



A STUDY ON IMPACT OF UPI ADOPTION ON PAYMENT PREFERENCES IN COIMBATORE CITY

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Abstract: This study examines the impact of Unified Payments Interface (UPI) adoption on payment preferences and behaviors in Coimbatore, India. Introduced by the National Payments Corporation of India (NPCI), UPI has transformed digital transactions by enabling real-time inter-bank transfers via mobile platforms. The research assesses how UPI usage affects traditional payment methods, especially ATM withdrawals and cash transactions. It also explores factors influencing UPI adoption, such as user awareness, satisfaction, and preference for digital payments. The findings reveal a notable decline in ATM withdrawal frequency post-UPI adoption, signaling a shift toward cashless transactions. Differences in UPI knowledge and satisfaction levels were observed across age and income groups. Moreover, profession significantly influenced preference for UPI over cash. These insights offer valuable implications for financial institutions, policymakers, and stakeholders aiming to enhance digital payment systems and promote financial inclusion in India are evolving fintech landscape. The study emphasizes UPI's growing role in reshaping consumer payment behavior.

Keywords: *Unified Payment System Impact of UPI adoption, ATM Cash Withdrawal, Cashless Economy, Financial Literacy, Cash dependency, UPI Satisfaction, Coimbatore City*

1. INTRODUCTION

The financial sector in India has experienced rapid changes over the past decade, mainly due to technological progress and the growth of financial technology (FinTech) services. One of the key innovations transforming the way people handle financial transactions is the Unified Payments Interface (UPI). Launched by the National Payments Corporation of India (NPCI) in 2016, UPI enables users to transfer money instantly between bank accounts using mobile devices. It offers a convenient and secure alternative to traditional payment methods, such as using cash or withdrawing money from ATMs.

Since its introduction, UPI has gained widespread acceptance, recording billions of transactions each month. Its popularity is especially strong among younger, urban populations who are more familiar with smartphones and digital platforms. As a result, there has been a noticeable reduction in the use of cash and ATM withdrawals, reflecting a shift towards a more digital economy. This transition is particularly significant in cities like Coimbatore, where economic diversity and a growing business community contribute to evolving financial habits.

However, despite its success, UPI usage is not the same across all sections of society. Various factors—including age, profession, income level, and digital literacy—affect how easily people adopt this payment system. While tech-savvy individuals tend to adapt quickly, others, such as older adults or those with limited access to technology, may face challenges in using UPI. Furthermore, security concerns, transaction failures, and fraud risks remain deterrents for some users, leading to continued reliance on cash-based transactions.

Another important aspect influencing the adoption of UPI is the level of financial awareness and knowledge among users. Understanding UPI's features, benefits, and security measures plays a major role in shaping people's confidence and willingness to use digital payment methods. A lack of awareness can lead to hesitation, especially among users who are more comfortable with conventional banking systems. Therefore, enhancing financial literacy and providing clear information about UPI's security protocols could drive higher adoption rates across diverse demographics. This study focuses on analyzing the impact of UPI adoption in Coimbatore, examining its influence on financial habits, particularly regarding dependency on cash and the frequency of ATM withdrawals. Additionally, it explores users' awareness levels, the factors influencing their preference for UPI over cash, and their overall satisfaction with UPI services. By conducting surveys and analyzing data, the research aims to identify key trends in digital payment behavior and address the challenges faced by different user segments.

By addressing these areas, the study aims to offer useful insights for banks, financial institutions, policymakers, and digital payment service providers. The findings will help develop strategies to encourage wider adoption of UPI, improve financial literacy, and ensure

that all demographic groups are included in the transition towards a cashless economy. Understanding these dynamics is crucial for shaping future financial policies and ensuring that digital payment solutions remain accessible, secure, and inclusive for all sections of society.

2. STATEMENT OF THE PROBLEM

Despite the rapid adoption of UPI in India, its impact on consumer behavior, particularly in reducing cash dependency and ATM withdrawals, remains underexplored. While younger, urban users have embraced digital transactions, concerns related to security, financial awareness, and accessibility hinder wider adoption among certain demographics. This study aims to assess how UPI influences financial habits in Coimbatore, identifying key factors affecting user adoption and satisfaction. The research seeks to provide insights that can help financial institutions and policymakers develop strategies to promote financial literacy and ensure an inclusive transition to a digital economy.

3. REVIEW OF LITERATURE

DINESH M. KOLTE & DR. VEENA R. HUMBE (2024)¹, The study highlights how the increased penetration of smartphones and affordable internet access has enabled the widespread adoption of mobile-based payment systems. Mobile and internet usage, boosted by initiatives under Digital India, have been instrumental in facilitating digital payments across both urban and rural regions. The authors emphasize that the transparency, security, and convenience provided by digital transactions contribute significantly to strengthening India's financial infrastructure and fostering economic growth.

KAMALASARAVANAN AND KALADEVI AISHWARIYA (2024)² The study explores the growing role of UPI payment services among merchants in Madurai. The research emphasizes how UPI has become a crucial element in digital transactions, particularly in the retail sector. The authors highlight the advantages of UPI, such as ease of use and wide acceptance, while also pointing out challenges like server issues and transaction failures. They recommend enhancing internet connectivity through advanced networks like 5G to minimize technical disruptions. The study suggests making UPI services more accessible by offering them in regional languages and ensuring simplicity so that elderly and uneducated users can also benefit.

ASWIN SHAJU (2024)³ The study investigates consumer perceptions and concerns regarding the usage of UPI payment systems. The research identifies security as the primary concern influencing consumer adoption of UPI services. Many users still prefer traditional payment methods like cash or cards, considering them more secure compared to digital payments. Additionally, the study highlights infrastructural challenges such as poor internet connectivity, particularly in rural areas and certain urban pockets, which hinder smooth digital transactions.

SHARMA, R., & GUPTA, S. (2023)⁴ This study investigates how the adoption of digital payment systems, such as UPI, is influencing consumer preferences towards traditional banking services like ATM cash withdrawals. The authors argue that as digital payment methods become more accessible, consumers are increasingly opting for cashless transactions. However, the preference for cash transactions remains relatively high among certain demographic groups, including older generations and people from rural areas.

KUMAR, A., & RANI, P. (2022)⁵ In this study, the authors focus on how the introduction of UPI (Unified Payments Interface) has reshaped consumer spending behaviors and cash usage patterns. Through a survey of college students and professionals in Coimbatore, the paper concludes that UPI has led to a shift in the preference for digital payments over physical cash among younger users, while professionals still lean towards using ATM withdrawals for large transactions.

4. OBJECTIVES OF THE STUDY

Primary Objective

- To examine the impact of Unified Payments Interface (UPI) adoption in Coimbatore.

Secondary Objective

- To investigate the impact of UPI adoption on the frequency of ATM cash withdrawals among target population.
- To evaluate the awareness and knowledge levels of UPI features and benefits among the target population.
- To investigate the factors influencing the preference for UPI over traditional cash transactions.
- To assess the level of satisfaction among the population with the use of UPI (Unified Payments Interface).

5. SCOPE OF THE STUDY

This study explores the adoption and impact of Unified Payments Interface (UPI) in Coimbatore, examining its influence on payment preferences and cash dependency. It targets Coimbatore's population, segmented by age, profession, income, and digital literacy, to analyze varying adoption patterns. The research assesses how UPI adoption correlates with ATM withdrawal frequency, indicating shifts in cash reliance. Additionally, it evaluates UPI awareness, understanding, and factors influencing its preference over cash (convenience, security). Barriers to adoption, such as security concerns and technological limitations, are also investigated. User satisfaction with UPI's ease of use and perceived benefits is assessed. Data is collected through surveys and analyzed using Jamovi to identify trends and patterns in UPI usage, ultimately aiming to enhance digital financial inclusion and promote cashless transactions in Coimbatore.

6. RESEARCH METHODOLOGY

6.1. Research Design

The study employs a descriptive research design to analyze UPI adoption's impact on payment preferences in Coimbatore.

6.2. Population

The study focuses on a diverse demographic group within Coimbatore, spanning various age groups, professions, and socio-economic backgrounds.

6.3. Sampling technique:

Convenience Sampling is used to ensure representation from different demographic segments of the Coimbatore population.

6.4. Sample size:

150 respondents, representing a cross-section of Coimbatore's population

6.5. Source of Data

a) Primary data: Primary data means data which is fresh collected data. Primary data mainly been collected through Questionnaire. The primary research instrument is a pre-tested questionnaire consisting of both close-ended and Likert scale questions. The questionnaire includes questions that assess respondent attitudes toward UPI, ATM usage, and physical cash. The survey will be administered through Google Forms for wider reach

b) Secondary data: Secondary data means the data that are already available. Generally speaking, secondary data is collected by some organizations or agencies which have already been processed when the researcher utilizes secondary data; the process of secondary data collection and analysis is called desk research.

6.6 Data analysis tools

Data analysis will be conducted using software such as Jamovi, and Microsoft Excel. These tools enable efficient data processing, statistical analysis, and visualization of results

6.7 Data analysis Techniques

Following Tools are used in the study

- One way ANOVA: Compares the means of two or more independent groups to see if they are statistically different.
- Independent samples T test: Determines if there is a significant difference in the means of two independent groups.
- Factor analysis : A statistical method used to reduce a large number of variables into a smaller number of factors.
- Paired sample T test: Compares the means of two related groups to determine if there is a significant difference between them.
- Chi Square Test: Tests for association between two categorical variables.
- Simple Percentage Analysis: Calculates the percentage of responses within different categories to understand data proportions

6.8. Limitations for the study

- The study focuses solely on Coimbatore and may not reflect the payment behavior patterns of other regions in India, such as rural areas or urban centres with differing levels of UPI adoption.
- While the study targets a diverse population, some demographic groups (e.g., senior citizens, homemakers, or individuals in rural areas surrounding Coimbatore) may still be underrepresented.

7.1 DESCRIPTIVE STATISTICS:

Table 7.1 Descriptive Statistics

	Age:	Gender	Profession	Monthly Income (in INR)
N	150	150	150	150
Missing	0	0	0	0
Mean	3.15	1.60	2.29	2.11
Std. error mean	0.125	0.0401	0.111	0.0984
Median	2.00	2.00	2.00	2.00
Mode	2.00	2.00	1.00	1.00
Standard deviation	1.53	0.492	1.36	1.20
Variance	2.33	0.242	1.84	1.45
Minimum	1	1	1	1
Maximum	6	2	6	5
Skewness	0.841	-0.412	0.884	0.912
Std. error skewness	0.198	0.198	0.198	0.198
Kurtosis	-0.848	-1.85	-0.336	-0.173
Std. error kurtosis	0.394	0.394	0.394	0.394

Interpretation

- **Age Distribution:-**The mean age is 3.15, suggesting most respondents are in the middle-age group (likely 25–34 years). The standard deviation (1.53) indicates moderate variability across different age groups.
- **Gender Distribution:-**The mean gender value of 1.60 suggests a slightly higher number of female respondents. The low standard deviation (0.492) indicates minimal variation in gender distribution.
- **Profession Distribution:-**The mean profession value of 2.29 suggests respondents are primarily early-career professionals or students. The standard deviation (1.36) indicates diversity in professional backgrounds.
- **Monthly Income Distribution:-**The mean income value of 2.11 suggests respondents mostly fall in the lower to middle-income bracket. The standard deviation (1.20) shows some variation, indicating a mix of income levels.

7.2. PAIRED SAMPLE T-TEST

Null Hypothesis (H₀): "There is no significant difference in the frequency of ATM cash withdrawals before and after adopting UPI."

Alternative Hypothesis (H₁): "There is a significant decrease in the frequency of ATM cash withdrawals after adopting UPI."

Table 7.2 Table shows the analysis the impact of UPI adoption on ATM cash withdrawal frequency.

Paired Samples T-Test					
			statistic	df	P
How frequently did you use ATMs BEFORE adopting UPI?	How frequently do you use ATMs AFTER adopting UPI?	Student's t	-8.81	149	<.001
Note. H _a μ _{Measure 1} - Measure 2 ≠ 0					

Interpretation:

A Paired Samples T-Test was conducted to analyze the impact of UPI adoption on ATM withdrawal frequency, yielding a t-statistic of -8.81 (df = 149, p < 0.001). The significant p-value leads to the rejection of the null hypothesis, confirming a notable decline in ATM withdrawals post-UPI adoption. This provides strong statistical evidence that UPI adoption reduces individuals' dependence on cash withdrawals from ATMs

7.3. CHI-SQUARE TEST: PROFESSION VS. UPI PREFERENCE.

Null Hypothesis (H₀):-There is no significant association between profession and preference for UPI over cash.

Alternate Hypothesis (H₁):-There is a significant association between profession and preference for UPI over cash

Table 7.3. Table shows the result of chi square test of independence to examine the Relationship Between profession and Preference for UPI over Cash.

Contingency Tables								
		What type of transaction do you primarily use UPI for?						
Profession		small daily purchases (e.g., groceries)	Utility Payments	bill	Online Shopping	Peer-to-Peer Transfers	All the Above	Total
Student	Observed	12	2		10	4	27	55
	Expected	13.567	4.7667		6.967	4.0333	25.667	55.00
working professional	Observed	11	5		2	0	27	45
	Expected	11.100	3.9000		5.700	3.3000	21.000	45.00
self-employed	Observed	3	4		2	3	8	20
	Expected	4.933	1.7333		2.533	1.4667	9.333	20.00
Homemaker	Observed	5	0		4	1	3	13
	Expected	3.207	1.1267		1.647	0.9533	6.067	13.00
Retired	Observed	6	1		1	3	5	16
	Expected	3.947	1.3867		2.027	1.1733	7.467	16.00
Business	Observed	0	1		0	0	0	1
	Expected	0.247	0.0867		0.127	0.0733	0.467	1.00
Total	Observed	37	13		19	11	70	150
	Expected	37	13		19	11	70	150

χ ² Tests			
	Value	Df	P
χ ²	39.5	20	0.006
N	150		

Intrepretation:

Chi-Square Test of Independence (χ² = 39.5, df = 20, p = 0.006) revealed a significant association between profession and UPI preference. Since p < 0.05, we reject the null hypothesis, confirming that different professional groups use UPI differently. Students and working professionals mostly use UPI for all transactions, while homemakers and retirees have selective usage patterns. This highlights how profession influences digital payment preferences over cash transactions.

7.4. ONE-WAY ANOVA TO COMPARE UPI SATISFACTION ACROSS DIFFERENT INCOME GROUPS

Null Hypothesis (H₀): "There is no significant difference in UPI satisfaction levels across different Income groups."

Alternate Hypothesis (H₁):"There is a significant difference in UPI satisfaction levels across different Income groups"

Table 7.4. Shows one-way anova -Compare UPI satisfaction across different income groups

One-Way ANOVA (Welch's)				
	F	df1	df2	p
Rate your Satisfaction Level [How satisfied are you with your overall experience of using UPI?]	6.753	4	43.2	<.001
Rate your Satisfaction Level [How satisfied are you with the convenience of UPI for making payments (eg., Bill payments,P2P transfers, online purchase)?]	2.096	4	38.9	0.100
Rate your Satisfaction Level [Compared to other digital payment methods(eg., cards,e-wallet,net banking), how Satisfied are you with UPI?]	3.436	4	35.8	0.018
Rate your Satisfaction Level [How Satisfied are you with the support and resolution provided for UPI-related Issues?]	0.871	4	35.1	0.491

Interpretation

The ANOVA analysis indicates significant differences in UPI satisfaction across income groups, with overall satisfaction (F = 6.753, p < 0.001) and preference for UPI over other digital payment methods (F = 3.436, p = 0.018) varying notably based on income. However, satisfaction with UPI's convenience (F = 2.096, p = 0.100) and support services (F = 0.871, p = 0.491) do not show significant differences. This suggests that income influences overall satisfaction and comparative preference for UPI but not users' perception of convenience and support services.

7.5 INDEPENDENT T-TEST: UPI AWARENESS AND KNOWLEDGE LEVELS BY GENDER

Null Hypothesis (H₀):-There is no significant difference in the mean awareness and knowledge levels of UPI features between male and female respondents.

Alternate Hypothesis (H₁):-There is a significant difference in the mean awareness and knowledge levels of UPI features between male and female respondents.

Table 7.5 shows the result of Independent T- test

Independent Samples T-Test				
	Statistic	df	p	
How would you rate your knowledge about UPI and its features? On a scale of 1(very Poor) to 5 (very excellent)	Student's t	1.85	148	0.066
Note. H _a μ _{male} ≠ μ _{female}				

Interpretation:

An Independent Samples T-Test was conducted to compare UPI awareness and knowledge levels between male and female respondents. The test resulted in a t-statistic of 1.85 (df = 148, p = 0.066), indicating no statistically significant difference. While males had a slightly higher mean knowledge score (4.03) than females (3.72), the difference was not significant.

7.6. CORRELATION ANALYSIS BETWEEN KNOWLEDGE, FREQUENCY OF UPI USAGE, AND SATISFACTION LEVEL

Null Hypothesis (H₀): There is no significant correlation between knowledge about UPI, frequency of UPI usage, and satisfaction level.

Alternative Hypothesis (H₁):There is a significant correlation between knowledge about UPI, frequency of UPI usage, and satisfaction level.

Table 7.6.Shows the result of Correlation Matrix

Correlation Matrix				
		How would you rate your knowledge about UPI and its features? On a scale of 1(very Poor) to 5 (very excellent)	Rate your Satisfaction Level	How frequently do you use UPI for Transaction?
How would you rate your knowledge about UPI and its features? On a scale of 1(very Poor) to 5 (very excellent)	Pearson's r	—		
	Df	—		
	p-value	—		

Rate your Satisfaction Level [How 2 are you with your overall experience of using UPI?]	Pearson's r	-0.369***	—	
	Df	148	—	
	p-value	<.001	—	
How frequently do you use UPI for Transaction?	Pearson's r	-0.596***	0.447***	—
	Df	148	148	—
	p-value	<.001	<.001	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Interpretation:

The correlation analysis found a significant negative relationship between UPI knowledge and satisfaction ($r = -0.369$, $p < 0.001$), meaning higher knowledge is linked to lower satisfaction. Similarly, knowledge and transaction frequency showed a strong negative correlation ($r = -0.596$, $p < 0.001$), indicating knowledgeable users use UPI less frequently. However, a positive correlation between transaction frequency and satisfaction ($r = 0.447$, $p < 0.001$) suggests that frequent users are more satisfied. These findings imply that while knowledge alone doesn't enhance satisfaction, frequent usage improves user experience.

7.7 EXPLORATORY FACTOR ANALYSIS TO IDENTIFY KEY FACTORS INFLUENCING UPI ADOPTION AND USAGE

Null Hypothesis (H_0): There are no underlying latent factors that significantly influence the adoption and usage behavior of UPI among respondents.

Alternate Hypothesis (H_1): There are underlying latent factors that significantly influence the adoption and usage behavior of UPI among respondents.

Table 7.7: Shows the Exploratory Factor Analysis

Factor Loadings		
	Factor 1	Unique ness
What motivates you to choose UPI over cash? (Select all that apply):		0.998
Rate your agreement with the following statements: [Rewards and cash back influence my preference for UPI.]	0.415	0.828
Rate your agreement with the following statements: [I use cash over UPI in situations with limited internet]	0.589	0.653
Rate your agreement with the following statements: [UPI transactions are secure.]	0.716	0.487
Rate your agreement with the following statements: [UPI is easy to use for individuals with minimal technical knowledge.]	0.689	0.525
Rate your agreement with the following statements: [UPI saves me time compared to cash-based transactions.]	0.730	0.467
Rate your agreement with the following statements: [I often face technical issues while using UPI.]	0.313	0.902
Rate Your agreement with the following statements: (CASH vs UPI) [UPI transactions are more convenient than cash.]	0.800	0.359
Rate Your agreement with the following statements: (CASH vs UPI) [UPI has simplified paying bills and managing finances.]	0.813	0.338
Rate Your agreement with the following statements: (CASH vs UPI) [UPI has reduced my dependency on physical cash]	0.790	0.375

Note. 'Principal axis factoring' extraction method was used in combination with a 'varimax' rotation

Assumption Checks

Bartlett's Test of Sphericity		
χ^2	df	P
752	45	<.001

KMO Measure of Sampling Adequacy	
	MSA
Overall	0.832
What motivates you to choose UPI over cash? (Select all that apply):	0.511
Rate your agreement with the following statements: [Rewards and cashback influence my preference for UPI.]	0.783
Rate your agreement with the following statements: [I use cash over UPI in situations with limited internet]	0.874
Rate your agreement with the following statements: [UPI transactions are secure.]	0.859
Rate your agreement with the following statements: [UPI is easy to use for individuals with minimal technical knowledge.]	0.813
Rate your agreement with the following statements: [UPI saves me time compared to cash-based transactions.]	0.833
Rate your agreement with the following statements: [I often face technical issues while using UPI.]	0.789
Rate Your agreement with the following statements: (CASH vs UPI) [UPI transactions are more convenient than cash.]	0.854
Rate Your agreement with the following statements: (CASH vs UPI) [UPI has simplified paying bills and managing finances.]	0.797
Rate Your agreement with the following statements: (CASH vs UPI) [UPI has reduced my dependency on physical cash]	0.866

Interpretation:

An Exploratory Factor Analysis (EFA) using Principal Axis Factoring with Varimax rotation was conducted to identify key factors influencing UPI adoption and usage behavior. The Kaiser-Meyer-Olkin (KMO) measure was 0.832, indicating strong sampling adequacy, while Bartlett's Test of Sphericity ($\chi^2 = 752$, $df = 45$, $p < 0.001$) confirmed that correlations among variables were suitable for factor analysis. The factor loading table revealed that convenience and efficiency play a major role, with statements like "UPI transactions are more convenient than cash" (loading = 0.800) and "UPI has simplified paying bills" (loading = 0.813) showing strong loadings. Security perceptions and time-saving benefits also emerged as significant factors. The statement "What motivates you to choose UPI over cash?" exhibited the highest loading (0.998), reinforcing its importance. Low uniqueness values affirmed that key variables were well represented in the factor structure. Based on these findings, the null hypothesis is rejected, confirming that convenience, security, and efficiency significantly drive UPI adoption and usage.

Finding

This study examined the impact of Unified Payments Interface (UPI) adoption on payment preferences in Coimbatore city. The research utilized a descriptive research design and convenience sampling to survey 150 respondents across various demographics. Primary data was collected through a pre-tested questionnaire and analyzed using simple percentage analysis, descriptive statistics, Chi-square tests, t-tests, ANOVA, and correlation analysis.

- The majority of respondents are young adults (18-24 years).
- There is a higher representation of females (60%) compared to males (40%).
- The largest group of respondents are students (36.7%), followed by working professionals (30%).
- Most respondents used ATMs weekly (41.3%) before adopting UPI.
- After adopting UPI, the majority rarely use ATMs (52.7%), indicating a significant shift in behaviour.
- A significant majority (34.7%) strongly agree that their ATM usage has decreased since adopting UPI.
- However, a substantial proportion (37.3%) remains neutral on their reliance on ATMs for significant cash withdrawals.
- A large proportion (44.7%) rates their knowledge of UPI and its features as excellent.
- A majority (62.7%) use UPI daily for transactions.
- Most respondents (69.3%) have been using UPI for over a year, indicating strong adoption.
- The average transaction value for most users (45.3%) is between ₹100-₹500.
- UPI is frequently used for small daily purchases by a large majority (72.8%).
- Cash usage for small daily purchases is relatively low, with only 25.3% using it frequently.
- UPI is primarily used for small daily purchases (24.7%) and online shopping (24%).
- Convenience (50.7%) and ease of use (33.3%) are the main reasons for preferring UPI over other payment methods.
- Security and trust in UPI are rated neutrally by most respondents (36%).
- Most respondents (53.3%) find UPI very easy to use.
- Overall satisfaction with UPI is high, with 25.3% very satisfied and 35.3% satisfied.
- Satisfaction with UPI's ease of use is also high, with 27.3% very satisfied and 30.7% satisfied.
- A majority (44%) are satisfied with UPI compared to other digital payment methods.
- Satisfaction with customer support for UPI is moderate, with 46.7% satisfied.
- Descriptive statistics indicate that the average respondent is middle-aged, female, likely a student or working professional, with a lower to middle-income.
- Chi-square tests reveal a significant association between profession and ATM withdrawal frequency after UPI adoption ($p = 0.008$).
- However, no significant association was found between age and preference for UPI over cash ($p = 0.051$).
- A significant association exists between profession and preference for UPI over cash ($p = 0.006$).
- ANOVA tests indicate significant differences in UPI knowledge levels across age groups ($p = 0.030$) and income groups ($p = 0.002$).
- ANOVA also shows significant differences in UPI satisfaction levels across age groups and income groups for certain aspects of UPI experience.
- T-tests reveal no significant difference in UPI awareness and knowledge levels between male and female respondents ($p = 0.066$).
- Correlation analysis indicates a significant negative correlation between UPI knowledge and satisfaction ($p < 0.001$), a strong negative correlation between UPI knowledge and frequency of use ($p < 0.001$), and a positive correlation between frequency of use and satisfaction ($p < 0.001$).
- There is also a significant negative correlation between UPI reliance and user satisfaction ($p < 0.001$).
- The KMO measure of 0.832 confirms the dataset is suitable for factor analysis.
- Bartlett's Test of Sphericity ($\chi^2 = 752$, $df = 45$, $p < 0.001$) validates strong correlations among variables.
- Convenience is a major factor, with high factor loadings for ease of transactions and bill payments.
- Security perception influences adoption, with "UPI transactions are secure" showing strong loading (0.716).
- Time-saving benefits impact usage, with "UPI saves time compared to cash" loading at 0.730.
- Internet dependency affects usage, with "using cash when internet is limited" showing a moderate loading (0.589).
- Financial incentives play a minor role, with "rewards and cash back" loading at 0.415.
- The null hypothesis is rejected, confirming multiple latent factors influence UPI adoption and usage behavior.

These findings collectively suggest that UPI has been widely adopted in Coimbatore, particularly among younger demographics and for daily transactions. While it has led to a decrease in ATM usage, satisfaction levels vary across demographic groups and are influenced by factors like knowledge, frequency of use, and perceived convenience.

Suggestions

- Awareness campaigns to educate users to be conducted especially for older adults and lower-income groups, on UPI features, security, and benefits.
- Fraud protection mechanisms can be strengthened to address security concerns and boost user confidence in digital payments.
- UPI transaction speed and reliability to be enhanced to minimize technical glitches and transaction failures.
- Small businesses and less tech-savvy merchants should be encouraged to adopt UPI through incentives, training, and simplified interfaces.
- Multilingual UPI interfaces can be developed and offline payment options to cater to diverse user groups, including rural and semi-urban populations.
- Responsiveness and resolution mechanisms to be improved for UPI-related issues to enhance user satisfaction.
- Cash back offers, discounts, and financial incentives to be continued to motivate more users to switch to UPI.
- Periodic research to be conducted to assess evolving consumer behavior and make necessary improvements in digital payment services.

Conclusion:

This research in Coimbatore provides valuable insights into the evolving landscape of digital payments in India, specifically focusing on the impact of UPI adoption on payment preferences and behaviors. The research findings confirm that UPI has significantly influenced the way people transact, leading to a demonstrable decrease in traditional practices such as ATM withdrawals and increased reliance on mobile-based transactions for daily purchases. This shift underscores UPI's effectiveness in promoting a less cash-dependent economy and its role in accelerating the digitization of financial transactions. The study highlights that UPI adoption and usage patterns are not uniform across all demographic segments. Factors such as age, profession, and income level play a significant role in shaping individuals' acceptance and utilization of UPI. Younger, digitally savvy individuals and working professionals tend to embrace UPI more readily, while older adults and individuals with lower incomes may face challenges related to digital literacy and access.

Furthermore, the research reveals a complex relationship between user knowledge, satisfaction, and usage frequency. While increased awareness of UPI features is generally positive, the study indicates that higher knowledge levels do not always translate to greater user satisfaction or more frequent usage. This suggests that factors beyond knowledge, such as ease of use, security concerns, and reliability of the system, also significantly influence user experience.

In conclusion, UPI has emerged as a key driver of digital financial inclusion in Coimbatore, transforming the city's payment ecosystem. To further enhance UPI adoption and maximize its benefits, stakeholders, including financial institutions, policymakers, and technology providers, should focus on addressing the identified challenges. This includes implementing targeted educational initiatives to improve digital literacy, strengthening security measures to build user trust, ensuring the reliability and accessibility of UPI services, and tailoring strategies to meet the diverse needs of different user groups. By doing so, it will be possible to create a more inclusive and efficient digital payment ecosystem that benefits all segments of society.

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