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Consumer Perception towards Cashless Economy with Special Reference to Unified Payments Interface (UPI)

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Abstract

Cashless transactions are not new to India, and there are various ways for cashless transactions available to customers. A unified Payments Interface (UPI) is one of the fastest-growing digital payment systems through which users can send and receive money through a Virtual Payment Address (VPA). In 2021, UPI processed around 39 billion transactions totaling \$940 billion, equivalent to 31% of India's GDP. The study's main objectives are to understand the unified payment system's (UPI) growth and its progression over the years and to know consumer awareness, perception, and satisfaction towards UPI. The researcher gathered data from both primary and secondary sources. Through an online survey process, respondents' primary data was gathered. The sample size is 105. The secondary data were gathered from publications like books and journals and websites like <https://www.npci.org.in>

Keywords: Consumer Perception, Unified Payments Interface, Cashless Economy, Digital Payments, Financial Inclusion, Virtual Payment Address, NPCI

Introduction

Cashless transactions are not new to India, and there are various ways for cashless transactions available to customers. It can be done through cards like debit cards and credit cards, via neft/rtgs or digital wallet, and various applications like Paytm, MobiKwik, etc., applications can be used for cashless transactions on smartphones. The government of India took a historical measure of demonetization on 8th November 2016. Two prominent demonination notes, Rs. 1000 & Rs. 500, which made up around 86 % of total currencies in the country, were demonetized with immediate effect. The government placed restrictions on the convertibility of domestic money and bank deposits. For a period extending to over two months, there was a shortage of cash in the country. People were in search of more accessible, faster, and cash-equivalent measures of payment. This cash shortage led to the opening of a new era of digital currencies in India. Many market players entered in digital payment and developed apps to take advantage of new opportunities and made huge profits. The number of people using mobile wallets increased dramatically. One of the companies that bagged the opportunity was Paytm.

The company's comprehensive marketing strategy reached even the smallest retailers, like the tea sellers and ice-cream vendors, who were tapped as points of contact with consumers who needed a cash-free payment mode.

Other wallets too followed, and many mobile wallets experienced a growth in the number of users in 2017. However, UPI was launched in August 2016; way before demonetisation, it could not tap the number of customers as the mobile wallet did at the time of demonetisation. One of the fastest-growing digital payment systems, Unified Payments Interface (UPI), allows users to send and receive money using Virtual Payment Addresses (VPA). The advantages of UPI over other digital payment systems, such as its availability around-the-clock and 365 days a year, ease of use, and safe gateway, draw clients.

Research Problem

Unified Payments Interface is a real-time instantaneous payment system that enables quick money transfers between two bank accounts using a mobile platform. Therefore, UPI is a concept created by the National Payments Corporation of India that enables numerous bank accounts to be accessed using a single mobile application. Since its inception in 2016, it has grown in popularity. Use UPI for digital payments if the country seeks to transition to cashless payment collection and disbursement. While clients can instantaneously pay online using mobile devices, UPI enables us to accept payments directly into the bank account. Every business – big or small, offline or online, needs these features, making UPI a prevalent payment method amongst businesses. It has all the features that an evolving business to deliver a simplified payment experience to its consumers.

Review of Literature

A Mahesh & Bhat G (2021) remarked that Due to consumers' preference for contactless payments over alternative options, UPI had experienced impressive growth over the past two years. The survey found that the UPI platform's retail payment sector has seen the most significant rise in digital payments.

According to Gochhwal R. (2017), UPI is more secure than any other payment system currently in use because it runs on a safe, secure, and reliable platform with plenty of security features. Implementing biometric authentication in UPI will make payments more secure and take a massive leap toward integrating next-generation technology

with the current payments system. UPI can be an excellent enabler for financial inclusion in India and allow a considerable population to be a part of the digital economy.

Kolte D. M. & Dr. Humbe V. R., (2020) reveal that the most commonly used UPI/BHIM App is the 3rd Party Apps like PhonePe. Narayanan J, (2021), remarked that the growth of UPI apps in India post-2020, its contribution to digitalization, the development of many fintech companies and start-ups, and the payment system's two billion monthly transactions are astonishing in the digital payment industry. J.SalomiBackiaJothi (2019), argued that UPI had become an efficient alternative to net banking with faster, easier and smoother technology for millions of people in India, and being a part of techno-economic development, youth has accepted this concept.

Objectives

1. To comprehend the unified payment system (UPI) development and how retail digital payment has changed over time.
2. To know the consumer awareness, perception and satisfaction towards UPI.

Methodology

The data has been collected from both primary and secondary sources. Primary data has been collected from the respondents through an online survey procedure. 105 is the sample size. The secondary data were collected from books, journals, and websites like <https://www.npci.org.in/>. Tables and figures were used to present summary statistics such as mean and percentages.

Theoretical Background

Diffusion of Innovation (DOI) is a theory developed by an American researcher, Everett Rogers, in 1962, which aims to study the adoption patterns of innovations or technology, describing the essential dynamics to predict the rate of adoption, whether and how innovation will be successful in the social system. It has five major elements/components. Further, Rogers (2003) argued that innovation or technology could quickly diffuse in society with some essential components. He argued that any innovation

with relative advantage, compatibility, complexity, observability, and trialability would be diffused quickly in society. Innovation itself is the main focus of this theory. Based on the explaining power of the theory, it is found that all or selected elements of DOI theory can also be utilized in understanding the diffusion of innovations. Therefore, the DOI theory is considered for this study because it reflects the significant components of innovation that may cause the diffusion of innovation. UPI is also a new platform in the payment mechanism of the banking industry. Many studies are available on UPI's operational and theoretical capabilities. Still, only a few studies are available on adopting UPI based on the components present within the platform.

Unified Payments Interface (UPI): Growth and its Progression

Unified Payments Interface (UPI)

Multiple bank accounts, simple fund routing, and merchant payments are all included in a single mobile application (of any participating bank), the universal payments interface (UPI). It also offers "peer-to-peer" collect requests that users can schedule and pay for at their convenience.

Using 21 of its member banks, the National Payments Corporation of India (NPCI) launched a trial program. Dr. Raghuram G. Rajan, governor of the RBI, conducted the pilot launch on 11th April 2016 in Mumbai. Beginning on 25th August 2016, banks have begun to submit their UPI-enabled apps to the Google Play store (Ramesh, 2020).

How is it Unique?

- Instantaneous money transfers on mobile devices every day of the year, 24/7.
- Multiple bank accounts can be accessed using a single mobile application.
- While adhering to regulatory requirements,

one-click two-factor authentication offers the very powerful feature of seamless single-click payment.

- As the consumer does not need to provide information like their card number, account number, ifsc, etc., the virtual address of the customer for pull and push allows for incremental security.
- QR code
- The best solution to the trouble of cash on delivery, going to an ATM or providing the precise amount
- application-specific or in-app merchant payments.
- Utility bill payments, cash payments in person, and payments based on QR codes (scan and pay).
- Scalable donations, collecting, and payouts.
- Direct complaint via a mobile app.

Participants in UPI are: Payer psp, Payee psp, Remitter bank, Beneficiary bank, npc, Bank account holders and Merchants

UPI - Benefits to the Ecosystem Participants

Banks: Single click two factor authentication, universal application for transaction, leveraging existing infrastructure, safer, secured and innovative, payment basis single/ unique identifier and enable seamless merchant transactions

Customers: Round the clock availability, single application for accessing different bank accounts, use of virtual id is more secure, no credential sharing, single click authentication and raise complaint from mobile app directly

Merchants: Seamless fund collection from customers - single identifiers, No risk of storing customer's virtual address like in cards, Tap customers not having credit/debit cards, Suitable for e-com & m-com transaction, Resolves the cod collection problem, Single click 2fa facility to the customer - seamless pull, In-app payments (IAP)

Table 1 Growth of UPI from 2016-2022

Month	Year	No. of Banks live on UPI	Volume (in Mn)	Value (in Cr.)
Oct	2022	365	7305.42	1211582.51
Oct	2021	261	4218.65	771444.98
Oct	2020	189	2071.62	386106.74
Oct	2019	141	1148.36	191359.94
Oct	2018	128	482.36	74978.27

Oct	2017	60	76.96	7057.78
Oct	2016	26	0.1	48.57

Source: <https://www.npci.org.in/what-we-do/upi/product-statistics>

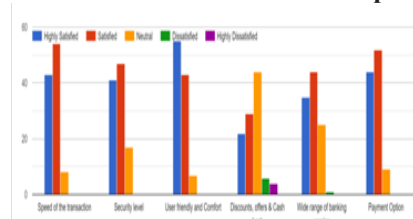
Unified Payments Interface (UPI), India's leading digital payment system, set another milestone in terms of transaction volume and value in September 2022. The National Payments Corporation of India (NPCI) recently revealed data showing that 6.8 billion transactions totaling Rs. 11.17 trillion were processed on the UPI platform in September. On a monthly basis, it is up 3.05 percent in volume terms and 4.06 percent in value terms. The number of transactions increased by 85.55 percent and the value increased by 70.61 percent year over year. Around 39 billion transactions worth \$940 billion were performed using UPI in 2021, which is 31% of India's GDP.

The Consumer Awareness, Perception & Satisfaction towards UPI - An Analysis

- In our study, 52% of the respondents were females, and the rest were males.
- The majority (55%) of the respondents were 18-24 years old.
- 60% of the respondents were living in a rural area
- Data on the education level of respondents showed that the majority of the respondents, including UG and PG Students and Professionals.
- 38% of the respondents have been using the UPI App for more than 3 years
- The majority of the respondents (68%) responded that Google Pay is their preferred UPI payment App.
- 45% of the respondents indicated that they very often use UPI payments.
- 99% of the respondents opined that the services of UPI are very good or good, and they also responded that they would recommend the UPI to their friends
- The majority of the respondents were highly satisfied or satisfied with the speed of the transaction, userfriendly, security level, wide range of banking services, and payment options.

The responses from the survey indicate that 89% of the respondents are using UPI payments for person-to-person transfer, 83% for bill payments and recharges, 74% for Goods purchase/E-commerce, 61% for booking tickets, and so on.

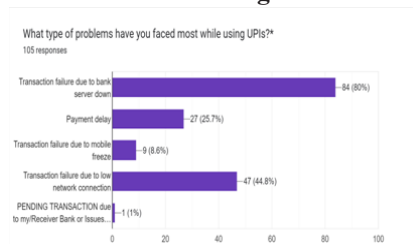
Figure 1 Satisfaction Level of the Respondents



Source: Primary data

With regard to the question, What type of problems have you faced most while using UPIs? The majority of the respondents have reported the problems like transaction failure due to a bank server being down (80%), transaction failure due to low network connection (45%), payment delay (26%) and transaction delay due to mobile freeze (9%).

Figure 2 What type of problems have you faced most while using UPIs?



Source: Primary data

Findings, Conclusion & Summary

India has been gradually but steadily transitioning to a cashless economy with ATMs, debit cards, and credit cards since the late 20th century. These days, we have QR codes, UPI, recharge coupons, mobile wallets, and more. The epidemic resulted in social isolation, lockdowns, and an extreme reliance on electronic payments and digital media.

The study's main goals were to comprehend the development of the unified payment infrastructure (UPI) in retail digital payment over time, as well as consumer awareness, perception, and happiness with UPI. The researcher gathered data from both primary and secondary sources. Through an online survey process, respondents' primary data was gathered. The sample size is 105. The secondary data were

gathered from publications like books and journals and websites like <https://www.npci.org.in>.

Around 39 billion transactions worth \$940 billion were performed using UPI in 2021, which is 31% of India's GDP. 38% of the respondents have used the UPI App for over three years. The majority of the respondents (68%) responded that Google Pay is their preferred UPI payment App. 45% of the respondents indicated that they very often use UPI payments. 99% of the respondents opined that the services of UPI are very good or good, and they also responded that they would recommend the UPI to their friends. The majority of the respondents were highly satisfied or satisfied with the speed of the transaction, userfriendly, security level, wide range of banking services, and payment options. The majority of the respondents have reported the problems like transaction failure due to a bank server being down (80%), transaction failure due to low network connection (45%), payment delay (26%), and transaction delay due to mobile freeze (9%).

The Government of India's primary initiative, the Digital India program, aims to make India into a knowledge-based society and economy. One of the proclaimed functions of Digital India is "Faceless, Paperless, Cashless." India's future is exceptionally bright and sets standards for the rest of the world. The advantages of UPI over other digital payment systems, such as its availability around-the-clock and 365 days a year, ease of use, and safe gateway, draw clients.

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