



UNIFIED PAYMENT INTERFACE (UPI) – STIMULATES FINANCIAL INCLUSION

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ABSTRACT

Unified Payment Interface (UPI) facilitates digital banking. It is a role player in Indian economy with cost effective and innovative features. It is a real-time payment system developed by NPCI for peer-to-peer and person to merchant transactions with any one identifier out of aadhar number, mobile number, QR code or virtual payment address like username@bankname.com without giving any bank details like account number or IFSC code. UPI has made money transfer between bank accounts easy. Financial inclusion actually focus on underprivileged class of society, providing them with basic financial solutions. As they are not aware of banks and their products and if they are aware of, still have no access to bank services since they don't meet basic requirements for such services. These underprivileged people of society may lack necessary documents such as identity proof or income verification and even they don't know the importance of these documents. Due to all such hindrances they were unable to use bank credit facilities and rely on unorganized lending sources and are exploited by wealthy landlords under the illusion of financial assistance. After extensive research and planning the Government of India introduced number of programmes like Pradhan Mantri Jan Dhan Yojana (PMJDY), Atal Pension Yojana (APY), Pradhan Mantri Mudra Yojana (PMMY) etc. to address these barriers and provide financial solutions to this section. Financial inclusion by GOI has become incredibly simple, thanks to UPI. In this research paper we will come to know the impact of UPI on financial inclusion. We will also find the hurdles the Government is facing in financial inclusion.

KEY WORDS: Payment Service Provider, Unified Payment Interface (UPI), Financial Inclusion, National Payment Corporation of India (NPCI), Government of India (GOI), Merchant Discount Rate (MDR)

1. INTRODUCTION

Digital banking is transformation of traditional banking. Digitalization has made banking paperless. Demonetization in 2016 encouraged digital banking. As huge demand for currency for basic requirements motivated common man to switch to digital banking. Soon people realized digital banking operations are better substitutes to traditional physical banks. All physical bank activities like bank statement, cash withdrawal, fund transfer, account management, loan management etc. are possible digitally with single internet connection without visiting bank branch manually.

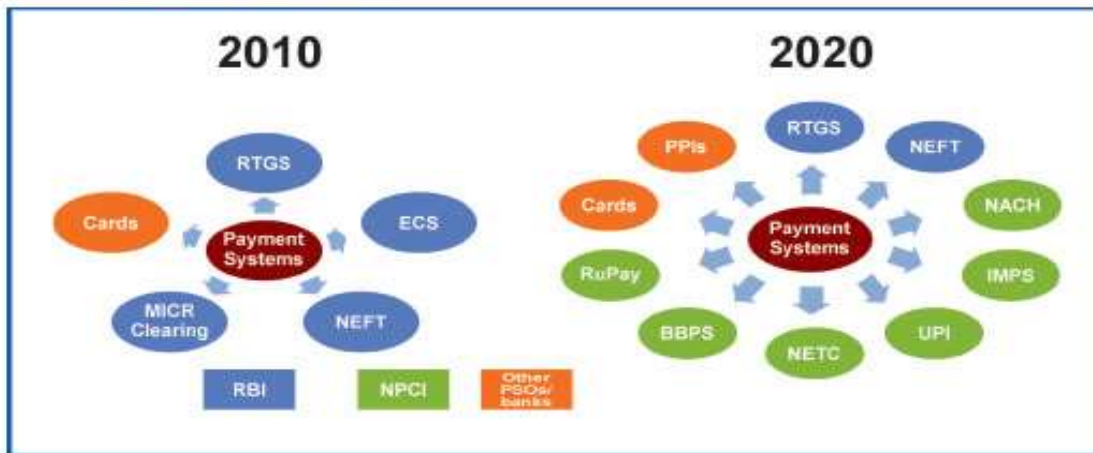
Other most required for digital banking through mobile today is UPI (Unified Payment Interface), a mobile application which come up as revolutionary e-payment product launched by NPCI

(National Payments Corporation of India), an organization for operating retail payments and settlements in India. NPCI is an initiative by RBI (Reserve Bank of India) and IBA (Indian Bank's Association) under payment and settlement Act, 2007. NPCI has also been incorporated as "Not for Profit" company under company act 1956 and now in section 8 under company act 2013.

UPI has made money transfer as easy as sending messages through mobile round the clock 24*7 and 365 days. Single mobile application can access different bank accounts merged with several banking features. UPI has made money transfer between bank accounts easy. Anybody having active bank account, stable internet connection, a smart phone (android or apple ios) and active mobile number linked with bank account.



Table 1: India's payment systems



2. REVIEW OF LITERATURE

UPI, an indigenous digital innovation of India. Lot of work is done on explaining the mechanism of UPI, its features and objectives. The work on how it has made life of people easy and how frequently people have adopted it in their day today life. The major reason behind people's adaptability to such digitalization is demonetization. It is observed that no work is done on the role of UPI in financial inclusion and overcoming the barriers of financial exclusion. Financial inclusion initiative by RBI in 2005 to combat poverty and boost economic growth. Financial inclusion faster, cheaper and more transparent via UPI an open API (Application program interface) where user can link each other without any restrictions

Since 2014 we have seen technological reformation in India. Digital payment transactions are consistently gaining momentum from the last few years as part of the Government strategy to digitize India. Financial inclusion is a crucial step towards economic growth with target to serve the unprivileged or marginalized section of society. The focus is to provide access to banking and financial services

3. OBJECTIVE

To know the role of UPI in financial inclusion.
 Benefits of financial inclusion to unprivileged sections of society.
 Challenges Government is facing in financial inclusion even, with UPI

4. RESEARCH METHODOLOGY

The study uses a descriptive and conceptual approach to understand and discuss the title related issues. The information has been pooled from e-journals, articles from RBI, NCPI and other regulatory bodies, articles of renowned analysts.

5. PARTICIPANTS IN UPI SYSTEM

5.1 NPCI

NPCI is the owner, service provider, coordinator and network operator of UPI network. NPCI receives the rights to operate and maintain UPI network on its own or third party service provider. It also issues circulars from time to time, to disclose major decisions, to relevant stakeholders, which all banks/PPIs/PSP will have to follow.

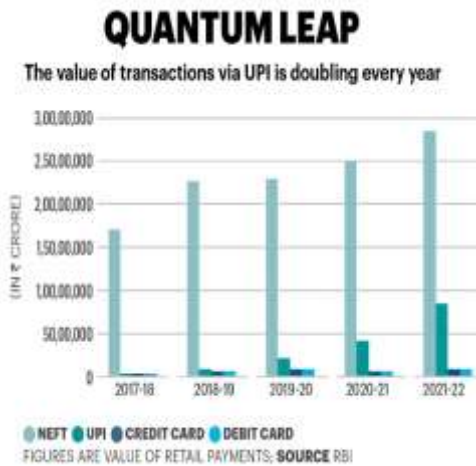
5.2 Banks

All banks and payment banks with mobile banking license, approved by RBI are eligible for UPI

- Payer PSP - A bank as a payer PSP (Payment Service Provider) onboard customer into a UPI app, allow customer to register for UPI service and facilitate with financial transaction or non-financial services
- Payee PSP - A bank as a payee PSP (Payment Service Provider) onboard customers to receive money or raise collect requests also called beneficiary/resolving PSP.
- Remitter bank - UPI user is required to have a banking account with UPI enabled bank and user account will be debited during transaction. This is the responsibility of the bank to authenticate the UPI pin set by the customer.
- Beneficiary bank - The Beneficiary account of UPI user is credited, during the UPI transaction.

5.3 Bank account holders

- The account holders or customers with UPI enabled accounts and UPI ID can utilize these services.
- Merchants - The participants. On boarded by the banks to accept UPI enabled payments from customers.
- Corporates - The third party processors, large technology companies, PSPs and aggregators connect to banks and provide services to end customers.



- Mobile: Mobile ownership ensures outreach and communication to citizens upon successful transfer of the welfare payments. Only if the cellphone number (which is to be registered) is registered with the issuer bank for SMS Alerts/mobile alerts is mobile banking registration feasible.

The only objective financial inclusion is overall growth. The financial inclusion an initiative of the Indian government aims to improve and maximize the utilization of the nation's economic resources. The goal is to encourage disadvantaged social groups to adopt low cost lifestyle and practice saving money.

Program Report

Pradhan Mantri Jan - Dhan Yojana
(All figures in Crores)

Beneficiaries as on 31/03/2023

Bank Name / Type	Number of Beneficiaries at rural/semi-urban centre/bank branches	Number of Beneficiaries at urban/metro centre/bank branches	No of Rural/Urban Female Beneficiaries	Number of Total Beneficiaries	Deposits in Accounts (in Crores)	Number of Rupay Debit Cards issued to beneficiaries
Public Sector Banks	33.74	14.14	20.88	37.89	147993.14	28.12
Regional Rural Banks	7.71	1.25	5.17	8.95	39548.11	3.44
Private Sector Banks	0.69	0.57	0.79	1.36	5296.62	1.12
Grand Total	42.14	16.06	26.77	48.20	198077.87	32.68

Disclaimer: Information is based upon the data as submitted by different banks.

6. FINANCIAL INCLUSION

Financial inclusion in India aims to provide access to financial services in an affordable manner and promoting financial literacy and consumer protection.

6.1 Objectives of Financial Inclusion:

- A basic no frill banking account: The saving accounts need not maintain minimum balance account. The account holder get access to internet banking, debit and access to ATM across the country with 0 balance. The accounts with no frill have no rules lie account holder can have unlimited deposits, no fine on inactive accounts, zero charge on ATM/debit cards.
- Saving products including investment and pension
- Simple credit product and overdrafts linked with no frill accounts
- Remittance or money transfer facilities
- Micro (life) insurance or non-micro (life or non-life) insurance
- Micro pension

The key player in financial inclusion via UPI is JAM trinity – 'Jan Dhan Account, Aadhaar and mobile'. This trinity facilitated direct benefit transfers (DBTs) of subsidies into the bank account of beneficiaries. In 2014 (PMJDY) Pradhan mantri jan-dhan yojna; one o the biggest global financial inclusion initiative to provide banking services to every nonbanking household.

6.2 JAM trinity hold three main components:

- Jan Dhan Account: Government transfers are pushed into Jan Dhan Accounts, which are zero balance, no-frills saving accounts.
- Aadhaar: The flagship product of unique identification authority of India is important player in fair and authentic financial inclusion as verifies individual or beneficiary on basis of their biometrics information

To facilitate disadvantaged class i.e. weaker section and low income group with facilities like basic saving account, deposit account, credit facilities, insurance and pension facilities has come possible with effective use of technology like UPI. With an inscription of Rs. 189,837.87 crore, more than 48.20 crore beneficiaries are banked under PMJDY. 5.4 crore PMJDY account holders received direct benefit transfers from the government, and 56% of Jan Dhan account users are women; 67% of them live in rural or semi-urban areas.

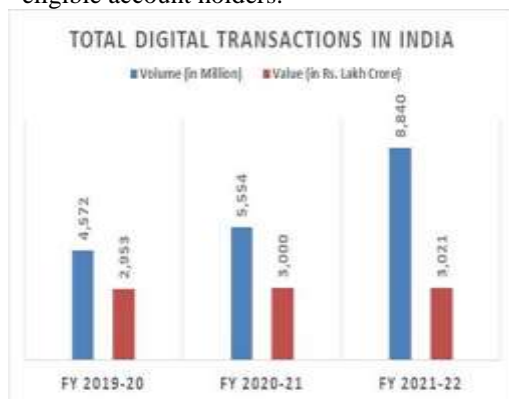
The deep penetration has become easy only due to technology.

6.2.1 Under this scheme the excluded section of society is aided with:

- One basic bank saving and bank deposit accounts opened in any bank branch or business correspondent (bank agents or representatives of bank to provide banking and financial services top people in unbanked or under banked areas) also called Bank Mitras.
- Bank holder is not required to maintain minimum balance account
- Rupay debit card is provided to PMJDY account holders.
- Inbuilt accident insurance cover with Rupay debit card of Rs. 1 lakh (enhanced to Rs. 2 lakh to new PMJDY accounts opened after 28/08/2018) provided to all PMJDY account holders.



- An overdraft facility of Rs. 10,000 is provided to all eligible account holders.



PMJDY accounts are eligible for direct benefit transfer (DBT), Pradhan Mantri Jeevan Jyoti Bema Yojna (PMJJBY), Pradhan Mantri Surksha Bema Yojna (PMSBY), Atal Pension Yojna (APY), and Micro Unit Development & Refinance Agency



7. Benefits of financial inclusion through UPI

7.1 Increased transparency in government system

Earlier each cash payment was subject to leakage i.e. payments never used to reach the recipient to full social security benefits by government. Now technology has overcome these loops and now due to UPI all government benefits are transferred to beneficiary account directly.

7.2 Improved speed and timely delivery

As compared to cash payments digital payments are more faster and instant, no matter sender and receiver are in same town, district or state. Today transactions across the nations has also become as quick as domestic transactions. The linkage between UPI of India and PayNow of Singapore on February 21, 2023 is the outcome of this development of digital banking.

7.3 National electronic toll collection (NETC)

NETC enables the customers make electronic toll payment electronically without stopping at toll, using radio frequency identification technology.

Bank (MUDRA)

UPI emerged as instant payment system developed by NPCI. Multiple bank accounts, with several banking features, enormous fund routing, and various merchant payments are encompassed in single mobile application UPI. It is consistently proceeding towards effort of government of India, making India a cashless and paperless economy. UPI has made digital payment a habit. To strengthen UPI, Prime Minister Narendra Modi has launched the BHIM-UPI Bharat interface for money-unified payment interface app on 31 December 2016. In January 2023 the digital payment transaction of 803.6 crore with value of R. 12.98 lakh crore is recorded.

The initiative envisions channeling all government benefits from center, state and local bodies to beneficiaries account. Recently launched UPI 123PAY enables feature phone users make digital transactions through UPI in voice mode facilitating digital transactions and financial inclusion in rural areas.

7.4 Bharat bill payment system (BBPS)

BBPS provides a compatible and easily accessible bill payment service to consumers via multiple channels like mobile banking UPI etc.

7.5 Enhanced credit access

Digital payments establish a user's footprints as a result the access of user to financial services and credit increases. Banks and other institutions use such bank histories to take lending decisions to small businesses and also for retail lending to those who face difficulty in getting credit in the absence of verifiable cash flows.

7.6 Safe and secure

Digital transactions are safer and secure as compared to cash transactions because cash transactions are exposed to theft and crime. Digital transactions are safe from the point of authenticity as transactions have to pass through multiple levels of authentication.

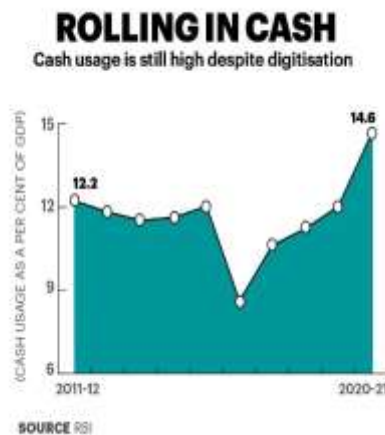
The fact that UPI transactions surpassed debit card payments in the nation in 2018–19 indicates the UPI success. There were 376 banks using UPI as of November 2022. UPI was used to conduct 7,309.45 million transactions for a total of Rs. 11,90,593.39 crore. The volume and value of UPI transactions have been growing since its introduction. The Reserve Bank of India creates a composite Financial Inclusion Index to measure the extent of financial inclusion in the nation (FI-Index). The index measures several dimensions of financial inclusion on a scale of 0 to 100, where 0 denotes total financial exclusion and 100 denotes complete inclusion.

The three broad factors that make up the FI-Index are:

- (1) Access to financial services, which is weighted at 35%
- (2) Use of financial services, which is weighted at 45%



(3) Quality of financial services, which is weighted at 20%. The FI-Index increased from 43.4 in 2017 to 53.9 in March 2021. In March 2022, it got even better, reaching 56.4. By giving a significant portion of the population, including the unorganized sector and the rural population, access to digital financial services, UPI plays a critical role in promoting financial inclusion in India. People may effortlessly transfer and receive money via UPI, as well as pay bills and complete other activities on their mobile devices. This has made financial services more accessible, especially in rural and distant places. Since UPI's introduction, the quantity and the value of transactions both have steadily increased. Over 74 billion transactions totaling Rs 125.94 trillion were made via UPI in 2022, compared to more than 38 billion transactions worth Rs, 71.54 trillion in 2021. As a result, financial inclusion is expanding in India, and UPI has a big part to play in that.



8. CHALLENGES FOR UPI

- Large size of population is not accessible to UPI because of digital illiteracy.
- The use of English in UPI apps is another factor of its unacceptability.
- As the large size of population has no access to internet connections or smartphones, so UPI transactions is still challenging.
- Several experts are concerned that without levying MDR ((Merchant Discount Rate) charged from merchants for accepting digital payments) to pay for its infrastructure, UPI won't be able to sustain itself over the long term. Currently, neither the client nor the business is charged additional fee.
- Since the launch of UPI, cash transactions have decreased in frequency, although they are still significant. Many still favor using cash as a form of payment because it is more widely accepted and there is threat of tax terrorism.

9. CONCLUSION

Since nationalization of banks the financial inclusion was challenging for government of India and banks. The level of financial inclusion in the country can be analyzed by observing the accessibility of common man to banking services like facilitating transactions and loans. The digital revolution intensified with the affordability of smart phones and high speed mobile data has improved the Indian payment system. The launch of UPI by NPCI has added to Indian Payment system with online real time payments. UPI facilitated interbank transactions and money transfer between two accounts without any bank account number and IFSC code. Payments through UPI code and QR code has made UPI

With UPI one needs no other app at all. The RBI has allowed banks to become PSPs (payment service providers) so mobile wallets are cut off the picture. The challenges like on-line transactions, poor connectivity are addressed. Mobile transactions through telecom operators and their established centers, Cash Out points are planned to be used for financial inclusion... Government is making all its efforts to reach out to youth of the nation to participate in the mission mode programs.

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