ISSN No.2349-7165

The Impact of Trust, Perceived Risk and other Factors on Mobile Wallet Adoption in India: An Extended "Technology Acceptance Model"

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ABSTRACT

Given the speed at which technology is developing, the study we have provided looks at Indian customers' intentions to adopt mobile wallets, or M-Wallets. This inquiry is based on the Technology Acceptance Model (TAM). Understanding Indian consumers' intentions to use mobile wallets and evaluating the factors that impact these intentions—such as attitude, perceived usefulness, perceived ease of use, intention to use, reward, social influence, perceived risk, security, trust, and personnel innovativeness—are the main goals of the study. In all, 500 Indian customers from around India are included in the survey. Participants in the poll answered questions about five constructs—intention to use mobile wallets, subjective norms, awareness, perceived security, and cash crunch—in order to provide data. Data Analysis: The statistical technique for modelling and analysing the data was PLS Structural Equation Modelling (SEM).

Consumers' intention to use m-wallets is positively correlated with factors such as perceived usefulness (PU), perceived ease of use (PEU), social influence (SI), reward (RE), security (S), trust (T), perceived risk (PR), and personnel innovativeness (PI). Furthermore, the risk factor has a negative relationship with the utility and security criteria that encourage the usage of m-wallets. Trust is shaped by social impact as well, and this in turn affects the inclination to use mobile wallets.

Keywords: Attitude, perceived Usefulness, Perceived Ease of Use, Intention to use, Reward, Social Influence, Security, Perceived Risk, Trust, and personnel Innovativeness.

INTRODUCTION

A mobile wallet is a software program that enables users to safely store, manage, and interact with their financial information using a mobile device, such as a smartphone or tablet. It is also referred to as a digital wallet or an e-wallet. Mobile wallets have become increasingly popular because of their ease and the growing reliance on digital transactions. Storing different payment methods, such as bank account information, credit and debit card information, and even cryptocurrencies, is one of a mobile wallet's main uses. By adding these payment methods to their wallets, users can do away with the need to carry cash or actual cards. Biometric authentication (facial recognition, fingerprint, and encryption) and other security elements assist in safeguarding the private financial information kept in the mobile wallet.

Numerous types of transactions, such as in-app purchases, internet sales, and interpersonal transfers, are made possible via mobile wallets. By utilizing near-field communication (NFC) technology, many mobile wallets also enable contactless payments. This feature enables customers to make purchases by just touching their device against a compatible point-of-sale terminal. Furthermore, loyalty programs, discount codes, and reward cards are frequently integrated with mobile wallets, giving consumers a streamlined and unified experience for handling payments and incentives. To further streamline users' digital lives, certain mobile wallets allow the storage of identification documents, tickets, and other digital assets.

IMPACT OF MOBILE WALLET

Post-Demonetization Impact: Transaction volumes in the mobile wallet market significantly increased following India's demonetization. With the removal of high-denomination currency notes known as "demonetization," there was an increase in digital transactions, including payments via mobile wallets.

Promoting Cashless Payments: According to the text, in order to close the gap between newly remonetized currency and terminated currency, more cashless payment promotion is necessary. It is believed that this campaign will promote the use of mobile wallet services.

Projected Growth: It is anticipated that the Indian mobile wallet market will expand significantly, with a compound annual growth rate (CAGR) of more than 160%. It is projected that this increase will result in 260 billion mobile wallet transactions by FY22, up from half a billion in FY16. This increase is being fuelled by a number of factors, such as the growing popularity of smartphones,

the expansion of mobile internet connectivity, the growth of e-commerce, and rising disposable incomes.

Disruption and Financial Inclusion: Economically disadvantaged groups in society were impacted by demonetization, which had a disruptive effect on the Indian economy. In this environment, managing the shift from cash to digital payments is deemed essential.

Mobile Payments for Financial Inclusion: In developing nations, mobile payments are thought to be an effective way to advance financial inclusion. They improve money transfer services and provide advantages including time savings, novel user experiences, and ease of use for telecom customers.

Use of TAM: Researchers have used the Technology uptake Model (TAM) extensively to forecast and comprehend technology uptake. TAM has been utilized in numerous studies involving a variety of stakeholders, including teachers, university students, administrative personnel, the adoption of 3G phones, and digital library systems.

LITERATURE REVIEW

Perceived risk (PR)

Perceived Risk is defined in consumer behaviour studies as the customer's perception of the uncertainty and potential negative consequences of purchasing a product or service. Customers' perceptions of risk and risk tolerance influence their purchase decision (Nasri, 2011). ***Yang, Park, and Park (2007)*** shown that negative consumer sentiments are caused by social risk. The potential for financial loss due to a transaction error or improper use of a bank account is known as financial risk. "Privacy risk" describes the possibility of losing control over personal data that is utilized without the consent or knowledge of the user ***(Featherman MS and Pavlou PA, 2003).***

Perceived Trust

According to ***Wang et al. (2015),*** trust is the alternative relationship between the buyer and vendor. It serves as the cornerstone for the partnerships between the involved parties. With a change partner, trust becomes crucial for the customer to develop self-assurance (***Li and Yeh, 2010).*** Customers have to trust price systems in order to participate in the phone payment phenomenon.

Zhou (2013) claims that consumers' concerns about virus safety have a negative impact on their trust in mobile payments, which can alter their purpose and usage patterns. There won't be any value for e-commerce if there is no trust between customers and the platform, which lowers customer satisfaction and loyalty. In

the future, trust turns out to be the most effective strategy for handling ambiguity and uncertainty. Moreover, the online pricing is mostly determined by confidence and satisfaction, offsetting risk perceptions (***Rouibah et al., 2016).*** Thus, the essential component influencing mobile payments is trust. A few of the significant elements are covered in detail below based on how important they are in relation to their goals to use Mobile Wallet.

Perceived Security

Many paid digital services and e-commerce activities are hindered by security concerns ***(Linck, Pousttchi, & Wiedemann, 2007; Pousttchi & Wiedemann, 2007).*** Thus, among the major variables influencing views seem to be worries about the security of mobile payment systems ***(Liébana-Cabanillas et al., 2014; Linck et al., 2007; Shatskikh, 2013).*** When compared to other payment methods like online credit cards, the objective security of mobile payment systems can be said to be on par.

In addition, a variety of parties involved including in mobile payments such as banks, telecom companies, and numerous merchants also may lead to increases in the privateness and security-associated worries among the populace. The impact of Security perceptions and the security offered to counter these worries within the mobile payment system is incorporated into and familiarized using the perceived construct.

Personal Innovativeness

The inclination of a customer to test out novel items and technologies is known as personal innovativeness (***Agarwal & Prasad, 1998; Chang, Cheung, & Lai, 2005).*** High personal innovativeness individuals are more curious and willing to try new things (***Kim, Mirusmonov, & Lee, 2010).*** According to ***Midgley and Dowling (1978),*** being innovative is defined as "the willingness of an individual to try out any new information technology." It also refers to the degree to which a consumer can accept an invention before other consumers, in accordance with the diffusion theory (***Rogers, 2003).***

Perceived Ease of Use.

The perceived ease of use of payment service is one of the most important criteria in determining consumer adoption as postulated in related theories and proven in empirical studies, users' attitudes about a technology system and their use intentions are influenced by their views of its ease of use It is regarded as one of the most important factors influencing the acceptance of new technologies (***Davis, Bagozzi, & Warshaw, 1992; Moore & Benbasat, 1991).***

When it comes to mobile payment applications, users should find the framework easy to use and adequate in comparison to their existing methods of receiving it; otherwise, it might not be worthwhile to try and adopt an underutilized framework. Therefore, EAS should be implemented in a way that is at least as good, if not better, than current comparative tactics like credit cards. This calculation proved to be one of the most important factors in establishing attitudes and providing respect in the flexible context ***(Dahlberg & Mallat, 2002; Liébana-Cabanillas et al., 2014).***

Received Usefulness

One of the main obstacles to the widespread adoption of portable installed frameworks is the requirement for actual benefits or a clear comprehension of the benefits offered by these frameworks (***Shatskikh, 2013).*** A client develops a favourable attitude toward a framework when they perceive it as beneficial, and they are more likely to use it in order to reap the rewards. This is frequently one of the fundamental misgivings about TAM, and the convenience that a framework or underutilized innovation advertises is operationalized as the convenience that is perceived to be included in the important writing ***(Davis, 1989; Davis et al., 1992).***

Davis (1989) originally defined perceived convenience as "the extent to which an individual acknowledges that utilizing a particular framework would enhance their performance." However, a more relevant definition for the display ponder is "the application of a particular innovation should be beneficial for an individual in achieving a particular outcome." 2004; Vijayasarathy.

Rewards

In the form of clear advantages (cash, incentives, test blessings, discounts, freebies, etc.), rewards can encourage consumers. This kind of inspiration is external (***Davis et al., 1992)*** and pertains to personal actions that indicate achieving particular goals. Customers are prepared to put in effort in order to receive these incentives and concrete rewards.

Social Influence

A person's beliefs are essential to them, including their family and friends, and they influence their motivation to behave a certain way. This formulation, which is one of the TRA's postulations, creates subjective norms that are compared to the idea of social impact in the context of the show (***Ajzen & Fishbein, 1980).*** When consumers use a modern innovation product, they could feel vulnerable about the product and the outcomes of using it. By obtaining the opinions of

others they respect, one might lessen this instability. This influence on adaptable installed frameworks could be defined by how the person's social surroundings see Mobile Payment frameworks (***Schierz et al., 2010).***

Attitude

Attitude is taken into consideration as a multi-dimensional construct, which includes cognitive, affective, and behavioural factors (***Fishbein & Ajzen, 1977).*** Consumer attitude could greatly upset the intention of the usage of m-charge structures (***Schmerz, et al., 2010).*** The amount of positive and negative feelings a buyer gets toward innovation is called attitude (Schierzs et al., 2010). Based on the hypothesis of ***Allport (1935)***

Intention to Use

Intention to adopt m-Payment services ***Davis (1989)*** developed a 3-item scale to measure intention to adopt the technology. Intention to Use could lead to genuine use. Users' behavioural intention to adopt can be influenced by posture (***Davis, 1989),*** subjective norms ***(Fishbein & Ajzen, 1977),*** and personal innovativeness (***Leong, et al., 2013).***

SIGNIFICANCE OF THE STUDY

In recent years, e-commerce has been on the rise everywhere in the world. The number of mobile wallets being used, together with the introduction of new items and gadgets, is significantly contributing to the rise of the cashless economy. The mobile wallet is one of them. It will be advantageous for stakeholders to comprehend Indians' perceptions of risk with M-wallets. Both Google Pay and Paytm. Moreover, since most of the businesses and systems are international, local input could aid in the development of more user-friendly features or designs that appeal to Indians. In order to help future developers and M-wallet start-ups like Phone Pay understand what India wants from their apps, this research can potentially be used as a roadmap.

The purpose of the study is to comprehend India's mobile banking adoption system and the elements that support and impede this adoption. The study aimed to comprehend several underlying characteristics or inciting elements, with trust, intention, and perceived danger being the most significant. As a result, it becomes necessary to assess the several aspects that are influencing the actual adoption of mobile in daily activities. to determine the impact of several factors on consumers' intention to utilize M-Wallet services, including gender, age, education, income, experience, etc. Additionally, this study aims to investigate the degree of M-wallet acceptance in light of the perceived risk associated with

mobile wallet services. In order to do so, a conceptual model is constructed, showing the relationships between the variables.

OBJECTIVE OF STUDY

- To examine the effect of the status of consumers i.e., end users on their Intention to use m-wallets.
- To examine the impact of trust, perceived risk, and other factors on the Intention to use Mobile wallets and the adoption of m-wallets among consumers.

RESEARCH METHODOLOGY

The Study: This research adopts a descriptive and exploratory approach, focusing on understanding the adoption of m-wallets among consumers (end-users) and retailers.

The Sample: In this study, email invitations were distributed to a select group of knowledgeable respondents, and they were encouraged to share the questionnaire with others who shared similar profiles. Additionally, social media platforms were utilized for questionnaire distribution. The sample for the study was drawn from various cities across India. Ultimately, 500 respondents successfully completed the survey out of the 600 targeted respondents.

Tools for Data Collection: Primary data for this study was gathered through a self-structured and self-administered questionnaire comprising 500 valid items. Following an extensive literature review, the research team initially prepared 600 items. These items were then subjected to a face validity process, involving assessment by six industry and academia experts. Subsequently, 500 items were finalized based on the judges' input. Respondents were asked to rate these items on a five-point Likert scale, ranging from "Strongly Agree" (5) to "Strongly Disagree" (1). Additionally, general demographic information of the respondents was collected through a dedicated section within the questionnaire.

Tools for Data Analysis: PLS SEM technique was used to analysis and was employed to explore potential relationships and variances within the data, ultimately contributing to the study's conclusions.

Research Design: Structural Equation Modelling (SEM) was used to test and validate models containing observed and latent variables. SEM provides precise and reliable measurements at the item and construct levels, including the measurement of errors. A two-step procedure for SEM was implemented, involving testing the measurement model before the structural model, for the constructs.

RESULTS AND DISCUSSION

Reliability of the Instruments

In the upcoming section, we will delve into the assessment of the research instrument, which in this case is a questionnaire. We conducted this evaluation using SPSS data analysis tools, specifically relying on the Cronbach Alpha coefficient as an indicator of the internal consistency of the questionnaire's items. In our study, we utilized eight distinct sets of questionnaires to gauge the various constructs and their interrelationships, as deduced from the comprehensive literature review conducted for this research. It is noteworthy that all of our constructs exhibited strong internal consistency reliability, as evidenced by Cronbach Alpha values surpassing 0.80. It is essential to mention that Cronbach Alpha values exceeding 0.7 are conventionally regarded as suitable for statistical analysis, a principle established by Nunnally and Bernstein in 1994 and reaffirmed by Kline in 2010.

Table 1.1: Reliability & Validity of Constructs

Indicators	No. of Items	Reliability	Validity
Attitude (ATT)	04	0.886	0.941
Perceived Usefulness (PU)	05	0.855	0.925
Perceived ease of Use (PEU)	04	0.953	0.976
Social Influence (SI)	03	.917	0.958
Reward (RE)	04	.860	0.927
Security (S)	04	.920	0.959
Trust (T)	04	.922	0.960
Perceived Risk (PR)	05	.856	0.925
Personnel Innovativeness (PI)	04	.823	0.907
Intention to Use (INT)	04	.951	0.975

The reliability analysis of all the ten instruments showed that collected data was reliable, because the value of Cronback alpha was above 0.8.

PLS-SEM

Once the constructs' validity and reliability have been established, it becomes essential to conduct an examination of the structural model. The primary outcomes of this analysis involve investigating the associations between the constructs and evaluating the model's predictive capability (***Henseler et al., 2016).*** The structural model presents a set of equations that illustrate the interconnectedness between independent and dependent variables. These equations can be likened to a series of multiple regression equations, facilitating the simultaneous estimation of several distinct yet interrelated regression equations (***J. Hair et al., 2018).***

In contrast to CB-SEM, PLS-SEM focuses on maximizing the variance of endogenous constructs while minimizing error terms. Although traditional goodness of fit measures does not apply to PLS-SEM, its assessment centres on its proficiency in predicting endogenous constructs (***Sarstedt et al., 2014).***

Assessment of Collinearity

Similar to how multiple regression analysis can exhibit bias in path coefficients when there is high multi-collinearity among the independent variables, Partial Least Squares Structural Equation Modelling (PLS-SEM) also encounters this issue. Multi-collinearity is characterized by a variable's susceptibility to being explained by other variables within the analysis, as defined by ***J. Hair et al. (2018).*** In situations of significant multi-collinearity, determining the individual impact of a single variable becomes challenging.

Just as in the formative model, collinearity assessment is applicable to reflective models as well. This evaluation involves calculating the Variance Inflation Factor (VIF) for all indicators, which is summarized in Table 1.1 of the present study. VIF represents the reciprocal of the tolerance value, and lower VIF values indicate minimal correlation between variables under ideal conditions (VIF < 3). However, values up to 10 are considered acceptable. In this study, all indicator VIF values remain below 10, indicating no critical multi-collinearity among the predictor variables.

Table 1.2: VIF values of indicators

Indicators	Collinearity Tolerance	VIF
ATT1	.178	5.614
ATT2	.304	3.286
ATT3	.239	4.190
ATT4	.184	5.433
PU1	.339	2.949
PU2	.181	5.513
PU3	.213	4.685
PU4	.203	4.935
PU5	.489	2.046
PEU1	.159	6.271
PEU2	.184	5.437
PEU3	.129	7.743
PEU4	.152	6.576
SI1	.231	4.334
SI2	.200	4.995
SI3	.206	4.853
T1	.189	5.281
T2	.227	4.398
T3	.222	4.510
T4	.292	3.425

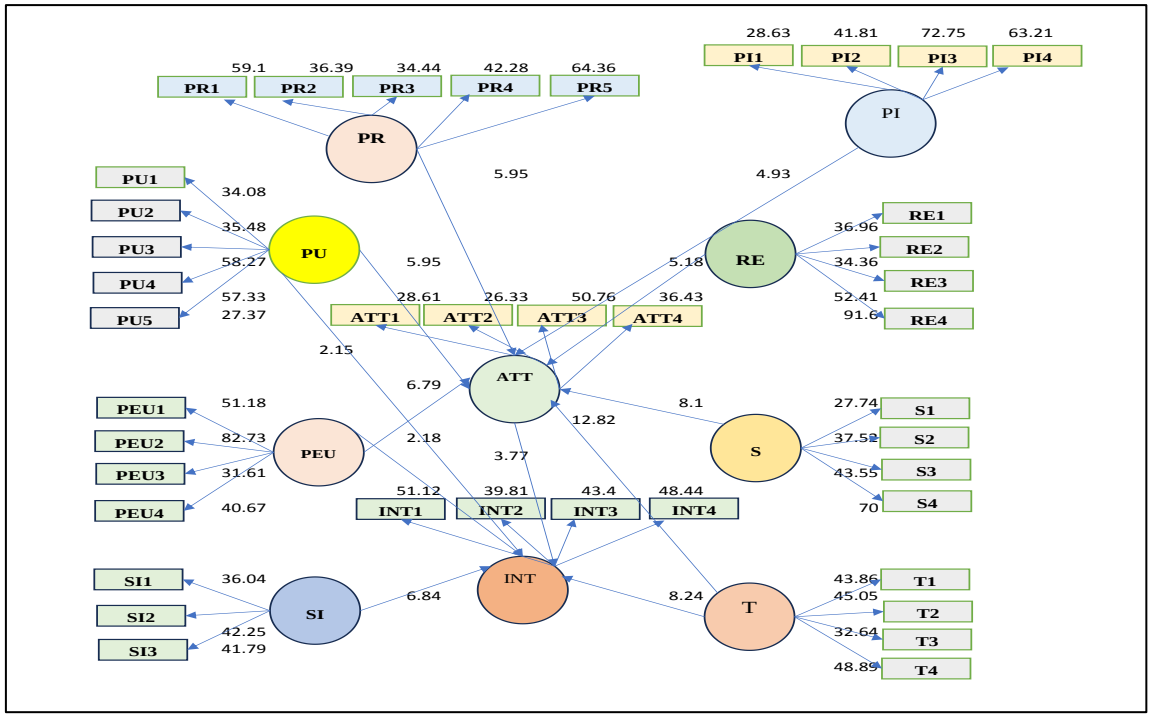
R1	.212	4.724
R2	.508	1.967
R3	.171	5.841
R4	.249	4.023
S1	.429	2.329
S2	.228	4.395
S3	.231	4.325
S4	.347	2.879
PR1	.283	3.534
PR2	.245	4.079
PR3	.236	4.228
PR4	.454	2.204
PR5	.550	1.817
PI1	.376	2.662
PI2	.207	4.825
PI3	.248	4.026
PI4	.294	3.397

Upon completing the execution of the PLS algorithm, the subsequent task involves deriving the "path coefficients," which signify hypothetical relationships among the latent variables within the contracts. These coefficients are bounded between -1 and +1, where a value of 1 indicates a robust positive relationship, while -1 suggests a strong negative relationship. Values approaching zero indicate a very weak connection, as stated by ***Hair Jr. et al. in 2017.***These path coefficients can be treated akin to standardized beta coefficients in Ordinary Least Squares (OLS) regression. Inferences can be drawn regarding the alteration in the endogenous construct with a one-unit change in the exogenous construct, while keeping all other constructs and their path coefficients constant, as outlined by ***J. Hair et al. in 2018.***

Boot Strapping

After obtaining the path coefficients, the next step involves assessing their significance. This is achieved through a process known as bootstrapping, which generates standard error estimates. The purpose of this procedure is to determine whether an indicator significantly contributes to its corresponding construct, as outlined by ***J. Hair et al. in 2017.*** Through bootstrapping, empirical t and p values can be computed for the path coefficients, with a t value exceeding the critical value of 1.96 (based on a two-tailed test at a 95% confidence interval), as indicated by Ringle et al. in 2012.In our current study, where statistical significance is tested at a 95% confidence interval, the critical t value is set at 1.96. Another approach to assess significance involves examining p values, which represent the likelihood of erroneously rejecting a true null hypothesis - essentially, inferring a significant path coefficient when it is not significant, as

explained by J. Hair et al. in 2017. To meet a significance threshold of 5%, the p value must be less than 0.05, as established by Wong in 2013 and Joe F. Hair et al. in 2014.



Model:1.1: PLS output through Smart-PLS

Model 1.1 depicts PLS output through Smart-PLS after bootstrapping showing the significance of path coefficients at 95% confidence intervals. This output provides the significance level of all the hypothesized relationships based on the hypothesis formed and the model has been drawn to analyse the impact of various constructs.

Table 1.3: Path Coefficient significance level after bootstrapping

Path Coefficients					
	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics	P Values	Significant at 95% confidence interval
ATT → INT	0.196	0.052	3.77	0.000	YES
PU → INT	0.228	0.106	2.15	0.037	YES
PEU → INT	0.270	0.078	2.18	0.025	YES
SI → INT	0.581	0.085	6.84	0.000	YES
T → INT	0.552	0.069	8.24	0.001	YES
S → INT	0.551	0.068	8.10	0.000	YES
T → ATT	0.641	0.050	12.82	0.000	YES
PEU → ATT	0.496	0.073	6.79	0.002	YES
PU → ATT	0.482	0.081	5.95	0.003	YES
RE → ATT	0.280	0.054	5.18	0.001	YES
PR → ATT	0.387	0.065	5.95	0.000	YES
PI → ATT	0.365	0.074	4.93	0.000	YES

Table 1.3 presents the importance of the path coefficients, which symbolize theoretical connections among the contracts (latent variables). This analysis holds importance as it serves the purpose of validating the formulated hypotheses.

The significance of path coefficients was checked at 95% confidence interval and it was found that Attitude (ATT) had significant impact on Intention to Use M-Wallet (INT), Perceived Usefulness (PU) has significant impact on Intention to Use M-Wallet (INT), Perceived Ease of Use (PEU) exhibits significant impact on Intention to Use M-Wallet (INT), Social Influence (SI) have significant impact on Intention to Use M-Wallet (INT), Trust (T) influences Intention to Use M-Wallet (INT) and on the other hand, Trust (T) has significant impact on Attitude (ATT), Perceived Ease of Use (PEU) has significant impact on Attitude (ATT), Perceived Usefulness (PU) has significant impact on Attitude (ATT), Reward (RE) has significant impact on Attitude (ATT), Perceived Risk (PR) has a significant impact on Attitude (ATT) and Personnel Innovativeness (PI) has a significant impact on Attitude (ATT).

All loading indicators exhibited statistical significance with t-values and p-values. After bootstrapping, the t-values of the loading indicators were consistently above 1.96 (at a 95% confidence interval), while the p-values were consistently below 0.05, confirming the significance of the indicators. The software rounded the p-value to 0.000, indicating its extremely small magnitude, and the associated t-values were notably high.

Table 1.4: Assessment of Path Coefficient significance level after bootstrapping

Path Coefficients					
	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics	P Values	Significant at 95% confidence interval
ATT1 <- ATT	0.801	0.028	28.61	0.000	YES
ATT 2 <- ATT	0.790	0.030	26.33	0.000	YES
ATT 3 <- ATT	0.863	0.017	50.76	0.000	YES
ATT 4 <- ATT	0.838	0.023	36.43	0.000	YES
PU 1<- PU	0.818	0.024	34.08	0.000	YES
PU 2 <-PU	0.816	0.023	35.48	0.000	YES
PU 3 <-PU	0.874	0.015	58.27	0.000	YES
PU 4 <-PU	0.860	0.015	57.33	0.000	YES
PU 5 <-PU	0.821	0.030	27.37	0.000	YES
PEU 1 <- PEU	0.869	0.017	51.12	0.000	YES
PEU 2 <- PEU	0.836	0.021	39.81	0.000	YES
PEU 3 <- PEU	0.868	0.020	43.40	0.000	YES
PEU 4 <- PEU	0.872	0.018	48.44	0.000	YES
SI1 <- SI	0.887	0.017	52.18	0.000	YES

SI2 <- SI	0.910	0.011	82.73	0.000	YES
SI3 <- SI	0.822	0.026	31.61	0.000	YES
T 1 <- T	0.854	0.021	40.67	0.000	YES
T 2 <- T	0.829	0.023	36.04	0.000	YES
T 3 <- T	0.845	0.020	42.25	0.000	YES
T 4 <- T	0.794	0.019	41.79	0.000	YES
S1<-S	0.850	0.023	36.96	0.000	YES
S2<-S	0.859	0.025	34.36	0.000	YES
S3<-S	0.891	0.017	52.41	0.000	YES
S4<-S	0.916	0.010	91.6	0.000	YES
INT1 <-INT	0.860	0.031	27.74	0.000	YES
INT2 <-INT	0.863	0.023	37.52	0.000	YES
INT3 <-INT	0.871	0.020	43.55	0.000	YES
INT4 <-INT	0.910	0.013	70.0	0.000	YES
RE1<-RE	0.921	0.021	43.86	0.000	YES
RE2<-RE	0.856	0.019	45.05	0.000	YES
RE3<-RE	0.816	0.025	32.64	0.000	YES
RE4<-RE	0.880	0.018	48.89	0.000	YES
PR1 <-PR	0.886	0.015	59.07	0.000	YES
PR2 <-PR	0.837	0.023	36.39	0.000	YES
PR3 <-PR	0.861	0.025	34.44	0.000	YES
PR4 <-PR	0.888	0.021	42.28	0.000	YES
PR5 <-PR	0.901	0.014	64.36	0.000	YES
PI1 <-PI	0.859	0.030	28.63	0.000	YES
PI2 <-PI	0.878	0.021	41.81	0.000	YES
PI3 <-PI	0.873	0.017	72.75	0.000	YES
PI4 <-PI	0.885	0.014	63.21	0.000	YES

The above table shows the path coefficient through t-statistics which is significant for all the indicators such as; Attitude, perceived Usefulness, Perceived Ease of Use, Intention to use, Reward, Social Influence, Security, Perceived Risk, Trust and personnel Innovativeness.

The coefficient of determination (R^2 value) is frequently employed to assess the robustness of the structural model. This metric gauge the model's ability to predict outcomes by squaring the correlation between observed and predicted values of the endogenous construct ***(Henseler et al., 2016).*** It encapsulates the collective impact of exogenous constructs (independent variables) on endogenous constructs (dependent variables) (***Rigdon, 2012).*** Essentially, it quantifies the proportion of variability in dependent constructs elucidated by the associated independent constructs.

R^2 values range from 0 to 1, with values closer to 1 indicating stronger predictive capabilities. Notably, an R^2 value of 0.75 is considered indicative of high predictive power, while 0.50 represents a moderate level, and 0.25 indicates a weaker relationship (Henseler et al., 2009).

Nevertheless, at times, the R^2 value may exhibit bias due to the presence of insignificant exogenous constructs. To address this concern, an adjusted coefficient of determination (R^2 adj) comes into play. This adjusted metric mitigates R^2 values in order to account for model complexity and sample size. It also compensates for non-significant independent latent variables. The use of adjusted R^2 (R^2 adj) aids in making informed decisions about retaining the original model or opting for a revised version by excluding non-significant exogenous variables (***Sarstedt et al., 2014; J. F Hair et al., 2017; Sarstedt & Cheah, 2019).***

Table 1.5: $R^2$and R 2 $_{adj}$Values

Indicators	Square R	Square R Square Adjusted
ATT (Attitude)	0.761	0.761
PU (Perceived Usefulness)	0.701	0.700
PEU (Perceived Ease of Use)	0.872	0.872
SI (Social Influence)	0.549	0.548
T (Trust)	0.613	0.613
S (Security)	.412	.411
R (Reward)	0.689	0.688
PR (Perceived Risk)	0.183	0.181
PI (Personal Innovativeness)	0.694	0.693

R 2 and R 2 adj values for the "endogenous constructs" are found to be more than 0.50 which shows that endogenous constructs of our model can explain more than 50% variance. It appears that you've provided detailed information about the reliability and validity assessment of the research instrument (questionnaire) and the subsequent analysis using Partial Least Squares Structural Equation Modelling (PLS-SEM). Here's a summary of the key points from the information you've provided:

Coefficient of Determination (R^2)

The coefficient of determination (R^2 value) is frequently employed to assess the robustness of the structural model. This metric gauge the model's ability to predict outcomes by squaring the correlation between observed and predicted values of the endogenous construct ***(Henseler et al., 2016).*** It encapsulates the collective impact of exogenous constructs (independent variables) on endogenous constructs (dependent variables) ***(Rigdon, 2012).*** Essentially, it quantifies the proportion of variability in dependent constructs elucidated by the associated independent constructs.

R 2 and R 2 adj values for the "endogenous constructs" are found to be more than 0.50 which shows that endogenous constructs of our model can explain more than

50% variance. There exists a significant difference between the intention to use and attitude towards the Technology Acceptance Model and factors that influence the adoption of m-wallets. It is seen that the older generation does not find m-wallets safe as compared to the younger generation, your analysis demonstrates a thorough examination of the questionnaire's reliability, the structural model, and the significance of path coefficients. The use of PLS-SEM and bootstrapping adds rigor to your analysis, ensuring that the relationships between constructs are statistically supported. Additionally, the presentation of R^2 and R^2 adj values provides insights into the predictive power of your model.

IMPLICATIONS OF THE STUDY

- Improving User Experience: Enhancing the perceived ease of use and usefulness of mobile wallet applications should be a priority. This involves designing user-friendly interfaces, streamlining transaction processes, and providing clear educational materials to reduce the learning curve.
- Security and Trust: Building and maintaining trust through robust security measures, transparent privacy policies, and adherence to regulatory standards are essential. Trust is a cornerstone of mobile wallet adoption and should be consistently reinforced.
- Leveraging Social Influence: Encourage positive word-of-mouth by providing incentives to users and facilitating social sharing of positive experiences. Promoting mobile wallets within social circles can be a powerful driver of adoption.
- Reward Programs: Implementing attractive rewards and incentives can significantly improve users' attitudes and intentions. These programs should be designed to provide tangible benefits that outweigh perceived costs.
- Innovative Users: Recognize and target innovative individuals who are more likely to embrace new technologies like mobile wallets. These early adopters can serve as champions and influencers within their networks.
- Continuous Improvement: Continuously collect user feedback and iterate on mobile wallet features and functionalities based on user preferences and needs. Adapt to changing consumer expectations and emerging technologies.
- Emphasize strategies to encourage mobile wallet adoption and sustained usage, particularly for small transactions, to promote India's move towards a cashless economy.

- Enhance user education about the benefits of mobile wallets, improve user experience, and continuously innovate to maintain perceived usefulness.
- Prioritize security measures to build user trust and confidence in mobile wallet services.
- Government bodies and policymakers should establish a secure and transparent infrastructure to boost user trust and adoption.
- Focus on improving the overall digital experience and user attitudes towards mobile wallet adoption.
- Tailor marketing strategies for different user segments, emphasize practical benefits, and promote convenience and security.
- Generate awareness about mobile wallet services, especially in regions where such methods are not widely adopted.
- Highlight the transformative potential of mobile wallets, especially for women and small businesses.
- Offer value-added features and continually communicate their availability to enhance user experiences.
- Implement innovative marketing campaigns and leverage social influence to broaden customer bases.

SUGGESTIONS FOR FUTURE RESEARCH:

- Expand the sample size and demographics to gain more comprehensive insights and make comparisons across different population segments.
- Investigate the specific challenges and problems that users encounter while using mobile wallet services. Focus on specific sectors or industries to obtain more precise results.
- Explore cross-cultural preferences and behaviours related to mobile wallet payments.
- Examine the legal and regulatory framework impacting mobile wallet development, especially in regions like the European Union.
- Investigate the involvement and influence of merchants in mobile wallet payment services.

STUDY LIMITATIONS:

- Acknowledge the limitations of the study, including the small sample size, potential lack of representativeness, and the focus on consumer perceptions.
- Recognize that the findings may not be applicable to other emerging technologies or specific demographic groups.
- Your conclusion provides a thorough overview of your research and its implications. Researchers and practitioners in the field of mobile wallet adoption can benefit from these insights and suggestions for future research and strategies.

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