International Journal of Current Advanced Research
ISSN: O: 2319-6475, ISSN: P: 2319-6505, Impact Factor: 6.614
Available Online at www.journalijcar.org
Volume 10; Issue 06 (C); June 2021; Page No.24600-24606
DOI: http://dx.doi.org/10.24327/ijcar.2021.4900.24606

Case Report

ROLE OF PAYMENT SETTLEMENT SYSTEM INDICATORS IN INDIAN BANKING SECTOR

Ritu Wadhwa

Department of Finance, Amity Business School, Noida

A R T I C L E I N F O

Article History:

Received xxx, 2021
Received in revised form xx, 2021
Accepted xx, 2021
Published online 28th June, 2021

Key Words:

Payment and Settlement Systems, Electronic Banking, Information Technology, Real Time Gross Settlement, National Electronic Fund Transfer, Electronic Clearing Service and Mobile Banking

A B S T R A C T

The introduction of Information and Communication Technology ("ICT") has renewed the financial services sector particularly in the banking sector. With promising popularity and rivalry, most of the banks have accepted the value of electronic banking concept and they are adapting themselves with the innovative technologies. Electronic banking has made the receipts and payments operations of the banks electronically which facilitates to increase the satisfactory level of the customers, reduces cost, better productivity and a variety of banking operations. The payment system initiatives taken over the last few years have resulted in acceptance and penetration of modern electronic payment systems in the country. India has multiple payments and settlement systems which includes both gross and net settlement systems. The aim of the study is to evaluate the role of payment settlement system indicators, trends in Information Technology ("IT") and the challenges faced by Indian banks in the changing scenario.

INTRODUCTION

The banking system is considered as the core of the financial system. Any issue relating to the banking sector will affect the economy adversely. The development of economy relies on the effectiveness and soundness of banking area. Any adjustment in this area through the appropriation of innovation will extensively affect an economy's development. Nowadays, banks are seeking ways to differentiate amongst their diverse services. Both corporate and retail customers are no longer willing to stand in long queue in banks, or wait on the phone, for the basic banking services. They expect a facility to conduct their banking activities at any time and place.

The Reserve Bank of India ("RBI") plays an important role in the development of India's payment and settlement systems for both large-value and retail payments. Several initiatives for Safe, Secure, Sound, Efficient, Accessible and Authorized payment systems in the country have been adopted by RBI. A highest sub-committee of the Central Board of RBI i.e. The Board for Regulation and Supervision of Payment and Settlement Systems ("BPSS") makes policy on payment systems in the country. The BPSS regulates and supervises all the payment and settlement systems in the country.

Corresponding author: **Ritu Wadhwa**
Department of Finance, Amity Business School, Noida

Payment and Settlement Systems Act, 2007 (PSS Act) regulates the payment and settlement systems in India. No person other than RBI unless authorised by RBI can commence or operate a payment system in India The authorised payment system operators includes prepaid payment instruments, card schemes, crossborder inbound money transfers, Automated Teller Machine (ATM) networks and centralised clearing arrangements.

Payment Systems

There are many initiatives as taken by the Reserve Bank for introducing and upgrading safe and efficient modes of payment systems in the country to meet the public requirements at large. The logistics of collection and delivery of paper instruments are required by the vast network of branches of Indian banking system. While developing the payment systems these aspects of the banking structure in the country have been considered.

Paper-based Payments

Utilization of paper-based instruments (like cheques, drafts, and such) represents almost 60% of the volume of absolute non-money exchanges in the nation. In worth terms, the share is currently around 11%. This share has been steadily diminishing over a period of time and electronic mode picked up prevalence because of the deliberate endeavours of RBI to popularize the electronic payment products in inclination to cash and cheques. Since paper-based payments possess a significant place in the nation, Reserve Bank had presented Magnetic Ink Character Recognition (MICR) innovation for accelerating and acquiring productivity in preparing of cheques.

Later, a separate High Value Clearing was introduced for clearing cheques of value Rs1 lakh or more. This was accessible at select large centres in the country (since discontinued). Some of the new improvements incorporate launch of Speed Clearing (for local clearance of outstation cheques drawn on corebanking enabled branches of banks), cheque truncation system (to restrict physical movement of cheques and enable use of images for payment processing), CTS-2010 Standards framed (for enhancing the security features on cheque forms) and such.

While the overall thrust is to lessen the utilisation of paper for transactions but it would take some time to completely move to the electronic mode, it is expected to decrease the movement of paper - both for local and outstation clearance of cheques.

Electronic Payments

In the mid-80s and early-90s several initiatives that were taken by RBI focused on innovation of technological based solutions to improvethe infrastructure of payment and settlement system, combined with new payment products due to technological advancements in banks. A cost-effective alternative system is necessary due to continuous increase in the volume of cheques adding pressure on the existing set-up.

National Payments Corporation of India ("NPCI")

The Reserve Bank empowered the setting up of NPCI to act as central organisation for operating various Retail Payment Systems (RPS) in India. In early 2009, NPCI became functional. NPCI has assumed control over National Financial Switch (NFS) from Institute for Development and Research in Banking Technology (IDRBT). NPCI is relied upon to bring more noteworthy productivity via consistency and standardization in retail payments and growing and expanding the range of both existing and innovative payment products for greater customer convenience.

Payment and Settlement Systems

The overseeing of Payment and settlement systems is a function of central bank whereby the goal of security and proficiency are advanced by checking existing and arranged frameworks, evaluating them against these objectives and, where necessary, inducing change. By overseeing payment and settlement systems, central banks help to keep up systemic stability and decrease systemic risk, and to maintain public confidence in payment and settlement systems. PSS Act and the Payment and Settlement Systems Regulations, 2008 are framed to provide legal backing to RBI.

Objectives

The specific objectives of the present study are:

1. To study the technological shift in indicators and to compare the value and volume of electronic transactions
2. To study the challenges faced by banks in the changing scenario.
3. To study the recent trends in Indian Banking Industry.

LITERATURE REVIEW

Madhushree L. M., Revathi Radhakrishnan & P. S. Aithal (2017) objectives were to analyse the role of IT, to examine the extent of use of services especially the IT-enabled services and to know the implementation of IT in Indian Banking Industry. It was concluded by them that the efficient use of technology has facilitated accurate and timely management of the increased transaction volumes of banks which comes with the larger customer base. IT revolution bought a great benefit for Indian banking industry. The positive conclusion was drawn in the field of IT on Banking sector which is having the level of relationship to develop the business sector. Dr. M.Vasan and B.Senthil (2017) outlines the extent of development and the thought shifts taking place in Real Time Gross Settlement ("RTGS"), Mobile banking, National Electronic Fund Transfer ("NEFT"), Electronic Clearing Service ("ECS") have taken critical action in payment systems through electronic mode. The RTGS & transactions of Mobile volume from 2006 to 2017 has been analysed. It was concluded by the authors that To drive this process forward, further capacity building in terms of both systems and human resources in the industry and the RBI is essential. Special attention is also required to ensure seamless business continuity plans in addition to the need to minimize and limit cybercrimes and security threats. Dr. G. Anbalagan (2017) highlights the innovation in Indian Banking Sector by discussing the major trends including open banking, Block Chain, Artificial Intelligence ("AI"), Automated Teller Machine ("ATM"), Electronic Payment Services, RTGS, NEFT, Internet banking, Mobile banking, etc. It was concluded by the researcher that the banking sector in India has become tougher in term of development and economic growth the number of customers in the financial sector. The banking system has improve the manifolds in terms of product and services, technology, etc. which shows that the banking system has grown in India.

Jasdeep Kaur (2017) gives an overview of e-banking and its evolution over period of time. It also highlights the growth of different e-banking products which are being used in Indian banking industry. The advantages and challenges of e-banking are also provided by the author. The study concludes that ATMs deployment or issuance of credit or debit cards all witnessed an upward increase indicating the growth. Aarti Sharma & Nidhi Piplani (2017) examines the digital banking trends in India along with identifying the challenges faced by banks in incorporating these digital banking trends. This paper also aims to present the opportunities and challenges of going digital in the Indian banking sector along with some recommendations to overcome these challenges. The paper concludes that in future, digital banking won't just be satisfactory but the most demanded mode of conducting transactions. It will be valuable to the academicians, banking and insurance personnel, financial advisors, professionals, students and researchers. G. Parimalarani (2016) gives an overview of the Payment and Settlement System highlighting the opportunities and challenges. The study analyses the key elements towards widespread payment system including accessibility, availability, awareness, acceptability, affordability, assurance and appropriateness. The study further examines the trends and progress in payment systems in terms of volume from year 2012-13 to 2014-15. Lastly, the conclusion made by the author is that the existing fit for payment system infrastructure needs to be changed into a state of ready for future difficulties infrastructure.

Dr S.M. Tariq Zafar, Qasim Al Ajmi and Dr Adeel Maqbool (2016) analyses the impact of technological initiatives taken by the RBI in order to develop efficiency and effectiveness in banking overall operations, to develop speedy, safe and secure payment settlement system. The study gives an overview of Banking in India and IT initiatives in Indian Banking Industry. The major objectives of the study is to evaluate the impact of IT on the performance of Indian banks payment settlement system, to examine and evaluate the growth trend of Reserve Bank initiatives. The researchers recommended at the end that Adoption of latest technology, modernisation, growth and development of existing capacity, transparency in policies and its implementation, transaction safety, financial security, easy PAN India excess and affordability with authenticity is required to develop transparent and sound banking infra. Satinder Singh and Ajaydeep Singh Brar (2016) examines the new trends in the banking sector in India along with the various opportunities for banking sector. The research scholars have examined the recent trends in Indian Banking Industry including EPS, RTGS, EFT, ECS, ATM, PoS etc. The conclusion made by the research scholars is that future of banking will offer more sophisticated services to the customers with the continuous product and process innovations. In this manner, there is a change in perspective from the seller's market to buyer's market in the business and finally it affected at the bankers level to change their approach from "conventional banking to convenience banking" and "mass banking to class banking" which increased the degree of accessibility. Thyaga Raju N (2016) focuses on latest developments in IT of banking sector that includes Internet, ATM, Society for worldwide inter-bank financial telecommunications (SWIFT), Cash dispensers, ECS, Bank Net, Chip card, Phone banking, Tele-banking, Internet banking or digital banking, Mobile banking, Anywhere banking, Voice mail, E-banking, CORE banking etc. It was concluded by the author that there is a shift from traditional banking to e-banking which is changing customer's expectations. In the area of IT where India has an edge over its competitors, remaining away or uniformity of the world trends is untenable. Financial sector in general and banking industry in particular is the largest spender and beneficiary from IT. Saba Abid (2016) highlights the study of electronic payment system i.e. e-payment system that has changed the traditional payment system in India. The time period for study is defined from 2010-11 to 2014-15 and is based on secondary data sources. The paper discusses distinctive e-instalment strategies gave by RBI and Indian banks and their degree of exchange regarding worth and volume. A similar examination of various e-instalmentin particular ECS, NEFT, CBC and RTGS techniques are accomplished for the characterized timeframe. Deepankar Roy and Amarendra Sahoo (2016) highlights the areas development in the efficiency in existing payment systems in India and other countries particularly in regard to the liquidity and operational risks, access criterion, transparency etc. Eventually, the paper endeavours to identify opportunities and challenges for India. As e-commerce becomes more prevalent in the economic activities in the country various significant changes in the payment system would take place at a quicker pace. Dr. G. Tulasi Rao and T. Lokeswara Rao (2015) uses both primary and secondary data for the research. The role of IT in banking, online banking and e-banking system in development of financial system in India has been highlighted in the study. The conclusion drawn by the authors is that Mobile bank and internet banking are going to make indoor in the banking sector soon. Indian public sector banks that hold around 75 % of market share do have stepped up in the field of IT. They are going towards the centralized database and decision-making process is being decentralized. There is awareness and appreciation of IT by the customers and they possess enviable quality manpower.

METHODOLOGY

The research gap that has been identified in the other studies with the help of literature review is that no research study was found where UPI, AePS (Fund transfer) and BHIM Aadhaar Pay & NETC (linked to bank account) were taken into consideration for payment system indicators as there were introduction of new payment system indicators and no research study has been recently undertaken after year 2017. Further, to examine the payment system indicators no research study has analysed the data after FY 2016-17.

The study is primarily analytical and descriptive based on secondary data collected from various articles, notices, IBEF, RBI annual report and other relevant RBI & other government notifications have been considered for a period ranging 2015-2020. Different payment and settlement system indicators will be examined to study the role of Payment and Settlement System in Indian banking sector as provided in RBI Annual Report. The research method will use secondary data as extracted from RBI annual report and the volume and value of the indicators will be examined from 2015-2020 to see the impact of electronic transactions on Indian Banking Sector.

Analysis AND Interpretation

Technological shift in indicators and comparison of the value and volume of electronic transactions from year 2015 to 2020

Clearing Corporation of India Limited (CCIL)

CCIL plays the role of a central counterparty whereby, the agreementamongpurchaser and vendor gets replaced by two new agreements - between CCIL and each of the two parties. This process is known as 'Novation'. Through novation, the counterparty credit risk between the purchaser and vendor is eliminated with CCIL subsuming all counterparty and credit risks.

To limit these risks, that it exposes itself to, CCIL follows specific risk management practices which are according to international best practices. In addition to the guaranteed settlement, CCIL additionally gives settlement services which are not guaranteed for rupee derivatives such as Interest Rate Swaps.

Real Time Gross Settlement (RTGS) System

A system where there is continuous and realtime settlement of transfer of funds, individually i.e. without netting and on a transaction by transaction basis. Settlement in "real time" signifies payment transaction isn't exposed to any holding up period. "Gross settlement" means settlement of fundsis on individual basis without bunching or netting with any other transaction. Once processed, payments are final and irrevocable. In 2004, RTGS was introduced and all inter-bank payments and customer transactions above Rs 2 lakh is settled.

Electronic Clearing Service (ECS) Credit

ECS (Credit) scheme was introduced during the 1990s to deal with bulk and repetitive payment requirements (like salary, interest, dividend payments) of corporates and other institutions. ECS (Credit) encourages accounts of customers to be credited on the specified value date and is presently accessible at all major cities.

Electronic Clearing Service (ECS) Debit

The ECS (Debit) Scheme was introduced to provide a quicker strategy of effecting periodic and repetitive collections of utility companies. ECS (Debit) encourages consumers /subscribers of utility companies to make routine and repetitive payments by 'mandating' branches of bank to debit their accounts and give the money to the companies. This enormously limits utilization of paper instruments apart from improving process efficiency and customer satisfaction. There is no restriction as to the minimum or maximum amount of payment and is available across major cities in the country.

National Electronic Funds Transfer (NEFT) System

NEFT is a more secure system for facilitating one to one funds transfer requirements of individuals / corporates which was introduced in 2005. It is available across a longer time window and provides for batch settlements at hourly intervals, thus enabling near realtime transfer of funds. Certain other unique features includes accepting cash for originating transactions, transfer requests initiation without any minimum or maximum limitations, receiving confirmation of the date / time of credit to the account of the beneficiaries, etc. are available in the system. From December 2019, it is available 24x7 throughout the year with half-hourly settlements.

Immediate Payment Service (IMPS)

There was a major challenge being faced in banking industry for transferring funds real time and 24*7*365 interbank as only NEFT and RTGS were available to user for transfer of funds during banking hours.

With this, IMPS was introduced in 2010 which provides strong and real time fund transfer offering instant 24*7 interbank electronic fund transfer service that could be accessed on multiple channels like Internet, Mobile, ATM, SMS. It is not only safe to use but also economical. The eligibility criteria for banks to participate in IMPS is that they should have a valid banking or prepaid instrument license from RBI to participate in IMPS.

National Automated Clearing House (NACH)

NPCI has implemented NACH for Banks, Financial Institutions, Corporates and Government which is a centralised clearing service where the objective is to facilitate high volume, low value transactions interbank that are repetitive and periodic in nature. It can be used for making transactions in bulk towards distribution of subsidies, dividends, interest, salary, pension etc. and likewise payments collection related to phone, electricity, water, loans, investments in mutual funds, insurance premium etc. Consolidation of multiple ECS systems running across country and removing local barriers is an objective of NACH.

Prepaid Instruments (PPIs)

It facilitates purchase of goods and services against the value or worth stored on these instruments. The value paid for by the holders with money, by debit to a bank account, or by credit card represents value for such instruments. The PPIs can be issued in form cards, internet accounts and wallets, mobile accounts and wallets, paper vouchers, etc. Only regulated entities in India can load or reload such instruments and it shall be in INR only.

Point of Sale (POS) Terminals / Online Transactions using credit/debit/prepaid cards issued by Card Payment Networks

Five Card Payment Networks, including India's own Rupay run by NPCI, have been approved by Reserve Bank.

Table 1 Payment System Indicators – Annual Turnover (2014-17)

Items	Volume (lakhs)			Value (Crore)		
	2014-15	2015-16	2016-17	2014-15	2015-16	2016-17
Systematically Important Financial Market Infrastructures (SIFMIs)						
1. RTGS	928	983	1078	75403200	82457800	98190400
Total Financial Markets Clearing (2+3+4)	30	31	37	75200000	80737000	105617300
2. CBLO	2	2	2	16764600	17833500	22952800
3. Government Securities Clearing	11	10	15	25891700	26977800	40438900
4. Forex Clearing	17	19	19	32543800	35925700	42225600
Total SIFMIs (1 to 4)	958	1014	1115	150603300	163194800	203807700
Retail Payments						
Total Paper Clearing (5+6+7)	11965	10964	12067	8543400	8186100	8095800
5. CTS	9649	9584	1119	6677000	6988900	7403500
6. MICR Clearing	224	0	0	185000	0	0
7. Non-MICR Clearing	2092	1380	948	9480	1681400	1197200
Total Retail Electronic Clearing (8+9+10+11+12)	16874	31415	42050	6536600	9140800	13225500
8. ECS DR	2260	2248	88	174000	165200	3900
9. ECS CR	1153	390	101	201900	105900	14400
10. NEFT	9275	12529	16221	5980400	8327300	12004000
11. Immediate Payment Service (IMPS)	784	2208	5067	58200	162200	411600
12. National Automated Clearing House (NACH)	3402	14041	20571	122100	380200	791600
Total Card Payments (13+14+15)	17377	27073	54501	332600	448300	742100
13. Credit Cards	6151	7857	10871	189900	240700	328400
14. Debit Cards	8081	11736	23993	121300	158900	329900
15. Prepaid Payment Instruments (PPIs)	3145	7480	19637	21300	48800	83800
Total Retail Payments (5 to 15)	46216	69452	108618	15412600	17775200	22063400
Grand Total (1 to 15)	47174	70466	109733	166015900	180970000	225871100

There are more than fifty lakh POS terminals in the country, which allows customers to make payments for purchases of goods and services by using credit/debit cards. For better customer convenience the Bank has additionally allowed withdrawal of cash using debit cards issued by the banks at PoS terminals where the POS for accepting card payments also include online payment gateways. This facility is utilized for empowering online payments for goods and services. The online payments are empowered through Payment Aggregators or Gateways.

Aadhaar Enabled Payment System (AePS)

It allows people to complete financial transaction on a Micro-ATM by furnishing just their Aadhaar number and verifying it with the help of their fingerprint/iris scan. With the help of this payment system, people can send funds from one bank account to another simply through their Aadhaar numbers without mentioning the bank account details.

Aadhaar Payment Bridge System (APBS)

It is used for credit transactions for Government/ Government agency disbursements. The aim is to serve the goal of Govt. of India and RBI in helping Financial Inclusion through preparing government dispensing using Aadhar number and to support various schemes like Social security pension, NAREGA etc. of Govt. to send financial details to beneficiary using Aadhaar.

Unified Payments Interface (UPI)

UPI is an instant real-time payment system to facilitate inter-bank transactions. It is regulated by RBI and it works by transferring of funds instantly between two bank accounts on a mobile platform.

National Electronic Toll Collection (NETC)

It offers an interoperable nationwide toll payment solution including clearing house services for settlement and managing disputes.

The common variables seen in table 1 and 2 are RTGS, ECS, NEFT, IMPS, Debit Cards payments, Credit card payments and PPIs. The value is shown in Rupees crore and Volume in Lakhs. It can be clearly observed from the above table 1 and table 2 that RTGS transactions have been increasing both in value and volume terms. Another, important observation to be noted is that MICR and Non-MICR clearing transactions have been reducing since 2015-16 and completely removed from 2017-18 onwards. It can also be seen that ECS Dr and ECS Cr transactions have also been reduced in both value and volume terms. There is an increase in NEFT, IMPS and NACH transactions too. Further, it can be observed that total digital payments have been increased and paper-based instruments are being reduced. The use of Aadhaar based system with UPI, BHIM, EPS and PBS have been increasing and thus moving customers towards use of digital mode for payment and settlement. It clearly depicts customers moving towards digital era.

Challenges faced by Indian Banking Sector

Customer retention

The customers expect meaningful and personalized experiences through intuitive and straightforward interfaces on any device, anywhere, and at any time. While customer experience can be tricky to quantify, and client loyalty is rapidly becoming an endangered idea. They can use Bots which can assist in increasing client engagement without incurring costs.

Increasing expectations

The present customers are savvier, more brilliant, and more educated. They expect a high degree of convenience and personalised experience. Therefore, financial systems ought to anticipate that the coming ages to be even more invested in digital banking and more attached to technology.

Table 2 Payment System Indicators – Annual Turnover (2018-20)

Items	Volume (Lakh)			Value (Rs Crore)		
	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
A. Settlement Systems						
CCIL Operated Systems	35	36	36	107480202	116551038	134150192
B. Payment Systems						
1. Large Value Credit Transfers-RTGS	**1244**	**1366**	**1507**	**116712478**	**135688187**	**131156475**
Retail Segment						
2. Credit Transfers	**58793**	**118750**	**206661**	**18814287**	**26097655**	**28572100**
• AePS (Fund Transfers)	6	11	10	300	501	469
• APBS	12980	15032	16805	55949	86734	99448
• ECS Cr	61	54	18	11864	13235	5145
• IMPS	10098	17529	25792	892498	1590257	2337541
• NACH Cr	7031	9021	11406	520992	736349	1052187
• NEFT	19464	23189	27445	17222852	22793608	22945580
• UPI	9152	53915	125186	109832	876971	2131730
3. Debit Transfers and Direct Debits	**3788**	**6382**	**8957**	**399300**	**656232**	**826036**
• BHIM Aadhaar Pay	20	68	91	78	815	1303
• ECS Dr	15	9	1	972	1260	39
• NACH Dr	3738	6299	8768	398211	654138	824491
• NETC (Linked to Bank Account)	15	6	97	97	39	20
4. Card Payments	**47486**	**61769**	**73012**	**919035**	**1196888**	**1535765**
• Credit Cards	14052	17626	21773	458965	603413	730895
• Debit Cards	33434	44143	51239	460070	593475	804870
5. Prepaid Payment Instruments	**34591**	**46072**	**53318**	**141634**	**213323**	**215558**
6. Paper-based Instruments	**11713**	**11238**	**10414**	**8193493**	**8246065**	**7824821**
Total-Retail Payments (2+3+4+5+6)	156371	244211	352362	28467749	36410163	38974280
Total-Payments (1+2+3+4+5+6)	157615	245577	353869	145180227	172098350	170130755
Total Digital Payments (1+2+3+4+5)	**145902**	**234339**	**343455**	**136986734**	**163852285**	**162305934**

This is a unique challenge where they need to sort out techniques to satisfy younger and older generations of customers at the same time.

A cultural shift

There is no access to manual systems and processes to in digital world. The banks needs to sort out innovation based resolutions to financial industry problems. Therefore, they must promote a culture filled with technology. Innovation is used to improve the existing procedures and processes for maximum efficiency. This cultural transition towards an innovationis a reflection of the broad acceptance of digital transformation.

Increased competition

The industry is facing increasing threats that focus on the most crucial areas of the service. These threats have forced many financial organizations to go after partnerships as a temporary safeguard. To maintainits competitive edge that will counter threats to their service, credit unions and traditional banks need to devise substantial measures.

Regulatory compliance

It is another challenge as if banks fail to comply with the regulations, they are faced with costly consequences. They incur additional risks and cost for them to remain updated on the current regulatory changes. They also have to oversee the controls that are required to see those requirements satisfied. The credit unions and banks are required to overcome the regulatory compliance problem to sustain a culture of compliance within the institution. In establishing a culture of compliance technology will play a crucial role.

Consistent innovation

The banking industry must be ready to pivot when appropriate to address customer requests and also better customer experience. With the year 2021, the industry will have to chart a clear path that will overpower the obstructions. Most of the financial challenges will be neutralized with the help of digital transformation and a reliable team.

Recent Trends in Indian Banking Industry

Improved risk management practices

Indian banks are adopting integrated approach towards risk management. Most of the banks have set up the structure for asset-liability match and credit and derivatives risk management. The NPAs of commercial banks recovered Rs 4,00,000 crore in past four years including recovery of Rs 1,56,746 crore in FY 2019.

Technological innovations

As on May 31, 2020, total number of ATMs in India increased to 2,10,415 and is expected to reach 4,07,000 by2021. The Government has proposed scrapping of all charges for payments encouraged through UPI at businesses with annual turnover of more than Rs 50 crore. The digital assistants, social media and third-party channels are projected to act as primary channels for banking by the year 2022.In October 2019, Government EMarket place (GeM) signed a memorandum of understanding (MoU) with Union Bank of India to encourage cashless, paperless and transparent payment system for an array of services.

Demonetisation

The impact of demonetisation is additionally noticeable in the way that bank credit plunged by 0.8% from Nov 8 to Nov 25, 2016, as US$ 9.85 billion were paid by defaulters. Debit cards have drastically replaced credit cards as the preferred payment mode in India, after demonetisation.

Focus towards Jan Dhan Yojana

PradhanMantri Jan Dhan Yojana (PMJDY) scheme in September 2018 was made an open-ended scheme with added incentives by Govt. of India. Key objective of PMJDY is to expand the availability of financial services such as bank accounts, insurance, pension, credit facilities, etc. mostly tothe low-income groups. Bank accounts opened under PMJDY reached 40.05 crore and deposits in Jan Dhan accounts were more than Rs 1.30 lakh crore. There are around 1,100 banks that are giving around 600 million RuPay cards.

Wide usability of RTGS, NEFT and IMPS

RTGS and NEFT are being implemented for fund transaction by Indian banks. NEFT & RTGS payment system has been included by Securities Exchange Board of India (SEBI) to the existing methods list that a company to their shareholders & investors can use for payment of dividend or other cash benefits. The number of transactions through IMPS has further increased.

Know Your Client (KYC)

RBI mandated the KYC Standards, wherein, all banks are needed to set up a comprehensive policy framework in order to avoid money laundering activities. The KYC policy is now compulsory for opening anaccount or making any investment such as mutual funds. In May 2020, Minister for Finance and Corporate Affairs, Ms Nirmala Sitharaman officially launched the facility for instant allotment of PAN (on near to real time basis) through Aadhaar based e-KYC.

Round-the-Clock availability of RTGS

NEFT system was made available on a 24x7x365 basis in December 2019 which has been operating smoothly since then. The large-value RTGS system is currently available for customers from 7:00 am to 6:00 pm on all working days of week. To help the progressing end eavoursfocused on global integration of Indian financial markets, facilitate India's efforts to develop international financial centers and to provide wider payment flexibility to domestic corporates and institutions, RTGS has been made available 24x7x365 in India in December 2020. India will be one of the not many nations worldwide with a 24x7x365 large value real time payment system.

Perpetual Validity for Certificate of Authorisation (CoA) issued to Payment System Operators (PSOs)

Presently, the Reserve Bank issues 'on-tap' authorisation under the PSS Act, 2007 to non-banks issuingPPIs, operating White Label ATMs (WLAs) or the Trade Receivables Discounting Systems (TReDS), or participating as Bharat Bill Payment Operating Units (BBPOUs). Authorisation and renewal of Authorisation of such PSOs has been for specified period up to 5 years. In the initial period of evolution of the payment system, such limited period licences were necessitated which can lead to business uncertainty for the PSOs. Further, the Reserve Bank's oversight framework has gradually developed into a more mature and comprehensive system, which clearly lays out its oversight expectations and the methodologies adopted for oversight of PSOs. To decrease licensing uncertainties and empower PSOs to focus on their business and optimise utilisation of scarce regulatory resources, all PSOs (both new applicants and existing) on a perpetual basis have been granted authorisation, subject to certain conditions.

Other Notable Trends

Digital influence in the Indian banking sector has been increasing at a fast pace due to the rising digital footprint. India's digital lending stood at US$ 110 billion in FY 2019. Digital lending to micro, small and medium enterprises (MSMEs) inIndia is anticipated to reach US$ 100 billion by 2023.

CONCLUSION

The Indian banking system has gone through a huge change as far as variety and advancement is concerned. The existing payment system has been transformed into a state of ready for future challenges infrastructure and still further innovation is required to minimize and limit the security threats, cybercrimes and preservation of public data. The banks in India are utilising IT not exclusively to improve their own internal cycles but to expand offices and administrations to their clients. Effective utilization of technology has facilitated accurate and timely management of increased transaction volume and value of banks leading to greater customer base. By offering easy, safe and secure technology banks reach at customers doorstep with high customer satisfaction.

References

1. Madhushree L. M., Revathi Radhakrishnan & P. S. Aithal (2017). *Impact of IT on Banking Sector.* SIMS Pandeshwar & Srinivas University Mukka (pp.142-149)
2. Dr. M. Vasan and B. Senthil (2017). *A study on payment and settlement system in Indian Banking Sector.* Research maGma An *International Multidisciplinary Journal* (ISSN-2456-7078, Vol-1, Issue-11)
3. Dr. G. Anbalagan (2017). *New Technological Changes in Indian Banking Sector. International Journal of Scientific Research and Management* (IJSRM) (Vol.5, Issue 09, pp.7015-7021)
4. Ms. Jasdeep Kaur (2017). *Growth of E-Banking in India. International Journal of Research in Finance and Marketing* (IJRFM) (Vol.7, Issue 05, pp.88-94)
5. Aarti Sharma & Nidhi Piplani (2017). *Digital Banking in India: A Review of Trends, Opportunities and Challenges. International Research Journal of Management Science & Technology* (IRJMST) (Vol.8, Issue 01, pp.168-180)
6. G. Parimalarani (2016). *A Study on Payment and Settlement System in Indian Banks.* International conference on management and information systems (pp.164-169)
7. Dr S.M.Tariq Zafar, Qasim Al Ajmi, Dr Adeel Maqbool (2016). *A study of IT and its relative impact on Indian Banking and Payment Settlement System. International Journal of Core Engineering & Management* (IJCEM) (Vol.3, Issue 5, pp.125-146)
8. Satinder Singh, Ajaydeep Singh Brar (2016). *IT in Indian Banking Industry some recent developments. International Journal of Science Technology and Management* (Vo.5, Issue No. 08, pp.667-673)
9. Thyaga Raju N (2016). *Impact of IT on the Banking Sector. International Journal of Current Advanced Research* (Vol.5, Issue 7, pp.1106-1111)
10. Saba Abid (2016). *Electronic Payment System: An Evolution in Indian Banking System.* IOSR *Journal of Economics and Finance* (IOSR-JEF) (Vol.7, Issue 2, Ver III, pp.25-30)
11. Deepankar Roy and Amarendra Sahoo (2016). *Payment Systems in India: Opportunities and Challenges. Journal of Internet Banking and Commerce* (JIBC) (Vo.21, No.2)
12. Dr. G. Tulasi Rao and T. Lokeswara Rao (2015). *Role of IT in Indian Banking Sector.* IOSR Journal of Business and Management (Vol.17, Issue 5, pp.80-84)

How to cite this article:

Ritu Wadhwa *et al* (2021) 'Role of Payment Settlement System Indicators In Indian Banking Sector', *International Journal of Current Advanced Research,* 10(06), pp. 24600-24606. DOI: http://dx.doi.org/10.24327/ijcar.2021.4900.24606

****