

# A STUDY ON TECHNICAL CHALLENGES OF SELECTED INDIAN BANKS

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## Abstract

Information communication and technology are the mile stone for today's globalisation and in the success of the globalisation rest on continuous support from banking sector. The world is reachable just at fingertip of individual due to the tremendous growth in ICT, now the ICT plays a key role in interlinking different parts of the world with a fraction of seconds. Banking sector connects the countries for the purpose of business, money transaction and FOREX, FDI etc...but in the recent days it has been observed that banking sectors are struggling to maintain huge data base and provide security for the information, this is due to the hackers, leakage of data within the organisation, virus attack etc..... This conceptual study attempt to identify the challenges of Indian banking sector for adopting new technology, problems in maintaining data and providing security and suggestions for the effective adaptation of technology. For this study five major performers in banking sector has been considered namely Axis, SBI, HDFC, IndusIndBank, IDBI.

**Key words:** ICT, banking sector, challenges, technology

## 1.Introduction

The ICT added value for the transformation in the whole range of banking services to customers. It has proved to be a great customer centric enabler for banks to induce innovation. It has made the life of bank employees much better. Though technology brought relief to both banks and consumers, its entry into banking system was initially sluggish. The resistance to change is always a challenge. But the foundation for large-scale induction of IT in the banking sector was provided on the recommendations of the committees headed by Dr. C. Rangarajan, in 1984 and 1989. Subsequently, in 1994, the Reserve Bank constituted a committee on 'Technology Up-gradation in the Banking Sector'. This committee too made a number of recommendations covering payment systems including setting up of an autonomous centre for development and research in banking technology.

The Institute for Development and Research in Banking Technology (IDRBT), Hyderabad and Indian Financial Network (INFINET), to conduct research in banking technology and provide consultancy services to banks apart from providing educational and training facilities for the banking sector. It plays the role of an incubator for bringing innovation in banking technology. It has expanded its scope to cover intense research in technology to bring about better standard of technology and works on evolving suitable security systems to protect the mass of bank data in order to meet international standards.

### 1.1 ICT trend in banking sector

Emerging technologies have changed the banking industry from paper and branch based banks to" digitized and networked banking services. Unlike before, broadband internet is cheap and it makes the transfer of data easy and

first. Technology has changed the accounting and management system of all banks. However, technology comes at a cost, implementing all this technology has been expensive but the rewards are limitless.

## 1.2 Role of technology in banking sector

- **E-banking:** This enables the bank to deliver its services easily to its high-end customers. To make the system user friendly to all clients, banks have used a Graphical User Interface (**GUI**), with this software, customers can access their bank details on their own computers, make money transfers from one account to another, print bank statements and inquire about their financial transactions. Another technology used by banks to exchange data between the bank and clients is called Electronic Data Interchange (**EDI**); this software can be used to transmit business transaction in a computer-readable form. So, the client on the other end will be in position to read the information clearly.
- **NRI Banking Services:** This technology has been embraced in countries like India, USA, UAE, just to mention but a few. Since many people go abroad to work, they have a need of supporting their families. So technology has made it simple for them to send money to their loved ones easily.
- **Plastic money:** Credit cards or smart cards have made the banking industry more flexible than before. With a credit card, a customer can borrow a specific amount of money from the bank to purchase any thing and the bank bills them later. In this case, they don't have to go through the hassle of borrowing small money. Then with "Smart Cards" like visa electron, a customer can pay for any thing using that card and that money is deducted from their bank accounts automatically, they can also use the same card to deposit or withdraw money from their accounts using an ATM machine.
- **self-inquiry facility:** Instead of customers lining up or going to the help desk, banks have provided simple self inquiry systems on all branches. A customer can use their ATM to know their account balance, or passbook scan machines to get their bank statement. This saves time on both sides.
- **Remote banking:** Banks have installed ATM machines in various areas; this means a customer does not have to go to the main branch to make transactions. This facility has also enabled anytime banking, because customers can use ATM machines to deposit money on their accounts. Remote banking has helped people in rural areas improve on their culture of saving money.
- **Centralized Information results to quick services:** This enables banks to transfer information from one branch to another at ease. For example, if a customer registered their account with a rural branch, they can still access the details of their account in all the branches of the bank.
- **Signature retrieval facilities:** Technology has played a big role in reducing fraud in banks which protects its clients. For example, banks use a technology which verifies signatures before a customer withdraws large sums of money on a specific account and this reduces on the errors or risks which might arise due to forgery.

## 1.3 Factors promoting growth of Banking

- The Banking Laws (Amendment) Bill that was passed by the Parliament in 2012 allowed the Reserve Bank of India (RBI) to make final guidelines on issuing new bank licenses. Moreover, the role of the Indian Government in expanding the banking sector is noteworthy. It is expected that the new guidelines issued by RBI will curb practices of impish borrowers and streamline the loan system in the country. In the coming time, India could see a rise in the number of banks in the country, a shift in the style of operation, which could also evolve by incorporating modern technology in the industry.
- Another emerging trend witnessed by the banking sector is the use of social media platform like Facebook to attract customers. In September 2013 ICICI bank launched a Facebook bill payment and fund transfer service called 'Pockets' for customer convenience.
- According to a report by Zinnov, a Globalization and Market Expansion firm, 'IT adoption in BSFI sector in India', the Information Technology Industry spend in BFSI vertical is expected to reach USD 3.5 billion by

Financial Year 2014. The study also highlighted 'the growing maturity of Indian BFSI organizations in IT adoption, as technology is seen as a driver of business value. Technology firms have great potential to explore in the BFSI sector, which contributes to eight per cent of India's Gross Domestic Product.'

## 2. Literary review

**'Role of Information Technology in Indian Banking Sector'** International Journal in Multidisciplinary and Academic Research (SSIJMAR) Vol. 2, No. 1, January-February (ISSN 2278 – 5973) by Prof. M.C. Sharma and Abhinav Sharma emphasised on banking industry in India need to be advanced in technology since the banking is a backbone for economy of the country. Indian public sector banks that hold around 75 % of market share need to take initiative in the field of IT. They are moving towards the centralized database and decentralize decisions making process. They possess enviable quality manpower. Awareness and appreciation of IT are very much there. What is needed is a 'big push' the way it was given in the post nationalization period for expansionary activities.

**'Social media framework for Indian banking sector'** an article published by IDRBT (institute for development and research in banking technology) dated August 2013. Mr. K Ramakrishna chief executive of Indian banking association opined introducing banking services and products on social media will help the bankers to identify the potential customers and social media governance model can help to trace the hackers or in advert exposure of data through ICT.

Mr. B Sambamurthy director of IDRBT stressed on how the social media and ICT is a cost effective model for brand building by giving an example of twitter blogs for real time conversation to identify the customer expectation and online survey through social networking will widen the scope for banking business.

**'Recent Developments in Indian Banking Industry'** by Prof. T.D. Fernandes, published in volume-I, special issue: march-2015 ISSN (online): 2350-0476, ISSN (print): 2394-207x international journal of multifaceted and multilingual studies. This study revealed the need of upgrading technology in banking sector in order to meet the requirements of global customers and The banks of future must have a networked IT landscape, increased automation, niche products and better understanding of customer needs. The banks need to reach much faster to the market changes and roll out new products quickly and efficiently for meeting varied customer needs across market.

**'Information technology in Indian banking sector some recent developments'** by Satinder Singh, Ajaydeep Singh Brar published in International conference on recent innovation in science, management, education and technology ISBN 978-93-86171-04-7 dated 26/8/2016. This study reveals the importance of shift from traditional banking to modern banking in order to meet the present competition and satisfy the requirements of dynamic business or individual or customer.

## 3. Objectives of the study

- a. To highlight the various challenges faced by banking sector for upgrading new ICT.
- b. To study the role of ICT in Indian banking sector.
- c. To identify the solution for the effective implementation of ICT in banking sector.

## 4. Research methodology

This study is based on recent technical challenges faced by banking sector in India through analysing scenarios of few top performers in banking industry. The required information collected with the help of secondary data. sources of secondary data are banking books, annual reports of RBI, various website and research papers etc....

## 5. Data analysis

Technology is setting success path for banking sector. While a large chunk of the Indian consumer still prefers to go the traditional route, young Indian customers are becoming tech savvy as far as personal banking is concerned. Top five

banks that have initiated innovations in technology for providing effective services to the next level despite the challenges like increase in operating cost for installation of new technology, creating awareness among the employees and customer through training and demo sessions to existing and new customers.

### **HDFC Bank**

HDFC bank established on August 1994. The bank concentrated on providing wide range of services and from 2011 onwards they are continuously upgrading technology as per the requirement of customers as a result HDFC Bank Wins Best Private Banking Services for Super affluent clients for 5 years in a row at Euro Money Awards in 2015. HDFC Bank looking at 3G services to boost mobile banking share, 2016 HDFC Bank has launched a digital bank for its small and medium enterprises (SME) customers.

### **Challenges**

- The biggest challenge is new payment banks - such as Paytm, Reliance Industries, Tech Mahindra, NSDL and India Post - that are ready to launch operations. These are allowed to accept deposits up to Rs 1 lakh but cannot lend. Interestingly, whereas SBI has entered into an equity partnership with Reliance for a payment bank and Kotak Mahindra Bank has joined hands with Bharti Airtel, HDFC Bank has decided to take on the challenge alone.
- HDFC Bank is also building a digital bank that will offer the whole gamut of services - from account opening to loans - online. The trigger for this is traction in retail payments.
- E-commerce is another big opportunity for banks. This is because more and more customers are using digital wallets, which are faster and more secure, instead of punching card details every time they transact online.
- The Reserve Bank of India is going all out for deeper penetration of banking services in rural and semi-urban areas. That is why it has granted licences for payment and small finance banks. At present, HDFC is concentrating on creating visibility in rural and semi urban areas through adding new customer friendly branches.

HDFC Bank's investors are watching how it is reacting to new mobile technologies, deploying scalable technologies at the back-end, motivating its large work force, and meeting new customer needs. "They recognise that we have been one of the few banks that have grown consistently without compromising our asset quality and profitability,"

### **Axis Bank**

Axis bank established in 1994 with a focus on corporate lending, trade finance, syndication, investment banking, risk management and so on. The bank at the initial concentrated on providing a wide range of finance services for the corporate after 2012 the bank realised on only product and service matters but also technical touch is very important and Axis Bank offer contactless multicurrency Forex cards to Indian travellers enabling faster and more convenient transactions while abroad. The same technology has also been extended to the Bank's Debit and Credit card platforms. The bank has set up an in-house payment gateway that allows for secure e-commerce transaction processing capability and reduces the cost incurred on using external gateways and tablet based online locker booking, smart phone loan, digital lending system etc... through all these new digital services bank created recognition through Bank of the Year in India - The Banker awards 2016 and Axis Bank has won the IDRBT Banking Technology Excellence Award 2016 - 2017 for Digital Banking among Large Banks.

### **Challenges:**

- AXIS Bank is negotiating a variety of business challenges that are both unique to the organization and familiar to the industry as a whole, including high data volumes, rapid growth, tighter competition, and an increasing number of fraudulent and undesirable transactions. The bank's top internal challenges include operational risk management, high personnel turnover rates, tighter regulatory demands, on-site internal audit gaps, and meeting customer requirements in a competitive market.

- Indian banking sector affected by the global downturn, AXIS Bank and regulators, view risk within the enterprise. The audit committee is demanding mechanisms that increase confidence in internal audit processes and technical practices. The AXIS audit team also needs to analyse 100 percent of its corporate transactions, negotiate multiple data platforms, access source data without compromising integrity, and achieve a more standardized, repeatable approach to data analysis.
- Communicating the name change (in the year 2008 UTI Bank Ltd changed its name to Axis Bank Ltd) with an use of all major mass media—television, print, radio, as well as the outdoor medium, to communicate the change in name. But even before the campaign was launched, we communicated the change to the bank's consumers through direct mailers, bank statements, mobile, the Internet and banners at all the branches, extension counters and ATMs in India.”

Apart from all the above-mentioned challenges the major problem with axis bank is spilt ownership in spite of this it has succeeded to get the third major bank with high performance through adding new products and technology for the bank transitions.

### **IndusInd Bank**

Established 1994, IndusInd bank is the first among the new generation banks in India. Its technology platform supports multi- channel delivery capabilities. The bank has sustained mainly because of continuous upgradation of technology for providing end to end services to both corporate and individual. IndusInd bank bagged award for 3 categories in 2016 i.e. best payment initiative, best financial inclusion initiative and best fraud and risk management initiative. These awards indicate the dedication of the bank for upgrading technology, services and risk involved with use of technology.

### **Challenges:**

- Dynamically address communication and collaboration requirements and communicate its information to its associates
- Ability to track and monitor interaction across the organisation.
- Building strong networking technology with security for data.
- Increase the revenue through effective services for the existing customers

Since the bank had expanded exponentially with a massive network across the country, it needed to revisit its communication strategy to ensure continuous growth and success. Being one among the leading private banks in the country.

### **IDBI Bank**

Established in 1964, to provide credit and other financial facilities for the development of Indian industry. The bank played a pioneering particularly in the pre -reform era, in catalysing broad based industrial development in India. It received banking technology award for the best use of business intelligence and risk management from Indian bank association through its prediction of new trend and requirement of industry from the banking sector

### **Challenges:**

- Creating strong workforce responsiveness
- Creating standards to meet international standards as the bank is dealing with growing industries.
- The bank has identified the future need of business intelligence for helping the customers but at the same time the bank has to upgrade technically with new tools for providing quick services.
- There is a huge scope for innovation in providing end to end services to the existing customers.

IDBI had a good number of deposits only because the government participation in the banks stake holding is presently 77%, this is a major driving force for the development of the bank, but presently the industries and customers are looking for the comforts and quick access so, bank has be techno savvy in order to meet the present competition.

## State Bank of India

Established in 1806, it's an Indian multinational public-sector banking and financial service company. It has merged five of its associated bank recently in 2017. Presently SBI launched digital branches for next generation across the country as a part of offering banking solutions growing mobile phone and internet savvy customer base.

### Challenges:

- Transformation from the old and lengthy method to digital record of transaction to evade paper work.
- Launching more next generation branches and technical modification for the existing branches across the country
- Appeal to youth segment. Make service accessible to older customers.
- Innovative technology interactive tables and screens.
- Managing to launch its own digital banking effectively.

Despite of all the challenges mentioned above. SBI has established a banking relationship of trust with the nation and now with modern touch the bank is offering many variety of services. Bank also bagged 2 awards for best rural banking initiative and best IT architecture in 2016.

## 6. Findings

In India 40% of customers still happy with the traditional banking system where as 60% of the customers are techno savvy as per the online survey conducted by twitter. In order to satisfy the large number of customers upgrading technology has become mandatory for banking sector. Top performer in Indian banking sector has analysed below to identify the problem in upgrading technology and action taken by banks to overcome. They are as follows,

- The private sector bank is popular with wide range of products and investment solutions through upgrading business intelligence with the help of technology. The bank will provide all its banking services through all wearable devices across platforms like OS(operating system) and Android. "HDFC Bank will provide a total of 10 banking transactions in the current launch phase. Some of them being View Account Information, Bill Payments, Recharges, Hot listing facilities, locate nearest branch, ATM, offer, request statement and chequebook among other," in order to meet the requirement of present tech savvy customers.
- The Axis bank recently used ACL data analytics software to launch a tactical risk monitoring and data analysis plan. After identifying top risk and compliance goals, the AXIS Internal Audit team has successfully used data analysis to recover lost revenues, cut processing times and resources, and monitor a high-volume transaction environment for anomalies. With ACL, the AXIS audit team continues to strengthen operational controls and enhance confidence in vital compliance verification activities. The bank has launched a multi-social payment app across social platforms such as Facebook, Twitter, WhatsApp, SMS or email. The app allows sending and receiving money without asking for bank details.
- At the beginning of the year, IndusInd Bank has launched facetime wherein a customer can speak to his manager directly via video conferencing. The video branch is available on Android and Apple mobile devices in the respective app store, but execution is very poor as the proper training and awareness not created among the employees.
- Since IDBI Bank noticed the importance of technology in banking transactions, bank will be launching soon e-huts, which will be a one-stop solution for all banking services that the bank offers. The bank announced its plans to launch e-huts while inaugurating its branch in Goa. "We will be launching e-huts across the country. It's a concept that is widely accepted in the West, but in India, it's yet to pick up,"

- Being the largest public-sector bank in its operations with a sharp focus on technology. The bank will not expand its existing services such as InTouch and InTouch light, it also plans to start e-corners in its existing branches in a bid to make it easier for its young consumers.

## 7. Suggestions:

- Presently the requirement of the customers is changing accordance beats of globalisation, hence banking and financial sector of the country. Banking institutions are on right track with initiative to upgrade technology but at the same time it's a right time for revisiting security issues with data warehouse and big data management.
- Indian banking sector should adopt a tool like mobile app (I mobile from ICICI) in order to reduce the paper work for deposit or for withdraw of the money, email statements instead of passbook entry practice.... Likewise, many traditional practices have to be replaced through new technologies for example only few banking ATM's allowed to deposit money, which can be implemented in all ATM's
- Presently banking sector in India struggling to manage NPA, due to which the operating cost of banks are increasing and not in a position to spend on upgrading technology, as a result in august 2017 Indian banking sector experienced threat from hackers. In order to avoid hacker or leakage of data the bank has to come up with solution for the challenges like NPA management in order to concentrate on creating banking for next generation.
- Public sector banks are trusted by maximum population at the same time it's a responsibility of public sector banks to provide best service and compete with private commercial banks, by being technically sound.
- Banks should come up with the combination of own inhouseworking centre for technology(captive BPO's) for the confidential data management and outsource business intelligence to software service industries(like TCS, HSBC, ANZ etc) in order to protect customer details and avoid the risk associated with sharing data with service providers or outsourcing software industries.
- Make use of social media for identifying the potential customers and investors for the financial products like investment schemes, mutual fund scheme, etc..

## Conclusion:

Banking and financial sector of the country reflects the stability or growth of the economy, in the present digital era adopting new technology or practicing next generation technology is a crucial, since the world is interlinked for exchange of business, technology, knowledge, and so on.. its mandatory to meet the international standards as the country is not restricted to national boundaries. Hence banking represents country at the global level so, banking sector should be the first to bring the technology in to practice and execution. Apart from upgrading technology to banking sector should also make use of artificial intelligence for predicting the performance of financial products, and risk associated with investment for providing effective services to the customers. To conclude technology is a vehicle for banking which can make banks to reach destiny without any loss if the safety measures have been followed.

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