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## A Study on Consumer Preference of Unified Payment Interface (UPI) With Reference to Chennai City

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### Abstract

*This study aims to analyze consumer preferences towards the Unified Payment Interface (UPI) in Chennai city. Unified Payments Interface (UPI) is an instant real-time payment system developed by National Payments Corporation of India (NPCI). The interface facilitates inter-bank peer-to-peer (P2P) and person-to-merchant (P2M) transactions. It is used on mobile devices to instantly transfer funds between two bank accounts. The study was done with the quantitative research approach, and data was collected through a structured questionnaire from 100 respondents residing in Chennai city. The questionnaire focused on various aspects such as awareness, usage, satisfaction, and preference towards UPI-based payments. The findings of the study indicated that the awareness and preference of payments through were high among respondents, with over 61 % preferred payment over UPI. The most common use cases for UPI payments were bill payments, online shopping, and Fund transfers. The research makes use of statistical analysis tools like ANOVA, chi-square, and percentage analysis to study various factors and determine the relationship between the variables.*

**Key Words:** Unified Payment Interface, UPI, Awareness, Satisfaction, preference

### INTRODUCTION

UPI (Unified Payment Interface) is a real-time inter-bank electronic fund transfer service in India, developed by the National Payments Corporation of India (NPCI). It allows users to instantly transfer money between any two bank accounts on the mobile platform, without the need for a physical bank account or net banking credentials. UPI enables a range of financial transactions, including fund transfers, bill payments, mobile recharge, and more, using a mobile device. Users can link their multiple bank accounts to a single UPI ID and make transactions without having to remember multiple bank account numbers, IFSC codes, or net banking passwords. UPI is based on Immediate Payment Service (IMPS) and is built on top of the National Financial Switch (NFS), which is the largest interbank network in India. It uses a

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two-factor authentication process for secure transactions and also has a 24x7 dispute resolution mechanism. UPI has been instrumental in driving financial inclusion and digitalization in India, making it easier for individuals, especially in rural areas, to access financial services. The platform has seen tremendous growth since its launch, with millions of transactions being conducted every day.

### **OBJECTIVES OF THE STUDY**

1. To analyze the customer preference on Unified payment interface (UPI) in Chennai.
2. To analyze the relationship of respondent's education towards UPI services
3. To study the problem faced by customers while using UPI apps.
4. To study the awareness of UPI payment services.

### **SIGNIFICANCE OF STUDY**

This paper studies the consumer preference on Unified payment interface (UPI) with reference to Chennai. This study investigates the awareness of Unified payment Interface and helps the researcher to know the Problems faced by the respondents while using Unified Payment Interface (UPI). This paper also helps to know how UPI has impacted the Cashless and digital Indian economy.

### **STATEMENT OF PROBLEM**

India's digital payment ecosystem has been rapidly evolving in recent years, with the introduction of various payment platforms and services. One of the most significant developments in this space has been the introduction of the Unified Payments Interface (UPI) in 2016. UPI is a real-time payment system developed by the National Payments Corporation of India (NPCI) that enables users to instantly transfer money between bank accounts via their mobile phones. Since its launch, UPI has gained significant traction, with over 2 billion transactions and a transaction volume of more than Rs.4 trillion in January 2022. Despite the growing popularity of UPI, there is a need to understand its impact on the adoption and usage of digital payments in India. The research problem statement for this study is to investigate the impact of Unified Payments Interface (UPI) on the adoption and usage of digital payments in India, with a focus on the factors influencing consumer behavior and challenges for consumers in the UPI ecosystem.

### **RESEARCH METHODOLOGY**

#### **Sources of Data:**

#### **Primary Sources**

In this study, we used primary for data collection. Basic data is collected through a systematic questionnaire that is distributed to respondents.

- The first part focused on the data related to demographic characteristics of the respondents: this covered gender, age, Occupation, location, Educational qualifications and annual income.
- The second part of the questionnaire Studies the customer preferences towards Unified payment interface (UPI).

### **Sampling of the study,**

The sample selected from the study was a total of 100 respondents through a systematic and technological manner. The questionnaire was first tested with certain number of primary respondents (10 people). Based on the reviews and feedback made by the primary respondents, suitable changes were made and questionnaire was finally issued to the public for the collection of data.

### **REVIEW OF LITERATURE**

#### **1. “A Study On Awareness And Customer Satisfaction Of Unified Payment Interface (Upi) For Digital Payments With Reference To Ambasamudram Area”, C Poorna Pushkala (2021)**

A system for interbank transfers called "Unified Payment Interface" enables sending and receiving money. It was created by the National Payments Corporation of India (NPCI), and the Reserve Bank of India oversees its regulation. The Bhim-UPI App is built on the Immediate Payment Service (Imps) Infrastructure and enables real-time money transfers between any two parties' bank accounts. A client's various bank accounts may be connected to the UPI app. By scanning a QR code with the account number, ifsc code, or MMID (Mobile Money Identifier) code, users of the Bhim App can send or receive money to or from UPI Payment Addresses as well as to non-Upi-based accounts. Banks Are Referred To As Payment Service Providers If They Are Listed With The Npci's Upi Application (Psp). Psp is a term used to describe banks with their own mobile applications for transaction facilitation. Issuers are banks that rely on third-party software for Upi transactions rather than having their own payment interface. In this essay, an effort is made to gauge public awareness of and satisfaction with the unified payment interface as well as the criteria used by consumers to choose their preferred digital payment method. This research was carried out to determine whether UPI was being adopted by money transfer systems.

#### **2. “A study on consumer behaviour towards UPI (Unified Payment Interface) payment application based in Nilgiris District”, Dr. M. Bhuvanewari, Dr. S. Kamalasaravanan, V. Kanimozhi (2021)**

It is essential that all clients and consumers are aware of the importance of digital payments in the contemporary era. The reasons are several, including the mechanization of e-documentation and digital India. Due to a number of factors, including time and safety, the physical payment method is increasingly important today. This made it possible to use electronic payment methods like online banking, which were again made easier by android mobile phones. In keeping with this idea, the research was organized based on customer attitudes toward UPI (Unified payments interface). The goal of this study is to understand consumer perception, awareness, and satisfaction. This study's research methodology is a descriptive research design, with a structured questionnaire as the main method of data collection, 105 respondents, and the statistical methods of chi-square, ANOVA analysis, and Multiple Regression. The study's geographic scope was set to the village of Erumadu in the Nilgiris area for UPI payment applications.

**3. “To Study the Consumer Satisfaction on UPI (Unified Payments Interface) with Special Reference to Hyderabad and Suburbs”, Mr. Deepak Chaudhari Research Scholar, KBC North Maharashtra University, Jalgaon (2019)**

The Unified Payments Interface (UPI), developed by National Payments Corporation of India (NPCI), an umbrella organization of the Reserve Bank of India, is regarded as one of the greatest innovations in the history of electronic payments. A mechanism called Unified Payments Interface (UPI) allows any participating bank to power multiple bank accounts through a single mobile application (NPCI, 2019). On April 11, 2016, Dr. Raghuram G. Rajan, Governor of the RBI, introduced UPI for the first time in India. The purpose of this study was to determine how the UPI services affected customer satisfaction and how customers perceived unified payment services and traditional services. According to the results of this survey, customers have a favourable opinion of unified payment interface services, and utilization of UPI services is correlated with respondents' levels of education.

**4. “A Study on customer perception towards UPI and its growing influence in the realm of digital payments: an empirical study”, Radhika Arora (2016)**

In India, the use of the internet and mobile phones has increased significantly during the past ten years. UPI has set trends in our nation, which is transitioning to a paperless and digital economy, particularly in the wake of the demonetization programme our Prime Minister started in 2016. UPI (Unified Payment Interface), an interface that is superior to digital wallets, was created as a result of rising internet usage, mobile phone adoption, and government initiatives like Digital India. Multiple bank accounts can be powered via the Unified Payment Interface (UPI) system on a single mobile application platform (of any participating bank). Since no CVV numbers are required for seamless fund transfers, it is more secure. Every day, a number of consumer transactions are completed through point of sale (POS) terminals. The majority of these purchases are paid for either through internet banking or mobile banking using a smart phone and a non-cash payment method. The study makes an effort to comprehend how UPI differs from digital wallets in terms of workflow and to gauge customer perception and acceptability of UPI-based services like BHIM. It contrasts other digital transaction types with the UPI payment method.

**DATA ANALYSIS AND INTERPRETATION**

**1. Customer preference on UPI**

**Table 1: Preferred mode of Payment**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cash	12	12.0	12.0	12.0
	Net Banking	7	7.0	7.0	19.0
	Credit Card	5	5.0	5.0	24.0
	Debit Card	7	7.0	7.0	31.0
	UPI	61	61.0	61.0	92.0
	Mobile Wallets	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

**Interpretation:**

Out of the sample of 100, 61% are preferring payment through UPI and 12% of the respondents are preferring payment through Cash.

**2. Awareness of Unified Payment interface**

Ho - There is no relationship between gender of the respondents and awareness of Unified Payment Interface.

H1 - There is relationship between gender of the respondents and awareness of Unified Payment Interface.

**Table 2: Analysis of Unified Payment interface**

<b>Chi-Square Tests</b>			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.282 <sup>a</sup>	1	<.001
Continuity Correction <sup>b</sup>	12.197	1	<.001
Likelihood Ratio	16.622	1	<.001
Linear-by-Linear Association	15.129	1	<.001
N of Valid Cases	100		

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.31.

b. Computed only for a 2x2 table

**Interpretation:**

P value = <0.01

P value is less than .05, hence null hypothesis is Rejected. Hence, there is relationship between the Gender of respondents and awareness of UPI Services.

**3. Problems encountered while using UPI?**

Ho - There is no relationship between the age of the respondents and problem faced while using UPI.

H1 - There is relationship between age of the respondents and problem faced while using UPI.

**Table 3: Problems in the use of UPI**

<b>Chi-Square Tests</b>			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.649 <sup>a</sup>	12	.031
Likelihood Ratio	20.050	12	.066
Linear-by-Linear Association	2.252	1	.133
N of Valid Cases	100		

a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is .08.

**Interpretation:**

P value = 0.031

P value is less than 0.05, hence null hypothesis is Rejected. Hence, there is relationship between Age of respondents and Problem faced by UPI user.

**4. Relationship between Educational Qualification and UPI Services**

H0 - There is no difference between Education Qualification of the respondents and Unified Payment Interface Services.

H1 - There is difference between Education Qualification of the respondents and Unified Payment Interface Services.

**Table 4: Educational qualification and UPI services**

		Sum of Squares	df	Mean Square	F	Sig.
UPI services Rank the following based on the factors [Cost ]	Between Groups	4.145	4	1.036	.602	.662
	Within Groups	163.495	95	1.721		
	Total	167.640	99			
UPI services Rank the following based on the factors [Security]	Between Groups	4.811	4	1.203	.852	.496
	Within Groups	134.179	95	1.412		
	Total	138.990	99			
UPI services Rank the following based on the factors [Speed]	Between Groups	4.440	4	1.110	.567	.687
	Within Groups	186.070	95	1.959		
	Total	190.510	99			
UPI services Rank the following based on the factors [Convenience]	Between Groups	9.605	4	2.401	1.313	.271
	Within Groups	173.755	95	1.829		
	Total	183.360	99			
UPI services Rank the following based on the factors [Discount and Offers]	Between Groups	4.487	4	1.122	.763	.552
	Within Groups	139.623	95	1.470		
	Total	144.110	99			

**Interpretation:**

**Cost:**

P value is 0.662 which is Greater than 0.05. Hence null hypothesis is Accepted. There is no significant difference between Education of respondents and Unified Payment Interface Services.

**Security:**

P value is 0.496 which is Greater than 0.05. Hence null hypothesis is Accepted. There is no significant difference between Education of respondents and Unified Payment Interface Services.

**Speed:**

P value is 0.687 which is Greater than 0.05. Hence null hypothesis is Accepted. There is no significant difference between Education of respondents and Unified Payment Interface Services.

**Convenience:**

P value is 0.271 which is Greater than 0.05. Hence null hypothesis is Accepted. There is no significant difference between Education of respondents and Unified Payment Interface Services.

**Discount and Offers:**

P value is 0.552 which is Greater than 0.05. Hence null hypothesis is Accepted. There is no significant difference between Education of respondents and Unified Payment Interface Services

**LIMITATIONS OF STUDY**

1. Sample size: The study's sample size may be limited, depending on the number of participants who agree to participate in the study. A smaller sample size may not be representative of the entire population, and the findings may not be generalizable.
2. Selection bias: There is a possibility of selection bias as the study may only include participants who are willing to participate or have a pre-existing interest in digital payments, resulting in the exclusion of other groups who may have different perspectives and experiences.
3. Time constraints: The study may be time-limited and conducted during a specific time frame. Therefore, the results may not reflect the evolution of digital payments, including UPI, and its impact over a more extended period.
4. Geographical limitations: The study may be limited to a particular geographical location (Chennai) and may not reflect the differences in UPI adoption and usage across different regions in India.

**FINDINGS OF THE STUDY**

- Majority of the respondents in Chennai City are using Unified Payment Interface (UPI) for making payment.
- Majority of the respondents are facing the problem of Bank Error while using Unified Payment Interface (UPI) Apps.
- Of the people using Unified Payment Interface (UPI) only 7 of the respondents are Fully Aware of UPI.
- There is no difference between Education Qualification of the respondents and Unified Payment Interface Services.
- There is relationship between Age of respondents and Problem faced by UPI user.

**CONCLUSIONS OF THE STUDY**

- Consumers in Chennai city are increasingly preferring UPI as a mode of payment. The ease of use, convenience, and security features of UPI have made it popular among consumers.



- Despite the increasing popularity of UPI, certain segments of consumers such as the elderly are yet to adopt UPI widely. This could be due to the lack of awareness or a preference for cash-based transactions.
- While UPI offers several security features such as two-factor authentication and encryption, some consumers still doesn't have trust on security concerns. Addressing these concerns through education and awareness campaigns could increase adoption rates.
- In order to increase adoption rates, there is a need for improved infrastructure such as reliable internet connectivity, availability of UPI-enabled devices, and acceptance of UPI payments across a wider range of merchants.

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