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DIGITAL PAYMENT BEHAVIOUR AND ADOPTION TRENDS AMONG MILLENNIALS IN MADURAI CITY

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ABSTRACT

This study examines the adoption behaviour and usage trends of digital payment systems among millennials in Madurai City. The study employs percentage analysis, Garrett ranking, mean score analysis and chi-square testing to identify the determinants of digital payment adoption. Results indicate that transaction convenience, speed and accessibility are prominent drivers, while security risks and transaction costs continue to hinder widespread adoption. The findings confirm a significant association between security concerns and frequency of usage, whereas no major link exists between gender and payment frequency. The study suggests strengthening security systems, reducing transaction costs and enhancing digital literacy to support sustainable adoption among millennials.

Keywords: Digital Payments, Millennials, Adoption Behaviour, Security Concerns, Madurai, User Satisfaction

INTRODUCTION

Digital payments in India have undergone a dramatic evolution over the past decade, particularly following the emergence of UPI-based platforms. With increasing smartphone penetration, improved internet access and supportive government initiatives, India now leads the world in real-time digital payments. Among all demographic groups, millennials (emerged between 1981-1996) are the most active users, driven by convenience, rapid lifestyle changes and exposure to

technology. Students were drawn to digital payments mainly because of the simplicity and convenience offered by the platforms. The ease of use played a major role in motivating early adoption among young users. However, concerns related to data security, fraud risk and hidden transaction charges created hesitation. They concluded that improving transparency could increase student confidence in digital payments. (Kumar and Nandhini, 2018). Despite high adoption rates, concerns remain regarding transaction safety, data privacy, hidden charges and inconsistent merchant acceptance. Understanding millennial behaviour is vital because they represent the future economic backbone of the country and play a major role in shaping payment ecosystem trends.

Digital payment systems have witnessed rapid growth in India with the expansion of UPI platforms and increased smartphone usage and millennials have emerged as the most active users of these systems. In Madurai City, digital payments are widely used for routine transactions due to their convenience, speed and accessibility. However, despite high adoption levels and trust continue to influence user behaviour and frequency of usage. Differences in satisfaction levels and platform preferences indicate that adoption alone does not ensure complete user confidence. Therefore, there is a need to examine the digital payment behaviour, adoption trends, satisfaction levels and challenges faced by millennials in Madurai City to identify the factors influencing their continued and effective use of digital payment systems. The perceived usefulness such as time savings and easy transactions significantly influenced youth adoption of digital wallets. The study also emphasized the strong role of social influence, where peer usage and social trends shaped preferences. Youth were more likely to adopt the platforms that their friends and networks recommended. Overall, social acceptance and functional benefits together boosted adoption rates. (Ramasamy, 2020)

The objectives of the study are to analyse the adoption and usage patterns of digital payments among millennials in Madurai City, to assess satisfaction levels toward digital payment attributes, to determine the major barriers faced by users and to test the association between demographic variables and digital payment usage behaviour.

RESEARCH METHODOLOGY

The study is limited to millennials residing in Madurai City and focuses on

analysing their adoption and usage patterns of digital payment systems, frequency and purpose of use, platform preferences, satisfaction levels and major concerns or barriers. Primary data were collected from 200 respondents during the study period April 2025 - June 2025 by using a structured questionnaire and statistical tools such as percentage analysis, Garrett ranking, mean score analysis and chi-square test were applied. The scope is confined to selected demographic variables and commonly used digital payment platforms and the findings are applicable only to the study area and sample considered.Secondary data was collected from journals, reports and websites.

RESULTS AND DISCUSSION

The demographic results reveal that 56% of the respondents are male and the majority (56%) hold a graduate degree. A significant group (44%) are employed in the private sector, indicating that young working professionals form the core group of digital payment users in Madurai. In terms of marital status, more than half of the respondents (56%) are single, suggesting greater flexibility, higher digital exposure, and a stronger inclination toward frequent digital transactions. Income-wise, a majority of respondents (60%) fall within the middle-income group (₹15,001–₹40,000 per month), reflecting stable earning capacity and regular usage of digital payments for routine and lifestyle-related expenditures. Overall, this demographic composition highlights the technologically active and financially independent nature of the respondents, which aligns with the high adoption and frequent usage of digital payment systems.The demographic profile of the respondents of Madurai city is given in the Table 1.

Table 1: Demographic Profile of Respondents in Madurai City

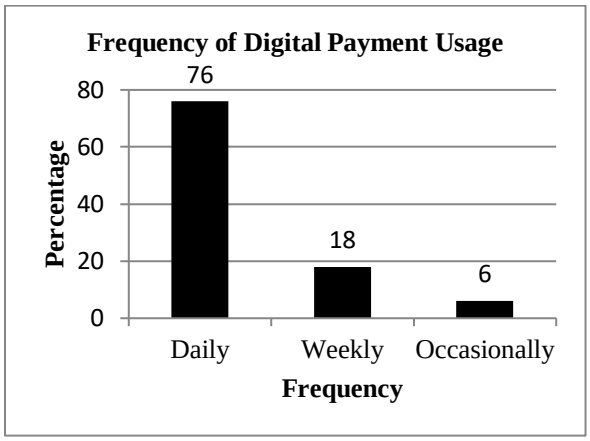
Demographic Factor	Category	No. of Respondents	Percentage (%)
Gender	Male	112	56
	Female	88	44
Education	School	60	30
	Graduate	112	56
	Post graduate	28	14
Occupation	Private Employee	88	44
	Govt. Employee	40	20
	Self-employed	72	36
Monthly Income (in Rs.)	Below Rs.15,000	40	20
	Rs.15,001 –25,000	64	32
	Rs.25,001 –40,000	56	28
	Above Rs.40,000	40	20
Marital Status	Single	112	56
	Married	88	44

Source: Primary Data

Regarding the frequency of usage of the data, the results of the present study clearly shows that 76% of respondents use

digital payments daily, indicating strong habit formation and integration of digital payments into everyday life (Figure 1). Only 6% use them occasionally, suggesting that digital payment behaviour among millennials is regular, consistent and strongly preferred over cash transactions.

Figure 1: Frequency of Digital Payment Usage of Respondents in Madurai City



Source: Primary Data

It is also found that cashback, discounts and rewards were major motivators for urban millennials using digital payment apps. These promotional benefits enhanced user engagement and encouraged repeated transactions. The study noted that millennials preferred platforms that offered frequent and attractive rewards. Thus, incentive-driven usage emerged as a key strategy for increasing digital payment adoption (Patel, 2021). The users in Tier-2 cities highly valued convenience and speed when using digital payment systems, also highlighted the smooth transactions and reliable system performance which greatly improved satisfaction levels. Merchant acceptance also played an important role, as increased availability encouraged wider usage. They concluded that enhancing local acceptance can further strengthen adoption in smaller cities. **(**Suresh and Devi, 2022).

PhonePe ranked first with the highest weighted score, showing strong trust and usability among users (Table 2). Google Pay stands second, indicating wide acceptance due to its simple interface and UPI efficiency. Paytm received moderate preference, mainly for recharge and wallet-based payments. “Others” held the lowest rank, showing minimal engagement with lesser-known or region-specific platforms.

Table 2: Digital Payment Platforms of the Users in Madurai City

Platform	Rank 1	Rank 2	Rank 3	Rank 4	Total Score	Average Score	Rank
	No of Respondents						
PhonePe	80	48	40	32	11680	58.4	I
Google Pay	76	60	40	24	7600	38.0	II
Paytm	48	56	60	36	3080	15.4	III
Others	28	36	48	88	784	3.9	IV

Source: Primary Data

Overall, the results reveal a duopoly between PhonePe and Google Pay among millennials. The users appreciated the simplicity of UPI but still sought stronger protection measures. This indicates a need for continuous security improvement to maintain user confidence. (Joseph and Mathew, 2023).

Online shopping emerged as the most dominant purpose, reflecting increased digital purchasing behaviour. Food delivery ranked second, indicating frequent usage for day-to-day convenience services(Table 3). Bill payments hold the third position, showing consistent utility usage via digital modes. Use under "Others" is minimal, signaling that digital payments are mostly adopted for mainstream, convenience-driven activities. This highlights a shift toward digital commerce and lifestyle services.

Respondents expressed very high satisfaction with accessibility and transaction speed, indicating that digital payment platforms are user-friendly and efficient. Convenience was rated "Good," showing positive user experience (Table 4). However, satisfaction levels dropped for promotional offers, transaction charges and security measures. This indicates that while operational efficiency is strong, cost transparency and security enhancement remain areas requiring improvement.

Table 3: Purpose of Using Digital Payments

Platform	Rank 1	Rank 2	Rank 3	Rank 4	Total Score	Average Score	Rank
	No. of Respondents						
Online Shopping	156	16	16	12	22776	113.88	I
Food Delivery	116	28	28	28	11600	58.00	II
Bill Payments	112	28	28	32	7040	35.20	III
Others	20	60	60	60	560	2.80	IV

Source: Primary Data

Table 4: Satisfaction Level of the Respondents towards the Usage of Digital Payment Services

Attribute	5	4	3	2	1	Total Score	Mean Score	Interpretation
	No of Respondents							
Accessibility	92 (460)	64 (256)	28 (84)	12 (24)	4 (4)	828	4.25	Very Good
Speed	88 (440)	60 (240)	32 (96)	12 (24)	8 (8)	808	4.10	Very Good
Convenience	80 (400)	64 (256)	36 (108)	12 (24)	8 (8)	796	4.00	Good
Offers	56 (280)	60 (240)	48 (144)	24 (48)	12 (12)	724	3.48	Moderate
Charges	48 (240)	52 (208)	44 (132)	32 (64)	44 (44)	688	3.10	Moderate
Security	44 (220)	48 (192)	52 (156)	32 (64)	24 (24)	656	3.05	Moderate–Low

Source: Computed Data (5 = Highly Satisfied, 4 = Satisfied, 3 = Neutral, 2=Dissatisfied, 1=Highly Dissatisfied)

Hypothesis Testing Using Chi-Square

Hypothesis 1: There is no association between Gender and Frequency of Digital Payment Usage.

Calculated $\chi^2 = 1.92$, df = 2, CV = 5.991 → Not significant

The chi-square results show no significant association between gender and frequency of digital payment usage. This means both male and female millennials use digital payments at similar levels. Gender does not influence how often they make digital transactions.

Hypothesis 2: There is no association between Security Concern and Frequency of Digital Payment Usage.

Calculated $\chi^2 = 13.72$, df = 2, CV = 5.991 → Significant

A significant association was found between security concern and payment frequency. Respondents with higher security concerns tend to use digital payments less frequently, while those expressing confidence in security features show higher usage frequency. This finding highlights the critical role of perceived safety in influencing digital payment behaviour.

Overall, the results of the present study indicated that apart from security-related issues faced by the users the other barriers like transaction charges, merchant acceptance and technical difficulties are at low level concerns (Table 5). The millennials placed strong importance on reliability and the technical performance of payment applications. Stable app functions, quick loading and error-free transactions were major determinants of platform preference and the users avoid apps with frequent glitches and slow processing. Thus, performance quality emerged as a crucial factor in competitive digital payment markets. (Yuvashree *et al.,* 2024).

Table 5: Major Concerns and Barriers

Concern/Barriers	5	4	3	2	1	Total Score	Mean Score	Interpretation
	No of Respondents							
Security Risks	72 (360)	56 (224)	44 (132)	20 (40)	8 (8)	764	3.64	Moderately High Concern
Transaction Charges	24 (120)	36 (144)	56 (168)	52 (104)	32 (32)	568	2.16	Low to Moderate Concern
Merchant Acceptance	20 (100)	28 (112)	48 (144)	60 (120)	44 (44)	520	1.80	Low Concern
Technical Difficulties	16 (80)	24 (96)	40 (120)	64 (128)	56 (56)	480	1.60	Low Concern

Source: Primary Data

(5 = Very High Concern, 4 = High Concern, 3 = Moderate Concern, 2 = Low Concern, 1 = Very Low Concern)

Based on the study findings, digital payment service providers should strengthen visible security features such as real-time alerts, biometric authentication and transparent transaction charges before payment confirmation. Among millennials, consistent and usage-based reward schemes shall be provided to enhance the satisfaction levels. These focused measures will encourage sustained and confident digital payment usage among millennials in Madurai City.

CONCLUSION

The study concludes that millennials in Madurai exhibit strong adoption and consistent usage of digital payment platforms, especially for online shopping and routine purchases. While convenience, accessibility and speed drive adoption are the major determinants of digital payment usage, the security concerns and transaction charges are considered as limiting factors. With technological advancements, policy support and user-centric improvements, digital payments will continue to grow and play a crucial role in shaping a cash-lite economy.

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