

Impact of Digital Payment Adoption on Financial Management Behaviour among Urban Consumers in Chennai City

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Abstract

The rapid growth of digital payment technologies has significantly transformed consumer financial behaviour in urban India. The increasing adoption of digital payment platforms has enhanced convenience, transparency and financial accessibility while influencing consumers financial management practices. This study examines the impact of digital payment adoption on financial management behaviour among urban consumers in Chennai City. A descriptive research design with a quantitative approach was employed to collect primary data from 160 respondents using a structured questionnaire. The collected data were analysed using descriptive statistics, Cronbachs Alpha, correlation, multiple regression, ANOVA, Chi-square, Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM). The findings indicate that digital payment adoption positively influences budgeting, expenditure control, savings behaviour and financial decision-making. The study also reveals that demographic factors significantly influence consumers adoption of digital payment systems. The research provides valuable insights for financial institutions, policymakers and fintech companies to promote digital financial inclusion and responsible financial management. The study contributes to the growing literature on digital finance and consumer behaviour in the Indian urban context.

Keywords: Digital Payment Adoption, Financial Management Behaviour, Urban Consumers, Financial Inclusion, Chennai City

1. Introduction

Digital technologies have significantly transformed the financial services industry by making transactions faster, more secure and highly convenient. The widespread use of Unified Payments Interface (UPI), mobile banking, internet banking, digital wallets, QR code payments and contactless payment methods has accelerated the growth of a cashless economy in India. Government initiatives such as Digital India, along with increasing smartphone usage and internet accessibility, have further encouraged consumers to adopt digital payment platforms for their daily financial activities.

The growing acceptance of digital payments has also influenced the way individuals manage their personal finances. Financial management behaviour includes practices such as budgeting, saving, spending and making investment decisions that contribute to financial stability and overall well-being. While earlier

studies have primarily focused on digital payment adoption and financial inclusion, relatively few have examined the impact of digital payment usage on financial management behaviour among urban consumers in Chennai. Therefore, this study aims to explore this relationship and provide valuable insights for policymakers, financial institutions and fintech companies to promote responsible financial practices and strengthen digital financial ecosystems.

2. Review of Literature

The adoption of digital payment systems has gained considerable attention in recent years as digital technologies continue to reshape the financial services landscape. One of the earliest theoretical frameworks explaining technology adoption is the Technology Acceptance Model (TAM) proposed by Fred D. Davis (1989), which suggests that users are more likely to adopt a technology when they perceive it as useful and easy to use. Expanding this perspective, Venkatesh et al. (2003) introduced the Unified Theory of Acceptance and Use of Technology (UTAUT), identifying performance expectancy, effort expectancy, social influence and facilitating conditions as the major drivers of technology acceptance. Later, Oliveira et al. (2016) emphasized that trust, security and perceived usefulness significantly encourage consumers to adopt mobile payment services. Likewise, Liébana-Cabanillas et al. (2017) reported that trust, compatibility and ease of use positively influence users' continued intention to use mobile payment applications, highlighting the importance of customer experience in sustaining digital payment usage.

Several empirical studies have explored the factors influencing the adoption of digital payment systems and their effects on consumer behaviour. Singh and Srivastava (2018) found that convenience, security and service quality are key determinants of customers' willingness to use mobile payment applications, leading to greater transaction efficiency and customer satisfaction. Arner, Barberis and Buckley (2016) observed that financial technology (FinTech) has transformed conventional banking services by improving accessibility, operational efficiency and user convenience. Similarly, Thakur and Srivastava (2014) concluded that trust, perceived usefulness and security remain critical factors influencing the adoption of mobile commerce, particularly in developing countries where consumer confidence is essential for digital transactions.

More recent studies have examined the influence of digital payment adoption on financial management behaviour. Kumar and Gupta (2022) reported that the use of digital payment platforms encourages better budgeting, financial planning, expenditure tracking and financial discipline among consumers. Sharma and Sharma (2023) highlighted that digital financial literacy strengthens responsible financial behaviour while increasing the acceptance of digital financial services. In addition, Gupta and Arora (2024) demonstrated that digital payment technologies promote financial inclusion and support informed financial decision-making through secure and efficient transaction systems.

3. Research Gap

Existing studies have primarily focused on the adoption and acceptance of digital payment technologies, with comparatively less attention given to their impact on consumers' financial management behaviour. In addition, empirical evidence from urban consumers in Chennai is limited despite the city's increasing use of digital payment platforms. This study addresses this gap by examining how digital payment adoption influences financial management practices among urban consumers in Chennai.

4. Research Objectives

- To examine the influence of digital payment adoption on the financial management behaviour of urban consumers in Chennai City.
- To analyse the relationship between digital payment adoption and financial planning, budgeting and savings behaviour.
- To identify the demographic factors influencing digital payment adoption among urban consumers.

5. Research Hypotheses

H1: Digital Payment Adoption has a significant positive influence on Financial Management Behaviour.

H2: Digital Payment Adoption significantly influences consumers budgeting behaviour.

H3: Digital Payment Adoption significantly influences consumers savings behaviour.

H4: There is a significant association between demographic characteristics and Digital Payment Adoption.

6. Conceptual Framework

The conceptual framework of the study proposes that Digital Payment Adoption serves as the independent variable, while Financial Management Behaviour is the dependent variable. Digital Payment Adoption is measured through four key dimensions such as perceived usefulness, ease of use, security and convenience, which influence consumer's willingness to adopt and regularly use digital payment systems. Financial Management Behaviour is assessed through budgeting, saving behaviour, expenditure control and financial planning, reflecting how individuals manage their personal finances. The framework assumes that greater adoption of digital payment technologies positively influences consumers financial management practices by promoting better financial planning, disciplined spending, effective budgeting and increased savings among urban consumers in Chennai City.

7. Research Methodology

The study employed a descriptive research design with a quantitative approach to examine the effect of digital payment adoption on the financial management behaviour of urban consumers in Chennai City. Primary data were collected from 160 respondents using a structured questionnaire with a five-point Likert scale, while secondary data were gathered from books, journals, RBI reports, government publications and scholarly articles. Respondents were selected through convenience sampling and the survey was administered using both online and offline modes. A pilot study was conducted to validate the questionnaire and ensure its reliability. The collected data were analysed using IBM SPSS Statistics 29 and AMOS 24. Statistical techniques including descriptive analysis, percentage analysis, Cronbach's Alpha, Chi-square, correlation, multiple regression, ANOVA, Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) were applied to test the study objectives and hypotheses.

8. Data Analysis and Interpretation

Table 1 Demographic Profile of Respondents

Demographic Variable	Category	Frequency	Percentage
Gender	Male	92	57.5
	Female	68	42.5
Age	Below 25 Years	32	20.0

Demographic Variable	Category	Frequency	Percentage
	26–35 Years	58	36.3
	36–45 Years	44	27.5
	Above 45 Years	26	16.2
Educational Qualification	Undergraduate	34	21.3
	Postgraduate	88	55.0
	Professional Degree	26	16.2
	Doctorate	12	7.5
Occupation	Government Employee	24	15.0
	Private Employee	68	42.5
	Business	38	23.8
	Self-employed	30	18.7
Monthly Income	Below ₹30,000	30	18.8
	₹30,001–₹50,000	54	33.7
	₹50,001–₹75,000	42	26.3
	Above ₹75,000	34	21.2
Digital Payment Usage	Daily	86	53.8
	Weekly	42	26.2
	Monthly	20	12.5
	Occasionally	12	7.5

Source: Primary Data

Interpretation

The demographic profile indicates that many of the respondents were male (57.5%) and belonged to the 26–35 years age group (36.3%), representing active digital payment users. Most participants possessed postgraduate qualifications (55.0%), indicating a well-educated sample. Private-sector employees constituted the largest occupational group (42.5%), while the majority earned between ₹30,001 and ₹50,000 per month. More than half of the respondents (53.8%) reported using digital payment services daily, suggesting a high level of digital payment adoption among urban consumers in Chennai City.

Table 2. Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
Digital Payment Adoption	4.12	0.56	2.60	5.00
Financial Management Behaviour	3.98	0.61	2.40	5.00

Source: Computed Data

Interpretation

The descriptive statistics indicate that respondents reported a high level of Digital Payment Adoption (Mean = 4.12) and Financial Management Behaviour (Mean = 3.98). The relatively low standard

deviations suggest consistency in the responses. The findings imply that urban consumers in Chennai widely use digital payment platforms and demonstrate positive financial management practices. Overall, the sample reflects a favourable perception of digital financial technologies.

Table 3. Reliability Analysis (Cronbachs Alpha)

Variable	Number of Items	Cronbachs Alpha
Digital Payment Adoption	12	0.918
Financial Management Behaviour	10	0.901
Overall Instrument	22	0.924

Source: Computed Data

Interpretation

Cronbachs Alpha values for all constructs exceed the recommended threshold of 0.70, indicating excellent internal consistency. The overall reliability coefficient of 0.924 confirms that the questionnaire is highly reliable. Therefore, the measurement instrument is appropriate for further statistical analysis.

Table 4. Correlation Analysis

Variables	DPA	FMB
Digital Payment Adoption (DPA)	1.000	
Financial Management Behaviour (FMB)	0.746	1.000

Source: Computed Data
p < 0.01

Interpretation

The correlation coefficient ($r = 0.746$) indicates a strong positive relationship between Digital Payment Adoption and Financial Management Behaviour. The relationship is statistically significant at the 1% level, suggesting that increased adoption of digital payment systems is associated with improved financial management practices among urban consumers.

Table 5. Multiple Regression Analysis
Dependent Variable: Financial Management Behaviour

Predictor	Beta	t-value	Sig.
Digital Payment Adoption	0.701	13.286	0.000

Model Summary

R	R ²	Adjusted R ²	F-value	Sig.
0.746	0.557	0.554	176.52	0.000

Source: Computed Data

Interpretation

The regression analysis reveals that Digital Payment Adoption significantly predicts Financial Management Behaviour ($\beta = 0.701$, $p < 0.001$). The model explains 55.7% of the variation in Financial Management Behaviour ($R^2 = 0.557$). These findings indicate that increased use of digital payment systems contributes significantly to improved financial management among urban consumers.

Table 6. One-Way ANOVA

Difference in Digital Payment Adoption based on Monthly Income

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.216	3	2.739	5.874	0.001
Within Groups	72.714	156	0.466		
Total	80.930	159			

Source: Computed Data

Interpretation

The ANOVA results indicate a statistically significant difference in Digital Payment Adoption across different income groups ($F = 5.874$, $p = 0.001$). Hence, monthly income significantly influences the adoption of digital payment systems among urban consumers.

Table 7. Chi-Square Analysis

Gender × Digital Payment Adoption

Chi-square	Df	Sig.
9.284	3	0.026

Source: Computed Data

Interpretation

The Chi-square test reveals a significant association between gender and Digital Payment Adoption ($\chi^2 = 9.284$, $p = 0.026$). This indicates that digital payment usage varies significantly between male and female respondents.

Table 8. Confirmatory Factor Analysis (CFA)

Factor Loadings

Construct	Item	Loading
Digital Payment Adoption	DPA1	0.83
	DPA2	0.86
	DPA3	0.81
	DPA4	0.88
Financial Management Behaviour	FMB1	0.84
	FMB2	0.82
	FMB3	0.87
	FMB4	0.85

Composite Reliability and AVE

Construct	CR	AVE
Digital Payment Adoption	0.921	0.706
Financial Management Behaviour	0.914	0.692

Model Fit Indices

Fit Index	Obtained	Recommended
χ^2/df	2.11	<3.00
GFI	0.938	>0.90
AGFI	0.912	>0.90
CFI	0.968	>0.90
TLI	0.962	>0.90
RMSEA	0.046	<0.08
SRMR	0.039	<0.08

Source: Computed Data

Interpretation

The CFA results demonstrate satisfactory convergent validity and construct reliability. Composite Reliability values exceed 0.70, while AVE values are above 0.50, confirming convergent validity. The model fit indices also satisfy the recommended thresholds, indicating that the measurement model adequately represents the observed data.

Table 9. Structural Equation Modelling (SEM)

Structural Path Analysis

Structural Path	Standardized Beta	t-value	p-value	Result
DPA → Financial Management Behaviour	0.74	11.82	0.000	Supported
DPA → Budgeting Behaviour	0.61	8.74	0.000	Supported
DPA → Savings Behaviour	0.58	7.92	0.000	Supported
DPA → Expenditure Control	0.63	8.45	0.000	Supported

Structural Model Summary

Variable	R ²
Financial Management Behaviour	0.56
Budgeting Behaviour	0.37
Savings Behaviour	0.34
Expenditure Control	0.40

Source: Computed Data

Interpretation

The SEM results confirm that Digital Payment Adoption has a significant positive influence on Financial Management Behaviour and its dimensions, including budgeting, savings and expenditure control. All structural paths are statistically significant ($p < 0.001$), supporting the proposed hypotheses. The model explains 56% of the variance in Financial Management Behaviour, indicating strong predictive power. The overall structural model demonstrates a satisfactory fit, confirming the robustness of the proposed conceptual framework.

8. Results and Discussion

The findings of the study reveal that Digital Payment Adoption (DPA) has a significant positive influence on the Financial Management Behaviour (FMB) of urban consumers in Chennai City. The descriptive statistics indicate that respondents reported high levels of digital payment adoption (Mean = 4.12) and financial management behaviour (Mean = 3.98), suggesting that consumers have widely embraced digital payment technologies and actively practice financial planning, budgeting, expenditure control and savings. The reliability analysis demonstrated excellent internal consistency, with Cronbachs Alpha values ranging from 0.901 to 0.918, confirming that the measurement instrument was reliable and suitable for empirical analysis.

The correlation analysis revealed a strong positive relationship ($r = 0.746$) between Digital Payment Adoption and Financial Management Behaviour, indicating that greater use of digital payment systems is associated with improved financial management practices. The regression analysis further confirmed that Digital Payment Adoption significantly predicts Financial Management Behaviour ($\beta = 0.701$, $p < 0.001$), explaining 55.7% of the total variance ($R^2 = 0.557$). Furthermore, the CFA results confirmed satisfactory convergent validity and construct reliability, while the SEM results demonstrated significant positive relationships between Digital Payment Adoption and budgeting behaviour, savings behaviour, expenditure control and overall Financial Management Behaviour. The structural model exhibited acceptable goodness-of-fit indices, supporting the proposed conceptual framework.

The findings are consistent with previous studies by Davis (1989), Venkatesh et al. (2003), Oliveira et al. (2016), Singh and Srivastava (2018) and Sharma and Sharma (2023), which reported that perceived usefulness, convenience, trust and security significantly influence digital payment adoption and responsible financial behaviour. The results indicate that digital payment technologies facilitate better financial monitoring, reduce unnecessary spending, improve budgeting practices and encourage systematic savings. Therefore, digital payment systems contribute significantly to strengthening consumers financial discipline and overall financial well-being.

9. Managerial Implications

The findings of this study provide several practical implications for banks, financial institutions, fintech companies, policymakers and digital payment service providers. Financial institutions should continue investing in secure and user-friendly digital payment platforms that encourage greater consumer adoption. Fintech organizations should design innovative mobile applications equipped with budgeting tools, expenditure tracking, savings reminders and financial planning features that support responsible financial management. Government agencies should strengthen digital financial literacy programmes, particularly among economically weaker sections and senior citizens, to improve digital inclusion. Banks should also implement awareness campaigns highlighting the security features of digital payment systems to build consumer trust. These initiatives can improve digital payment usage while promoting better financial decision-making and long-term financial well-being.

10. Theoretical Implications

This study contributes to the existing literature on digital finance by empirically validating the relationship between Digital Payment Adoption and Financial Management Behaviour among urban consumers in Chennai City. The findings support the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) by confirming that technology adoption positively

influences consumer financial behaviour. The study extends previous research by integrating digital payment adoption with multiple dimensions of financial management, including budgeting, savings, expenditure control and financial planning. Furthermore, it provides empirical evidence from an emerging urban economy, thereby enriching the theoretical understanding of consumer financial behaviour in the Indian context.

11. Limitations

The study has certain limitations that should be considered while interpreting the findings. First, the research was conducted among 160 urban consumers in Chennai City, which may limit the generalizability of the results to other geographical regions. Second, the study adopted a cross-sectional research design, restricting the ability to examine behavioural changes over time. Third, the research relied on self-reported questionnaire responses, which may be affected by respondent bias and social desirability. Finally, the study focused primarily on Digital Payment Adoption and Financial Management Behaviour, whereas other influencing factors such as financial literacy, perceived risk, trust, income level and technological readiness were not incorporated into the research model.

12. Future Scope

Future research may extend this study by including respondents from different metropolitan cities and rural areas to improve the generalizability of the findings. Researchers may also employ longitudinal research designs to examine changes in consumer financial behaviour over time. Future studies can incorporate additional variables such as financial literacy, trust, cybersecurity awareness, digital financial inclusion, financial well-being and consumer confidence as mediating or moderating variables. Comparative studies across different age groups, occupations and income categories may provide deeper insights into digital payment adoption behaviour. Advanced analytical techniques such as PLS-SEM, Artificial Intelligence-based predictive analytics and Machine Learning algorithms may further strengthen future research in digital finance.

13. Conclusion

The present study examined the impact of Digital Payment Adoption on Financial Management Behaviour among urban consumers in Chennai City. The findings demonstrate that Digital Payment Adoption significantly enhances consumers financial planning, budgeting, expenditure control and savings behaviour. Consumers who actively use digital payment systems exhibit more disciplined financial practices and make informed financial decisions compared with less frequent users. The study further establishes that digital payment technologies promote financial transparency, convenience and accessibility, thereby contributing to improved financial well-being. The empirical evidence confirms that Digital Payment Adoption is an important determinant of responsible financial management among urban consumers. Therefore, financial institutions, fintech companies and policymakers should continue promoting secure, accessible and innovative digital payment solutions while strengthening financial literacy initiatives. Such efforts will accelerate digital financial inclusion and support the development of a financially responsible and digitally empowered society.

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