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STUDY OF AUTOMATION IN THE INDIAN BANKING SECTOR

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Abstract

The banking sector in India has played a major role in socio-economic development and has always been the backbone of the Indian economy. Electronic banking is another boon to customers which enables them to carry out transactions remotely, which would have otherwise required them to visit the branch in traditional banking. The study mainly focuses on how the banking sector has undergone a sea of change in the last 7 years (2014-2021) with automation and has resulted in technology-driven banking as against traditional manual banking. Automation involves performing banking transactions electronically through the use of smart technology. The study also highlights the factors that lead to this dynamic change from manual processing to automated processing and increased competition among the bankers and the trend of increasing adaptation by customers to new innovative methods of banking during the period. The analysis of the trend growth and performance of innovative methods like electronic NEFT, RTGS, Mobile banking, online bill payment is a part of the study. From this study, there is clear visibility of how certain events during this period acted as catalysts for increased adaptation and switching by customers from the traditional banking system to electronic platforms to perform banking transactions and which led to steady growth of all types of electronic internet banking.

Key Words: - Electronic Banking, Automation, Smart Technology, NEFT, ATMs, RTGS, Mobile Banking

Introduction

The banking sector in India has evolved from time to time with advancements in process & technology and innovation. In the earlier days banking was constricted to branch banking. The customers had to frequently visit from time to time to carry out their transactions and full fill their needs. (e.g.: statement, updating of passbook, getting new cheque book, withdrawal and deposit of cash, etc). Moreover, the banks in those days were selected based on location. Traditional banking provided the customers with one-to-one services and the staff's ability to persuade them. In the past decade, the banking sector of India has made tremendous progress with the development of financial technology, through the introduction of information communication technology (ICT), and has led to the rapid development of new and innovative services. Due to this, the customers have been benefited from quick responsive error-free service. Thus, traditional banking has been overtaken by dynamic IT, electronic, and fin-tech.

In the middle and late 90s, there was a rush of financial reforms, innovation, de-regulation by the Government, introduction to LPG followed by advancement in communication technologies like the internet, mobile phones, etc. Due to these reforms, banking in India was redefined from a mere financial intermediary to a service provider of various financial services under one roof like a financial supermarket. The inclusion of private and foreign banks brought new technologies in the market which rendered its customers with services like ATMs, Credit and debit cards, internet banking, and increased competition among the banks. To keep pace and compete with the private and foreign banks the public sector banks had no option but to adopt and adapt new and innovative technologies. 21st-century banking in India can be called Innovative Banking. Some of the innovative technologies utilized by the banks are ATMs, ECS, IFSC code, UPI, MICR cheques, 24/7 Electronic Digital Banking, Video banking, Internet Banking, Mobile Banking, and Card banking to mention a few.

The banking sector covers various activities for deposits, payments, data collection, and digitized processes like contactless payments, credit scoring. Through online banking customers could get their account information, bank statement, open and close Term deposits, do money transfers, make bill payments, request for new credit and debit cards, account information change, request cheque books, and get small value loans. The CDS and ATMs are electronic banking outlets that allow people to deposit and withdraw money and check balances without going into a branch of their banks. Kiosks allow the customers to deposit cheques and update passbooks. Electronic banking is another boon to customers which enables them to carry out transactions that would have required them to visit branches in traditional banking.

Objectives

1. To analyse the Growth and Performance Trends of automation in the Indian banking sector.
2. To understand the various technological advancement concerning automation in the banking sector of India.

Research Methodology

The study uses secondary data that has been taken through various sources like journals, articles, survey reports, reviewed other research papers and websites like the Reserve Bank of India

Role of Automation in the Banking Sector

The Indian banking sector has undergone expeditious changes over a period of time with the introduction of Electronic Banking. The influence of electronic banking has now made people tech-savvy and has created an environment of eagerness among the population to adapt and adopt smart banking. Automation has also created transparency along with a faithful and trustworthy relationship between the banks and their customers. It has made the process of giving and receiving, easy, convenient, and error-free at all times. With automation, electronic banking services are available 24/7 for people to carry out their transactions without any boundaries of time and location. Moreover, every bank adopting and adapting automation has been able to attract more customers to utilize these services. This change has resulted in a new outlook in the service and trading sectors and has tremendously benefited the e-commerce industry. E.g.: a virtual market and showroom are created by the likes of Amazon, Flipkart, Myntra, pepper fry, etc where customers have the facility to do seamless transactions of buying their needs and paying using electronic banking. Similarly, entities like Zomato, Swiggy, Uber eats are delivering food to customers from their chosen restaurants and collecting payment electronically. Similarly, this process has been extended to the purchase of daily needs, groceries, milk, medicine, etc.

Electronic Banking transactions have been by and large adopted in all trading sectors, shops, petrol bunks restaurants, etc. With electronic banking, the banks can reach the rural areas and bring them to the urban markets. They provide a medium to carry out receipt and payment between producer and trader and consumers. Electronic transactions and banking have been a great boon to bank customers. The customer can seamlessly carry out all his transactions paperless and without physically visiting the bank branch which resulted in a saving of time. E.g.: Money transfers, payment of bills, request for a statement of accounts, open and close of accounts, open and close of term deposits, request for new debit and credit cards, blocking of cards, change of address, request and change of ATM PIN and card PIN, etc.

ATM (Automated Teller Machines) & CDM (Cash deposit machine)

An ATM & CDM are electronic banking outlet that enables people to quickly withdraw money anytime during the day without the aid of a branch representative or a teller. Like an ATM, CDM allows customers to deposit cash anytime during the day as well as withdraw. As per RBI (Reserve Bank of India) guidelines, each bank is required to provide a minimum of 3 free transactions in ATM/CDM without any charges to customers. Beyond 3 transactions it is left to the discretion of the individual banks to decide when to charge. The levy as per RBI guidelines is RS 21 per transaction after the free limit is exhausted. However, the charges are not arbitrary and are left to the bank's discretion. The data of the number of ATMs for a period of 7 years (2014- 2021) is depicted in Table 1 below

Table 1.1 Number of ATMs during 2014- 2021

Year	2014	2015	2016	2017	2018	2019	2020	2021
No of ATMs (In Million)	1.99	3.06	3.30	2.39	2.47	2.48	2.52	2.34

It can be seen from above table in 2015 there was a significant increase in the number of ATMs as compared to 2014. However, 2016 did not see any significant growth However subsequent years saw a considerable decline in the number of ATMs and this is attributed to demonetization and the thrust to use electronic banking for day-to-day transactions in the number of ATMs. After 2017, in the subsequent years, the number of ATMs has remained stagnant. One of the contributing reasons for this has been the adaptation and shift of customers at large to internet banking using smartphones Cashless payments could be made through smart applications using smartphones.

RTGS- (Real-Time Gross Settlement)

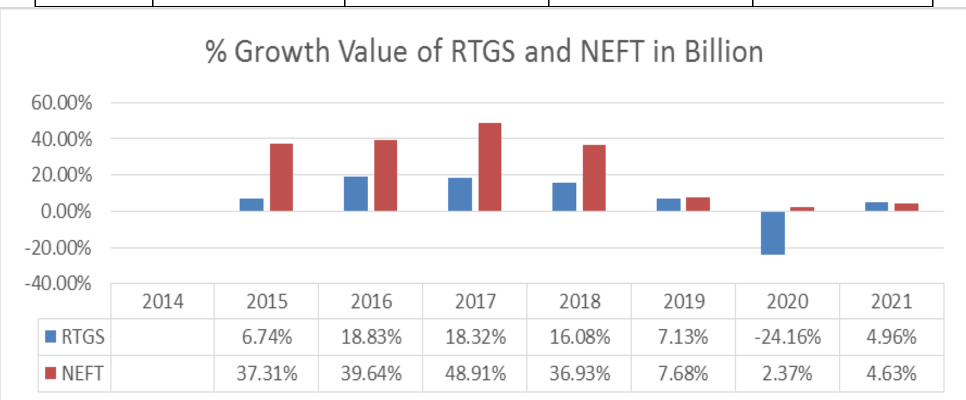
RTGS is a method of fund transfer through which money is sent from the payer's account to the payee's account of the same bank or another bank electronically in a short time 24/7 365 days. RTGS is mainly meant for larger value transactions and the minimum amount that can be transferred through this mode is Rs.2 lakh maximum limit will depend on the account type of the customer. Requests for RTGS can be given manually visiting the bank branch or can be carried out by the customer thru internet banking. Transfers can be scheduled in advance as well. To send money via this mode one requires the bank details like the IFSC code, account number, name of the payee, and the payee bank. This mode of payment is the most convenient as it provides safety and security, is backed up by RBI, there is an immediate clearing of transactions, and is very reliable as the funds are credited on a one-on-one basis. RTGS is used by the Central Bank to minimize the risks that were involved while carrying out high-value transactions. Charges for RTGS are levied to customers and the amount is left to the discretion of the individual banks.

NEFT- (National Electronic Funds Transfer)

NEFT is another electronic payment mode that facilitates direct one-to-one payments across the country. Using this facility, a payer can electronically transfer funds from one's bank branch to the payee's account in the same bank as that of the payer or another bank in the country that is a part of the NEFT scheme. To send money via this mode one requires the bank details like the IFSC code, account number, name of the payee, and the payee bank. NEFT enables transactions 24/7 and 365 days. NEFT is seamless, reliable, secure, and convenient, is processed every half an hour, and credit happens to the payee's account within 2 hours of the payer executing the transaction. NEFT allows the transfer of any value >= Re 1. However, some banks have set a maximum limit. The request for NEFT similar to RTGS can be done manually by visiting the bank or using internet banking. Charges for NEFT are levied to customers and the amount is left to the discretion of the individual banks. The data represents the value of RTGS & NEFT value in billion and its % Growth value for a period of 7 years (2014- 2021) is depicted in table 1.2 below,

Table No 2 Transaction value of RTGS and NEFT

Year	Value of RTGS in bn	% Growth Value of RTGS	Value of NEFT in bn	% Growth Value of NEFT
2014	743993.6	-	55339.51	-
2015	794160.6	6.74%	75985.8	37.31%
2016	943727.9	18.83%	106103.8	39.64%
2017	1116611	18.32%	157997.3	48.91%
2018	1296190	16.08%	216347.9	36.93%
2019	1388670	7.13%	232966.4	7.68%
2020	1053160	-24.16%	238494.9	2.37%
2021	1105378	4.96%	249532	4.63%



From the above table, it is observed that the value of RTGS transactions has stabilized in the range of 1100k bn to 1300k bn. The reason for the RTGS transaction degrowing in 2020 over the previous year can be attributed to the pandemic situation in the globe. The primary reason for the growth in RTGS transactions in the period from 2016- 2018 can be attributed to demonetization, restrictions introduced in cash transactions, (Payment exceeding 20K has to be done by cheque or account transfer) and customers shifting paperless internet banking, mobile banking and use of cards.

It is observed that in 2015 there was a tremendous increase in the usage of NEFT transactions as compared to 2014. From 2016 to 2018 the NEFT transactions were comparatively very high. However, over a while, their growth % over the previous year has reduced. The value of the transaction has stabilized in the range of 24K bn to 25K bn. The reduction in the growth % of NEFT & RTGS can be attributed to

1. People shifting to mobile banking.
2. Introduction of new smart applications with offers, cashback, and discounts
3. People increasing usage of credit and debit cards, payments through applications like Google Pay, Paytm, Phonepe, BHIM UPI, etc.

Mobile Banking

Mobile banking is another mode of payment that enables customers to make payments through smart mobile phones using mobile applications. The innovation in mobile banking is a boon for the Indian economy as its acceptance by payers and payees is significant in recent years. Competition among the traders and retailers has intensified with mobile banking. It is a big boon for the E-commerce industry and the e-commerce business has grown many folds due to the mobile banking facility. Individual banks have their respective mobile application through which the customers can link their bank accounts with their smartphones and carry out the transactions. Along with the application of the respective banks, there are other applications e.g., Paytm, Google Pay through which the payments can be carried out by scanning a QR code. Mobile banking allows customers to perform their transactions online 24/7 at all trading outlets.

The customers can carry out activities sitting at home or place work which earlier required them to take time off and spend the same to visit the trading or servicing location and wait for their turn. (e.g.: booking plane and train tickets, payment of electricity bills telephone bills, gas bills, rent, mobile bills, recharging of sim cards, etc etc). Mobile banking is secure safe and seamless. however, the customer needs to be careful in terms of keeping safe and not sharing the OTP, CVV, passwords, PIN. Finally, customers realized the immense benefits of Mobile during the current pandemic situation in the globe as they could perform all transactions to satisfy their needs using their mobile and fingertips and without physically moving out. The data of the value of Mobile Banking transactions for a period of 7 years (2014- 2021) is depicted in Table 1.3 below,

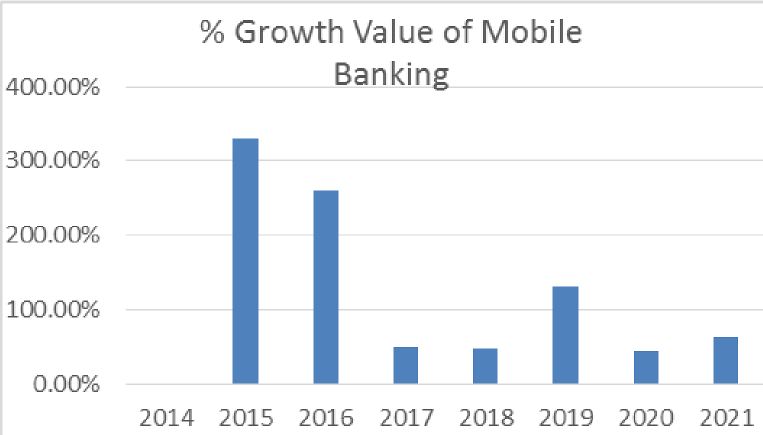


Table no 1.3 Mobile transaction

year	value in bn	% Growth Value
2014	666.22	
2015	2862.57	329.67%
2016	10288.90397	259.43%
2017	15466.67	50.32%
2018	22840.45	47.68%
2019	52549.50	130.07%
2020	75,451.23	43.58%
2021	122618.03	62.51%

From the above table and graph, it is observed that mobile banking is very popular in the last 7 years among the customers and continues to grow leaps and bounds due to ease of performing a seamless transaction and quick settlement to the payee. The contributing factors are demonetization, restrictions in value of cash transactions, the introduction of mobile payment apps, (google pay, phone pe, BHIM UPI, Jio pay, amazon pay), use of internet banking, credit cards and debit cards thru mobile, and finally acceptance by the payees across all forms of business.

Conclusion and Suggestions

To conclude, the banking sector has undergone significant change in the last 7 years and these changes have greatly benefited customers, banks, and the economy of the country and have acted as a catalyst to economic development. With technology, the process of giving and receiving money has become seamless, secure, quick, contactless, and safe. This has eased the process of trading & distribution and the service sector. Moreover, this reduces the footfalls of the customer to the bank branch and also reduces manual banking. This has encouraged competition among the banks to attract customers and increase turnover. While the manual banking process continues to exist it has gone downhill, and internet banking has become customer friendly and easy to adapt and adopt.

The banking industry in India has on the whole conquered the world of automation and thereby created its benchmark in the Global Economic Market. To ensure greater reach, education and awareness about the benefits of automation and internet banking are a must using all mediums of communication. It is also necessary that the use of technology in the banking industry in India reaches greater heights of glory while spreading in the length and breadth of the nation.

Bibliography:

1. Prof. Parvathy V K (March 2019). The developments in the Indian banking sector with special reference to financial technology, *International Journal for Research in Engineering Application & Management (IJREAM* 66-70
2. Reeshma (November 2016). PDF) Technology in Indian Banking Sector | *IJMTST - International Journal for Modern Trends in Science and Technology* (ISSN:2455-3778) retrieved from - Academia.eduwww.researchgate.net/publication/344340972_Analysis_of_Banking_Sector_in_India_Post_Covid-19

3. V, Radha. (March 2015). A study on the technological innovations in the banking sector in India. *Global research review in Business and Economics. 38-41*
4. World retail banking report 2017. (2017). Capgemini & EFMA whitepaper
5. N.M. Nair, (March 2014). Role of Information Technology in Banking Sector in India. *IBMRD's Journal of Management and Research 334-346*
6. www.rbi.org.in