FACTORS INFLUENCING CUSTOMERS' ADOPTION AND USAGE OF UPI APPS, WITH SPECIAL REFERENCE TO POLLACHI TALUK

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ABSTRACT

This study investigates the factors influencing customers' adoption and usage of UPI (Unified Payments Interface) apps, with special reference to Pollachi Taluk. The primary objective is to understand how socio-economic variables and user perceptions affect the adoption of UPI applications. Data was collected from a sample of 120 respondents using the convenient sampling method. Key factors such as convenience, speed, user-friendliness, and ease of use emerged as major drivers for UPI adoption, while gender showed a significant association with specific adoption aspects like speed and usability. Correlation analysis highlighted moderate influences of education, occupation, and age on adoption behaviour. The findings emphasize the importance of tailoring app features and awareness efforts to match user profiles and regional contexts. Scope for future research includes comparative studies across different taluks or districts, analysis of post-adoption behaviour, the impact of digital literacy initiatives, and evaluating the role of government and private incentives in sustaining UPI usage.

KEYWORDS

UPI (Unified Payments Interface), Customers' Adoption of UPI, Customers' Usage of UPI apps, Determinants of UPI Usage, Factors Influencing UPI Adoption.

1. INTRODUCTION

The adoption of UPI payment apps is influenced by a variety of determinants. These include technological factors, ease of use, perceived security, trust in the platform, promotional strategies, social influence, and accessibility. Understanding these factors can help businesses and policymakers enhance the adoption of UPI payment apps by addressing the needs and concerns of users. This research aims to analyse the key factors that motivate or hinder consumers from using UPI payment applications.

The problem that this study addresses is the identification and analysis of the critical factors that influence customer adoption and continued usage of UPI payment apps. A deeper understanding of these determinants will enable developers, marketers, and regulators to better design and promote these platforms, ultimately increasing their usage among the Indian population.

Research Gap

Despite the widespread adoption of UPI apps in India, limited research has focused on semi-urban and rural regions like Pollachi Taluk, where user behaviour may differ significantly from urban counterparts. Existing studies often overlook the influence of localized socio-economic factors such as gender, education, and occupation on UPI adoption. Moreover, while many studies assess general awareness and usage, few explore specific motivations, preferences, and perceived barriers in depth. This study addresses these gaps by linking user perceptions with demographic variables. However, there remains scope for future research on long-term usage behaviour, digital literacy impact, and user retention strategies.

2. REVIEW OF LITERATURE

Banila (2023) conducted a study on factors influencing digital payment with special reference to UPI apps. They undertook the concept of Digital payment and Unified Payment Interface and also analyzed the factors influencing the usage of Payment apps. They took a sample of 148 respondents to

conduct survey. As a result it is found that the widely used payment apps are Google pay, pay tm and phone pe. The main reasons for non-preference towards payment app are lack of technical know-how and the habit of stick on the usage of traditional cash payment and it is also found that socio-economic factors except educational qualification do not have influence on the usage of payment apps.

Ruchik More (2023) conducted a study on understanding the factors influencing UPI (Unified Payments Interface) user adoption levels and sentiments in India. As a result the research was able to establish some relationship between few of the variables like transaction speed, ease of convenience, trust on the service, and its adoption perception introduced in the question, whereas for a few variables like the app selection, high value transactions, relationship wasn't established. Also, by approaching a UPI payments company, as a part of the study, one can introduce a survey at the end of the payment, which the user can voluntarily fill in which will capture more responses with varied questions.

Shruti Chaure (2023) conducted a study on Enhancing User Experience: Investigating Customer Insights on Unified Payments Interface (UPI) in Pune District. According to the report, most banks in the Pune district do not charge transaction fees for UPI transactions made using their mobile banking apps or other UPI-enabled platforms. This study suggests that UPI transactions are typically feasible for district customers. Our government has made it clear that UPI transactions are for the benefit of the public, and since they are working to promote online commerce, they won't be imposing transaction fees on P2P and P2M transactions any time soon.

Raja Priya et al. (2024) conducted a study on A Study on Influencing Consumer's Perception of Digital Payment in India. They undertook the study, to analyze the factor which influences the consumer's adoption of digital payment to analyze the impact of consumer income status on the usage of digital payments and to analyze the problems faced by consumers while using digital payments. In this study, we examined various avenues of spending that are determined by some factors that contribute to digital payment in a cashless economy. However, issues of digital fraud and network issues did not have a significant impact on consumers' perceptions of digital payments.

Sri Hari et al. (2024) conducted a study on the Determinants of Digital Payments an Empirical Study with Reference to Bangalore City. As a result the preferred digital payment options are PTM, Google Pay, and E-wallets, primarily used by individuals aged between 20 and 45 years for various financial activities However, there is a need for more awareness campaigns to familiarize consumers with different digital payment platforms. Many respondents are limited to using only a few options due to a lack of awareness about other available services. By addressing these challenges, the country can further accelerate its transition towards a more inclusive and digital-centric financial landscape.

3. OBJECTIVES OF THE STUDY

The primary objectives of the study were:

- To understand the socio-economic profile of the respondents.
- To evaluate the determinants influencing customers to use UPI apps.
- To measure the relationship between the adoption and usage of UPI apps.

4. DETERMINANTS INFLUENCING CONSUMER USE OF UPI PAYMENTS

UPI was introduced in April 2016 by the NPCI to provide a robust digital payment platform for consumers and businesses. Its introduction was a significant step towards creating a cashless economy. Before UPI, people had to rely on different modes of digital payment like debit cards, credit cards, or wallets, which had their limitations. The UPI system was designed to eliminate these limitations by offering:

- Instant transactions between bank accounts.

- Simplified mobile numbers (virtual payment addresses) instead of traditional bank account numbers.
- The ability to link multiple bank accounts to a single mobile app.
- A wide acceptance across merchants, both online and offline.

The system was further bolstered by government initiatives like the Digital India Campaign, which encouraged the use of digital payment methods across the country.

Several factors determine how and why consumers prefer UPI-based payments. Some of the key determinants include:

Convenience: UPI allows users to send and receive money instantly, 24/7, across a wide range of devices, including smartphones, making it easier for consumers to make payments quickly without having to visit physical locations.

Security: UPI provides two-factor authentication and encryption, ensuring that transactions are secure and minimizing the risk of fraud.

Ease of Use: The UPI system is integrated into multiple apps, and users can transfer funds using simple mobile numbers or UPI IDs. The seamless process makes it user-friendly.
Government Support: Government initiatives such as "Digital India" have played a significant role in promoting UPI, increasing its adoption across various consumer segments.

Incentives and Rewards: UPI apps often offer cashback, discounts, and other rewards to attract and retain customers, influencing their purchasing decisions.

5. HYPOTHESIS

Following are the hypotheses, which were framed and tested for the study.

- ❖ There is no association between socio-economic variables and factors influencing adoption of UPI.
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6. ANALYSIS OF DATA

Table 6.41 Socio-economic variables

Factors	Category	No. of Respondents	Percentage (%)
1. Gender	Male	48	40
	Female	72	60
2. Age	Below 20	8	6.6
	21-30	51	42.5
	31-40	45	37.5
	41-50	15	12.5
	Above 50	1	0.9
3. Area of Residence	Rural	69	57.5
	Urban	36	30
	Semi-urban	15	12.5
4. Family Income per Month	Below Rs.15000	34	28.3
	Rs.15001- Rs.30000	41	34.1

	Rs.30001- Rs.45000	19	15.8
	Rs.45001- Rs.50000	14	11.8
	Above Rs.60000	12	10
5. Education	School Level	23	19.2
	UG/PG	72	60.0
	Professional Qualification	17	14.2
	No formal education	8	6.7
6. Occupation	Student	14	11.5
	Agriculture	4	3.3
	Government Employee	6	5.0
	Private Employee	79	66
	Business	6	5
	Profession	2	1.7
	Home Maker	7	5.8
	Retired	2	1.7
7. Marital Status	Married	89	74
	Unmarried	31	26
	Separated	0	0
8. No. of Earning Members in the Family	1	36	30
	2	50	41.6
	3	15	12.5
	4 & Above	19	16

Source: Primary Data

The above table depicts the socio-economic variables of the respondents. Out of 120 respondents, 72 (60%) respondents are female, 51 (42.5%) respondents belong to age group of 21-30 years, 69 (57.5%) respondents are from rural area, 41 (34.1%) respondents' family earn income of Rs.15001- Rs.30000 per month, 72 (60%) respondents are UG/PG graduates, 79 (66%) respondents are private employee, 89 (74%) respondents are married and 50 (41.6%) respondents are from the family having 2 earning members.

Table 6.2 Chi-square analysis: Socio-Economic Variable vs. UPI Adoption Factor

Socio-Economic Variable	UPI Adoption Factor	Chi-square (χ^2)	p-value	Significance	Cramér's V
Gender	Convenience	8.43	0.077	Not Significant	0.265
	Fast	12.56	0.014	Significant	0.323
	User Friendly	10.45	0.033	Significant	0.295
Age Group	Easy to Use	22.35	0.134	Not Significant	0.288
	Accurate	20.18	0.211	Not Significant	0.256
Area of Residence	Accurate	14.67	0.066	Not Significant	0.299
Education	Secured	18.23	0.11	Not Significant	0.271
Occupation	Risk-less	34.15	0.081	Not Significant	0.319
Monthly Income	Economical	21.98	0.142	Not Significant	0.278
No. of Earning Members	Convenience	11.34	0.501	Not Significant	0.218

Source: Primary Data

The Chi-square analysis revealed that among the various socio-economic variables, only gender showed a statistically significant association with certain factors influencing the adoption of UPI apps. Specifically, gender was significantly associated with perceptions of speed (Fast) and usability (User Friendly), with males more likely to highly agree on speed, and females showing higher agreement on user-friendliness. Other socio-economic factors such as age group, education, occupation, income level, and area of residence did not exhibit significant relationships with any of the remaining adoption factors, including convenience, security, accuracy, ease of use, risk, and economic benefit. Although some associations approached significance with moderate Cramer's V values, they did not meet the threshold for statistical significance. This suggests that while user perceptions about UPI features vary, most of these variations are not strongly influenced by demographic or socio-economic characteristics, except for select gender-based preferences in speed and user interface design.

Table 6.3 Correlation: Socio-Economic Profile vs. Factors Influencing UPI Adoption

Socio-Economic Variable	Correlation with UPI Factor	Strength	Direction
Gender	-0.18	Weak	Negative
Age Group	-0.31	Moderate	Negative
Area of Residence	0.12	Weak	Positive
Monthly Income	-0.09	Very Weak	Negative
Education Level	-0.42	Moderate	Negative
Occupation	-0.37	Moderate	Negative
Marital Status	-0.11	Very Weak	Negative
No. of Earning Members	0.08	Very Weak	Positive

Source: Primary Data

The correlation analysis between socio-economic variables and factors influencing UPI adoption revealed several noteworthy patterns. Education level and occupation showed a moderate negative correlation with the adoption factor, indicating that more educated and professionally employed individuals are more inclined toward using UPI for account and transaction-related purposes, while less educated users are relatively more influenced by convenience, security, or grievance redressal. Age group also had a moderate negative correlation, suggesting that younger respondents are more likely to adopt UPI for core financial transactions, whereas older individuals may prioritize ease and safety. Gender, marital status, income level, and number of earning members displayed weak or very weak correlations, indicating minimal influence on UPI adoption motivations. The positive but weak correlation with area of residence suggests that urban users slightly favor transactional features. Overall, the results suggest that user preferences for UPI features are modestly shaped by their education, occupation, and age.

Table 6.4 Ranking the factors supporting adoption of UPI

Reason to prefer UPI	No of Respondents	Percentage %	Rank
Convenience	95	79.0	1
Fast	82	68.3	2
User friendly	67	55.8	3
Easy to use	66	55.0	4
Secured	35	29.0	5
Accurate	18	15.0	6
Risk less	15	12.5	7
Economical	15	12.5	7

Source: Primary data

The ranking of reasons for preferring UPI shows that convenience is the most dominant factor, cited by 79% of respondents, followed closely by speed (68.3%). User-friendliness and ease of use also rank high, indicating that respondents value intuitive design and minimal effort in transactions. Security, while important, ranks fifth, suggesting it is secondary to usability. Accuracy, risk-free experience, and economical benefits are the least cited reasons, indicating that these are not primary motivators for most users. Overall, functional and time-saving aspects drive UPI adoption more than technical reliability or cost-saving features.

7. FINDINGS

Majority of the respondents are female (60%), aged 21–30 years (42.5%), from rural areas (57.5%), with UG/PG education (60%), and working in the private sector (66%). Most belong to families earning Rs.15,001–30,000 per month (34.1%), with two earning members (41.6%), and are married (74%). Gender is the only socio-economic factor that shows a significant association with UPI adoption aspects. Males associate more with speed, while females favor user-friendliness. Other variables (age, income, education, etc.) do not significantly influence perceptions of UPI features. Education, occupation, and age show moderate negative correlations with UPI adoption factors.

Educated and employed users prefer account and transaction purposes, while less educated prefer security and convenience. Urban users show a slight preference for transaction-related features. Top reasons include convenience (79%), speed (68.3%), user-friendliness, and ease of use. Security, accuracy, and economic benefits are less important for most users. UPI adoption is primarily driven by functionality and efficiency, not cost or technical precision.

8. SUGGESTIONS

- Since female users value user-friendliness, UPI apps should prioritize simplified, intuitive interfaces that cater to all literacy levels.
- As speed is a key preference for male users, optimizing transaction time and reducing lag should be a core focus.
- With a majority of users from rural areas, conduct digital literacy drives and hands-on demos to build awareness and trust.
- Younger users focus on transactions; older ones seek security. Tailor feature promotions and tutorials accordingly.
- Users are less aware of security and grievance redressal features. Highlight these through targeted awareness campaigns.
- Private employees form the largest user group. Provide customized tools or discounts aligned with salaried user needs.
- Since many prefer UPI for core financial functions, emphasize bank-grade security and compliance.
- To support rural and semi-urban populations, apps should provide multi-language interfaces and voice assistance.
- Reward users for enabling two-factor authentication or using UPI PINs securely to promote risk-free adoption.
- Partner with local banks, colleges, and community centers to conduct UPI education drives and help desks.

9. CONCLUSION

Based on the study findings, it is evident that UPI adoption is strongly influenced by factors such as convenience, speed, user-friendliness, and ease of use, with users prioritizing functionality and time-efficiency over technical accuracy or economic benefits. Gender emerged as the only socio-economic variable significantly associated with specific UPI adoption factors, highlighting the

importance of tailoring features like speed and user interface to user preferences. Correlation analysis further revealed that education, occupation, and age moderately influence adoption, especially in favoring account and transaction purposes. The dominance of female, rural, and private sector users underscores the need for inclusive and user-centric design. To enhance adoption and sustained usage, targeted initiatives such as digital literacy programs, gender-sensitive app design, improved reliability, and multilingual support are essential. Strengthening awareness of security and grievance redressal mechanisms will further build trust. Overall, UPI growth depends on aligning technological features with user expectations and socio-demographic realities.

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