Electronic Financial Service System (EFSS)Of Banks In India-An Evaluation Of Performance

 $Pradeesh.N.M^1$, Dr. M. C. $Minimol^2$

¹Research Scholar in Commerce, Research and Development Centre, Bharathiar University, Coimbatore, India ²Assistant Professor, Rajagiri Centre for Business Studies, Eranakulam, (Research Guide

, Bharathiar University), India

Abstract

The last few years have witnessed an explosion of Information and Communication Technology based initiatives which have brought about a drastic change in the way how banking products, services and information are developed and Information and delivered. communication technology (ICT) have improved the performance of banks all over the world. Banking industry in India has witnessed positive developments due to sweeping changes that are taking place in the information and communication technology. Electronic Financial Service System (EFSS) has emerged as result of this tremendous development. The objective of the research paper is to analyse theprogress of EFSS of banks in India in the last few years. The study is mainly secondary data based and also analytical in nature. The progress in EFSS is measured through various parameters such as growth in NEFT, RTGS, IMPS, prepaid card transaction etc. Different Statistical methods are used for the present study. It is found that since 2012-13, all segments of electronic payments, have shown healthy growth both in terms of volume and value of transactions.

Keywords : *Electronic Financial Service System, Information and CommunicationTechnology*

I. INTRODUCTION

India has traditionally been a cash intensive economy. Around 78 per cent of all consumer payments in India are done thorough cash (RBI Report, 2017). Electronic Financial service System (EFSS) is a technology enabled system that helps any user with a computer, mobile phone, other

technology solution and a browser can get connected to bank's website to perform any of the virtual banking functions.EFSS can be defined as the provision of services that embody Internet banking, Mobile banking, ATMs, Fund Transfer System, Real Time Gross Settlement, NEFT, Cards transaction, M Wallet ,Data warehousing- E-Customer Relationship Management etc. All the electronic financial services that the bank has permitted on the internet platform are displayed in main menu of the banks website. When the branch offices of bank are interconnected through internet there would be no physical identity for any bank branches. In short, electronic financial service of banks has become a borderless activity permitting anytime, anywhere and anyhow electronic transaction of banking. Electronic Financial service System provides a number benefits to banking customers in the form of ease, availably and cost of transactions. Electronic Financial Service system is emerging as an innovation with potential to change the structure and nature of banking institutions. Therefore

A. Features of a good EFSS

1) Applicability.

Applicability of a payment system is the extent to which it is accepted for payments. From the point of view of applicability, cash is accepted widely and thus has high level of applicability. Applicability of a payment system may vary from place to place.

2) Ease of use.

Usability is the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use. Paying with an EFSS should not be a complex and difficult.

3) Security.

As Internet services are provided on the networks, the infrastructuresupporting electronic commerce, and payment systems in particular, must be resistant to attacks in the Internet environment.

4) Trust.

Trust is the degree of confidence that money and personal information will be safe and that parties involved will not act against user's interest. From the perspective of using a payment system people trust that payments will be conducted in a proper way, that money will not be stolen.

5) Convertibility.

Funds represented by one mechanism should be easily convertible into funds represented by others. The users select payment mechanisms as financial instruments according to their needs.

6) Traceability.

Traceability of EFSS indicateshow easy it is to trace money flows, sources of funds or link spent funds to a customer via payment activities.

B. Advantages of EFSS

• The operating cost per unit services is lower for the banks.

• It offers convenience to customers as they are not required to go to the bank's premises.

• There is very low incidence of errors.

• The customers can obtain funds at any time from ATM machines.

• The credit cards and debit cards enables the customers to obtain discounts from retail outlets.

• The customer can easily transfer the funds from one place to another place electronically

C. Challenges associated with EFSS

1. Infrastructural Barriers

2. Knowledge Barriers

3. Legaland Security Issues

4. Economic Factors

5. Socialand Cultural Barriers

6. Managementand Banking Issues

D. Vision of RBI

The RBI's Vision-2018 for Payment and Settlement Systems in India encourages greater use of electronic payments by all sections of society so as to achieve a "less-cash" society. It focuses on payment system for the future that combines the much-valued attributes of safety, security and universal reach with technological solutions which enable faster processing, enhanced convenience, and the extraction and use of valuable information that accompanies payments. After demonetisation, there has been a significant emphasis on electronic modes of payment. The Reserve Bank have initiated a series of measures to promote movement from cash to non-cash transactions. They include reduction in the point of sale fees; discounts and prizes; service tax relief on small transactions; waiver of charges for small value transactions under Immediate Payment Service (IMPS), Unified Payment Interface (UPI) etc.

II. REVIEW OF LITERATURE

R.S.Raghavan (2006) holds the view that technology has played a vital role in the evolution of banking sector, through speed creation, accuracy and efficiency of operation and reduction in the transaction cost.

Daniel (1999) defines Technology banking as the delivery of bank's information and services to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone or telephone or digital television etc.

Dheenadhayalan (2010) states that E-based banking is also known as Cyber banking, and virtual banking and includes various banking activities that can be conducted from anywhere. Thus the term Ebanking includes RTGS, NEFT, ECS, Credit cards and debit cards, Cheque truncation, ATM, Tele banking, Internet banking and Mobile banking. Ashish Das, and Rakhi Agarwal, (2010) in their study found that Cash as a mode of payment is an expensive proposition for the Government. The country needs to move away from cash-based towards a cashless (electronic) payment system. This will help reduce currency management cost, track transactions, check tax avoidance / fraud etc., enhance financial inclusion and integrate the parallel economy with main stream.

Dr.Komal and Dr.Vandna Rani (2012) share the view that Banks must realize the challenges ahead and develop a strategy that will enable them to leverage the opportunities presented by e-banking. Ebanks need to shift now from product centric to customer centric i.e. to design services according to the needs, dreams and expectations of the customers.

III. RESEARCH QUESTION

The present Research tries to understand whether there is any progress in the volume and value of digital transaction during last five years?

IV. OBJECTIVES OF THE STUDY

The objective of the present investigation is to analyse the performance of EFSS during the last 5 years in term of volume and value of various EFSS transaction.

V. RESEARCH METHODOLOGY

The present study is secondary data based and also analytical in nature. Statistical and mathematical tools such as simple growth rate, percentages and averages are used. The variables of the study are the growth in National Electronic Fund Transfer, RTGS, Mobile banking and debit card and credit card transaction etc. In this study, simple growth rate is indicated by GR. GR= Yt -Y0 /Y0 x 100 where Yt indicates value of given parameter in current year/month and Y0 indicates value of given parameter in base year/month.

VI. SIGNIFICANCE OF THE STUDY

Electronic Financial Service System is a technology oriented information system that has the potential to increase customer satisfaction and the performance of the banking products and services. The study is conducted in order to assist in contributing literature on Electronic Financial Service System and technology acceptance in the Indian context. The outcomes of the study can be incorporated with literature on EFSS, which are yet to attain wide spread usage and adoption.

VII.GROWTH OF EFSS

There are many cashless payment options available in India. Some of these are discussed below:

A. Card Transactions (Debit and Credit Cards)

The Card payments includepayments made using debit cards, credit cards and prepaid card etc.A card payment involves a card holder, a merchant or entity with infrastructure to accept card payments, a bank which issues the card and a bank which sets up the infrastructure for accepting card payments.Aadhaar Card enabled payment systemallows a person to pay using his aadhaar card if it is linked to his bank account.

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Year	Volume	GR%	Value	GR%
	(million)			
2012-13	396		509	
2013-14	1229	210	1539	202
2014-15	615	55	1899	273
2015-16	785.7	98	2047	302
2016-17	1087.1	174	3284	545

 Table 1: Annual Turnover-Credit card

Source: Reports of RBI-Various Issues

There has been huge hike over 174% growth in credit transaction in 2016-17 as compared to 2012-13.

1	Table 2. Annual Turnover-uebit caru					
Year	Volume	Gr	Value-	GR%		
	(million)	%	(billion)			
2012-13	469		743			
2013-14	619	31	954	28		
2014-15	808	72	1,213	63		
2015-16	1,173	150	1,589	113		
2016-17	2,399	411	3,299	344		

Table 2: Annual Turnover-debit card

Source: Reports of RBI-Various Issues

Debit card usage also witnessed high growth during the year 2016-17. The debit card usage is expected to rise in the year to come.

B. Mobile Banking

Various Banks have been offering mobile based banking services to their customers through various channels such as SMS, USSD channel, mobile banking application etc. TheImmediate Payment System has increased the efficiency of mobile banking by enabling real time transfer of funds between bank accounts and providing a centralized interbank settlement service for transaction conducted through mobile banking.

Tab	le.3.	Grow	th in	mobile	banking
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Vaar	Values		Walna	
rear	volume	GR%	value	GK%
	million		billion	
	-			
October 2016	78		1,139	
November 2016	87.47	12	1,365.70	19

December 2016	110.64	41	1,498.18	31
January 2017	106.13	36	1,383.05	21
February 2017	95.41	22	1,279.93	12
March 2017	113.65	45	1,730.88	51
April 2017	106.27	36	1,612.65	41
May 2017	114.26	46	2,134.20	87

Source: RBI various editions

Mobile banking usage shows an increasing trend in terms of volume and value of transaction during the year 2016 and 2017. The highest growth rate indicated in May 2017.

C. The Unified Payments Interface

The Unified Payments Interface shortly UPI, offers a set of standard Application Programming Interface specifications to facilitate online payments. It provides a single interface across all NPCI systems besides creating interoperability and superior customer experience. The key attractions of the Unified Payments Interface are: a) The Unified Payments Interface permits payments via mobile app, web etc. b) The payments can be both sender and receiver initiated. c) The payments are carried out in a secure manner aligned with the extant RBI guidelines.

Year	Volume (million)	GR%	Value (billion)	GR%
Nov 2016	.3		.9	
Dec 2016	2	566	7	677
January 2017	4.2	1300	16.6	1744
Feb 2017	4.2	1300	19	2011

Table 4: Growth in UPI

Source: RBI Bulletin-various editions

A gradual increase is seen in UPI transactions. Total transactions increased from 0.3 million in November to 2.0 million in December and further to 4.2 million in January and February. The value of transactions rose from 0.9 billion in November to about 19 billion in February.

D. RTGS/NEFT

Real Time Gross Settlement System (RTGS) & National Electronic Fund Transfer system (NEFT)are the modern electronic financial services which enable an efficient, secure, economical and reliable system of transfer of funds from bank to bank as well as from remitter's account in a particular bank to the beneficiary's account in another bank across the country.

RTGS: *E*.

The RTGS is the continuous settlement of funds individually on an order by order basis without netting. The RTGS is primarily meant for large value transactions. The minimum amount to be remitted through RTGS is limited to Rs 2 Lakh. There is no upper ceiling for RTGS transactions.

Year	Volume	GR	Value	GR
	(million)	%	(billion)	%
2012-13	68.5		6,76,841	
2013-14	81.1	18	7,34,252	8
2014-15	92.8	35	7,54,032	11
2015-16	98.3	43	8,24,578	21
2016-17	107.8	57	9,81,904	45

Source: Reports of RBI-Various Issues

The Real Time Gross Settlement (RTGS) handled 108 million transactions, valued at around 982 trillion in 2016-17, up from 98 million transactions valued at 825 trillion in the previous year. There has been tremendous growth in the RTGS transactions in the last couple of years.

National Electronic Fund Transfer (NEFT) **F**.

NEFT is an electronic fund transfer system that operates on a Deferred Net Settlement (DNS) basis which settles transactions in batches. Under NEFT, any transaction initiated after a designated settlement time would have to wait till the next designated settlement time contrary to this, in the RTGS transactions are processed continuously throughout the RTGS business hours. Individuals who do not have a bank account can also deposit cash (Max. Rs. 50,000/-) at the NEFT enabled branches with instructions to transfer funds using NEFT.

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Year	Volu	GR%	Value	GR%
	me		(billion)	
	(milli			
	on)			
2012-13	394		29,022	
2013-14	661	67	43,785	50
2014-15	927.5	135	59,804	106
2015-16	1,252	217	83,273	186
2016-17	1 622	311	1 20 040	313

Source: Reports of RBI-Various Issues

During 2016-17, NEFT handled 1.6 billion transactions valued at 120 trillion, up from around 1.3 billion transactions for 83 trillion value in the previous year. It shows that the growth rate has been drastically increased in 2016-17.

G. IMPS

Immediate Payment Service (IMPS) is an instant interbank electronic fund transfer service through mobile phones. It is also being extended through other channels such as ATM, Internet Banking, etc.

Table 7: Annual Turnover-IMPS					
Year	Volume	GR%	Value	GR%	
	(million)				
2014-15	78.4		582		
2015-16	220.8	181	1622	178	
2016-17	506.7	546	4116	607	

Table 5: Annual Turnover-RTGS

Source: Reports of RBI-Various Issues

The IMPS transaction also shows highest growth rate in 2016-17 as compared to the previous year.

H. Prepaid Instruments

Prepaid payment instruments are those which facilitate purchase of goods and services against the value stored on such instruments. The value stored on such instruments represents the value paid for by the holder, by cash, by debit to a bank account, or by credit card. The Prepaid instruments can be issued as smart cards, magnetic stripe cards, internet accounts, internet wallets, mobile accounts, mobile wallets, paper vouchers and any such instruments which can be used to access the prepaid amount (collectively called Payment Instruments hereafter).

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Year	Volume(m)	GR		
2012-13	66			
2013-14	133	101		
2014-15	314	375		
2015-16	748	1033		
2016-17	1967	2880		

Table.8.Prepaid instruments

Source:RBI report-various editions

Prepaid instruments also witnessed an all-time record hike in 2016-17 as compared to previous period.

I. M-wallet

M-payment is a crucial driver for the growth of the e-commerce industry in India. People can shop online; book movie tickets, rail or flight tickets; and pay their bills by making m-payment through their debit and credit cards.With more than 1 Billion mobile subscribers, India has a promising potential for internet on mobile, and the same is expected for payments and business transactions on mobile. In FY 2016, Indian m-payment reported INR 8.2 Trillion worth of transaction value; and it is expected that it would grow at 150% during FY 2016 to FY 2022.

Quarter	Amount	GR%
Q1 CY16	1095	
Q2 CY16	1200	10
Q3 CY16	1444	20
Q4CY16	2262	57
Q1 CY17	3612	60

Table.9.Indian Mobile Wallet Transaction Value (For Each Quarter, In Millions)

Source: RBI Reports

As people have adopted mobile wallets for everyday transactions, Average Transaction value decreased despite growth in overall Transaction Value. In the later stage, Mobile wallet usage declined with increased cash supply.

VIII. DISCUSSION AND FINDINGS

Since 2012-13, all segments of electronic payments, have shown healthy growth both in terms of volume and value of transactions. Real Time Gross Settlement and National Electronic Fund Transfer volumes increased almost threefold between 2013 and 2016 .Similarly, with increasing number of banks offering mobile banking services, the volume of mobile banking transactions has increased nearly seven-fold. Card transactions have also shown a significant growth both ATMs and at the Point-of-Sale (PoS) with the growth in debit card usage at POS picking up significantly. The growth in volume and value of transactions using prepaid payment instruments (PPIs) issued by banks and authorised non-bank entities has also been significant. The volume and value in Immediate Payment Service (IMPS) has also grown significantly with the development of the IMPS as a multi-channel system providing various options to customers to originate transactions. With cash transactions facing a reduction, alternative forms of payment will see a surge in demand. Digital transaction systems, E wallets and apps, online transactions using E banking, usage of Plastic money (Debit and Credit Cards), etc. will definitely see substantial increases in demand in future. There will be an urgent need for debit cards, electronic transfers and mobile payment platforms to be widely adopted. Behavior's change slowly, especially for those set in their ways. Institutional support from financial institutions, telecom platforms and payment interfaces will have to rise to the occasion and fill the supply gap.

Summing up

The initiatives taken by the Bank, along with enhancement in infrastructure and innovative products in the paymentspace enabled the spread of EFSS to a larger customer base across the country. In order to improve the performance of EFSS further the banks should provide an environment for development of good payment ecosystem. As Indian economy embraces 'Digital India' concept, banks too are increasingly using digital solutions to enhance customer experience and to manage costs. The recent dimension exercise by theGovernment has accelerated digitaleconomy.

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