ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Digitalisation of Indian Banks in the Current Scenario

Dr Princy Francis
Asst Professor of Commerce
MES Asmabi College, P.Vemballur

Abstract

This paper is intended to depict the e-payment initiatives adopted by Indian banking sector. Due to the penetration of smart phones banks started to reduce their branches and ATM counters. The main objectives of the study are showing the e-payment methods adopted by banks in India as well as the current status of online banking in India. The data used in the study is secondary in nature and includes various publications of various banking regulatory authorities, journals, survey reports etc. Data analysis have been done in the paper on the basis of RBI reports upto 2017-18. The paper is organised as two sections namely the e-payment initiatives adopted in India as well as current status of online banking in India.

Keywords: Online banking, digital banking, Introduction

Indian banking institutions started its history during the ancient times in an unorganised way. In 1770 the first bank was set up in India in the name of Bank of Hindustan to fulfil the needs of British Rule (Gkduniya, 2019). Nationalisation of Indian banks, 1968 has opened up its wide acceptance among Indians. As part of Computerisation in banks, RBI set up a Committee, headed by Dr. C Rangarajan in 1988 in order to accelerate customer service through fast treatment of book keeping and MIS reporting(Bhattacharyya and Pradhan, 2017). Banks started to implement Information Technology by using standalone PCs and LAN connectivity. New Economic Policy 1991 compelled the banking sector to provide efficient customer service by adopting technologies to face the competition from private new generation tech-savvy banks and foreign banks. The Core Banking Solution was the turning point of anywhere and anytime banking that results customer convenience. ICICI bank is the first Indian bank to provide internet banking facility and mobile banking. Central Bank of India was the first public bank to introduce credit card (Gkduniya, 2019). The initiatives taken by government, RBI, the decreasing internet cost and increasing awareness led a hike in internet banking 2000 onwards. RBI is the apex authority to control all automation and mechanisation of Indian banks by issuing regulations and recommendations. Digital-only/Virtual Banking, Biometric Technology, Artificial Intelligence, Blockchain Technology,

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Bitcoin and Robotics etc are the key innovations in digital banking for personalising banking functions by giving proper security (Singh, 2017).

The adoption of various existing and emerging technologies by the banks are called as digital banking. Digitalisation changes the way of doing banking business drastically. Technology adoption causes an increase in banking penetration, productivity and efficiency. It increases its revenue by reducing manpower costs drastically through business process automation (Bhattacharyya and Pradhan, 2017). In addition to the normal banking transactions they started to sell third party products such as mutual fund, insurance and all types of payments to their clients. This practice helps the customers save their time and causes to enrich the relationship. Thus Indian banking sector is leaded to customer centric and technology driven to fulfil the needs of its customers by way of the technology rise in middle class income family(Bhattacharyya and Pradhan, 2017).

Analytical Significance

Online banking is observed as one of the vital initiative for the development of Indian economy. Hence it is relevant to be acquainted with the current e-payment initiatives prevailing in India as well as the government initiatives have been taken to the growth of digital penetration. Indian banks started to reduce the number and size of their branches and ATM counters as one of the main reason of penetration of digital transactions through smart phones (Bhat, 2017).

Objectives

The objectives of this paper are

(i) To depict the e-payment initiatives in India and
(ii) To show the current status of online banking in India

Methodology and Data Sources

The methodology is descriptive in nature to the extent that it explains the various e-payment methods and also the government measures to boost up the digital culture among India. It also find out the future of India in e-payment scenario. The sources of data are primarily secondary in nature and includes the publications of various banking regulatory

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

authorities, research findings, survey reports, journals etc. The data for charts and tables are collected from The RBI annual reports.

Organisation of the paper

The paper is organised under two parts. Part-1 deals with the e-payment initiatives in India and Part 2- current status of online banking in India.

Part 1: The e-payment initiatives in India

Government of India launched Digital India programme in 2015 to transform India into faceless, paperless and cashless digital economy(Cashless India, 2015). Magnetic Ink Character Recognition(MICR Cheque processing) was introduced in 1986 that resulted in quicker realisation of cheques. National Financial Switch (NFS) is the largest network of shared automated teller machines(ATMs) in India. The different modes of digital payments are as follows:

- **Debit/Credit Cards**

  Debit/Credit cards are are safe, convenient and control than any other payment mode (Cashless India, 2015). RuPay, Visa, MasterCard are some of the examples for card payment system that provide 2 factor authentication system namely Secure PIN and OTP to ensure security. Its ease of transaction makes customers and merchants to buy and sell items in both offline and online mode without much time and effort. There is no transaction cost to customer for merchant transactions and only a minimum annual fee and limits on ATM transactions is charged by banks on their discretion. In the merchant transactions, merchants need to pay 0.50% to 2.25% as transaction cost.

- **Unstructured Supplementary Service Data (USSD)**

  This is an innovative payment service using *99# to allow mobile banking transactions in basic feature mobile phone without any mobile internet data facility with the aim of financial inclusion of under banked society. This service is available to every common man across the country by dailing *99# on their mobile number which is registered with the bank account and avail the banking services of fund transfer, balance enquiry, mini statements etc. In this case transaction cost of Rs0.50 charged to customer and also normally have a funds transfer limit of Rs5,000/day and Rs50,000/annum.

- **Aadhaar Enabled Payment System (AEPS)**

  AEPS allows customers to do online interoperable financial transactions at PoS through Bank Mitra of any bank using Aadhaar authentication. KYC information and

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Aadhaar authentication are the primary requirements for enabling Aadhaar Enabled Payment System. There is no transaction cost charged to customers but merchants may get charged on banks' discretion. Balance enquiry, cash withdrawal, cash deposit, aadhaar to aadhaar funds transfer and payment transactions are the services available through AEPS. Banks may define the funds transfer limit and no limit for funds transfer on the side of RBI.

- **Unified Payments Interface (UPI)**

  This option helps to convert multiple bank accounts into a single mobile application of any particular bank by merging the several banking features. This facility is available only in the registered device only. No transaction cost is charged to customers by most banks. The services like balance enquiry, transaction history, send/pay money, collect money are available in this option. Rs 1 lakh is the fund transfer limit per transaction.

- **Mobile Wallets**

  Mobile wallets is popularising in India as a way to carry cash in digital format. One of the main feature of mobile wallet is that its payment capacity through smartphone, tablet or smart watch, surpassing the physical plastic card to make purchases. There is an option to open zero KYC or full KYC wallet. This virtual mobile-based wallet is used to store money for making mobile based online and offline payments. Balance enquiry, transaction/passbook enquiry, add money, accept money, pay money are the other services available through mobile wallets. The funds transfer limit is Rs20,000 per month for no KYC users and Rs1,00,000 per month for KYC users. In the case of merchants it is Rs50,000 per month for self declared and Rs1,00,000 per month with KYC. The popularity of mobile wallets are of its speed of transactions. PayTM, AmazonPay, GooglePay, PhonePay, Mobikwik, Yono by SBI, CitiMasterPass, ICICI Pockets, HDFC PayZapp and Bhim Axis Pay (Ramani, 2019) are the top 10 mobile wallet companies in India.

- **Banks Pre-Paid Cards**

  Prepaid cards are preloaded cards in order to avoid the over-spending habit of people. these are helpful to spend money only upto the amount which has already loaded on that card. It is not linked with bank account, but has predefined limit (CFPB, 2019).

- **Point of Sale (PoS)**

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

As word indicates it is a physical or virtual place at which a retail transaction is carried out. The payment has been done with PoS machine for an item from where purchase has taken place from the seller.

- **Internet Banking**

  This is an electronic payment system that helps customers of a bank to conduct the different types of online financial transactions through the website of the specific bank. It is also known as online banking, e-banking and virtual banking**.** National Electronic Fund Transfer (NEFT) to transfer a maximum of Rs 50,000 per transaction, Real Time Gross Settlement (RTGS) for large value transactions, Electronic Clearing System (ECS) to make utility bill payments, Immediate Payment Service (IMPS) using mobile phones are the main online financial transactions.

- **Mobile Banking**

  Mobile banking allow the customers of the bank or other financial institutions to do financial transactions remotely using a mobile device and the specified app provided by the banks or financial institution for the purpose.

- **Micro ATM**

  This device is used by Business Correspondents (BC) to deliver basic banking services. This is a low cost device that connected to banks across the country that enables a person to instantly deposit and withdraw funds, fund transfer and balance enquiry.

Ministry of Electronics and Information Technology (MeitY) envisages common e-Governance infrastructure to access various services and making payments and receipts through electronic modes for a citizen, businesses and internal government. Government initiates the maintenance of a repository of services for measuring and tracking the e-Governance adoption level. From 05 Dec 2016 it is compulsory that Government Departments should make e-payments to suppliers for bills above Rs. 5,000. Department of Financial Services (DFS) ordered to Indian Banks Association (IBA) that they should take all necessary steps to make digital payments cheaper than cash transactions and also directed banks not to impose any additional charges for digital transactions other than those prescribed by RBI.

After demonetisation, central government has provided a package of incentives for accelerating the surge in the digital transactions that ultimately promotes the digital and cashless economy of India. The major incentive is offering a discount @ 0.75% of the petrol/diesel price to consumer for their digital payments. As part of expanding digital

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

payment infrastructure in rural areas, central government through NABARD provides financial support for the deployment of PoS machines at primary co-operative societies, milk societies and agricultural societies to facilitate agri-related transactions through digital means. Cental Government through NABARD support Rural Regional Banks and co-operative banks to issue "Rupay Kisan Cards" to enable them to make digital transactions.

Railway provides a discount upto 0.50% for the online payment of monthly or seasonal tickets. All railway passengers who buy online ticket shall be given free accidental insurance coverage upto Rs 10 lakhs. Railway also provides a discount of 5% for online payment of all paid services like accommodation, catering, retiring rooms offered through its affiliated entities/corporations to the passengers. Public sector insurance companies provides a discount/credit upto 10 percent in general insurance policies and 8 percent in the new life policies of Life Insurance Corporation for online payment through customer portals. The central government, public sector undertakings, state government and its organisations should bear the transactions fee related to the digital payment to the consumers and never impose any hidden charges to customers. Public sector banks are advised that merchant should not be required to pay more than Rs. 100 per month as monthly rental for PoS terminals/Micro ATMs/mobile POS from the merchants to bring small merchant under the digital payment eco system. No service tax will be charged on digital transaction charges/MDR for transactions upto Rs.2000 per transaction. For the payment of toll at Toll Plazas on National Highways using RFID card/Fast Tags, a discount of 10% will be available to users. Bharat Interface for Money (BHIM) provides fast, secure, reliable medium to make digital payment through mobile phones using UPI and USSD platform via *99# service. Government launched the Lucky Grahak Yojana and Digi- Dhan Vyapar Yojana to promote digital transactions especially in poor and middle class.

Indian budget 2017 onwards initiates digital economy for establishing speed, accountability and transparency in Indian economy. Government would launch two new schemes to promote the usage of BHIM namely Referral Bonus Scheme for individuals and a Cashback Scheme for merchants. Steps would be taken to promote and possibly mandate petrol pumps, fertilizer depots, municipalities, Block offices, road transport offices, universities, colleges, hospitals and other institutions to have facilities for digital payments, including BHIM App. There is a proposal for mandating all government receipts through

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

digital means. Banks would be encouraged to introduce more than ₹20 lakh Aadhaar based PoS.

For encouraging online payment among medium and small tax payers whose turnover is upto ₹2 crores, only 6 percent of online turnover is considered as profit of the tax payers but in the case of cash turnover, it is 8 percent. No transaction above Rs3 lakh would be permitted in cash. Cash expenditure allowable as deduction would be limited to Rs10,000. Similarly the amount of cash donation received by a charitable trust is reduced from Rs10,000 to Rs 2,000. The devices initiated for online payment are exmpeted from tax. Increased digital transactions enable small and micro enterprises to access formal credit. The digital payment infrastructure and grievance handling mechanisms strength even in rural and semi urban areas through post offices, fair price shops and banking correspondents. Necessary steps would be taken to promote petrol pumps, fertilizer depots, municipalities, block offices, road transport offices, universities, colleges, hospitals and other institutions to have facilities for digital payments.

India government has launched a toll-free helpline – 14444- for addressing consumer queries on digital payments. The oil marketing companies like IndianOil, BPCL& HPCL offers a discount of Rs 5/- on every LPG refill to all LPG customers who make online payment. These are the initiatives taken by the government of India to promote online payment for faceless, paperless and cashless economy in India.

Part 2: The Current Status of Online Banking in India

India is the world's fastest growing online payment market India by showing 176 percent hike as compared with base year 2017 (Kats, 2018). India ranks second highest in Asia-Pacific for digital payment adoption and more than 40 percent of online customers used smartphone wallet in India (Ramani, 2019). 60 percentage smart phone users uses for mobile recharges, 52 percent for travel services and 58 percent for utility payments and online shopping (Ramani, 2019). The main driving force of mobile payment adoption is demonetisation and the influence of mobile apps like Paytm, googlePay etc (Kats, 2018)**.** The demonetisation policy of Indian government boost up the adoption of online banking(10%) by overcoming the consumer inertia. Mobile banking was increased by 40% and moble wallets were gone up by 10 times(Vyas *et al.,* 2017). In the study of Maiti (2017), it was found out that demonetisation had a significant impact on payment system. The volume of retail electronic payment systems and card payments at POS terminals was more in demonetisation period and the increasing trend has been sustained in the post-demonetisation

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

period also. There is no doubt that demonetisation accelerated the transformation of digital banking in India. The other government initiatives like Aadhaar-linked cashless payment solutions namely 'Aadhaar Pay' and 'Bharat QR' wide spread the usages of Debit Cards and Credit Cards at the merchants' place. Thus the back up of government initiatives and trust, Indians finally are embracing digital economy (Bhat, 2017).

Before demonetisation, the usage of cheques has been reduced and started to use online banking services. The time lagging and credit & liquidity risks in the traditional tools compel to reduce the usages of cheques. Since demonetisation, the growth of digital banking is sustained and grown drastically by using electronic retail payment systems, point of sale terminals (Maiti, 2017). RBI as central bank in India classified the non-cash payments into three namely paper-based, electronic instruments and other instruments such as pre-paid systems, mobile banking, ATM based, Point-of-sale terminals and online transactions. According to the RBI Annual Reports, the electronic modes of payments are analysed as follows:

1. Total Retail Digital Payment

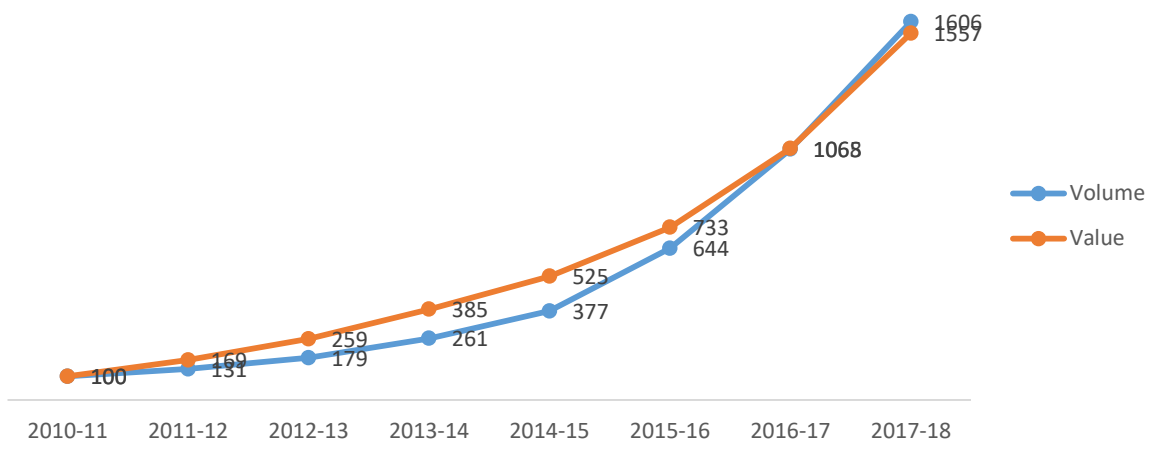
Table No: 1
Table Name: Annual Turnover of Digital Payment

Total Digital Payment	Volume (Million)	Value (₹ Trillion)	Volume (Trend %)	Value (Trend %)
2010-11	908.50	13.09	100	100
2011-12	1190.60	22.14	131	169
2012-13	1625.80	33.93	179	259
2013-14	2370.10	50.43	261	385
2014-15	3425.10	68.69	377	525
2015-16	5848.80	95.89	644	733
2016-17	9673.00	139.75	1065	1068
2017-18	14590.00	203.72	1606	1557

Source: RBI Annual Reports

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Fig No: 1 Trend Analysis of Total Retail Digital Payment



According to RBI annual reports, the section namely Payment and Settlement Systems and Information Technology showed both total retail paper clearing systems and total retail digital payment systems. Total retail paper clearing system covers Cheque Truncation System (CTS), Non-MICR Clearing. The total retail digital payments includes ECS DR, ECS CR, NEFT, IMPS, Unified Payment Interface, National Automated Clearing Houses, Credit cards, Debit cards and Prepaid Payment Instruments(PPIs). Demonetisation impacted the growth of retail digital payments as its volume was 9673 million with a value of ₹ 139.75 Trillion in the year 2016-17 as compared with its volume was 14590 million with a value of ₹ 203.72 Trillion in the year 2015-16. Figure 1 it has been shown that the trend of using retail digital payments are increased to 1606 volume with a value trend of 1557 in the year 2017-18 based on the year 2010-11.

2. Volume Trend of Various Modes of Digital Payments

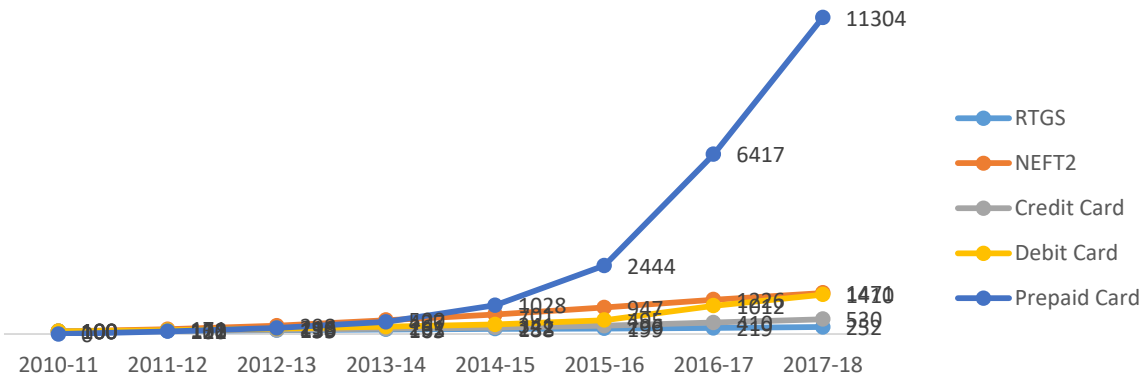
Table No: 2
Table Name: Volume Trend of Various Modes of Digital Payments

Total Digital Payment (Volume)	RTGS (Trend %)	NEFT (Trend %)	Credit Card (Trend %)	Debit Card (Trend %)	Prepaid Card (Trend %)
2010-11	100	100	100	100	0
2011-12	112	171	121	138	100
2012-13	139	298	150	198	216
2013-14	165	500	192	261	437
2014-15	188	701	232	341	1028
2015-16	199	947	296	495	2444
2016-17	219	1226	410	1012	6417
2017-18	252	1471	530	1410	11304

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Source: RBI Annual Reports

Fig No:2 Volume Trend of Various Modes of Digital Payments



The volume trend of RTGS, NEFT, Credit Card, Debit Card and Prepaid Cards are shown in the above table. It has shown the wide acceptance of digital payments in India as its high trend rate of 252% in RTGS, 1471% in NEFT, 530% in Credit card, 1410% in Debit card and 11304% in prepaid cards as compared with the base year 2010-11.

3. Value Trend of Various Modes of Digital Payments

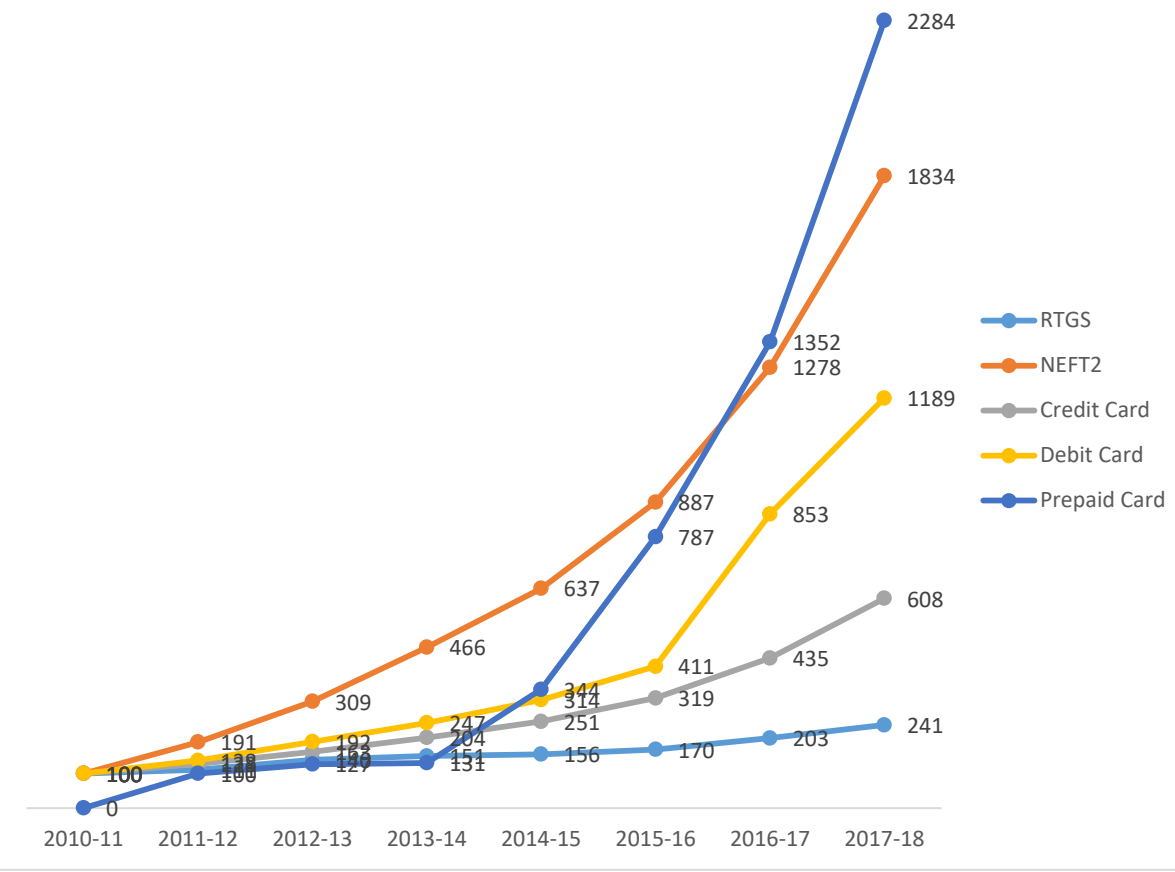
Table No: 3
Table Name: Value Trend of Various Modes of Digital Payments

Total Digital Payments (Value)	RTGS (Trend %)	NEFT (Trend %)	Credit Card (Trend %)	Debit Card (Trend %)	Prepaid Card (Trend %)
2010-11	100	100	100	100	0
2011-12	111	191	128	138	100
2012-13	140	309	163	192	127
2013-14	151	466	204	247	131
2014-15	156	637	251	314	344
2015-16	170	887	319	411	787
2016-17	203	1278	435	853	1352
2017-18	241	1834	608	1189	2284

Source: RBI Annual Reports

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Fig No: 3 Value Trend of Various Modes of Digital Payments



The value trend of RTGS, NEFT, Credit Card, Debit Card and Prepaid Cards are shown in the above table. It has shown the wide acceptance of digital payments in India as its high value trend rate of 241% in RTGS, 1834% in NEFT, 608% in Credit card, 1189% in Debit card and 2284% in prepaid cards as compared with the base year 2010-11.

4. Details of RTGS

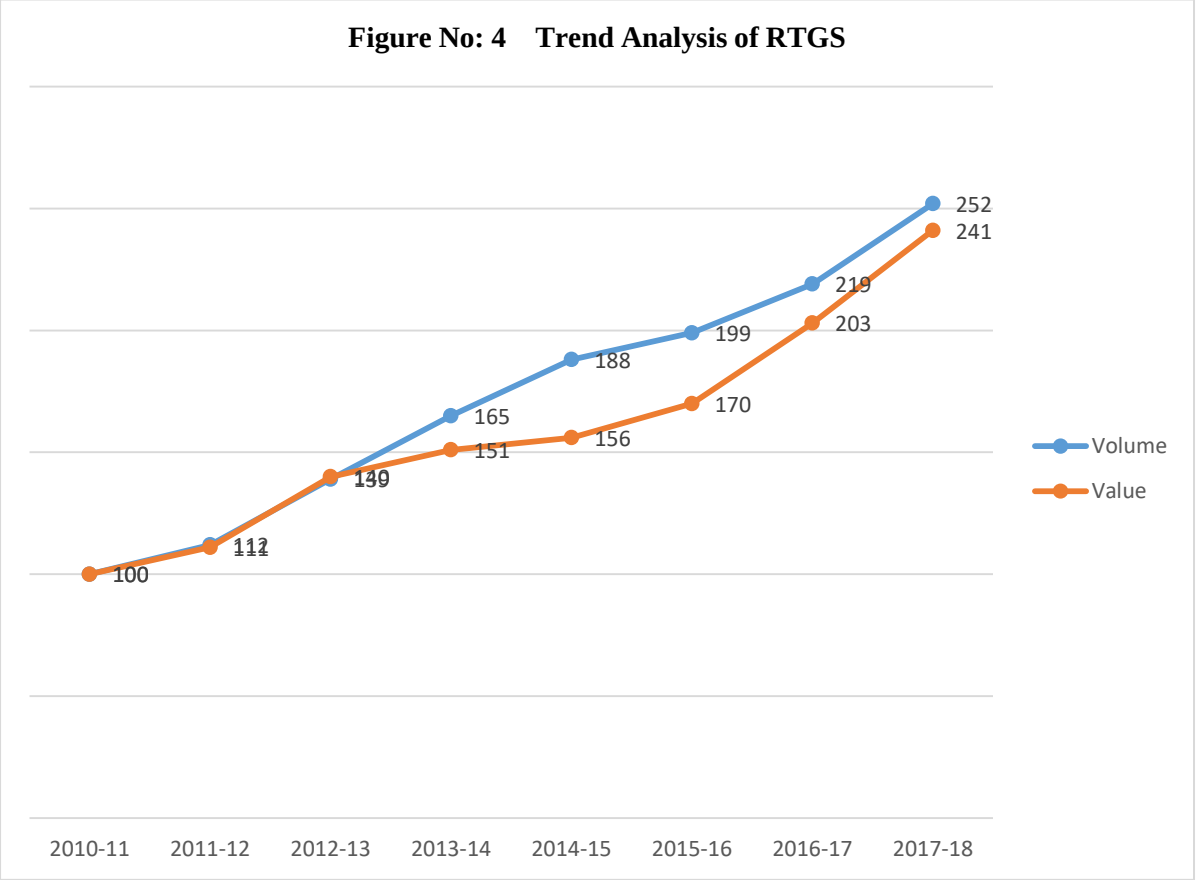
Table No: 4
Table Name: Annual Turnover of RTGS

RTGS	Volume (Million)	Value (₹ Trillion)	Volume (Trend %)	Value (Trend %)
2010-11	49.30	484.87	100	100
2011-12	55.00	539.31	112	111
2012-13	68.50	676.84	139	140
2013-14	81.10	734.25	165	151
2014-15	92.80	754.03	188	156
2015-16	98.30	824.58	199	170
2016-17	107.80	981.90	219	203
2017-18	124.40	1167.13	252	241

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Source: RBI Annual Reports

Figure No: 4 Trend Analysis of RTGS



Source: RBI Annual Report

Based on the year 2010-11, the Real Time Gross Settlement (RTGS) system has shown that the index value of its volume was increased to 252 in the year 2017-18 and also the index of value was also raised to 241 in the same year. It is also understood that more value is exchanged through demonetisation and other government initiatives. At the end of March 2018, the RTGS facility was available through 1, 37,924 branches of 194 banks.

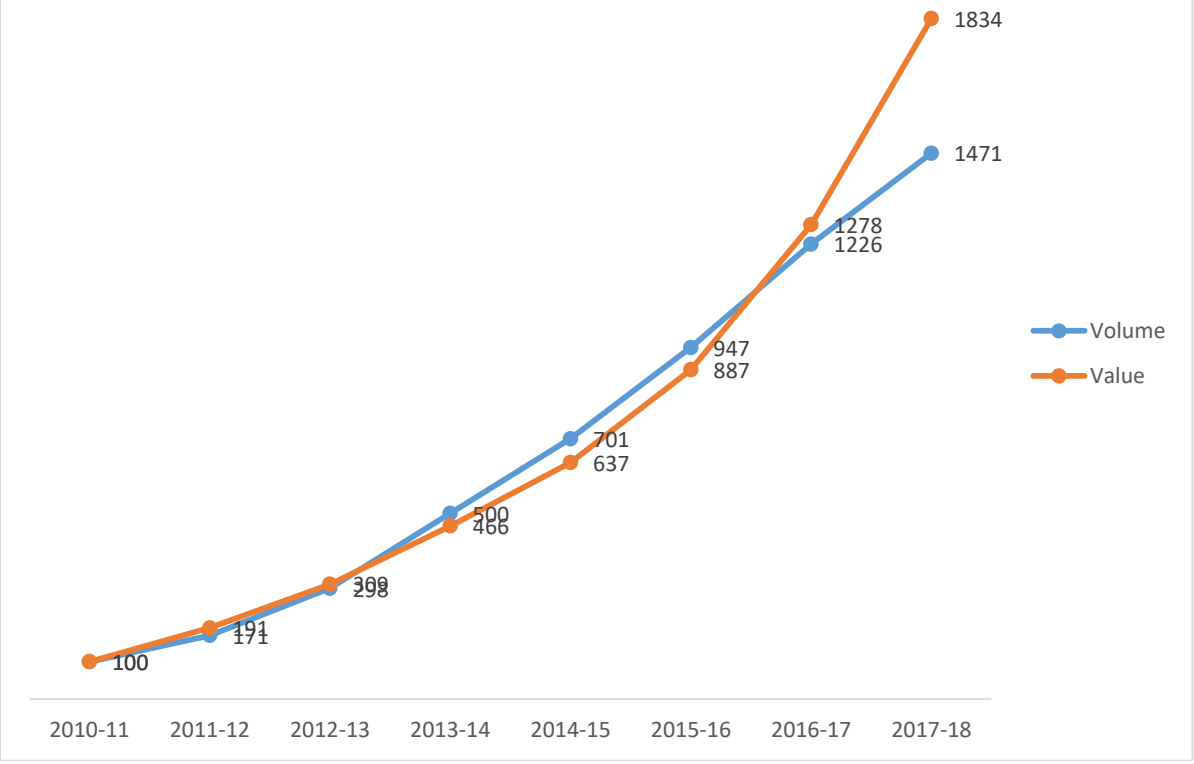
5. Details of NEFT

Table No: 5
Table Name: Annual Turnover of NEFT

NEFT	Volume (Million)	Value (₹ Trillion)	Volume (Trend %)	Value (Trend %)
2010-11	132.30	9.39	100	100
2011-12	226.10	17.90	171	191
2012-13	394.10	29.02	298	309
2013-14	661.00	43.79	500	466
2014-15	927.50	59.80	701	637

2015-16	1252.90	83.27	947	887
2016-17	1622.10	120.04	1226	1278
2017-18	1946.40	172.23	1471	1834
Source: RBI Annual Reports				

Fig No: 2 Trend Analysis of NEFT



The NEFT system handled an index of 1471 valued as volume of NEFT transactions in 2017-18 as compared with the base year of 2010-11. At the end of March 2018, the NEFT facility was available through 1,40,339 branches of 192 banks, in addition to a large number of business correspondent (BC) outlets.

6. Details of Credit Card

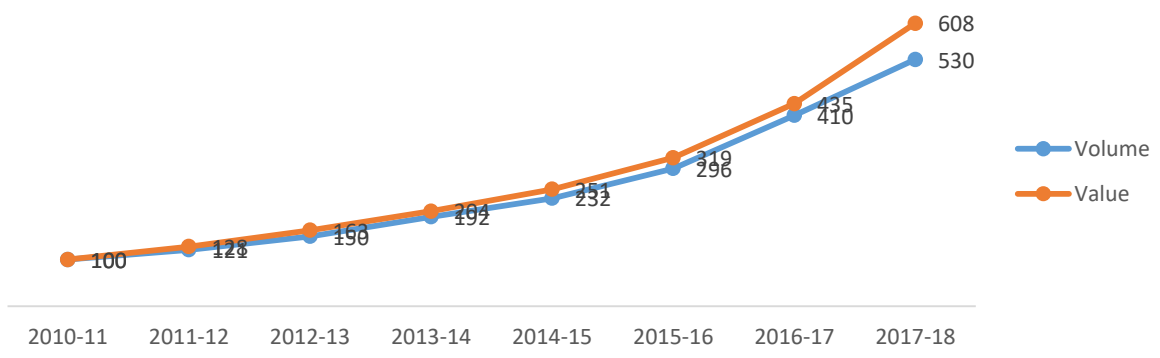
Table No: 6
Table Name: Annual Turnover of Credit Card

Credit Card	Volume (Million)	Value (₹ Trillion)	Volume (Trend %)	Value (Trend %)
2010-11	265.10	0.76	100	100
2011-12	320.00	0.97	121	128
2012-13	396.60	1.23	150	163
2013-14	509.10	1.54	192	204
2014-15	615.10	1.90	232	251
2015-16	785.70	2.41	296	319

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

2016-17	1087.10	3.28	410	435
2017-18	1405.20	4.59	530	608
Source: RBI Annual Reports				

Fig No: 6 Trend Analysis of Credit Card



The credit card showed1405 million transactions in the year 2017-18 with a value of ₹ 4.59 trillion. The above table showed a high increase in the usage of credit card after demonetisation.

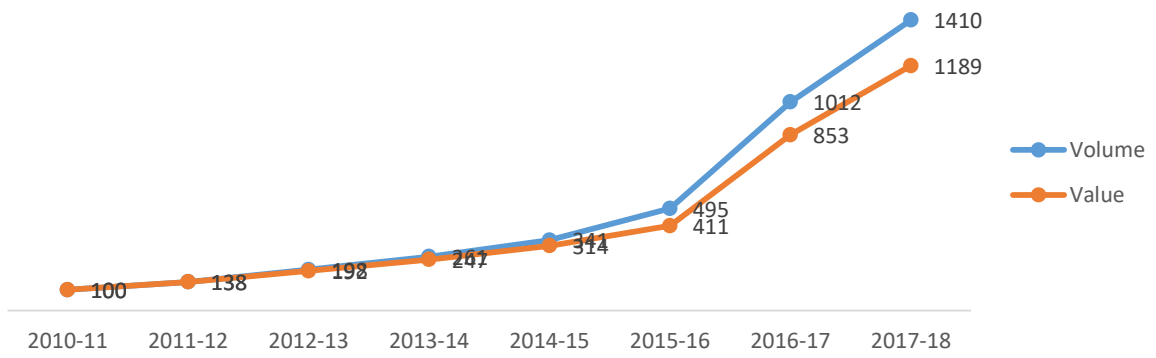
7. Details of Debit Card

Table No: 7
Table Name: Annual Turnover of Debit Card

Debit Card	Volume (Million)	Value (₹ Trillion)	Volume (Trend %)	Value (Trend %)
2010-11	237.10	0.39	100	100
2011-12	327.50	0.53	138	138
2012-13	469.10	0.74	198	192
2013-14	619.10	0.96	261	247
2014-15	808.10	1.21	341	314
2015-16	1173.60	1.59	495	411
2016-17	2399.30	3.30	1012	853
2017-18	3343.40	4.60	1410	1189
Source: RBI Annual Reports				

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Fig No: 7 Trend Analysis of Debit Card



From the above table, a drastic hike could be seen in the debit card usage after demonetisation. The trend of the debit card usage in year2017-18, the trend index is 1410 transactions with a value trend of 1189 based on the base year of 2010-11. Before demonetisation, the trend index of 2015-16 was only 495 transactions with a value trend was only 411.

8. Details of Prepaid Payment Instruments (Prepaid Cards)

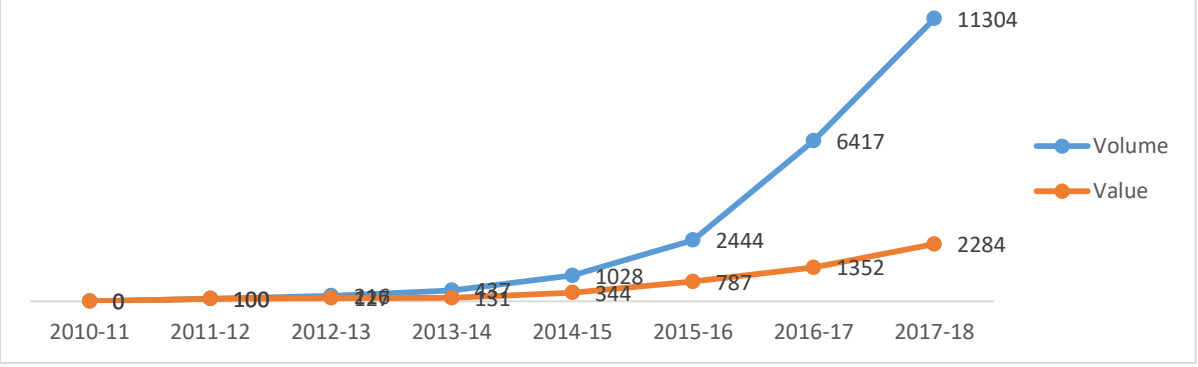
Table No: 8
Table Name: Annual Turnover of Prepaid Payment Instruments (Prepaid Cards)

Prepaid Cards	Volume (Million)	Value (₹ Trillion)	Volume (Trend %)	Value (Trend %)
2010-11	0.00	0.00	0	0
2011-12	30.60	0.06	100	100
2012-13	66.10	0.08	216	127
2013-14	133.60	0.08	437	131
2014-15	314.50	0.21	1028	344
2015-16	748.00	0.49	2444	787
2016-17	1963.70	0.84	6417	1352
2017-18	3459.00	1.42	11304	2284

Source: RBI Annual Reports

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Fig No: 8 Trend Analysis of Prepaid Cards



In the year 2015-16, there were 748 million prepaid card transactions with a value of ₹ 490 billion have been taken place. Due to demonetisation, it made a high jump of 1964 million transactions with a value of ₹ 840 billion in the year 2016-17 as its value was 3459 million transactions with a value of ₹ 1420 billion in the year 2017-18.

Conclusion and Discussion

The journey of Indian banks from starting Bank of Hindustan to the tech-savvy banks are showed in this paper. It is highly remarkable the initiatives taken by the government to transform India into digital way. In the digital era, it is important to dominate in all spheres of customer service (Bhat, 2017) . Bhattacharyya and Pradhan (2017) pointed out that the security risk and reluctance of the customers to move into digital way and the fear of losing money online are the main challenges of digital banking. In India, lack of proper connectivity and proper cyber security are the main challenges in the growth of Digital India(Aayog, 2017). Not only government nut also financial institutions should take initiatives to improve customer experience through satisfied services. The entry of 5G and Wi-Fi 6 give faster broadband speeds and more reliable mobile network (Newman, 2019). Then bank should give personalised services to customers not only in financial matters but also in other value-added functionalities such as mobile banking, personalised digital alerts, digital document safe keepting etc. Biometric securities such as finger print technology, voice recognition, and facial recognition can be adopted for identity protection and account security that makes confidence among customers to do online banking services. As per the annual reports of RBI upto 2017-18, the different modes of digital payments are debit cards, credit cards, USSD, AEPS, UPI, mobile wallets, banks pre-paid cards, PoS, internet banking, mobile banking, micro ATM etc.

REFERENCES:

ISSN: 0976-075X
Vol-6-Issue-9 April-2020

Aayog, N. (2017) *Interim Report of the Committee of Chief Ministers on Digital Payments*. Andrapradesh.

Bhat, M. R. (2017) 'Digital Banking- An Indian Perspective'. FICCI. Available at: http://blog.ficci.com/digital-banking-technology/7295/ On Aug4, 2019.

Bhattacharyya, B. and Pradhan, S. (2017) *Digital revolution in the Indian banking sector*, *Weschool*. Available at: http://www.forbesindia.com/article/weschool/digital-revolution-in-the-indian-banking-sector/47811/1 (Accessed: 4 August 2019).

Cashless India (2015) *Digital Payment Methods*, *National Informatics Centre*. Available at: http://cashlessindia.gov.in/digital_payment_methods.html (Accessed: 13 August 2019).

CFPB (2019) *What is the difference between a prepaid card, a credit card, and a debit card?*, *Consumer Financial Protection Bureau*. Available at: https://www.consumerfinance.gov/ask-cfpb/what-is-the-difference-between-a-prepaid-card-a-credit-card-and-a-debit-card-en-433/ (Accessed: 14 August 2019).

Gkduniya (2019) *History of Banking in India*, *Gkduniya*. Available at: https://www.gkduniya.com/bank-india (Accessed: 23 August 2019).

IAMAI (2017) *Mobile Internet Report 2017*. Available at: https://cms.iamai.in/Content/ResearchPapers/2b08cce4-e571-4cfe-9f8b-86435a12ed17.pdf.

Kats, R. (2018) *The Mobile Payments Series: India*, *eMarketer*. Available at: https://www.emarketer.com/content/the-mobile-payments-series-india (Accessed: 14 August 2019).

Maiti, S. S. (2017) 'Mint Street Memo No . 07 From Cash to Non-cash and Cheque to Digital: The Unfolding Revolution in India's Payment Systems', (07), pp. 1–10.

Newman, D. (2019) *Top 10 Digital Transformation Trends For 2020*, *Forbes - CMO Network*. Available at: https://www.forbes.com/sites/danielnewman/2019/07/14/top-10-digital-transformation-trends-for-2020/#2f7797b576be (Accessed: 2 August 2019).

Ramani, K. (2019) *Top 10 Mobile Wallets in INdia - 2019 Edition*, *Social Beat*. Available at: https://www.socialbeat.in/blog/top-10-mobile-wallets-in-india/ (Accessed: 14 August 2019).

RBI (2018) *Annual Report of RBI 2017-18*, *RBI*. Available at: https://m.rbi.org.in/Scripts/AnnualReportPublications.aspx?Id=1236 (Accessed: 15 August 2019).

Singh, A. (2017) *Emerging technologies in digital banking in India*, *Dun & Bradstreet India Forbes*. Available at: http://www.forbesindia.com/blog/digital-navigator/emerging-technologies-in-digital-banking-in-india/ (Accessed: 23 August 2017).

Vyas, B. *et al.* (2017) *Encashing on Digital: Financial Services in 2020*. Boston Consulting Group, Inc.,Mumbai.