

Role of NPCI on The Way Towards Digitisation: A Brief Analysis

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ABSTRACT - This paper analyses the contribution of National Payment Corporation of India (NPCI), a not for profit organisation established in the year 2008 towards a cashless & digitised economy. Its an umbrella organisation for operating retail payments and settlement system in India set up by RBI & IBA under the provisions of Payment & Settlement Systems Act, 2007. In a short span of time it has contributed a lot towards innovations in the field of retail payment systems and other digital products. National Financial Switch (NFS), Cheque Truncation System (CTS), RUPAY Cards & Unified Payment Interface (UPI) have been there showcase products. NFS is a grid that connects all the ATMs throughout the country which makes it a technological prodigy & CTS is an innovation in the field of cheque clearance in which just a picture or an image of the cheque is enough to clear transactions between any two branches in the country. There are several other products that have been launched on a pilot basis. This paper intends to study the contribution of this organisation towards building a cashless & digitised society in its more than Nine years of journey so far. NPCI, RBI & various banks websites data were intensively studied to derive conclusions. Secondary data was the main source of information. Various articles, research papers, publications & newspaper reports were also the source of information & data.

NPCI has been an asset for our country so far because it has been of great help to many stakeholders. Government, Financial Institutions & customers have been its main beneficiaries. RUPAY Card has been its surprise because its market share has increased enormously since last two years. Competing with payment giants like MASTER CARD & VISA successfully has been its extraordinary achievement. Its products like BHIM, UPI, IMPS & NEFT has also seen a good response in terms of both volume and number of user especially after the demonetisation exercise. But the main problem lying area has been its lacklustre performance in rural areas due to lack of financial illiteracy, awareness & operational knowledge. So there is a long way to go ahead for it to build a cashless, simple & comfortable society to live in.

I. INTRODUCTION

India is time and again getting the tag of world fastest growing country among the emerging or developing countries bypassing its major Asian competitor China. After the bombshell of Demonetisation on November 8, 2016 and the implementation of Goods & Services Tax on July 1, 2017 the growth story had been badly effected but things have settled a lot which can be seen from the Central Statistical Office latest figure of 8.2% GDP growth in the first quarter of fiscal 2018-19. India is a huge & complex country of around 130 billion population with many social and economic issues like Poverty, Unemployment, Education, Healthcare, etc. and these are also the issues in which elections are fought upon in our country on a regular basis. But India saw a huge transformation in these areas in recent times with the efforts of the public and private sector.

One area that has been the hot topic in the Indian political arena in recent times is the Digitisation of Economy & Cashless Society. The incumbent government in the Centre has been promoting this idea through its DIGITAL INDIA initiative & it also defends the bombshell of Demonetisation by putting Cashless & Digital Society as its main objective. But this area has been taken care of by the previous government also by framing policies & implementing it through various initiatives. One such was the incorporation & establishment of a not for profit organisation namely "National Payments Corporation of India" (NPCI) in the year 2008.

It is an umbrella organisation for operating retail payments & settlement system in India set up by the guidance & support of RBI & IBA under the provisions of Payment & Settlement Systems Act, 2007. Its main function is innovation & creation of various online

payment systems using advanced technology. In its almost decadal journey it has brought a significant change in the payment system of our country. It has been a great asset to the financial system especially to the banking sector. Major online payment platforms like NFS & CTS has been its showcase products .NFS is a grid that connects all the ATMs throughout the country & CTS is an innovation in the field of cheque clearance in which just an image or a picture of the cheque is enough to clear transactions between all the branches throughout the country which makes both of these a technological prodigy.

Some of its other products that has revolutionised digital payment sector are IMPS, BBPS, RUPAY, AEPS, National Common Mobility Card ,National Electronic Toll Collection among which some have already shown fantastic results & some are being used on a pilot basis.

OBJECTIVES: This paper pivotal objective is to showcase the contribution of NPCI towards the area of Digital Payment System & Cashless Society since its inception .It also intends to find out the growth story of some of its flagship products.

II. NPCI :A FORCE BEHIND INDIA'S DIGITAL REVOLUTION

Since its inception in 2008 it has been one of the great contributors in the area of Digital Payment System .It has

launched many products & most of them have seen an impressive response by the users. According to a latest report by AXIS CAPITAL , in the last six years it has grown by 10 times by handling 2 million transactions per day to 22 million transactions per day through various products .Its objective is to cross 100 million mark. RUPAY & UPI has been its showcase product in recent times . CTS & NFS are its baby products which are now used by almost all the banks & other financial institutions.

In this world of AI & ever changing technology this organisation has been an asset to the country & Digital India initiative of the government and has also been able to bring changes in the lives of many common citizens. Some of its products have been discussed herewith:

National Financial Switch (NFS):It is the huge network of all the Automated Teller Machines (ATMs) throughout the country. It was designed & developed by Institute of Development & Research in Banking & Technology (IDRBT), Hyderabad in 2004 but it is run by the NPCI. First banks to be connected are Bank of Baroda, Corporation Bank & ICICI Bank. Some facilities available through it are Cash Withdrawal, Balance Enquiry, Pin Change, Mini Statement ,Card to Card Transfer ,Instant Money Transfer and many more.



Cheque Truncation System (CTS):

From the above pictorial representation everything is crystal clear regarding CTS. Its a system in which cheques are cleared through the image of the cheque & MICR data between any two branches of banks & some financial institutions throughout the country .It was started in the year 2010 by RBI on a pilot basis. But now it is run by NPCI through the guidelines mandated by RBI. Significant time has been saved for both the customer's & bank's due to fast clearing of cheques & reduction in the use of paper during movements .

Unified Payments Interface (UPI):It is a system that works on a real time basis developed by NPCI and presides inter bank transactions .It has merged multiple bank accounts into a single mobile application with lots of features related to banking, payments, donations and many more.

Steps for Registration:

- User downloads the UPI application from the App Store/Banks website
- User creates his/her profile by entering details like name, virtual id (payment address), password etc.
- User goes to “Add/Link/Manage Bank Account” option and links the bank and account number with the virtual id

Participants in UPI



- Payer PSP
- Payee PSP
- Remitter Bank
- Beneficiary Bank
- NPCI
- Bank Account holders
- Merchants

RUPAY CARDS: It is India's first debit & credit card payment network of India. It was introduced in the year 2012. It is a response from India to international biggies like Master Card & VISA. It is the main weapon of the government & RBI to fulfil the dream of Digital & Cashless India. It has already partnered with around 600 international, regional & local banks throughout the country. It is also widely accepted in POS, E-Commerce websites & ATMs across the country. According to NPCI data RUPAY had 38 % market share in May 2016 (267 million users) only in its four years of operations. There is an extra benefit of Rs. 100000 inbuilt accident insurance cover to all its users. RUPAY Card usage in e-commerce transactions has also jumped by 20% & 22 % in terms of volume & value MoM respectively. Granting of license by RBI to Small Finance Banks & Payments Bank will give a heavy boost to its market share.

Immediate Payment Service (IMPS): It is a 24*7 real time interbank electronic transfer system developed by NPCI. It can be assessed through multiple channels like mobile, internet, ATM, SMS, branch & USSD. It helps the users to transfer funds instantly within banks across India which is both economical & less risky. It works through National Financial Switch network of NPCI. Banks should have a valid license from RBI to use IMPS. Funds or Remittance can be transferred through Mobile No. & MMID, Account No. & IFSC and Aadhar No.



Participants of IMPS

- Remitter (Sender)
- Beneficiary (Receiver)
- Banks
- National Financial Switch - NPCI

III. ANALYSIS

After discussing all the products of NPCI it can be said that this organisation has contributed a lot in the digital space of the country. After its inception a decade back it has been involved in lots of research & innovation in the field of online payment system. Some of its products have already shown wonders like RUPAY, UPI & IMPS. There have been lots of criticism & compliments of the demonetisation exercise by the government. But it has been a blessing in disguise for the

digital payment companies. Rupay Cards has seen a wonderful response in the market and it has been able to compete with giants like Master Card & Visa pretty well. UPI & IMPS has been an asset especially for the people living in cosmopolitan & metropolitan cities. Following data by NPCI clearly shows the extraordinary growth of NPCI products.

RETAIL PAYMENTS STATISTICS ON NPCI PLATFORM:

Sr. No.	NPCI Operated Systems	Mar'18	F.Y-2017-18 (Apr'17 to Mar'18)	Apr'18	May'18	June'18	July'18	Aug'18	
	Financial Txns:	Volume (in Mn)	Value (in Bn)	Volume (in Mn)	Value (in Bn)	Volume (in Mn)	Value (in Bn)	Volume (in Mn)	Value (in Bn)
1	NFS Inter Bank ATM Cash Withdrawal *	329.58	1,260.09	3,503.44	13,357.49	325.57	1,291.08	325.22	1,270.22
2	CTS Cheque Clearing (Processed Volume)	103.62	7,682.16	1,138.06	79,451.24	90.93	7,155.21	95.25	7,102.42
3	IMPS	110.16	1,038.04	1,009.84	8,924.98	109.55	1,022.40	116.62	1,085.75
4	RuPay Card usage at (POS)	51.06	50.02	459.55	488.23	57.49	58.64	66.78	59.37
5	RuPay Card usage at (eCom)	23.76	19.20	208.11	166.09	25.55	20.31	28.23	24.25
6	UPI - Unified Payments Interface	178.05	241.73	915.23	1,098.32	190.08	270.22	189.48	332.89

* NFS Cash withdrawal amount does not include Card to Card Transfer

IV. CONCLUSION

Since last few years India has seen many reforms & transitions, one of the pivotal one came to be the implementation of Goods & Services Tax. One interesting attribute of this tax was that it was totally based on online platform. This shows the seriousness & sincerity of the incumbent government towards the idea of Digital & Cashless India. But the contribution of NPCI towards the rise of digital payment services sector is enormous & commendable. Online Payment Services Companies have boomed since last few years especially after the bombshell of Demonetisation. Adults especially the youths belonging to metropolitan & cosmopolitan places of the country are finding it very easy, familiar and comfortable to use the digital payment services & online platform. Online payment platforms like IMPS, Rupay & UPI have seen an unimaginable growth both in terms of users as well as volume. But it can also be concluded that people from rural areas & senior citizens are still in doubt with these digital products mainly because of lack of financial illiteracy and lack of operational knowledge through digital platforms. NPCI has played a crucial role towards innovation & marketing of its products with the help of its highly skilled human resource. It has also collaborated with many banks & financial institutions to market its products. But there is along way to go as 70% of India's population lives in rural areas. The main focus of NPCI should be to create awareness of its digital products to

these areas so that the dream of Cashless India will be a reality. This will become true only when internet & mobile phone penetration in our country will be at its peak which is not a one days play.

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- [2] Axis Capital Ltd.- NPCI :Driving Digital Payment Revolution :A Visit Note prepared on 28/06/2016.

ABBREVIATIONS:

- [3] IBA- Indian Banks Association.
- [4] BHIM-Bharat Interface for Money.
- [5] USSD-Unstructured Supplementary Service Data.
- [6] NEFT-National Electronic Fund Transfer.
- [7] IFSC-Indian Financial System Code.
- [8] MMID-Mobile Money Identifier.