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RESEARCH ARTICLE

DIGITIZATION OF INDIAN BANKING SECTOR – NEED OF THE HOUR; WITH SPECIAL REFERENCE TO POST DEMONETIZATION PERIOD

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ABSTRACT

The world has witnessed an accelerated pace of financial globalization, where wireless networks have made their presence felt. India is no exception, where digital technology has to a lesser extent disrupted financial services in India. Digital banking could refer to end to end processing of banking transaction operations which have been initiated by the client. It could take various forms such as ATMs, NEFT, Telebanking etc.

As is a well acknowledged fact banking and financial services form the backbone of an economy and are required to meet the challenges posed by changing technology, to satisfy the consumer preferences towards digital technology, to meet demands for micro payments, of being environment friendly and meting equal treatment to all. There has been a spurt in online banking and the government has been taking measures to promote the same. In a surprise move the Government of India decided to demonetize the two highest denomination notes namely Rupees 500/- and Rupees 1000/-. One of the main objectives of the move was creation of a cashless economy. Subsequently a number of stringent measures were taken by the government to promote digital banking. However, there are a number of hurdles in keeping with the developing nature of the economy such as existence of a large unorganized sector, erratic internet connectivity and poor penetration of smart phones. Besides many small banks do not have digital banking and problem of security risk and most importantly lack of awareness of banking facilities are omni present in India. What is needed is for the government to take initiative in providing regulatory measures with active participation from public and private sector.

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INTRODUCTION

We have witnessed an accelerated pace of financial globalization over the last few decades. In view of the higher demand for products and solutions accompanied by an increasingly complex economic system, financial institutions are under pressure to offer a wide variety of high quality tools and strategies to a global client base. This calls for handling of large volume of transactions. In the current changing world the convergence of telecom, media and computing has changed the mode of playing, working and living. In the earlier days we had physical networks like roadways, railways, electricity, water etc which were the life and blood of our economies. Today these have been complemented, or rather out shadowed by wireless networks. Wireless networks connect people, phones, tablets etc. Radio and television networks relay music, videos, news etc. In fact telecom networks connect satellites and close geographies.

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Information networks are becoming more and more dependent on content and knowledge. India is no exception. Though on a smaller scale, digital technology has disrupted traditional financial services in India, with emphasis now being increasingly laid on expanding access and giving top priority to consumer convenience. With the help of regulatory and infrastructural support, various technical solution providers are being largely successful in laying the platform for achieving total financial inclusion in major domains like credit, savings, payments and insurance. In this Paper an attempt has been made to look into the concept of digitization – with emphasis on the Indian perspective, to discuss the need for digitization of the banking sector in India, mention the measures adopted by the Government - more specifically in the Post demonetization era and throw light on the challenges faced by a developing country like India, keeping in mind the future outlook.

Concept of digitization

Digitalization is the integration of digital technology into our daily lives, through digitization of everything that can be

digitized. In other words it refers to computerization of systems and jobs for accessibility and simplicity. In terms of banking, it means ensuring seamless end to end processing of banking transaction operations which have been initiated by the client. This guarantees maximum utility. The introduction of digital banking, it is commonly believed is a Revolution of the banking sector which has transformed the banking process. This has paved the way for enjoyment of a methodical financial life.

The advent of credit cards and ATMs (Automated Teller Machines) has led to digitalization of banks. In fact the evolution of internet in the 1990s was the stepping stone which led to introduction of online banking services on a global scale. Online banking started in New York, USA as early as 1981 wherein 4 major city banks namely: Citi Bank, Chase Manhattan, Chemical Bank and Manufacturers Hanover – used Video Tex system to offer home banking services. The opening of the Indian economy in 1991 and the initiation of economic reforms saw the entry of foreign banks. The ICICI Bank was the first to start online banking in 1996. However, the use of internet banking increased only after 1999. This was mainly due to lower ISP online charges, increased Personal Computer penetration and technologically friendly atmosphere.

The Internet Banking Policy has received official approval by the Bank's Board. This Policy, while fitting into the banks overall Information Technology and Information Security Policy, ensures maintenance of confidentiality of records.

Modes of Operation

Public sector banks for long have been following conventional methods. In this era where all businesses are moving online, nationalized commercial banks can no longer ignore digital banking but have to move swiftly in keeping with the trend. The banking industry is observing a transition from a transaction based approach to a more customer centric one. This they believe would speed up their business. Only time will bring in a sense of awareness among the public sector banks about the urgent need to meet the growing demands of the clients. All this calls for up gradation of technology and pursuance of digitization with greater willingness and enthusiasm.

The following are the various forms of digital banking services:

E cheques: This novel concept was first developed in US, with the objective of replacing the conventional paper 'cheque'. Under the amended Negotiable Instruments Act truncated cheque and E-cheques are permitted in India;

EFT (Electronic Funds Transfers): This facility helps make payments to account holders and other banks in a more efficient manner;

ECS (Electronic Clearance Scheme): It provides an alternative method of making bulk payment transactions;

ATM (Automated Teller Machine): This device provides the customer with the facility whereby he can withdraw money 24 hours a day and seven days a week;

Telebanking: It refers to a process of handling bank accounts over the telephone. Automatic voice recorders are used for

simple transactions. In case of complicated queries and transactions manned phone terminals are used.

NEFT (National Electronic Fund Transfer): In this case funds are credited to the beneficiary's account on the same day.

Smart Cards: They are plastic coated with a built in microchips used typically to conduct financial transactions.

Mobile Banking: This facilities conduct of banking services remotely by using mobiles. In this context one can cite the example of Airtel Payments Bank Ltd which was launched on 13th January 2017 by Hon Finance Minister Shri Arun Jaitley. This was a joint venture of Bharati Airtel Ltd and Kotak Mahindra Bank.

Need for digital banking in India

Banking and financial services can safely be regarded as the backbone of any economy and India is no exception. In the wake of the impending risk, banking services have been steadily moving forward with digitization to offer customers services at their doorsteps. Let us look into the need for internet banking in India. One, a sound banking system is the pillar of an economy and the latter can function smoothly if the banking system is not only flexible but also capable of meeting the challenges posed by changing technology. Electronic banking, an outdated term is the need of the hour in keeping with international demands. Two, digital banking offers numerous advantages that work on bringing improvement, largely because of the fact that Indian consumers have shown enormous preference for digital technologies. Reserve Bank of India defines financial inclusion as providing access to a wide range of financial services. In this context one can say that, digital platforms would provide financial services to the remotest rural area at lower cost. This would help in serving the purposes of reducing operating costs, increasing the volume of business and fostering financial inclusion. Three, it is customer friendly as it will make possible completion of all banking work according to their convenience. This saves time and energy as people can carry on business without standing in long queues;

Four, digital banking is required to generate greater mobility. The introduction of new applications would improve the capability of mobile phones as well as other mobile devices.

Five, digital banking is necessary in keeping with the growing demand for micro payments. Mobile based micro payments will help in speeding up the rate of adoption of digital banking.

Six, digital banking will enable in obtaining credit. Many people in our country are devoid of proper identification. With biometric technology and UPI (United Payment Interface) everyone will be given a place in the country's economy. In addition banks can offer microloans at reasonable rates of interest. Seven, in case of digital banking there is no discrimination as equal treatment is meted to all irrespective of class, caste, creed and religion. Finally, it is environment friendly. This is so because electronic transmission requires no paper, reduces traffic and subsequent pollution.

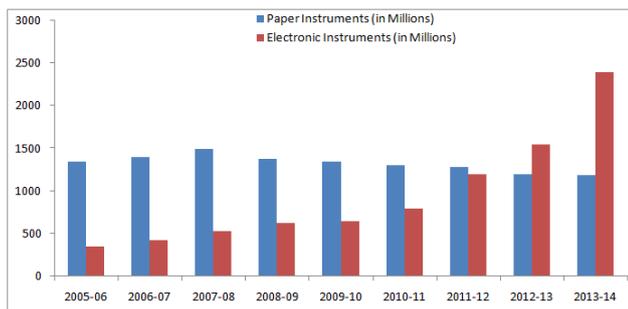
Trends in growth of digital banking

The table and the graph clearly show that Paper instruments were increasing up to 2007-08 but have since, been showing a

declining trend. On the other hand electronic instruments have displayed a rising trend with the peak been achieved in 2013-14.

Table 1. Trends in usage of Paper and Electronic Instruments

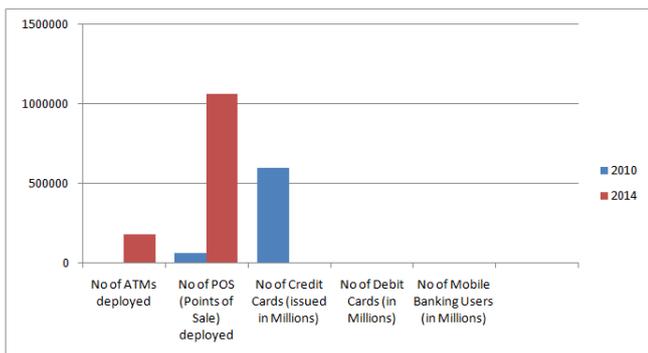
Serial No	Year	Paper Instruments (in Millions)	Electronic Instruments (in Millions)
1	2005-06	1350	350
2	2006-07	1400	425
3	2007-08	1500	525
4	2008-09	1380	630
5	2009-10	1350	650
6	2010-11	1300	800
7	2011-12	1280	1200
8	2012-13	1200	1550
9	2013-14	1190	2400



Graph 1.

Table 2. Trends in Growth of Internet/Electronic Channels

Type of Internet/ Electronic Channels	No of Channels		Growth in Percentage
	Year 2010	Year 2014	
No of ATMs deployed	60,153	176410	193.27
No of POS (Points of Sale) deployed	595958	1058642	77.64
No of Credit Cards (issued in Millions)	18.33	20.36	11.07
No of Debit Cards (in Millions)	181.97	500.08	174.81
No of Mobile Banking Users (in Millions)	596	35.5	495.64



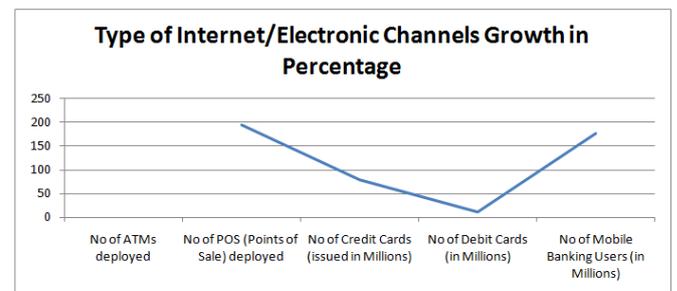
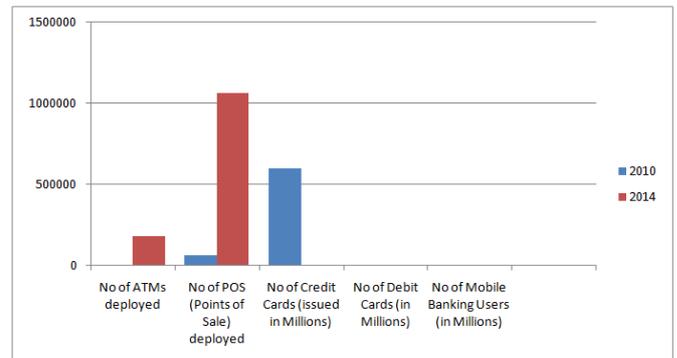
Graph 2.

The table and graphs again clearly show the marked percentage increase in the use of different types of internet users, with mobile banking and ATMs taking top positions. This apparently is a good sign showing a trend towards digitization.

Measures adopted by the government to promote digital banking

The Working Group, which was constituted by the Reserve Bank of India to look into different spheres of digital banking, laid emphasis on three main areas: technology and security

issue; legal issue; and regulatory and supervisory issue as outlined below. Technology and Security issue. This covers appointment of data base administrator; need for the banks to have a clear banking policy; and introduction by banks of logical access controls to operations such as data systems, application software, utilities, telecommunication etc. In addition to avert direct connection between the internet and the bank system proxy firewall service system should be used. It is vital to log all types of computer access and report any security violation, so that necessary follow up action can be taken.



As regards the legal angle it is mandatory for banks to not only establish the identity but conduct proper inquiry about the customer's personal information; the security authentication procedure by banks should have legal recognition. Apart from this the banks should have adequate risk control measures and the time frame has to be notified to the customers. The issue of Regulation and Supervision lays down the guidelines: such as only those banks which are licensed and supervised in India and are physically present in the country can offer internet banking; The products have to be restricted to account holders only; local currency products should not be included in services; and overseas branches of Indian banks are permitted to offer their services to their overseas clients. Financial exclusion imposes a very high cost on the common man. Even today majority of the Indian population particularly in the rural areas depends on non-institutional sources for borrowing and lending money and have to pay a heavy rate of interest. With access to banking increased savings will enable capital investment in constructive activities like infrastructure. In addition it helps in increasing the efficiency of micro, small and medium enterprises. On 11th April 2016, the Government of India launched UPI – a digital banking system that enables easy transfer of money to and from bank account or others via smartphones. This facility enables anyone to open a bank account, save money and make transactions. As regards digital banking the financial industry is lagging behind many developing countries. This could be attributed to legacy systems, enormous bank costs and outdated technology that cannot handle mobiles. Today the banking system has been built off the back of the mobile network. For example

customers can communicate via mobile with the financial institutions such as text message, dial a number from the cell for bank balance etc. Similarly the country's identification system which makes use of fingerprints and iris scan helps in identifying people which is followed by issuance of a twelve digit Aadhar Number which in turn is linked to a bank account. This is particularly useful to the poor illiterate masses who need not fill out a pile of forms and can open an Account with the Aadhar Card. In addition companies like Pay TM, Oxigen etc allow consumers to put money on their phone so that they can use them to purchase items online, pay bills or buy things in store. One of the main reasons for India adopting digital payment is the growing demand for micro payments. Digital banking also facilitates micro loans at reasonable rates of interest.

Let us now turn our attention to the measures related to digital banking in the post monetization period

In a surprise move on the 8th of November 2016, in a late evening televised address to the nation, the Hon Prime Minister of India, Shri Narendra Modi, announced the decision of demonetizing the prevailing 500 and 1000 Rupee notes. One of the objectives of this move was creation of a cashless economy through the spread of digital culture. This would in turn lead to the 'formalization process' and help in revealing the expenditures – more specifically the big transactions made by big customers. A look at the economic history of developing countries shows that extension of digital platform and digital payments provides the speed, security as also the transparency and cost efficiency essential for increasing financial inclusion and fulfillment of policy objectives. Demonetization move it is felt would lessen the dependence on cash transactions by resorting to digital Payments. After the announcement of demonetization, we saw cash starved banks and ATMs across the country being thronged by long queues leading to sickness and even deaths in extreme cases. This was even more painful in case of senior citizens. Experts claim that one of the main objectives of monetization is digitalization of the economy. Digitalization, no doubt is important in this information era, but one cannot, in this context forget the common man. Majority of the people work in the unorganized sector and do not have bank account or ID proof. The simple question that arises is under this situation where do they exchange their old notes and deposit their savings. This requires serious thinking.

Reports show that demonetization has seen a spurt in digital transactions. The move initially paralyzed the economy, but is now acting as a catalyst towards Digital Payment Economic System. The common man today while keeping his cash aside is increasingly signing up for e payments and mobile wallets.

The demonetization move has led to increased use of Mobile Wallets. With the acceptance of only lower denomination notes more and more people are resorting to medium of online banking and online payments to handle their daily expenses. Mobile wallets (M Wallets) like Paytm, Ola Money are experiencing an increasing trend. The M Wallet essentially consists of services related to banking transactions, transfers of money as also value added services like bill payment, shopping, ticketing etc. This indicates the economic transition of the country. It is also felt that one effective way of tackling the menace of black money is by foolproof medium of finance tracking and reducing the volume of cash transactions. The need of the hour is for educating the masses about the benefits

of switching to digital mode of financial management. After the demonetization move of the Government, there has been a spurt in digital transactions through use of credit/debit cards and mobile phone applications, wallets etc. In order to facilitate further acceleration the Central Government has decided on a package of incentives and measures to promote digital and cashless economy.

The measures include:

- A discount of 0.75% to be provided on the sale price of petrol/diesel to consumers making digital payments;
- In order to enable expansion of digital infrastructure in rural areas the Central Government will be providing financial support through NABARD to those banks that are deploying 2 POS (Point of Sale Terminal – which is an electronic device used to process cash payments at retail location), in about one lakh villages having a population of less than 10,000. This is mainly in case of primary co-operative credit societies, milk societies/agricultural input dealers to make possible agriculture related transactions through digital means.
- The Rupay Kisan Card to facilitate digital transactions
- A discount up to 0.5% to be given to customers from 1st January 2017 for buying monthly/ seasonal tickets by digital means. Online train ticket purchases to be given an insurance cover of Rupees 10 lakhs.
- Public Sector Insurance Companies to provide incentives by way of discount or credit up to 10% of general insurance policy and 8% of new insurance policy of Life Insurance Corporation of India which are sold through customer portals in case of digital payments.
- No Service tax will be levied on digital transaction charges/MDR (Merchant Discount Rate) for transactions up to Rupees 2000/- per transaction.
- In the year 2016-17 10% discount to be given at tolls for those making digital payments.

Challenges confronting the digitization process

As India is striving towards creation of a cashless economy, one of the biggest challenges could occur in the form of erratic internet connectivity, poor penetration of smart phones, and old habits of carrying on cash transactions. Two, many small banks do not offer digital banking. In case of mobile wallets there are issues such as cost, fear of fraud and weak networks. Three, majority of Indian labor work in the unorganized sector and do not have bank account or ID proof. This will deter them from obtaining bank credit. However, as per the directives of the government the UPI- Aadhar Card will give everyone a place in the country's economy, by using the card to open their accounts. This will help banks in giving loans at low rates of interest. Four, is the problem of security risk. The risk is related to the fear of identity theft and what is worse is that the fear about the banks invading their privacy for marketing their products without seeking the consent of the clients keeps psychologically hovering in the minds of the customers. The trust factor also comes into play here. Conventional banking is preferred because of lack of trust on online security. This calls for clarification of basics at the grass root level. Five relates to awareness of e banking facilities and procedures which is still poor in India. This is more so in the rural area where banks may not have been successful in disseminating information about the uses and benefits of e

banking. Finally, as of now the digital infrastructure for the purpose of e banking is inadequate. The whole system rotates around connectivity, processing and cyber security. This therefore necessitates up gradation of the system and increasing productive capacity.

Conclusion and future of digital banking in India

In today's world the rapid shift in technology, mobility and social computing has led to a change in consumer behavior. As discussed above we Indians today are observing a fusion of the digital and physical world. A sound and effective banking system forms the backbone of an economy and the latter can perform smoothly if the banking system backing it apart from being flexible is able to meet the challenges posed by changing technology. Electronic Banking is the need of the hour in keeping with international demands. Online banking as we have seen has its own merits which cover lesser costs, greater efficiency and better dissemination of information. Indian banks are adopting different strategies and we are witnessing a mass influx of new competitors in the global financial services with financial support from large established technology companies like Google, Paytm, Pay Money and Amazon. If the government takes the initiative and provides regulatory support with active participation of both the public and private players, the country would witness a successful transition to a financially inclusive economy. One can say that India can look forward towards technological advancement, more so in case of the banking sector. The government has to facilitate the gradual transition into digital economy. India today is the second largest internet user after China. But what is most important is reaching the bottom of the pyramid. This calls for an awareness campaign. Demonetization will no doubt promote digital banking in the long run but what is most needed now is more stringent efforts from the Government.

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