Improving Customer Services through Technology in Indian Banking Industry



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Customer Services thrives on trust and confidence of the customer hence a qualitative customer services is a prerequisite for developing a vibrant banking system Over the last decade technology has transformed the landscape of Indian banking system from manual clearing payment and settlement system. Implementation of core banking platform has automated basic processes enabled the movement to a single customer view and allowed for optimization of work across branch and hub network. Core banking platform have also given banks a strong launch pad to offer digital channel capabilities almost all banks today are feverishly building out their online and mobile channel offerings ATM deployments and plastic money revolution to reduce cash and cheques. This study focus on measuring customer services improvements and satisfaction in the on line banking era. The working if the customer's mind is a mystery which is difficult to solve and understanding the nuances of what customer satisfaction is, a challenging task. The exercise in the context of the banking industry will give us an insight into the parameters of customer satisfaction and their measurement .lord Williams Thomson Kelvin (1824 -1907) has rightly said "if you cannot measure it, you cannot improve it."

Keywords: E Banking, Technology, Customers, Mobile banking, Internet Banking, Online Banking.

1. Introduction

- 1.1 Customer Services thrives on trust and confidence of the customer on the bank who provides 24 by 7 effective financial services, hence a qualitative customer services is a prerequisite for developing a vibrant banking system. Role of the bank has undergone dramatically change from just a deposit —lending relationship with the customer to financial advisor or guide. Over the last decade technology has transformed the landscape of Indian banking. Implementation of core banking platform has automated basic processes, enabled the movement to a single customer view and allowed for optimization of work across branch and hub network. Core banking platform have also given banks a strong launch pad to offer digital channel capabilities almost all banks today are feverishly building out their online and mobile channel offerings. ATM deployments and technology-enabled business correspondent (BC) network have allowed banks to service large parts of the Indian hinterland. Responding to Basel norms and a more aggressive supervisory regime, banks have undertaken risk and compliance management system implementations. Information management and analytics are in focus as banks have built out large data warehouses in an attempt to leverage their data assets to better understand, sell and serve their customers. All this points to a flourishing industry, focused on technological innovation. However, while there has been significant action, considerable amount remains to be done.
- 1.2 Most core banking programs have been focused on internal functioning with banks adopting a "lift and shift" approach to moving processes rather than adopting a holistic business process reengineering paradigm. Internet and mobile banking enrolment and adoption across many banks are significantly low. While the increase in the number of "no-frill" accounts opened is heartening, technology is yet to make a dent in the lives of hundreds of millions of financially excluded Indians. Risk systems are still deployed in silos as banks work toward their enterprise risk management agendas. Many data warehousing programs in the industry are floundering as banks struggle to move from "consolidating information" to "gleaning insight" from their information management investments. The next few years are critical as banks focus on "sweating" their technology investments to increase their return on investment. The strategic use of technology to implement a differentiated business model, a transformed customer experience and an optimized cost structure will separate the leaders from the laggards in the industry.
- 1.3 Customer services has come to occupy the center stage of operations in the banking Industry in India. The banking system in India today has perhaps the largest outreach for delivery of financial services and is also serving as an important conduit to support the growth momentum. While the coverage has been expanding day by day, the quality and content of delivery of customer service has assumed new dimensions. The period of last decade or so has seen growth in the banking sector with consequent increase in the volume of banking transactions fully aided by the growth and innovations in the banking technology. The technological improvements in banking have also, to a large extent, facilitated the banks in improving their level of customer service. In line with the same, the terms of reference for the Committee included examining the possible methods of leveraging technology for better customer service with proper safeguards including legal aspects. While a certain level of business process re-engineering (BPR) has been achieved, it was observed that considerable customer grievance resulted on account of incomplete BPR.
- **1.4** Almost all the banks now work in a computerised environment with core banking solution (which facilitates anywhere banking from the earlier branch concept) is a common phenomenon. A large number of banks also offer banking on the

telephone or internet or mobile platforms (restricted facilities). Money transfer is an area that has been largely benefitted through technological developments.

2. Objective of the Study

- 1. To evaluate whether technological innovation and implementation has increased effectiveness of customer service, satisfaction, and reduced costs in the banking sector of India.
- 2. To evaluate the implementation of new technologies in the Banking sector of India and its benefits
- 3. To assess how E-banking has improved the customer service and customer satisfaction in banking industry of India.
- 4. To analyze whether technological implementation or E-banking has reduced frauds or not
- 5. To identify the relationship between electronic banking and customer satisfaction in the Banking sector of India

3. Research Ouestion

A. What extent technological innovation and E-banking has improved customers' service reduced costs and minimize frauds?

B. What is the effectiveness of electronic banking methods and relationship between electronic banking and customer satisfaction?

4. Motivation of the Study

Due to emergence of global economy, e-commerce and e-business have increasingly become a necessary component of business strategy and a strong catalyst for economic development. The application of E-banking has been demonstrated as an effectual of costs reduction, risk management and providing quick services to the customers. Now a day, E-banking services have already ensured opportunities to reduce expenditures on physical structures. However, in some previous studies it has been showed that, E banking helped banks and financial institutions to reduce costs, increase revenue, increase customer convenience (Halpern, 2001). It is really significant to analyze the actual situation of customers' satisfaction in banking sector.

There are very few studies on the e-banking and customer service and satisfaction in India in respect to reducing costs and minimizing frauds which have examine. Therefore, this research will get a great opportunity to analyze the situation and pros and cons of this sector. In addition, technological innovation and its impact will be clearly assessed.

5. Research Methodology

This research or study was carried out using multiple methodologies. The various methodologies that were adopted in carrying out this study were:

- 1. Review of existing literature, RBI master circulars on customer services, guidelines on improving customer protection norms and RBI report of committee on customer services in banks.
- 2. To suggest views and opinion to draft guidelines for continuous role of technology in improving customer services.
- 3. To review the existing system of attending to customer service in banks approach, attitude and fair treatment to customers from retail, small and pensioners segment.
- 4. Collected secondary data on the various initiatives taken by the banks and various strategies adopted by the banks to improve customer services.
- 5. Collected primary data with the use of interview techniques using a structured questionnaire with seasoned and senior bankers involved in improving customer services through advance banking technology. The questionnaire covered 25 major banks including public sector banks, new generation private sector banks to get a perspective from different kinds of banks on successful achieving higher customer satisfaction level.
- 6. Use of Interview technique using a multiple structure questionnaire with 180 bank customers (Retail –General Public (100) and corporate (80) and Retail Branches Staff (50) and taken feedback for any further improvements or any difficulty being faced by them in operating E Banking Systems..
- Analyzed the survey results and come out with set of recommendations to improve and increase the customer satisfaction in India.

6. Research Design

- 1. Sampling Design
- 2. Primary and secondary Data collection
- 3. Structured Questionnaire
- 4. Personal Interviews
- 5. Data Analysis

7. Presentation and Analysis of Findings

7.1 As indicated above, multiple surveys were conducted using interview techniques and questionnaire method to get more details and views on the India's payment systems, its future, and the factors that impact the growth of payment systems in India. In the subsequent paragraph, the study findings are discussed in greater detail.

7.2 Bankers View on Indian Payment Systems

A questionnaire was prepared with 15 questions and a structured interview was done with senior bankers from 25 selected banks and RBI to elicit their views on the various aspects of payment systems in India and their views on the future of payment system in India. The summary of the study is given below in an itemized manner. The questionnaire, the details of participants in the survey is attached as annexure.

Q1. Role of Technology on the Payment and Settlement System

All the Bankers are of view that technology has played a vital role in improving the overall payment and settlement system in our country making it more efficient and resilient as ever before. The Reserve Bank of India has played a major role in improvement of payment systems by making extensive use of technology at the different levels of the payment systems. Over the last few years, at a bank level, there has been a clear development on Electronic Payment Channels, and an attempt by Banks to divert customers from traditional banking channels like Cheques and cash to Direct Payment Products and Channels like Internet Banking, Mobile Banking, Debit Cards, NEFT etc. None of these products can be offered/ developed or enhanced without technology. Technology is the key to introduction and offering of new age channels and products to customers.. The customers are benefited by the instantaneity of the service, faster clearance of their funds which enable them to get money quickly or deliver money quickly and there by providing a convenient and effective services to the customers says most of them.

At a broader level, the bankers felt that the induction of technology in the payment system has resulted in improved and efficient processing of the Clearing Houses through MICR based settlement processes at clearing centres. The computerization and networking of different DAD's of Reserve Bank of India together with implementation of RTGS, PDO /NDS etc. for interbank high value settlements and deals has resulted in more transparent and efficient payment system for the country. RTGS and NEFT are two major steps to further strengthened payment system. The reliance on the cash and cheques is being gradually reduced as more and more plastic based products and services are being used in the country.

Technology is the primary building base on which any sound settlement and payment system can be built. The same has enabled banks manage volumes efficiently both in terms of reducing processing cost, accuracy, speed, ensure higher control, manage operational risk, cover a higher geography & hence enrich / enhance the various product offerings – the bankers opined.

Q2. Increase Penetration of Electronic Products like Increase MICR Centres, RTGS and NEFT

Some Bankers are of the view that more and more clearing houses especially at major cities and the towns should be taken up on MICR technology which can be achieved through participative efforts from member banks having major presence in respective area. Wherever the daily average cheque clearing instruments is 5000 or above, the clearing operations of that centre should be MICR. The bank who sets up the MICR centre gets volume based revenues from the cheque processing activities besides getting advantage from float of accounts being maintained by the member banks thereby making it viable option. With MICR operations, the Banks can offer other value based services such as computerized based data for inward clearing, ECS, returning of instruments etc.

It has been the experience of banking industry in general that implementation of RTGS and NEFT in a centralized environment is more convenient than implementation in a distributed environment. Accordingly as more and more branches are being covered under the umbrella of CBS, these branches can also be made NEFT and RTGS enabled resulting in increase in these figures.

One of the New Generation Private Sector Bank responded that increased penetration is a function of client demand and the cost incurred by banks to cover this additional geography. Banks need to look at e-payments as key drivers of business and build products and client offering leveraging on the same. Presently most of the existing banks are relying on float based business models and hence are quite comfortable in using the inefficiencies of the existing clearing systems to their benefit. The mindset of the key players has to change & look at the above business more as annuity based fee income generating.

Q3. Steps for Complete Automation and Advanced Core Banking Solution

Core Banking Systems network branches of a bank and is important in offering many of the new page payment systems and for efficiency. Many banks have commenced the process of setting up advanced core banking solutions, which are at various stages of implementation, while such systems are already in place in respect of new private sector banks, foreign banks and few public and old private sector banks. According to the bankers, the Core Banking Solutions, per se, offers major benefits in terms of:

- Centralized generation of MIS
- Better security controls and house keeping
- Easy launch of newer products and services
- Convenient Service through electronic delivery channels such as internet banking, phone banking, kiosk banking, ATMs etc.

While bankers agreed that the advanced Core and on line Banking Implementation in India is accelerating, they also highlighted the problems faced in implementing the core banking systems – the skill level of existing team and the need to retrain them was seen as a key consideration for the above decision. Looking at it from a pure business and profitability angle,

with the increasing competition from existing and new highly automated private and foreign banks, the pressure on the margins and hence the overall profitability would be one of the key considerations for any PSB. The willingness of all key stakeholders coupled with a clearly outlined product and profitability strategy will also have a big bearing in expediting the whole migration process – said many of the bankers.

Banks have realised that there is no way to remain in business without implementation of CBS. Further, with the increased compliance and regulatory mechanism in place it is practically very difficult to implement these regulations in distributed environment. One of the public sector banks is of the view that regulator should insist on early completion of process of extending RTGS across all branches for which some end date are advised by the apex authorities. Since it's a cost involving decision, top management need to give due attention to this issue on top most priority. Public Sector Banks would move faster into automation and online Banking System only if the quality of training accorded to the employees and the nature of awareness created among the general public is effective. Further, other reasons that would induce them are the certainty of greater speed and reliability in executing the transactions in addition to reduction in costs with increasing volumes. Risk mitigation is another important factor for going in for Core Banking implementation.

Q4. Critical Factors to Increase usage of Electronic Payment System

To this question, most of the respondents stated that the use of e payment system is more safe, secure, efficient, time saving, effort optimizing and therefore very beneficial for everyone. The availability of newer electronic delivery channels which reduce the cash/paper based transactions should be extensively used to increase the usage of electronic payment systems according to them. The widespread use of plastic based credit/debits/smart cards across ATMs/POS and other electronic delivery channels results in still better use of electronic payment systems. Accordingly customers should be advised and educated to route large number of transactions through Electronic Delivery Channels such as ATMs, Internet Banking, Phone Banking etc. For inter-bank remittances, the new electronic based products such as NEFT, RTGS which are more efficient should be used so that they eventually replace the paper based instrument such as demand drafts, pay orders, in due course of time. Availability and accessibility of off site ATM's and Kiosks, customer awareness and satisfaction on security features, Marketing of Electronic products, speed of transaction processing and reduction of back office functions are other factors suggested by different banks.

The following are the some of the key critical factors that would impact the usage and increate of electronic payments in India

- Overall level of automation in the Indian Banking Scenario
- Penetration and coverage of the various E-Payments platforms
- Product richness and structuring available from banks offering e-payments
- Product positioning and customer awareness on the benefits on E-Payments

Q5. Risk Management and on line Security Issues in Electronic Payment Systems

Most of the bankers were of the opinion that the security issue forms the inherent concern in deployment of any IT based technological tools. Even in CBS environment, adequate IT security has to be put in place so that all the transactions which are being carried through network based IT infrastructure are secure and error free. Accordingly, IT security tools and manual compulsory controls, wherever required, should be put in place so as to mitigate the risk arising out of use of electronic payment systems. Many banks are of the view that with deployment of appropriate IT security tools such as Firewalls, Digital Signature, etc. and their continuous monitoring and up gradation, risk management should not be a concern for slow adoption of technology in payment systems. One of the bank also specified that it is the lack of abilities, competence, mindset, age of employees and changes required in work procedures that are holding fast implementation.

Q6. Training and Awareness of Bank Staff on Electronic Payment Systems

All the banks including Central Bank agree that continuous training on the techno operational aspects to Bank Staff for providing enhanced customer services through electronic payments systems shall further facilitate the extensive usage of electronic payment system in the banks. This is very essential for the success of the whole exercise. In fact, one reason for the relatively slow movement from paper based to electronic payment system is the absence of high quality training to employees and effective awareness programmes for the general public on the necessity of these programmes in a fast developing economy

Q7. Emerging Challenges by Commercial Banks relating to Implementation of IT in Banks

'With the increased usage of technology and increased regulated banking scenario, commercial banks have to address various diversified issues emerging out of deployment of large scale IT technology and deploy them' said most of the bankers. The other opinion/suggestions of bankers included – the challenge of recruitment, retention and availability of skilled manpower; the need for finding out methodologies for ensuring a good return on technological investment; the need for re engineering businesses processes to reduce transaction time and increased efficiencies; the deployment of Enterprise vide IT security, its continuous updation and monitoring forms critical risk mitigation facilities for ensuring secured working in IT environment; the centralized database of correct and complete data in respect of all deposit and borrowal accounts to significantly facilitate the issues relating to better asset liability management and compliance measures such as AML and the security concerns etc. It has been the experience that centralized control on parameters and other security aspects is more effective in the CBS

environment and hence all out efforts should be made to increase the pace of CBS implementation in the banks. The strategy should also be in the place to create a data warehouse through which all the compliance, regulatory, MIS and other statutory and non statutory requirements, periodical meetings among the various stakeholders and by putting in place a focused, solution driven approach towards every problem that is identified in the course of deployment to meet this challenges.

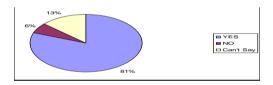
Q8. Views on Role of Technology in Financial Inclusion

The bankers observed that there has been an extensive spread of technology in the banking sector in Metro and urban centres. As the banks have already set up the basic IT infrastructure, the same can be extended to the rural and semi urban centres to achieve the objective of Financial Inclusion with a little incremental coast – was the opinion of most of the bankers. The benefits of the technology which have the direct impact on the economic growth should be spared to the weaker sections of the society keeping in view the fact more than 70% of the country population lives in rural-semi urban centres. However wherever required, the State has to built a basic infrastructure to make deployment of the technology at rural and semi urban centres, as a commercially viable option. Some of the bankers also felt that the technology has to become more cheaper so that it is available to larger sections of population.

Q9. Views on Outsourcing of Payment Systems

Most of the bankers felt that the outsourcing in banking and payment systems can be implemented on the specific skill oriented jobs where there may not be adequate technical and experienced staff in the bank to take such activities. The integration of payment gateways, deployment and monitoring of IT security, maintenance of high end servers etc are few of the activities which bank can outsource according to them.

There were also some concerns raised by some bankers that these outsourcing could be done only after formal legal regulations are put in place. Some bankers also raised the concern that payment is critical for the bank and outsourcing the payments and financial transaction may have an impact on the core functions of banking. Some banks were of the view that the banks should set up subsidiaries to carry out these outsourcing tasks instead of giving the work to completely unrelated third parties. The security and safety was often sited as the critical reasons and examples of some foreign/private sector banks having their own subsidiary for processing banking transactions were also pointed out.



Q10. Comparison and Rating of Global Payment System and Indian Payment System

The bankers stated that India is catching up with all the advanced global scenario of the payment systems both in terms of quality and efficiency. Banks in the country already have success stories of implementation for strategic large payment system for RTGS. The steady increase in the volume of transactions through RTGS and other electronic delivery channels substantiate this view. The Internet Banking has become an essential delivery channel through which large part of customer centric transactions are performed. The basic infrastructure for improvement of payment system in the banking sector has already been put in place which can be fine tuned to further enhance to support smart card and M Commerce based activities. Indian Payment Systems still have a long way to go in matching global payment systems – according to some bankers. We need to accelerate our "catching up" process through implementation of risk based strategic planning – stated some other bankers.

Q11. Views on Mobile Commerce and its Due Diligence

With the widespread use of mobile technology in the country, it becomes imperative that the advantage of the mobile technology should be extensively exploited to facilitate the M Commerce and other related activities. The trend in the last few years indicates that the mobile technology is evolving at phenomenal speed which ensures that mobile phones are capable of undertaking much more versatile functions than just being used as a voice transfer devices. With the launch of new embedded mobile phones, the smartness of accessing the internet and conduct basic banking services through Mobile Phone has already been put in place. Hence the use of mobile for M Commerce in inevitable in the long run , said most of the bankers.

However, as with any other technology, adequate due diligence is necessary to ensure that M Commerce meets the expectations of the industry and is a win win situation both for corporates and users. Adequate security should be available in the M Commerce so that the transactions being carried out through the mobile meet the ultimate objective of the consumer in convenience and in economies. Due Diligence should be an integral part of M Commerce to promote public confidence in the efficiency of the system as and also a measure of risk containment.

Q12. Future Development in Improvement in Payment Systems in Next Five Year

This was a question that raised several interesting observations, views and counter views. The views included - there is an immense scope for the developments in the payment systems as it matures over a period of time; the future development will be continuous and sustainable; the increased volume of transactions both intra – bank and inter – bank should be routed

through the electronic payments thereby reducing reliance on cash and cheque based transactions which are cumbersome and expensive to handle; the use of smart card should be extended to remote areas by deploying large number of POS or similar smart card based acquiring transactions in rural and semi urban areas; the integration of the plastic in a single smart card which can be used across multiple delivery channels, Merchant establishments, ATMs, etc shall further facilitate improvements in the payment systems; the integration of Smart/ ATM Card with "Green Card" in use at Rural Centres shall exponentially increase the penetration of new payment system in the deep remote areas of country which need Financial Inclusion; the computerization of the clearing centres should be started at a war footing and in a time bound manner which can play a significant role in overall improving the payment systems in the Indian Economy; after the successful implementation of cheque truncation system at Delhi and NCR cities, the same should be extended to other centres so that the payment cycle can be completed more efficiently thereby contributing to increased growth.

Some of the areas of improvement for future development identified based on the response to this question are:

- Convergence of Retail & Wholesale payment systems
- Further reduction of the system and settlement risks through integration and automation
- Ensuring the why, which, where, what is also included as a part of a std payment, most models are only catering to the financial settlement.
- Increased geography reach to ensure coverage of all important commercial centres.
- Introduction of a common nationwide settlement framework with a direct client access for both inward and outward settlements.

Q13. Visualization of Indian Banking and Payment System as Cheque-Less and Cash-Less Society by 2017

One of the new generation private sector banks responded that the answer to this would be a 'yes' & 'no'. All core important payments would definitely be cash less, however there still might be a few small pockets / areas where local settlement would be paper based given the fact that these today do not have a clearing & settlement system at all. One of the old private sector banks expects that it would happen with 6-7 years.

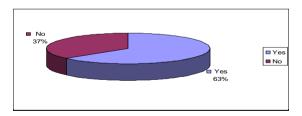
Q14. Any other Suggestions for Improvement in Payment Systems

Electronic Payment Systems need to be mandated over a period of time, manual clearing needs to be made more costly to push client move to electronic payments – opined some bankers. Banks should collaborate together to offer the best solutions to the general client segments at large. Effective creation of all round awareness about the importance and inevitability of advanced payment systems is in a fast growing economy is the need of the hour – was the view of some other bankers. Some other bankers felt that the legal system around the electronic payments should be closed out quickly and strengthened to help expanding the electronic payment.

7.3 General Public's view on Indian Payment Systems

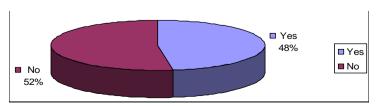
General Publics view on the Indian payment systems and its usage are given below based on the survey results based on the survey of about 100 randomly selected respondents in NCR region, New Delhi India.

Q1. Do you use Online Banking Transactions?



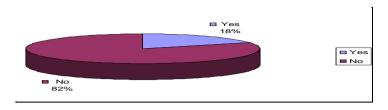
The response shows us that about 2/3 of the people are doing online banking transactions. This may not be a representation of India as the survey was restricted to NCR capital region.

Q2. Are you aware of new Electronic Payment Systems like EFT, ECS, and RTGS for Faster Clearances of your Funds and Payments?



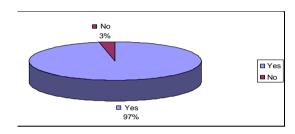
The response of the people shows that almost half the number of people is aware of the electronic payment systems mentioned above.

Q3. Have you Faced any Problems While Making these Payments through Electronic Modes Like ECS, EFT or RTGS?

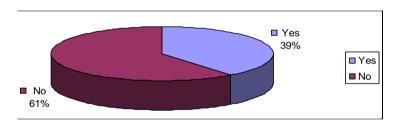


The response to this question shows that amongst the people using the electronic systems only 18% have faced the problems.

Q4. Do you use ATM for Cash Withdrawal Payments?



Q5. Do you feel more Comfortable in Making Payments by Writing Cheques Instead of Electronic Payments Mode?

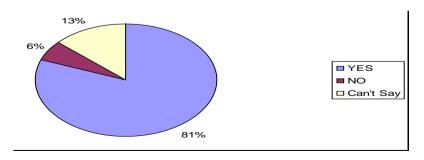


The response to this question shows that almost 2/3 of people are willing to move to electronic payment options. That is a good sign for growth of electronic payments in India.

7.4 Indian Corporates View on Indian Payment Systems

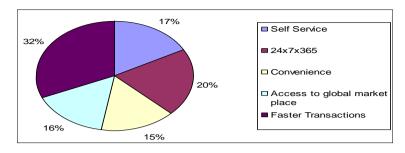
The Indian Corporate's view on the Indian payment systems and its usage are given below based on the survey results based on the survey of about 80+ randomly selected respondents in NCR region, New Delhi India. Some of the corporates had pan India presence as well and therefore, this section can be considered an opinion for India as a whole given the size of the sample and the no of large pan India corporates.

Q1. Do you think that Electronic Payment Systems will Completely Replace Existing Paper based Payment and Settlement System?



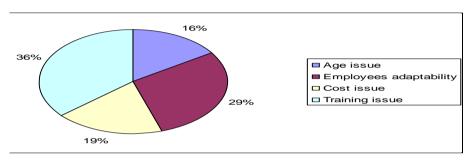
As we can see that most of the corporate's are optimistic about the fact that electronic payment system will overtake the existing payment system.

Q2. How Technology Driven Payment Systems has Helped Corporate Clients to Enhance their Productivity?



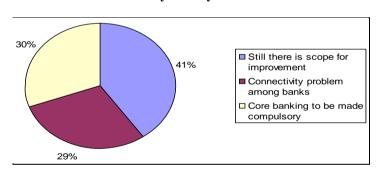
All the factors shown above constitute to the productivity with faster transactions being the leading one.

Q3. What are the Issues and Challenges Faced by you while Automation of Manual Procedures in Banks?



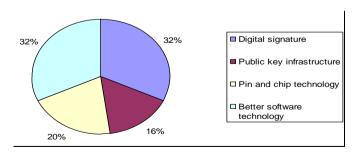
The response to this query shows that the corporate's are most concerned about the training issue of the employees and it is one of the biggest hindrances in the implementation of the electronic payment system.

Q4. What are your views on Electronic form of the Payment System in India?



Majority of the corporate's surveyed feel that there is scope for improvement in payment systems in India.

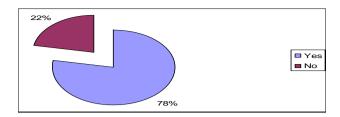
Q5. How do you think Online Security/ Risk Management Techniques in Electronics Payment System can be strengthened?



This was just a disguised question to check the current status of the electronic payments system's reliability level which shows that the corporates do not have adequate level of trust in the electronic system.

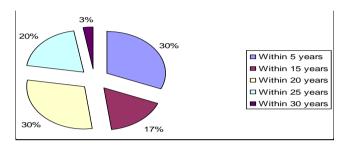
It shows that most of the people are using the ATMs for the transactions. This is a clear indication that people do adopt to new products/services over a period of time. ATM made its presence in Indian in 80's and now accepted by one and all as a convenient channel for carrying out banking transactions.

Q6. Do you Visualize Indian Payment System as a Cheque Less System in Future?



A high 78% of the respondents foresee that India payment systems can indeed become a cheque less system in future. This is a great news for India and Indian economy.

O7. If yes, then by when do you Expect Indian Payment System as a Cheque Less and Cash Less Society?



The corporates have different views here and there is no majority. This is a clear indication that a lot more has to be done in the electronic payment arena in India to move to paper less economy.

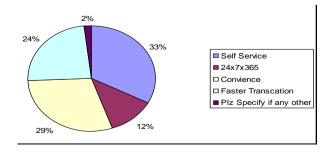
The survey also had an option for corporate to indicate their views in verbatim. The study of those comments and observations highlight the following needs with respect to electronic payments in India.

- If there is automation, the employer should be more trained and focused approach should be there for customer service.
- It's a tough task.
- Reinforcing security systems is essential for larger usage.
- Create awareness among the general public about the system and better accessibility.
- Security is a concern.
- Real time settlement helps reduce systemic risks and large value txns should move to RTGS.
- Inter-bank settlement should only be done through RTGS this is happening now.
- Formulate better implementation strategy.
- More awareness and reliability of the system is required.
- Transactions should be even more faster even if RTGS is not used meaning NEFT/EFT should move to online settlement and straight through processing.
- There has to be an option to track payments.
- The payments should provide options for carrying more information about the nature and purpose of the payments helps reconcile payments.

7.5 Retail Bank Branch Personnel View on Indian Payment Systems.

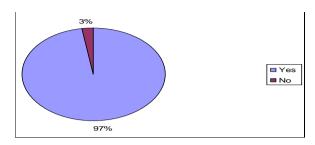
Given below are results of survey carried out on things that close to ground – the branches of retail banks where these transactions are originated and processed and where customers physically visit and get some of the banking services. Therefore, the opinion of these set of bankers are critical in understanding the present and future of the electronic payment systems in India. This survey covered 50 retail bank branches NCR region, New Delhi India.

Q1. In your opinion, what has been the Role of Technology on the Retail Banking Payment System?



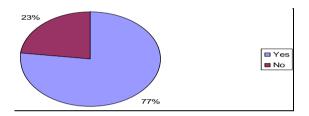
The major contribution of the electronic payment system according to the retail bankers has been in convenience, self service and faster transactions. This is an important finding and we will dwell upon these aspects while suggesting where Indian payment systems are headed and what all we can do to accelerate the usage.

Q2. Do the Customers of your Branch Prefer Cash withdrawal in Person Instead of ATM?



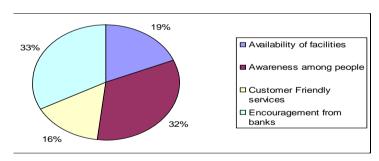
The reply to this question has been overwhelmingly in favour of ATM usage for cash withdrawal. This explains why ATMs are on the raise on in India – especially in the last couple of years. The public sector banks are also showing more enthusiasm and keenness in implementing ATMS.

Q3. Are the Customers Aware of Electronic Payment Systems Like ECS, EFT, RTGS, Internet Banking?



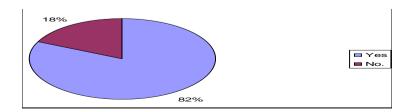
According to the majority of the bankers the customers are aware of the electronic payment system.

Q4. In your Opinion, what are the Critical Factors that Increase the usage of Electronic Payment Systems?



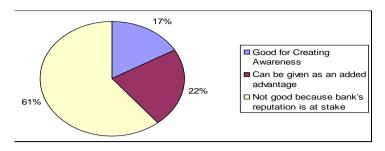
More or less all the mentioned factors contribute to the increase in usage of the electronic payment system. What is important to note here is that Bankers play a crucial role in promoting these electronic payments and their support is critical in the expansion.

Q5. Are Risk Management and online Security issues in electronic payment systems a major reason for customer's reluctance to shift to electronic payment systems?



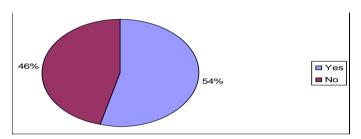
It proves that the security is a major concern before we could think of the implementation of the electronic payment system.

Q6. What are your views on Outsourcing in banking and Payment Systems?



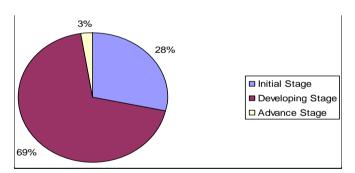
The reputation of the bank comes first than any thing else because they would not like to risk their core business concerns. May be this explains why some of the banks that have gone for outsourcing have chosen a subsidiary company approach to manage outsourced tasks. Such an approach is an excellent risk management tool for reputation management.

Q7. Can you Visualize Indian Banking and Payment as Cashless and Cheque less society by 2017?



It is hard to draw any conclusion from the response we have got for this question because the no. of respondents is very less and both types of responses are quite similar in percentage. Therefore, it is the events that unfold in the coming years, the steps taken by RBI and Banks in creating awareness and promoting electronic payments that would determine where we reach in 2020..

O8. What is the Progress in your bank for Technology Development in CBS and Payment System?



In majority of the banks the CBS is in the development stage only .Full implementation of core banking system by all banks would help faster growth in electronic payments.

We have seen from our analysis of trends on of impact of technology on payment systems and customer satisfaction:

- Paper based payment instruments are declining although they still constitute a large portion of payments by volume.
- Electronic payments are growing at a much better rate than paper based instruments. In fact, the share of value of
 electronic payments in the overall value is catching up with paper based value and if this trend continues, in a matter of
 few more years, in all countries where we studied, the value of payments through electronic payments will more than the
 value through paper based instruments.
- Countries are taking initiatives in implementing sound payment and settlement systems for the benefit of its customers and economy.

With reference to India, based on our study on individual customers, corporates, retail bankers and expert senior bankers, we have also seen that:

- Indian customers retail and corporate are aware of the emerging payment options.
- They are willing to move away from cheque based payment to these electronic payments.
- That in India also, the contribution of electronic payment by value is closing with paper based instruments value although by volume, they still have some catching up to do.

• Central bank is aggressively promoting these payment options along with other banks to reduce the paper based transactions – including cash transactions and are being farily successful in accomplishing the goal.

Needless to say, all these electronic payment has technology as its backbone. These are also clear indication that the, in this e-age, customers are willing to accept changes and adopt the new age payments. In gender mostly the users are males. The usage of internet banking in females is very less. It is identified that only middle age people i.e age group between 21-40 are using internet banking. Below 20 and above 40 age group people using less internet banking services.

The subsequent stages of payment evolution can typically take the following route.

- 1. Existing payment systems will expand and stabilise meaning it will spread geographically, it will find new usages, and the volume and value will grow.
- 2. New payment options will emerge augmenting the existing payment systems and its capabilities. These could be by process re-engineering of existing payment options that uses the existing frame work and infrastructure like the contactless card which rides on the card payment infrastructure or completely new methods mobile payments for example.
- 3. Systems like Cheque Truncation will remove any float opportunity and force customers to move to electronic payment options apart from CTS itself removing the paper based instruments by truncating them to electronic images that can be used for clearing.
- 4. RTGS or equivalent systems will be the backbone for large value and systemically important payment and settlements in most of the countries.
- 5. Debit cards will outgrow the credit cards there is always this possibility of debit card becoming the payment choice for customers for use in ATM and in POS terminals.. It will surely eclipse the credit card growth and volumes in a few years time.
- 6. There could be a clear distinction between small value payments and large value payments and more small value payment options will emerge to make it easy for customers to pay for their parking ticket, do small payments etc..
- 7. Stored value cards and e-money could become more easily and populary available across the world.
- 8. The advances in technology and increased networking capabilities and the amount of investment happening in technology, communication bandwidth etc would make it possible to reduce the overall cost of transaction and that would help taking it to a much larger cross section of customers including customers in rural areas where traditional banking is yet to reach to the level it has reached in urban areas
- 10. Advanced banking Technology has played an important role in managing cyber crimes and frauds frauds like CTS reduces the probability of frauds, reconciliation problems, logistics problems and the cost of collection. (BFSI Sector in India, Dun Bradstreet, 2009).

8. Conclusion

RBI Payment System Vision 2015-2018 Implementation Road Map as mentioned above and BPSS recommendations are required to be strictly followed. The Retail payment System needs to be improved by developing appropriate applications and user-friendly websites with simple interface and local content. Knowledge of payment systems could be an element of intensive campaign for financial education as well as become an important tool for achieving financial inclusion and inclusive growth. There is a need to create World Class efficient, reliable, affordable and global standard payment systems. Robust and Dynamic Indian Electronic Payment & Settlement System will meet all these challenges for the benefit of their countrymen and achieve its mission statement "The Establishment of safe, secure, sound and efficient payment and settlement systems for the country." In sum while cheque volumes is shrinking and electronic payments are growing, the payers who are making difference are consumers not businesses. "The death of a distance, which is a by product of technology has become a reality in the banking sector and technology will continue its impact till "The death of paper" and entire payment system move to risk free on line & real time gross settlement system where finality of the payment is ensured and confirmed to both sender and receiver. One should not forget that technology is not a last mile, it's a support function like HR, Audit etc but it have and will continue to positive impact on payment systems by increasing access to customers and making it more secure and efficient. The success of implementation of advanced banking technology depends upon increasing customer satisfaction and improvement in customer services rendered to the customer in branches or through on line banking systems.