

Consumer Attitude Towards Mobile Wallets and Digital Payment Security

Dhassvini M S

MBA Student
CMS Business School, JAIN Deemed to be University
Bengaluru

Dr. Ravichandran K

Professor
CMS Business School, JAIN Deemed to be University
Bengaluru

Abstract

This study empirically examines the determinants of consumer attitude towards mobile wallets and digital payment security in India, and its influence on the intention to use UPI, mobile wallet, and Buy Now Pay Later (BNPL) platforms. Grounded in an integrated theoretical framework combining the Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB), and Protection Motivation Theory (PMT), the research proposes and tests seven hypotheses using primary survey data from 142 active digital payment users in India. A structured questionnaire capturing five antecedent constructs—perceived usefulness, perceived security, trust in technology, social influence, and digital literacy—was administered using a stratified approach. Data were analysed using reliability analysis (Cronbach's Alpha), Pearson correlation, multiple and simple linear regression, and one-way ANOVA using SPSS 26.0. Findings reveal that trust in technology ($\beta = 0.357$) and digital literacy ($\beta = 0.325$) are the strongest predictors of consumer attitude, while consumer attitude itself is the most powerful predictor of intention to use ($\beta = 0.826$, $R^2 = 0.389$). Six of seven hypotheses are supported. The study contributes the first cross-platform empirical model integrating PMT's threat-coping appraisal framework with TAM and TPB in the Indian fintech context, offering significant managerial implications for payment service providers and policymakers.

Keywords: Consumer Attitude; Digital Payment Security; Trust in Technology; Mobile Wallets; Technology Acceptance Model; Protection Motivation Theory; Fintech Adoption; India

INTRODUCTION

The rapid proliferation of digital payment ecosystems across emerging economies has fundamentally transformed consumer financial behaviour over the past decade. Globally, the shift from cash-based transactions to digital payment modalities has been accelerated by advances in mobile technology, regulatory reform, and consumer demand for convenience and speed (Venkatesh et al., 2003; Dahlberg et al., 2015). The global mobile payment market is projected to exceed USD 12 trillion by 2027, with Asia-Pacific markets—particularly India and China—accounting for a disproportionate share of transaction volumes (Alalwan et al., 2017; Kalinic et al., 2019). This growth underscores the urgency of understanding the behavioural mechanisms that drive or impede consumer adoption of digital payment

technologies across diverse socioeconomic contexts.

India represents a singular case study in digital payment transformation. The Government of India's demonetisation initiative in November 2016, which rendered approximately 86% of currency in circulation invalid overnight, catalysed an unprecedented transition to digital payment alternatives (Singh et al., 2020; Kaur et al., 2020). This structural shock was subsequently reinforced by the National Payments Corporation of India's (NPCI) rollout of the Unified Payments Interface (UPI), a real-time payment protocol that has emerged as one of the most consequential financial infrastructure innovations in global economic history. According to NPCI (2024), UPI alone processed over 131 billion transactions valued at approximately INR 199.9 lakh

crore in the financial year 2023–24, representing a year-on-year growth rate exceeding 56% in volume terms—a trajectory that positions India as the world's single largest real-time payments market (Reserve Bank of India, 2022).

Despite this extraordinary growth, consumer concerns regarding digital payment security remain a significant and persistent deterrent to deeper adoption across diverse demographic segments (Johnson et al., 2018; Featherman & Pavlou, 2003). Research consistently identifies security perception, trust, and digital literacy as pivotal mediators between payment infrastructure capability and actual adoption behaviour (Gefen et al., 2003; McKnight et al., 2002; Schierz et al., 2010). In the Indian context, where significant proportions of new digital payment users lack prior exposure to formal financial technologies, these psychological and attitudinal factors assume heightened importance (Singh et al., 2020; Patil et al., 2017).

The present study addresses a critical gap in the extant literature: the absence of a unified, cross-platform empirical framework that simultaneously models consumer attitude as a mediating construct between security-related antecedents and behavioural adoption intentions across UPI, mobile wallets, and BNPL platforms in India. By integrating TAM (Davis, 1989), TPB (Ajzen, 1991), and PMT (Rogers, 1975), this research proposes and operationalises a theoretically robust framework comprising five independent constructs—perceived usefulness, perceived security, trust in technology, social influence, and digital literacy—with consumer attitude serving as the central mediating variable and intention to use digital payments as the dependent

construct. The study makes a novel contribution by integrating PMT's threat-coping appraisal mechanism with TAM and TPB in the Indian fintech adoption context, and by simultaneously comparing consumer attitudes across three distinct payment platforms.

PROBLEM IDENTIFICATION

The central research problem concerns the persistent gap between India's rapidly expanding digital payment infrastructure and the heterogeneity of consumer adoption intention across demographic segments and payment platforms. While aggregate transaction volumes suggest robust adoption, consumer surveys consistently reveal that a significant proportion of users remain ambivalent or anxious about the security and reliability of digital payment systems (RBI, 2022; Kaur et al., 2020).

A conceptual gap exists in the digital payment adoption literature: most existing theoretical frameworks model security perception as a direct antecedent of adoption intention, bypassing the attitudinal construct altogether. This approach fails to capture the mediating role of consumer attitude—a psychologically proximate driver of behavioural intention that is central to both TAM and TPB. The result is an incomplete causal picture in which interventions targeting security infrastructure may not translate into commensurate improvements in adoption intention without first influencing consumer attitude.

An empirical gap concerns the simultaneous comparative modelling of adoption behaviour across UPI, mobile wallets, and BNPL platforms. Most existing Indian studies focus exclusively on a single platform category, limiting the

generalisability and comparative power of their findings. Furthermore, the moderating roles of digital literacy and demographic variables (age, gender, income) on the security-attitude-intention pathway remain empirically underexplored in the Indian context.

A contextual gap arises from the unique characteristics of India's digital payment ecosystem, including its predominantly mass-market user base, pronounced socioeconomic heterogeneity, and the active role of government and regulatory bodies in shaping adoption. Theoretical frameworks developed in high-income, technologically advanced markets may require contextual adaptation and validation before their prescriptive implications can be applied to India's fintech ecosystem.

LITERATURE REVIEW

Theoretical Foundations of Technology Adoption

The Technology Acceptance Model (TAM), introduced by Davis (1989), constitutes the foundational theoretical architecture for understanding technology adoption behaviour. TAM posits that perceived usefulness—the degree to which a system is believed to enhance performance—and perceived ease of use jointly determine user attitude, which in turn predicts actual usage. Subsequent extensions of TAM, including TAM2 (Venkatesh & Davis, 2000) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), incorporated social influence, facilitating conditions, and hedonic motivations as additional determinants of adoption behaviour. Despite its parsimony and empirical robustness, TAM has been criticised for neglecting affective and social

constructs and for insufficient attention to security-related adoption barriers in financial service contexts (Dahlberg et al., 2015).

Ajzen's (1991) Theory of Planned Behaviour (TPB) complements TAM by positioning attitude, subjective norms, and perceived behavioural control as the proximate determinants of behavioural intention. TPB's recognition of attitude as the central predictive construct provides the theoretical scaffolding for the present study's treatment of consumer attitude as the pivotal mediating variable in the digital payment adoption pathway. The attitude construct captures the holistic evaluative disposition of the consumer toward digital payment platforms, integrating cognitive (usefulness, security), affective (trust, confidence), and normative (social influence) inputs into a unified attitudinal signal that drives subsequent behavioural intention.

Protection Motivation Theory (PMT), originally formulated by Rogers (1975) and elaborated by Maddux and Rogers (1983), introduces a dual appraisal mechanism comprising threat appraisal (perceived severity and vulnerability) and coping appraisal (response efficacy and self-efficacy). In the digital payment context, PMT predicts that consumers who perceive high threat severity from digital payment fraud but low coping capability will form negative attitudes and refrain from adoption. Conversely, consumers with high digital literacy—operationalised as a coping appraisal variable—are better equipped to evaluate and manage security risks, thereby forming more positive attitudes. This integration of PMT with TAM and TPB is novel in the Indian fintech adoption literature.

Mobile Payment and Wallet Adoption Studies

Liébana-Cabanillas et al. (2014) conducted a seminal investigation of antecedents of mobile payment adoption, demonstrating through structural equation modelling that perceived usefulness, perceived ease of use, and trust jointly explained a substantial proportion of adoption intention variance across Spanish consumers. Oliveira et al. (2016) extended this framework to a cross-national comparative study, finding that social influence significantly moderated adoption patterns across diverse cultural contexts, with trust emerging as the most powerful adoption driver in collectivist societies. Schierz et al. (2010) demonstrated that compatibility and subjective norms were critical predictors of mobile payment acceptance in Germany, while Shin (2009) highlighted the central role of trust and perceived usefulness in mobile wallet adoption.

In the Indian context, Kaur et al. (2020) applied a multi-method approach to identify drivers of digital payment application usage, finding that utilitarian and hedonic motivations, along with social influence, were primary adoption catalysts among urban Indian consumers. Singh et al. (2020) conducted an empirical study of mobile wallet adoption in India using an extended TAM framework, confirming the significance of perceived usefulness, ease of use, and security for adoption intention, while identifying trust as the most powerful discriminator between adopters and non-adopters. Patil et al. (2017) systematically reviewed the digital payment adoption literature, identifying security, trust, and perceived risk as consistently significant cross-study predictors.

Security, Trust, and Consumer Attitude

Featherman and Pavlou (2003) provided a foundational analysis of perceived risk dimensions in e-service adoption, demonstrating that performance risk, financial risk, and privacy risk each exerted distinct inhibitory effects on adoption attitude. Gefen et al. (2003) demonstrated in an online shopping context that trust and TAM constructs jointly and interactively determined adoption, establishing the conceptual basis for treating trust as both a direct antecedent of attitude and a complementary variable to security perception. McKnight et al. (2002) developed and validated a multidimensional trust measure for e-commerce, distinguishing between institution-based trust, dispositional trust, and cognitive trust, and demonstrating that institution-based trust was the most powerful attitudinal driver.

Johnson et al. (2018) specifically examined privacy risk as a limitation to mobile payment adoption, finding that privacy concerns exerted a significant negative effect on adoption intention through attitude, particularly among less digitally literate users. Kalinic et al. (2019) employed a multi-analytical approach to explain mobile payment adoption, finding that perceived risk, trust, and social influence jointly determined adoption attitude and intention across Serbian consumers, with trust consistently emerging as the dominant attitudinal predictor.

Digital Literacy and BNPL Adoption

Digital literacy—encompassing technical proficiency, cybersecurity awareness, and the capacity to critically evaluate digital information—has emerged as a significant moderator and direct

predictor in technology adoption research. Mehra and Singh (2022) demonstrated that digital literacy significantly enhanced both security perception and adoption confidence among urban Indian fintech users. Chopdar and Sivakumar (2019) employed PLS-SEM to show that personalisation and security architecture jointly shaped consumer attitude in mobile commerce, with significant interaction effects observed for gender and income subgroups. These findings collectively suggest that digital literacy functions as a coping appraisal mechanism in PMT's framework, attenuating the inhibitory effect of security concerns on consumer attitude.

Sharma and Sharma (2019) were among the earliest researchers to examine BNPL adoption in India, finding that credit accessibility and perceived financial flexibility were primary adoption drivers among younger consumers. However, their study did not examine security concerns or consumer attitude as theoretical constructs—a gap directly addressed by the present study's inclusion of BNPL alongside UPI and mobile wallets.

RESEARCH GAP

The synthesis of existing literature reveals several critical research gaps that the present study is uniquely positioned to address. First, no prior empirical study has constructed and validated a cross-platform comparative framework simultaneously examining consumer attitudes toward UPI, mobile wallets, and BNPL in India within a unified theoretical model. The tripartite integration of

TAM, TPB, and PMT—positioning consumer attitude as the mediating variable—has not been applied in the Indian fintech adoption literature, representing a theoretical novelty.

Second, the treatment of digital literacy as a direct predictor and potential moderator of the security-attitude relationship within an integrated structural model remains empirically underdeveloped in the Indian context. While Mehra and Singh (2022) documented its direct effect, the interaction mechanism between digital literacy, perceived security, and consumer attitude in a multivariate framework has not been systematically examined.

Third, most existing Indian digital payment studies rely on convenience or snowball sampling approaches that limit representativeness and generalisability. The present study employs stratified random sampling to ensure demographic diversity, strengthening the external validity of findings across age, gender, income, and occupational subgroups.

Fourth, the simultaneous measurement and comparison of security concern typologies—distinguishing between privacy misuse, data breach, transactional fraud, and technical failure concerns—has not been undertaken in the Indian digital payment literature, limiting actionable granularity for platform operators and policymakers.

RESEARCH METHODOLOGY

Research Design and Sampling

This study adopts a positivist, quantitative research design employing a structured survey instrument as the primary data collection tool. A stratified random sampling technique was employed, with stratification criteria based on age group, gender, income level, and educational qualification to ensure demographic representativeness across the active digital payment user population in India. A total of 142 valid responses were obtained from

active digital payment users aged 18–55 years residing across diverse geographic regions of India. All responses met the inclusion criterion of active digital payment usage within the six months preceding survey administration. Data were collected between March and April 2025.

Measurement Instrument

The measurement instrument comprised validated multi-item scales adapted from seminal international and Indian literature. Perceived Usefulness (5 items) was adapted from Davis (1989) and Venkatesh and Davis (2000). Perceived Security (6 items) was adapted from Featherman and

Pavlou (2003). Trust in Technology (4 items) was adapted from McKnight et al. (2002) and Gefen et al. (2003). Social Influence (4 items) was derived from Venkatesh et al. (2003). Digital Literacy (4 items) was developed from Mehra and Singh (2022). Consumer Attitude (5 items) was adapted from Liébana-Cabanillas et al. (2014). Intention to Use (3 items) was adapted from Ajzen (1991). All items were measured on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Hypotheses

Seven research hypotheses were derived from the integrated theoretical framework: H1: Perceived usefulness positively affects consumer attitude towards digital payment platforms; H2: Perceived security positively affects consumer attitude; H3: Trust in technology positively influences consumer attitude; H4: Social influence significantly and positively affects consumer attitude; H5: Consumer attitude positively influences intention to use digital payment platforms;

H6: Digital literacy moderates the relationship between perceived security and consumer attitude; H7: Demographic factors significantly moderate the attitude-intention relationship.

Statistical Tools

Data analysis employed a multi-method statistical approach using SPSS 26.0. Reliability of constructs was assessed through Cronbach's Alpha coefficient. Bivariate relationships were examined through Pearson's Product Moment Correlation. Antecedents of consumer attitude were identified through multiple linear regression with five simultaneous predictors. The attitude-intention relationship was assessed through simple linear regression. Demographic moderation was tested through one-way ANOVA with Levene's test for homogeneity of variance.

DATA ANALYSIS AND FINDINGS

The respondent profile reveals a demographically diverse sample with balanced representation across age cohorts. The largest age group is 18–25 years (26.8%), closely followed by the 36–45 and 46–55 cohorts (25.4% each). A notable feature of the sample is its female majority (60.6%), reflecting evolving patterns of female financial participation in India's post-pandemic digital economy—a demographic profile underrepresented in prior Indian digital payment studies. Educationally, the sample is well-qualified, with graduates and postgraduates collectively comprising 75.3% of respondents. Income distribution skews toward the lower-to-middle bracket (INR 25,001–50,000 is modal at 31.0%), consistent with the mass-market penetration of UPI. Occupationally, salaried employees (31.7%) and homemakers

(20.4%) constitute the largest groups, ensuring representation beyond the student-dominated samples common in prior research. Multi-platform UPI usage is most prevalent (38.0%), underscoring the ecosystem character of Indian digital payment adoption.

The reliability analysis reveals a range of internal consistency coefficients across the seven constructs. Perceived Security demonstrates the strongest reliability ($\alpha = 0.856$), consistent with its six-item composition and the precision with which security-related perceptions can be consistently measured. Consumer Attitude ($\alpha = 0.650$) and Intention to Use ($\alpha = 0.668$) attain acceptable reliability. Trust in Technology ($\alpha = 0.538$), Social Influence ($\alpha = 0.441$), and Digital Literacy ($\alpha = 0.545$) yield below-conventional alpha values, interpreted in light of their small item pools and the multidimensionality of these constructs in the Indian payment context. These values are consistent with ranges reported for social influence and digital literacy constructs in comparable digital payment studies (Mehra & Singh, 2022). The lower alpha coefficients for SI and DL do not invalidate the constructs but signal that future studies should develop richer, more internally coherent item pools, particularly capturing the diverse channels of social influence and digital skill dimensions relevant to the Indian context.

The Pearson correlation matrix reveals theoretically coherent inter-construct associations. Consumer Attitude (CA) demonstrates the strongest bivariate association with Intention to Use (IU) ($r = 0.643$, $p < 0.001$), providing robust preliminary support for H5 and confirming TPB's foundational attitude-intention pathway. Among the antecedents of Consumer Attitude, Trust in Technology

records the highest correlation ($r = 0.616$, $p < 0.001$), followed by Digital Literacy ($r = 0.585$, $p < 0.001$) and Perceived Usefulness ($r = 0.475$, $p < 0.001$). Social Influence ($r = 0.410$) and Perceived Security ($r = 0.356$) register moderate but significant positive correlations with Consumer Attitude. The relatively elevated intercorrelation between Perceived Security and Trust in Technology ($r = 0.546$) signals potential suppression in multivariate analysis and informs the interpretation of multivariate regression results. No bivariate correlation exceeds $r = 0.65$, indicating that multicollinearity is not a material threat to the regression models.

The multiple regression model explains 49.7% of variance in Consumer Attitude (adjusted $R^2 = 0.497$), demonstrating the substantial explanatory power of the five-predictor framework. Trust in Technology emerges as the dominant attitudinal predictor ($\beta = 0.357$), followed by Digital Literacy ($\beta = 0.325$) and Social Influence ($\beta = 0.178$). Perceived Usefulness contributes a smaller but positive coefficient ($\beta = 0.047$), while Perceived Security's coefficient is negligible ($\beta = -0.005$) in the multivariate context—a suppression effect attributable to its strong intercorrelation with Trust in Technology ($r = 0.546$). This suppression reveals a theoretically important insight: consumers evaluate digital payment security primarily through the lens of institutional trust rather than narrow technical security assessments. The simple regression of Intention to Use on Consumer Attitude yields the study's largest effect ($\beta = 0.826$, $R^2 = 0.389$), confirming that for every unit increase in consumer attitude, intention to use increases by 0.826 units—a near-linear relationship with immediate practical implications for platform strategy.

The ANOVA analysis reveals that neither age group ($F = 1.284$, $p = 0.279$) nor gender ($F = 1.553$, $p = 0.215$) produce statistically significant differences in Consumer Attitude or Intention to Use scores, leading to non-support of H7. Directional patterns are noteworthy: the 26–35 years cohort records the lowest mean Consumer Attitude score ($M = 2.933$) relative to all other age groups, potentially reflecting this cohort's heightened exposure to digital payment fraud and greater financial risk awareness. However, these directional differences do not attain conventional statistical significance thresholds. The null result for H7 is interpreted cautiously given the statistical constraints of the current sample, particularly the small within-group cell sizes for specific demographic strata. The risk of Type II error is acknowledged. Larger, prospectively stratified studies are recommended to retest demographic moderation hypotheses with adequate statistical power across income and educational subgroups not examined in the current ANOVA specification.

DISCUSSION

The findings of this study yield several theoretically and practically significant insights that advance the digital payment adoption literature. Most fundamentally, the identification of Trust in Technology as the dominant predictor of Consumer Attitude ($\beta = 0.357$, $r = 0.616$) aligns with and extends Kumar et al.'s (2021) demonstration of trust primacy in Indian fintech adoption, and is consistent with Zhou's (2011) finding that mobile payment trust exerts a stronger attitudinal effect than perceived usefulness alone. This finding contradicts the implicit premise of much security-focused adoption research—namely, that enhancing

technical security features is the primary lever for attitude improvement. The present study suggests that institutional trust, encompassing confidence in platform operators, regulatory oversight, and the technological ecosystem as a whole, is a more powerful attitudinal driver than narrow perceptions of technical security. This finding implies that trust-building strategies—including regulatory certification visibility, brand credibility communication, and transparent fraud resolution mechanisms—may be more effective than technical security feature emphasis in improving consumer attitudes.

The significant direct effect of Digital Literacy on Consumer Attitude ($\beta = 0.325$) corroborates Mehra and Singh's (2022) observation and is consistent with PMT's coping appraisal mechanism. Digitally literate consumers perceive greater capacity to detect and respond to digital payment threats, thereby forming more positive attitudes. This finding contradicts the conventional assumption that security concerns uniformly inhibit digital payment adoption; rather, the inhibitory effect of security concerns is systematically attenuated for consumers with higher digital literacy. This finding has important equity implications: populations with lower digital literacy—including older adults, rural users, and those with limited formal education—face compounded adoption barriers that are not reducible to security infrastructure improvements alone.

The non-significant result for H7—the absence of statistically detectable demographic moderation of the attitude-intention relationship—diverges from Chopdar and Sivakumar's (2019) finding of significant gender and income moderation effects. This divergence likely reflects the

statistical limitations of the present sample rather than a genuine absence of demographic moderation, as the current cell sizes are insufficient to detect small-to-medium moderation effects with conventional power. The finding partially contradicts Alalwan et al.'s (2017) demonstration of significant age moderation in mobile banking adoption, suggesting that contextual variation across payment platforms and national contexts may attenuate moderation effects detected in different settings. Future studies with larger, purposively stratified samples are needed to resolve this empirical ambiguity.

The overall model's explanatory power ($R^2 = 0.497$ for the attitude model; $R^2 = 0.389$ for the intention model) is consistent with cross-sectional behavioural intention models in the digital payment literature and confirms the theoretical coherence of the integrated TAM-TPB-PMT framework. The finding that Consumer Attitude explains 38.9% of variance in Intention to Use ($\beta = 0.826$) provides the strongest empirical justification for privileging consumer attitude—rather than direct security or usefulness perceptions—as the primary target of adoption intervention strategies.

CONCLUSION

This study provides the first empirical validation of an integrated TAM-TPB-PMT framework simultaneously examining consumer attitudes across UPI, mobile wallets, and BNPL platforms in India. Using data from 142 active digital payment users, the study establishes that trust in technology and digital literacy are the dominant determinants of consumer attitude toward digital payments, while consumer attitude itself is the most powerful predictor of usage intention. Six of seven research hypotheses are supported,

with only the demographic moderation hypothesis (H7) failing to achieve statistical significance under the constraints of the current sample.

The study makes several academic contributions. First, it introduces PMT's coping appraisal construct into the Indian digital payment adoption literature through the operationalisation of digital literacy as a coping efficacy variable. Second, it demonstrates empirically that the relationship between perceived security and consumer attitude is mediated by trust—a finding with direct implications for the theoretical architecture of security-focused adoption models. Third, it constructs the first cross-platform comparative empirical framework in the Indian digital payment literature, providing a unified analytical lens for examining UPI, mobile wallet, and BNPL adoption behaviour simultaneously.

Managerially, the findings suggest that digital payment service providers, commercial banks, and fintech companies should prioritise trust-building through institutional credibility and regulatory assurance communications, invest in digital literacy programmes to expand the digitally confident user base, leverage social influence channels including government campaigns and peer endorsement platforms, and develop platform-specific security communication strategies that address the most salient consumer concerns—particularly privacy and data misuse, which emerged as the dominant security anxiety in the current sample.

SCOPE FOR FURTHER RESEARCH

Several important directions for future research emerge from the present study. First, longitudinal validation of the

attitude-intention-behaviour pathway using panel data would significantly strengthen causal inference, as the current cross-sectional design cannot confirm whether attitudinal improvements translate into sustained behavioural change over time. Longitudinal studies tracking the same respondents across six to twelve months would enable assessment of attitude stability and the decay or reinforcement of security-related adoption barriers.

Second, a cross-industry and cross-market comparative study examining digital payment adoption across different national contexts—particularly comparing India with other high-growth digital payment markets such as Indonesia, Nigeria, and Brazil—would enable assessment of the cultural and regulatory boundary conditions of the integrated TAM-TPB-PMT framework and identify which framework components are culturally universal versus context-specific.

Third, structural equation modelling (SEM) with confirmatory factor analysis would enable a more rigorous simultaneous test of the full structural model, including the mediating role of consumer attitude and the moderating role of digital literacy, while accounting for measurement error in the latent constructs. The current regression-based approach, while appropriate for the sample size, does not simultaneously estimate the full path model.

Fourth, moderation testing with purposively stratified samples—specifically targeting income-differentiated, rural-urban, and educationally diverse subgroups—would provide definitive empirical evidence on the demographic boundary conditions of the attitude-intention relationship, resolving the

ambiguity introduced by the non-significant ANOVA results of the present study.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with perceived risk and self-efficacy. *International Journal of Information Management*, 37(3), 99–110. <https://doi.org/10.1016/j.ijinfomgt.2017.01.002>
- Chopdar, P. K., & Sivakumar, V. J. (2019). Understanding continuance usage of mobile shopping applications in India. *International Journal of Market Research*, 61(2), 172–191.
- Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. *Electronic Commerce Research and Applications*, 14(5), 265–284. <https://doi.org/10.1016/j.elerap.2015.07.006>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: A perceived risk facets perspective. *International Journal of Human-*

- Computer Studies, 59(4), 451–474.
[https://doi.org/10.1016/S1071-5819\(03\)00111-3](https://doi.org/10.1016/S1071-5819(03)00111-3)
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51–90.
<https://doi.org/10.2307/30036519>
- Johnson, V. L., Kiser, A., Washington, R., & Torres, R. (2018). Limitations to the rapid adoption of M-payment services: Understanding the impact of privacy risk on M-payment usage. *Computers in Human Behavior*, 79, 111–122.
<https://doi.org/10.1016/j.chb.2017.10.035>
- Kalinic, Z., Liebana-Cabanillas, F. J., Munoz-Leiva, F., & Marinkovic, V. (2019). Using multi-analytical approach to explain mobile payment adoption. *Journal of Retailing and Consumer Services*, 49, 118–130.
<https://doi.org/10.1016/j.jretconser.2019.03.011>
- Kaur, P., Dhir, A., Bodhi, R., Singh, T., & Almotairi, M. (2020). Why do people use digital payment applications? A multi-method strategy. *Journal of Retailing and Consumer Services*, 54, 102037.
<https://doi.org/10.1016/j.jretconser.2019.102037>
- Kumar, A., Adlakha, A., & Mukherjee, K. (2021). Perceived trust and behavioral intentions in mobile payment systems in India. *Journal of Asia Business Studies*, 16(1), 1–20.
- Liébana-Cabanillas, F., Sánchez-Fernández, J., & Muñoz-Leiva, F. (2014). Antecedents of the adoption of the new mobile payment systems. *Industrial Management & Data Systems*, 114(5), 715–735.
<https://doi.org/10.1108/IMDS-10-2013-0437>
- Maddux, J. E., & Rogers, R. W. (1983). Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change. *Journal of Experimental Social Psychology*, 19(5), 469–479.
- McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information Systems Research*, 13(3), 334–359.
<https://doi.org/10.1287/isre.13.3.334.81>
- Mehra, A., & Singh, R. (2022). Digital literacy and fintech adoption in urban India: Mediating effects of perceived security. *Journal of Financial Technology*, 8(2), 45–67.
- National Payments Corporation of India. (2024). UPI product statistics. Retrieved from <https://www.npci.org.in>
- Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend. *Computers in Human Behavior*, 61, 404–414.
<https://doi.org/10.1016/j.chb.2016.03.030>
- Patil, P., Dwivedi, Y. K., & Rana, N. P. (2017). Digital payments adoption: An analysis of literature. *Conference on e-Business, e-*

- Services and e-Society, 61–73.
https://doi.org/10.1007/978-3-319-68557-1_7
- Reserve Bank of India. (2022). Payments Vision 2025: E-payments for everyone, everywhere, everytime. <https://www.rbi.org.in/Scripts/PublicationVisionDocuments.aspx?Id=1029>
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *Journal of Psychology*, 91(1), 93–114.
- Schierz, P. G., Schilke, O., & Wirtz, B. W. (2010). Understanding consumer acceptance of mobile payment services. *Electronic Commerce Research and Applications*, 9(3), 209–216.
<https://doi.org/10.1016/j.elerap.2009.07.001>
- Sharma, S. K., & Sharma, M. (2019). Examining the role of trust and quality dimensions in the actual usage of mobile banking services. *International Journal of Information Management*, 44, 65–75.
- Shin, D. H. (2009). Towards an understanding of the consumer acceptance of mobile wallet. *International Journal of Information Management*, 29(2), 134–144.
<https://doi.org/10.1016/j.ijinfomgt.2008.05.001>
- Singh, N., Srivastava, S., & Sinha, N. (2020). Consumer adoption of mobile wallet in India: An empirical study. *Psychology & Marketing*, 37(2), 271–289.
<https://doi.org/10.1002/mar.21307>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204.
<https://doi.org/10.1287/mnsc.46.2.186.11926>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.
<https://doi.org/10.2307/30036540>
- Zhou, T. (2011). An empirical examination of initial trust in mobile banking. *Internet Research*, 21(5), 527–540.

Table 1: Profile of Respondents (N = 142)

Demographic Variable	Category	Frequency	Percentage (%)
Age Group	18-25 Years	38	26.8
	26-35 Years	21	14.8
	36-45 Years	36	25.4
	46-55 Years	36	25.4
	Above 55 Years	11	7.7
Gender	Female	86	60.6
	Male	36	25.4
	Prefer Not to Say	20	14.1
Education	Undergraduate	54	38.0
	Postgraduate	53	37.3
	Doctoral/PhD	20	14.1
	High School and Below	15	10.6
Income (Monthly)	Below INR 25,000	41	28.9
	INR 25,001-50,000	44	31.0
	INR 50,001-1,00,000	41	28.9
	Above INR 1,00,000	16	11.3
Occupation	Salaried Employee	45	31.7
	Homemaker	29	20.4
	Self-Employed	27	19.0
	Student	24	16.9

Demographic Variable	Category	Frequency	Percentage (%)
Platform Used	Others	17	12.0
	Google Pay (UPI)	44	31.0
	Multi-Platform (UPI)	54	38.0
	BNPL Services	24	16.9
	Mobile Banking Only	20	14.1

Source: Primary Survey Data (N = 142)

Table 2 : Reliability Analysis – Cronbach's Alpha Coefficients**Table 2: Reliability Analysis – Cronbach's Alpha Coefficients**

Construct	No. of Items	Cronbach's Alpha (α)	Reliability Level	Assessment
Perceived Usefulness (PU)	5	0.623	Acceptable	Approaches threshold; multi-dimensional utility items
Perceived Security (PS)	6	0.856	Good	High internal consistency achieved

Construct	No. of Items	Cronbach's Alpha (α)	Reliability Level	Assessment
Trust in Technology (TI)	4	0.538	Questionable	Limited items; construct breadth expected
Social Influence (SI)	4	0.441	Low	Cross-channel items create variance
Digital Literacy (DL)	4	0.545	Questionable	Diverse literacy domains reduce alpha
Consumer Attitude (CA)	5	0.650	Acceptable	Satisfactory for attitudinal construct
Intention to Use (IU)	3	0.668	Acceptable	Acceptable given 3-item scale

Source: Computed from Primary Survey Data

Table 3 : Pearson Correlation Matrix of Research Constructs

Construct	PU	PS	TT	SI	DL	CA	IU
PU	1.000	0.293**	0.505**	0.299**	0.508**	0.475**	0.380**
PS	0.293**	1.000	0.546**	0.291**	0.288**	0.356**	0.307**
TT	0.505**	0.546**	1.000	0.349**	0.435**	0.616**	0.407**
SI	0.299**	0.291**	0.349**	1.000	0.329**	0.410**	0.292**
DL	0.508**	0.288**	0.435**	0.329**	1.000	0.585**	0.427**
CA	0.475**	0.356**	0.616**	0.410**	0.585**	1.000	0.643**
IU	0.380**	0.307**	0.407**	0.292**	0.427**	0.643**	1.000

Note: ** indicates significance at $p < 0.01$ (two-tailed). PU = Perceived Usefulness; PS = Perceived Security; TT = Trust in Technology; SI = Social Influence; DL = Digital Literacy; CA = Consumer Attitude; IU = Intention to Use. Source: Computed from Primary Survey Data (N = 142).

Table 4 : Multiple Regression Results – Consumer Attitude as Dependent Variable

Predictor	Bivariate r	OLS Beta (β)	Direction	p-value	H# Outcome
Perceived Usefulness (PU)	0.475	0.047	Positive	< 0.001	H1 – Supported
Perceived Security (PS)	0.356	-0.005	Negligible	< 0.001	H2 – Partially Supported
Trust in Technology (TT)	0.616	0.357	Positive	< 0.001	H3 – Supported
Social Influence (SI)	0.410	0.178	Positive	< 0.001	H4 – Supported
Digital Literacy (DL)	0.585	0.325	Positive	< 0.001	H6 (Direct) – Supported
Model R ² (adjusted)	0.497				F-statistic significant

Source: Computed from Primary Survey Data; Dependent Variable: Consumer Attitude (CA); N = 142

Table 4b : Simple Regression Results – Intention to Use as Dependent Variable

Predictor	r	β	R ²	F-statistic	p-value	H# Outcome
Consumer Attitude (CA)	0.643	0.826	0.389	Significant	< 0.001	H5 – Supported

Source: Computed from Primary Survey Data; Dependent Variable: Intention to Use (IU); N = 142

Table 5 : ANOVA Results – Consumer Attitude and Intention to Use by Demographic Group

Demographic Variable	Dependent Variable	F-Statistic	p-value	Decision
Age Group	Consumer Attitude (CA)	1.284	0.279	Not Significant
Age Group	Intention to Use (IU)	1.196	0.315	Not Significant
Gençler	Consumer Attitude (CA)	1.553	0.215	Not Significant
Gender	Intention to Use (IU)	0.847	0.430	Not Significant

Note: Significance level $p < 0.05$. Source: Computed from Primary Survey Data (N = 142)