can shape how individuals translate positive attitudes into adoption behaviour. Thus, the study contributes to TAM and BFI literature by highlighting the complex interplay between personality traits and technology adoption decisions.

Despite its contribution, this study is subject to certain limitations that warrant acknowledgement. First, the convenience sampling technique and a sample confined to the Delhi-NCR region may limit the generalizability of the findings to broader or more diverse populations. Second, although CMB was tested and not detected, the reliance on self-reported data may still pose inherent limitations in terms of subjective perceptions and potential response bias. Third, the scope of the study was restricted to only two dimensions of the BFI traits, agreeableness, and extraversion, which may have constrained the comprehensiveness of the psychological profile considered.

Future research could address these limitations by employing probabilistic sampling methods and extending the study across multiple geographic regions and cultural contexts to enhance external validity. In addition, future studies could incorporate the full spectrum of personality traits and explore their direct, mediating, and moderating effects in various financial technology adoption scenarios. Employing longitudinal research designs would further enable scholars to capture temporal dynamics in users' adoption behaviours. Furthermore, integrating additional psychological constructs such as perceived risk, digital literacy, and trust propensity may yield a more nuanced and comprehensive understanding of individual differences influencing e-wallet adoption.

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