

E-Banking in India: Focus on Retail Payments

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ABSTRACT

Indian banking industry has witnessed a tremendous developments due to sweeping changes that are taking place in the information technology. Indian Banking services are accessible 24x7. There are more plastic cards in your wallet than currency notes. Banks today operate in a highly globalized, liberalized, privatized and a competitive environment. In order to survive in this environment, banks have to use IT. Retail electronic payment system has progressed in the recent years in the world. Reserve Bank in its Vision statement has set the objective to proactively promote electronic payments with an objective towards less cash society. The formation of National Payments Corporation (NPCI) in the year 2009 has set the stage for development of retail electronic payments which offers enormous opportunity to move towards cashless and less cash society. The data on banks collected from RBI Reports have been analyzed by using well established statistical tools and techniques. Compound Annual Growth Rate (CAGR) is used to analyse the data for the products such as electronic clearing, ECS (Debit), National Electronic Funds Transfer (NEFT), and Card Products. Various innovative products, such as Immediate Payment Services (IMPS), National Automated Clearing House (NACH) and Prepaid Instruments (PPI), were launched after the formation of NPCI. There is enormous opportunity since the ratio of retail electronic clearing to systematically important payments such as Real Time Gross Settlement and CCIL grew from 1 percent in the year 2005-06 to 3 percent in the year 2013-14. Retail Payments – Prepaid Payments Instruments (PPI) Volume creates the higher volume when compared to other online retail payment systems.

INTRODUCTION

It is the internet which made our lives simpler. We need not physically interact with the concerned parties, especially in case of payments. It is the banking industry, which has got the utmost benefit with the introduction of internet. Various developments have taken place in Indian Banking. Recent developments, banks influenced its customers. By adopting E-banking, it has put its customers at ease. At the same time banks are also at ease. E-banking is the use of electronic and telecommunications network for delivering various banking products and services. Through e-banking, a customer can access his account to make his transactions using electronic gadgets. Always banking industry was in the front position in adapting the technology especially after globalization.

In India, since 1997, when the ICICI Bank first offered internet banking services, the present day life, every bank provides the E-banking services to their customers. Popular services under e-banking in India are ATMs (*Automated Teller Machines*), Telephone Banking, Electronic Clearing Cards, Smart Cards, EFT (*Electronic Funds Transfer*) System, ECS (*Electronic Clearing Services*), Mobile Banking, Internet Banking, Tele-banking, Door-step. Most of the services which are provided online today by the banks are similar to the traditional services. The only difference is that today these services are provided online.

E-Banking: E-banking is a generic term making use of electronic channels through Electronic gadgets like mobile, internet etc. for delivery of the banking services. The concept and scope of e-banking is still in the transitional stage. E-banking has broken the barriers of branch banking.

Evolution of e-banking: E-banking came into existence in UK and USA in 1920s. It became prominently popular during 1960s through electronic funds transfers and credit cards. The concept of web-based banking introduced in Europe and USA in 1980s. But now every bank works on internet and all transactions take place with the help of online. Online services can be more effectively and efficiently prominent to all the customers for the services of online banking. It is very easy to access the online banking services by the customers.

E-Banking in India: The traditional model of banking services has been through branch banking. In early 1990s the banks started non banking services. The manual accounting system of banks nowhere exists in the present generation. In India, ICICI bank first launched Internet banking, which followed by Citibank and HDFC Bank in 1999. The Government of India and RBI took several initiatives for the development of E-Banking Services in India. The RBI is monitoring and reviewing the legal and other requirements of e-banking on a continuous basis to ensure that e-banking would develop on sound lines and e-banking related challenges would not pose a threat to financial stability. To cope with the pressure of growing competition, Indian commercial banks have adopted several initiatives and e-banking is one of them. The competition has been especially tough for the public sector banks, as the newly established private sector and foreign banks are leaders in the adoption of e-banking. Indian banks offer to their customers following e-banking products and services:

- Automated Teller Machines (ATMs)
- Internet Banking
- Mobile Banking
- Phone Banking
- Tele-banking
- Electronic Clearing Services
- Electronic Clearing Cards
- Smart Cards
- Door Step Banking
- Electronic Fund Transfer

The three broad facilities that e-banking offers are:

- Convenience- Convenience banking can transact from anywhere with customers convenience.
- No more Qs- There will be no queues at an online bank.
- 24x7 service- Bank online services are provided 24 hours a day, 7 days a week and 52 weeks a year.

Common E-Banking Services

Retail Services	Wholesale Services
Account Management	Account Management
Bill Payments	Cash Management
New account opening	Small Business Loans
Consumer Wire transfers	Commercial Wire transfers
Investment/Brokerage Services	Business-to-Business Payments
Loan application & Approval	Employee Benefits/Pension Administration
Account aggregation	

LITERATURE REVIEW

Asiyanbi and Ishola (2018) demonstrated that the satisfaction degree of customers in the banking sector increases when using E-Banking services.

Mohan (2006) remarked that Indian banking is at the threshold of a paradigm shift and a significant development has been achieved by banks in offering a variety of new and innovative e-banking services to customers today,

which was not thought of before. However, public sector banks have not been able to harness the benefits of computerization.

Khalfan (2004) defines E-Banking services as a variety of e-channels for doing banking transactions through Internet, telephone, TV, mobile, and computer. Banking customers' desires and expectations with regard to service are expanding, as technology advances and improve. These days, the customer wants to operate and do his or her banking transactions at any location without going to the bank, at any time without being limited to the bank's working hours, and to do all his or her payments (purchasing, bills, stocks) in a fast and cost-effective way. Consequently, financial services quality ought to be characterized by independence, elasticity, freedom, and flexibility, to accommodate these desires.

RESEARCH GAP

The above review of literature reveals that various studies have been made on satisfaction degree of customer on e-banking, e-banking channels etc. However, a detailed study on Retail Payments viz., Debit Cards, Credit Cards and Prepaid Payments Services has not been done. Hence, the study is undertaken to fill the research gap.

OBJECTIVES OF THE STUDY

The present study is undertaken with the objective to Study and analyze the progress made by the Indian Banking Industry in Retail Payments.

RESEARCH METHODOLOGY

Source of Data: The present study is based on Secondary sources. Secondary data was collected from the RBI Annual Reports, Journals, Books and Various websites.

Period of the Study: The study was undertaken for a period of seven years i.e., from 2012-13 to 2018-19. In 2011-12 financial year financial inclusion plans were completed there were signs of considerable progress in terms of expanding the outreach of banking. Hence, the study period was taken from 2012-13 to 2018-19.

TOOLS FOR ANALYSIS:

The data on banks collected from RBI Reports have been analyzed by using well established statistical tools and techniques. The following tools are used to analyze.

Compound Annual Growth Rate (CAGR)

It works out change for a given period on the basis of the base year and the end year values i.e.

$$g = \left(\left\{ \frac{K_i}{K_0} \right\} - 1 \right) \times 100$$

Where K_i and K_0 represents the values of variables at the end and basic year respectively,

Growth Rate (GR)

Growth rates refers to the percentage change of a specific variable within a specific time period

$$\text{Growth rate} = \frac{\text{Present Value} - \text{Past Value}}{\text{Past Value}}$$

Retail Payments – Debit Card Volume

The following table is showing Retail Payments – Debit Card Volume.

Table 1 Retail Payments – Debit Card Volume

Year	Debit Card Volume (million)	Growth Rate (%)
2012-13	469.1	-
2013-14	619.1	31.97
2014-15	808.1	30.52
2015-16	1173.5	45.21
2016-17	2399.3	104.4
2017-18	3343.4	39.3
2018-19	4414.3	32.03
Total	13,226.8	
Average	1889.54	
CAGR	37.74%	

Source: Compliance by annual reports

The table represents the number of debit cards used from the year 2012-13 to 2018-19. It shows that there is an increase of 31.97 percent usage of debit cards from 2012-13 to 2013-14. In the year 2014-15 total of 808.1 million cards are used which showed an increase of 30.52 percent from the previous year. There is an increase of 45.21 percent in the usage of debit card in the year 2015-16. In the year 2016-17 there is more than hundred percent growths in the use of debit cards i.e. 104.4 percent. From the year 2016-17 to 2017-18 the volume of cards used increased from 2399.3 million to 3343.4 million with a growth rate of 39.3 percent. In the year 2018-19 total of 4413.3 million cards are used with an increase of 32.03 percent from previous year. The table depicts 37.74 percent CAGR.

Retail Payments – Debit Card Value

The below table is showing Retail Payments - Debit Card Value

Table 2 Retail Payments – Debit Card Value

Year	Debit Card Value (billion)	Growth Rate (%)
2012-13	743.4	-
2013-14	954.5	28.39
2014-15	1213.4	27.12
2015-16	1589	30.95
2016-17	3299	107.61
2017-18	4601	39.46
2018-19	5935	28.99
Total	18335	
Average	2619	
CAGR	34.59%	

Source: Author's Own Calculations, Data from RBI annual reports

The table depicts the total value of amount paid by the debit card holders in the above seven years. It is seen that a total of 743.4 billion payments were done by debit cards in the year 2012-13. From 2012-13 to 2013-14 the debit card payments increased by 28.39 percent. In the year 2014-15 there was a payment of Rs 1213.4 billion. In the year 2015-16 there is an increase of debit card payments from Rs 1213.4 billion to Rs 1589 billion with a growth rate of 30.95 percent. In the year 2016-17 it is seen that there is drastic increase of 107.61 percent in the debit card payments compared to previous year. In the year 2017-18 and 2018-19 there was a growth rate of 39.46 percent and 28.99 percent respectively in the value of debit card payments. It is found that there is 34.59 percent CAGR in case of debit card payments.

Retail Payments – Credit Card Volume

The below table is showing Retail Payments - Credit Card Volume

Table 3 Retail Payments – Credit Card Volume

Year	Credit Card Volume (million)	Growth rate (%)
2012-13	396.6	-
2013-14	509.1	28.37
2014-15	615.1	20.82
2015-16	785.7	27.73
2016-17	1087.1	38.36
2017-18	1405.2	29.26
2018-19	1762.6	25.43
Total	6561.4	
Average	937.34	
CAGR	23.78	

Source: Author's Own Calculations, Data from RBI annual reports

The table shows the number of credit card used and its growth rate during the said seven years. It is informed that total of 6561.4 million credit cards were used in these total of seven years. It is observed that every year there is an increase in the use of credit cards. From the year 2012-13 to 2013-14 there is a growth rate of 28.37 percent. In the year 2014-15 total of 615.1 million credit cards are used for making transactions. During the year 2015-16 there is an increase to 785.7 million cards usage from 615.1 million cards in the previous year. In the years 2016-17, 2017-2018 and 2018-19 it is seen that, there is a growth rate of 38.36 percent, 29.26 percent and 25.43 percent respectively. It is found a 23.78 percent CAGR in case of number of credit cards.

Retail Payments – Credit Card Value

The below table is showing Retail Payments - Credit Card Value

Table 4 Retail Payments – Credit Card Value

Year	Credit Card Value (billion)	Growth rate (%)
2012-13	1229.5	-
2013-14	1539.9	25.25
2014-15	1899.2	23.33
2015-16	2407.0	26.74
2016-17	3284.0	36.44
2017-18	4590.0	39.77
2018-19	6033.0	31.44
Total	20982.6	
Average	2997.51	
CAGR	25.54%	

Source: Author's Own Calculations, Data from RBI annual reports

It is evident from the above table that a total value of Rs 20982.6 billion is transacted through credit cards in these seven years. It is seen that Rs 1229.5 million worth value money was paid through credit cards in the year 2012-13. From 2012-13 to 2013-14 there is a growth rate of 25.25 percent in the value of credit card transactions. In the years 2014-15 and 2015-16 an amount of Rs 1899.2 million and Rs 2407million respectively is spent through credit cards which amounted to 23.33 percent and 26.74 percent growth rate respectively. In the year 2016-17 there was an increase of 10 percent in the value of credit card payments with a growth rate of 36.44 percent compared to previous

year. It is seen that in the year 2017-18Rs 4590 million credit card payments were done. From this year to 2018-19 there was a growth rate of 31.44 percent in the value of credit. A 25.54 percent CAGR is noticed in case of value of credit card transactions.

Retail Payments –Prepaid Payments Instruments (PPI) Volume

The below table is showing Retail Payments – Prepaid Payments Instruments (PPI) Volume

Table 5 Retail Payments – Prepaid Payment Instruments (PPIs) Volume

Year	PPIs Volume(million)	Growth Rate (%)
2012-13	66.9	-
2013-14	133.6	99.70
2014-15	314.5	135.40
2015-16	748	137.84
2016-17	1963.7	162.53
2017-18	3459.0	76.15
2018-19	4604.3	33.10
Total	11290	
Average	1612.86	
CAGR	83.145%	

Source: Author's Own Calculations, Data from RBI annual reports

The table shows the status of prepaid payment instruments usage and its growth rate during the said seven years. The PPIs includes. It is seen that total of 11290 million PPIs were used for making payments in these seven years. From the year 2012-13 to 2013-14 the volume of PPIs increased drastically from 66.9 million to 133.6 million resulting to a growth rate of 99.70 percent. The year 2014-15 experienced a growth rate of 135.40 percent in the usage of PPIs. In the year of 2015-16 same trend continued similar to previous year 2014-15 with a growth rate of 137.84 percent. In the year 2016-17 a total of 1963.7 million PPIs were used for making payments with a growth rate of 162.53 percent. A total of 3459 million and 4604.3 million PPIs were used during the year 2017-18 and 2018-19 respectively with a growth rate of 76.15 percent and 33.10 percent

Retail Payments – Prepaid Payment Instruments (PPIs) Value

The below table is showing Retail Payments – Prepaid Payments Instruments (PPI) Value

Table 6 Retail Payments – Prepaid Payment Instruments (PPIs) Value

Year	PPIs Value (billion)	Growth rate (%)
2012-13	79.2	-
2013-14	81.0	2.27
2014-15	211.9	161.60
2015-16	488	130.30
2016-17	838	71.72
2017-18	1416	68.97
2018-19	2129	50.35
Total	5243.1	
Average	749.01	
CAGR	60.107%	

Source: Author's Own Calculations, Data from RBI annual reports

The above table shows that around Rs 5243 billion worth transactions were done through PPIs from the year 2012-13 to 2018-19. In the year 2013-14 there was a just 2.27 percent increase in the value of PPIs transactions compared to previous year. But in the year 2014-15 it is seen that a drastic change i.e. a growth rate of 161.60 percent with a value of Rs 211.9 billion. In the year 2015-16, 130.30 percent growth rate is observed from the previous year. In the year 2016-17, 2017-18 and 2018-19 Rs 838 million, 1416 million and 2129 million worth transaction were completed respectively by using various PPIs.

CONCLUSIONS

Banks are making efforts to popularize Retail Payments viz., Debit Card, Credit Card and Prepaid Payment Instruments (PPIs). It is evident from the study that there is a constant increase in the Retail Payment over the study period. India is now the top country where major population transacts online. But there is long way to go as rural population of India is still waiting for some support that will facilitate their usage of e-banking services. Now a day's youth prefer the convenience and benefits of the e-banking services. In years to come, e-banking will be preferred mode of banking.

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