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Determinants of Digital Payment Adoption and Their Influence on Customer Satisfaction and Continued Usage Intention: An Integrated Technology Acceptance Perspective

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Abstract- This study examines how traditional technology acceptance factors and trust/risk perceptions drive digital payment adoption, and how adoption affects customer satisfaction and continued usage intention. In a survey of N=200 users, perceived ease of use (PEOU) and perceived usefulness (PU) emerged as strong predictors of digital payment adoption, consistent with TAM/UTAUT findings. Social influence (SI) and facilitating conditions (FC) also had positive but smaller effects on usage. In contrast, perceived risk negatively impacted both adoption and satisfaction, while trust had a positive effect. Importantly, customer satisfaction was significantly higher when adoption was high; satisfaction fully mediated the effect of adoption on continued usage intention, aligning with prior work that links satisfaction to loyalty. ANOVA tests revealed demographic differences (e.g. older users reported slightly higher satisfaction), and chi-square analyses confirmed that frequent users are much more likely to intend continued use (χ^2 test, $p<.001$). Overall, results extend TAM by showing that adoption – rather than mere usefulness – drives satisfaction, especially under varying trust/risk contexts. These findings have theoretical implications for integrating acceptance and satisfaction models, and practical implications for digital payment providers to enhance usability, security and user trust to foster sustained usage.

Keywords— Digital Payment Adoption TAM (Technology Acceptance Model) Perceived Usefulness Perceived Ease of Use Customer Satisfaction Continued Usage Intention Trust Perceived Risk Social Influence Facilitating Conditions Digital Payment Systems.

I. INTRODUCTION

Digital payment is an important part of today's financial transactions. The fast adoption of smartphones, internet access, mobile banking services, UPI, e-wallets, digital debit cards, credit cards and QR-code payments have made it simpler for people to conduct payments without cash. Digital Payments have grown immensely in India as they are rapid, convenient and easily accessible. Some of the factors that can affect their decision to use electronic payment methods include perceived usefulness, ease of access, security, trust, comfort, social influence, facilitating circumstances, and perceived risk. The more useful, easy to use, safe and reliable digital payments are to consumers, the more they will adopt them. However, fear of fraud, privacy, transaction failures and security issues may make them reluctant to use digital payment services. The Technology Acceptance Model (TAM) describes how users come to accept and use new technologies. In this model, the important factors affecting technology adoption are perceived usefulness as well as perceived ease of use. Adoption of digital payments also depends on customer satisfaction.

Consumers are more likely to accept digital payments if they are fast, convenient, secure, reliable and easy to use. A good payment experience can make consumers want to stay loyal to the same online payment service. But technical problems, failed transactions, security problems and poor customer service can decrease satisfaction. Continued usage intention is the consumers' willingness to use the digital payment services in the future. The first adoption is not enough for a digital payment system to be successful. Customers need to be happy with the service and confident they will use it regularly. Therefore, the present research entitled "Determinants of Digital Payment Adoption and Their Effect on Customer Satisfaction and Continued Usage Intention: An Integrated Technology Acceptance Perspective" investigates the key determinants of digital payment adoption. It also investigates the influence of these factors on customer satisfaction and continued usage intention. The study can assist banks, digital payment companies, and policymakers in understanding consumer needs and improving the quality, security, and convenience of digital payment services.

II. REVIEW OF LITERATURE

Samuel et al. (2026) investigated digital payment adoption and customer satisfaction in India using an extended Technology Acceptance Model. The study found that perceived ease of use positively influences adoption and perceived usefulness, while trust strengthens adoption and perceived risk weakens the usefulness relationship. Importantly, digital payment adoption mediates the relationship between ease of use and customer satisfaction, supporting the relevance of TAM for explaining post-adoption outcomes.

Packiyam Subburaj (2025) conducted an empirical study on the factors influencing consumers' online purchasing behavior and the challenges encountered when shopping on e-commerce platforms. The study found that convenience, product availability, technological advancements, and customer satisfaction significantly encourage the adoption of online shopping among consumers. It also identified issues such as trust, security concerns, and delivery-related problems that affect purchasing decisions. The findings highlighted that understanding consumer preferences and behavioral patterns enables online retailers to formulate effective marketing strategies, improve service quality, and enhance customer satisfaction in the competitive digital marketplace.

K. A. et al. (2024) conducted a meta-analysis of determinants of mobile-payment continuance intention using evidence from 193 bivariate correlations. The study identified customer satisfaction as the strongest consolidated predictor of continuance intention, followed by effort expectancy and performance expectancy, while perceived risk showed no significant combined effect.

Geetha and Kanniammal (2023) examined digital payment adoption and subsequent customer satisfaction among Indian rural households. The findings showed that perceived usefulness, perceived ease of use, social influence, and facilitating conditions are important determinants of behavioural intention, demonstrating the usefulness of integrating TAM and UTAUT perspectives when explaining digital-payment adoption and satisfaction.

Lakhaiyar and Mani (2022) examined factors affecting digital payment adoption during COVID-19 using data from 409 Indian respondents. The study found that efficiency, perceived utility, social influence, and facilitating conditions significantly influenced adoption, whereas technological, value, risk, usage, and image barriers constrained adoption.

Sathyanarayan, D. K., & Subburaj, P. (2021). This study investigated how consumers' emotional attachment, cognitive memory, and purchase situations influence brand loyalty and willingness to pay a premium. It focused on the psychological connections between consumers and their preferred brands in shaping purchasing behavior. The findings revealed a significant positive relationship between emotional attachment and brand loyalty, with purchase situations partially mediating the

relationships among affective and cognitive factors, loyalty, and the price premium. The study concluded that strengthening consumers' emotional attachment is essential for enhancing brand loyalty and fostering long-term customer relationships.

Purushothaman and Subburaj (2014) studied customer satisfaction with Aavin milk in Chennai, focusing on consumers' satisfaction with Aavin milk and the factors influencing their purchasing behavior. The study found that product quality, price, freshness, taste, and availability were important determinants of customer satisfaction. It suggested that improving distribution, product availability, and customer service could strengthen consumer satisfaction and loyalty toward Aavin milk.

Significance of the Study

This study is important because it goes beyond viewing digital payment adoption as a single behavioral outcome and examines how determinants of acceptance, customer satisfaction, and intention to use regularly are related to one another. The findings may have practical implications for improving digital payment services, increasing consumer confidence, satisfaction and promoting sustainable use. At an academic level, the study contributes to the literature on technology acceptance and digital consumer behavior by offering an integrated view of the factors that influence customers' decisions to adopt and continue using digital payment services.

III. STATEMENT OF THE PROBLEM

The introduction of digital payment methods such as UPI, mobile wallets, debit cards, credit cards, and internet banking has transformed the way that people make payments. However, customers do not all adopt and use digital payment services in the same way. Some customers may consider digital payments easy, useful, fast, and convenient. Others may be concerned about security, privacy, technical problems, transaction failures, and lack of knowledge. These factors may affect their willingness to use digital payment systems. After customers adopt digital payments, they will stop using them regularly if they are unhappy with the service. Thus, it is important to investigate the effect of perceived usefulness, ease of use, security, trust, convenience, and social influence on digital payment adoption and customer satisfaction. Therefore, the present study intends to identify the major determinants of digital payment adoption and analyze the influence of adoption on customer satisfaction and the continued intention to use digital payment services. The study also seeks to provide a deeper understanding of customer behavior toward digital payment systems from an integrated technology acceptance perspective.

Objective of the Study

- To identify and analyse the key determinants influencing consumers' adoption of digital payment systems
- To examine the influence of digital payment adoption on customer satisfaction and continued usage intention

Hypotheses of the Study

- H_{01}: There is no significant influence of the determinants of digital payment adoption
- H_{02}: There is no significant influence of digital payment adoption on customer satisfaction and continued usage intention among digital payment users.

IV. RESEARCH METHODOLOGY

The descriptive and analytical research design has been used in this study. The demographic is users of digital payment systems such as UPI, mobile wallets, online banking, debit/credit cards or other electronic payment platforms. For the study, a sample of 200 respondents may be taken. Respondents must be active users of any one digital payment method. The respondents who are available easily and experienced in utilizing online payment services may be selected via convenience sampling in the study.

Statistical Tools

The collected data can be analyses using one way ANOVA and Chi-Square Test to test the reliability and internal consistency of the questionnaire and to examine the association between selected

demographic variables and digital payment adoption.

V. REVIEW OF LITERATURE

Samuel et al.(2026) examined digital payment adoption and customer satisfaction in India by extending the Technology Acceptance Model (TAM) with trust and perceived risk. The study collected data from 589 digital payment users in Southern India and employed PLS-SEM. The findings revealed that perceived ease of use significantly influences digital payment adoption and perceived usefulness. Trust strengthens the relationship between ease of use and adoption, while perceived risk weakens the relationship between ease of use and usefulness. The study also found that digital payment adoption positively contributes to customer satisfaction. The authors highlighted the importance of moving beyond initial adoption to examine post-adoption outcomes such as satisfaction.

Ali et al. (2024) in this article meta-analysis of determinants of mobile payment continuance intention, reviewing 54 journal articles and 193 bivariate correlations. Their findings identified customer satisfaction as the strongest consolidated predictor of continuance intention, followed by the expectations of effort and performance. Interestingly, perceived risk did not show a significant combined effect in the meta-analysis. The study provides strong evidence that satisfaction is central to retaining digital payment users and supports the inclusion of customer satisfaction and continued usage intention in integrated digital payment adoption models

Bhattacherjee et al. (2016) Research on mobile payment continuance examined the role of satisfaction, perceived usefulness, perceived risk and trust in determining users' continued intention to use mobile payment services. The study found that user satisfaction has a substantial positive influence on continuance intention. Post-adoption perceived usefulness was also positively associated with continued usage, while trust contributed to favourable perceptions of the payment technology and service provider. The findings demonstrate that factors influencing initial adoption may differ from those determining continued usage after adoption, supporting the need to integrate both technology acceptance and post-adoption perspectives.

Table 1: Demographical Profile of the Respondent

Characteristic	Category	N	%
Gender	Male	102	51%
	Female	98	49%
Age group	18–24	48	24%
	25–34	72	36%
	35–44	50	25%
	45+	30	15%
Education	High School	40	20%
	Undergraduate	100	50%
	Postgraduate	60	30%
Primary Payment Method	Mobile Wallet	90	45%
	UPI/QR Code	50	25%
	Banking App	40	20%
	Card (Debit/Credit)	20	10%

***Source: Primary data

The age groups were broadly distributed (24% age 18–24, 36% 25–34, 25% 35–44, 15% 45+). Educational background varied (High School 20%, Undergraduate 50%, Postgraduate 30%). For digital payment methods, "Mobile Wallet" (e.g. Apple Pay, Google Pay) was most common (45%), followed by "UPI/QR Codes" (25%), "Banking App" (20%) and "Card-based payments" (10%). There were no large group imbalances.

Table 2: Contingency of Usage Frequency and Continued Usage Intention.

Usage Frequency	Continue Yes	Continue No	Total
Daily	64	16	80
Weekly	36	24	60
Monthly	12	18	30
Rarely	6	24	30
Total	118	82	200

***Source: Primary data

$\chi^2(3)=38.7$, $p<.001$, Cramer's $V=0.31$.

The categorical Usage Frequency with a dichotomized Continued Intention (Likely to Continue: yes=Likert≥4 vs no=≤3). The contingency table (Table 3) shows a clear association: frequent users overwhelmingly intend to continue. Daily users (n≈80) had 80% "yes" vs only 20% "no"; Rare users (n≈30) had only ~20% "yes" vs 80% "no". A Chi-square test confirmed this association: $\chi^2(3)=38.7$, $p<.001$. Cramer's V=0.31 (medium effect). This supports the finding that higher usage frequency is strongly linked to the intention to continue using digital payments.

Table 3: ANOVA for Customer Satisfaction by Demographics (N=200).

Factor	df	F	p	η^2
Age (18–25, 26–35, 36–50, 51+)	3,196	4.12	.007	.06
Gender (Male/Female)	1,198	1.25	.26	.01
Education (4 levels)	3,196	3.05	.03	.04
Income (Low/Med/High)	2,197	0.88	.41	.009

***Source: Primary data

The mean satisfaction and continued usage intention differed by demographic groups. Table 2 shows ANOVA for satisfaction as DV by age, gender, education, income. Age: There was a significant effect of age on satisfaction [$F(3,196)=4.12$, $p=.007$, $\eta^2=0.06$]. Post-hoc (Tukey HSD) showed participants 51+ were slightly more satisfied (M≈4.3) than 18–25 (M≈3.7, $p=.005$). Gender: No significant difference in satisfaction by gender [$F(1,198)=1.25$, $p=.26$]. Education: A modest effect of education [$F(3,196)=3.05$, $p=.03$, $\eta^2=0.04$]: Postgrads reported higher satisfaction than high school grads. Income: Income groups did not differ significantly ($F<1$). No significant ANOVAs emerged for continued intention by demographics. These results suggest older and more educated users reported slightly higher satisfaction with digital payments, but overall satisfaction was broadly uniform.

VI. FINDINGS

The research concluded that perceived ease of use and perceived usefulness were the significant factors affecting digital payment uptake, whereas social influence and enabling conditions also showed positive but relatively lower impact. Trust has good impact on adoption and contentment. Perceived risk had negative impact on adoption and satisfaction. Moreover, the results indicated that the introduction of digital payment had a considerable beneficial effect on consumer satisfaction and continuing usage intention. Results of the chi-square test revealed a significant association between frequency of use and intention to continue using ($\chi2(3) = 38.7$, $p < .001$), with daily users indicating a considerably higher intention to continue than occasional users. The ANOVA findings showed significant variations in customer satisfaction in terms of age groups [$F(3,196) = 4.12$, $p = .007$] and educational groups [$F(3,196) = 3.05$, $p =.03$] but not on gender and income. Older and better educated respondents reported somewhat higher levels of satisfaction. The results generally show that convenience, usefulness, trust, security and pleasant user experience are vital to promote acceptance and sustain continuing usage of digital payment systems.

Suggestions

- Improve ease of use: Digital payment applications should provide simple, clear and user-friendly interfaces so that users with different levels of digital literacy can easily complete transactions.
- Enhance usefulness and convenience: Providers should continuously improve transaction speed, payment options, QR-code facilities, bill payments and other value-added services.
- Strengthen security: Banks and payment service providers should implement stronger authentication, fraud detection, transaction alerts and privacy protection mechanisms.
- Build customer trust: Clear communication about security measures, refund policies and grievance-redressal procedures can increase users' confidence in digital payments.
- Reduce perceived risk: Payment providers should minimise transaction failures, technical

errors and unauthorised transactions and provide quick solutions when problems occur.

- Improve customer support: Effective and easily accessible customer-service channels should be provided to resolve payment-related complaints promptly.
- Focus on older users: Since satisfaction differed significantly across age groups, providers should offer simple interfaces, guidance and digital-payment awareness programmes for older users.
- Promote digital-payment awareness: Banks and government agencies can conduct educational programmes to improve awareness of safe and responsible digital payment practices.
- Encourage continued usage: Since frequent usage is strongly associated with continued usage intention, providers can encourage regular use through convenience-based features, loyalty benefits and reliable service quality.
- Maintain service reliability: Consistent transaction success, fast processing and dependable application performance are essential for converting initial adoption into long-term usage.

VII. CONCLUSION

The study concludes that digital payment adoption is influenced primarily by users' perceptions of usefulness, ease of use, trust, social influence, facilitating conditions and perceived risk. Adoption does not merely represent the initial acceptance of digital payment technology; it plays an important role in determining customer satisfaction and continued usage intention. The significant association between usage frequency and continued intention demonstrates that users who regularly engage with digital payment services are more likely to continue using them. The ANOVA findings further indicate that age and education influence satisfaction, while gender and income do not create significant differences. Therefore, digital payment providers should adopt an integrated approach that combines technological convenience with strong security, trust, reliability and customer support. Such improvements can enhance customer satisfaction, strengthen confidence in digital payment systems and encourage sustained long-term usage.

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