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WELINGKAR INSTITUTE OF MANAGEMENT DEVELOPMENT & RESEARCH

FUNCTIONAL SPECIALIZATION PROJECT

ON

TECHNOLOGIES SHAPING THE FUTURE OF BANKING

BY

BAHETI RUTIKA SHYAMSUNDER

MMS 2018 – 20 (FINANCE SPECIALISATION)

ROLL NO: 57

PROJECT FACULTY GUIDE

PROF. BIJOY BHATTACHARYYA

PROJECT COMPLETION CERTIFICATE

This is to certify that this project titled: **Technologies shaping the future of Banking** is successfully done by Mr. / **Ms. Rutika Baheti** during the fourth semester in partial fulfillment of the Master's Degree in Management Studies recognized by the University of Mumbai through **S.P. Mandali's Prin. L. N. Welingkar Institute of Management Development & Research, Matunga, Mumbai.**

This project in general is done under my guidance.

_____

Signature of Faculty Guide

Name: **Prof. Bijoy Bhattacharyya**

Date: _____

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1) INTRODUCTION

Banking industry is a foundation of the Indian financial system, and many challenging forces are afflicting it. One such force is the Information Technology revolution. In today's era, supporting technology is very important for the banking sector to function successfully. Without IT and communication we cannot think about banking industry's progress.It has broadened the role of the banking sector in the Indian economy. Technology has a vital role to play in creating an efficient banking system.

Banks in India have invested heavily in technology such as tele-banking, mobile banking, net banking, credit cards, debit cards, ATMs, electronic payment systems, data warehousing and data mining solutions over the past 10 years to bring about improvements in customer service quality and fast banking operation processing. The banks made heavy investments in IT in the expectation of improving their success. Yet essential in the performance depends on differences in IT implementation, usage and effectiveness.

Indian banking industry is working consistently to implement technological changes in the banking operations. Banks built to use technology to provide customers with better products and services, and to achieve high speed.

A combination of regulatory and competitive factors has made total banking automation in this industry increasingly important. Fundamentally, technology has been used in banking in different avenues. One is collaboration and networking and another is reengineering of business processes.

Technology has changed the contours of three major functions that the banks carry out, i.e. access to liquidity, asset management and then risk control. Furthermore, the efficiency of money, capital and foreign exchange markets depends on technology and communication networking systems.

The mid- and late-90s witnessed the storm of deregulation, financial reforms, globalization, etc. coupled with rapid revolution in communications technologies, such as the internet, mobile phones, etc. That totally changed the face of the Indian banking system.

Indian banks continue to foster innovation in technology, i.e. ATMs, internet banking, mobile banking, bank computing, plastic currency, call centre's, etc.Via Electronic Clearing Services, Indian Financial Network, Electronic Funds Transfer, Real-Time Gross Settlement System, Structured Financial Messaging System, Negotiated Dealing System and India Card, RBI has also implemented IT.

Accordingly, Indian banking climate has become more compliant with international financial system norms. The explosive growth in technology has changed the way commercial banks conduct business significantly. The banks put more stress on knowing the drivers of success to generate superior financial performance in order to survive and adapt to changing climate.

This study explores the banking sector with all the advances and new technological developments. The present study also aims to map the effect of IT on banking sector performance for scheduled commercial banks operating in India including public, private and foreign-sector banks. This paper will cover the effect of e-banking on the behavior of consumers towards e-service quality. Today's bank customers have a virtual menu of options regarding delivery channels and all these are technology advantages.

1.1) NEED FOR IT ADOPTION IN BANKING

Competition and profitability in the present set-up have become key words for India's banks. Although these are mutually contradictory, by raising their earnings, banks must balance the strength of the competition and continue to be in the reckoning. Technology has become a very important toll for banks to carve their own niche and take a lead over competition.

Information technology has an important influence on the banking industry. It actually began a new era in the banking operations. The use of IT in banks decreased the scope of conventional banking with manual operations.

Investment in new technology therefore needs to be made to modernize the existing bank operations. Adopting information technology also helps them face competition and new challenges in meeting customer expectations in globalization's contacts. Technology can therefore be the key to differentiation, the competitive edge and institutional survival.

The introduction of technology by itself will have certain effects on the processes. In the Indian Banking case, the diffusion of technology has witnessed a slow but steady transgression in the last two decades. Technology has changed the face of banking, and it can help Indian banking catapult to new heights.

With the advent of time, a segment of techno-savvy customers also emerged who preferred to bank round the clock without actually venturing into branch premises at their own convenience. This demographic change has also played a major role in the banks building capacity for Any Time Any Where Banking through the introduction of state-of-the-art projects such as CBS, WAN, Internet Banking, Tele-Banking and ATM network.

1.2) OBJECTIVES

1) To study the existing role of technology in banking
2) To study the recent trends in Indian banking industry
3) To foresee the future of banking based on technology.

1.3) RESEARCH DESIGN

The report is based on the analysis of the changing banking scenario in the India with the help of secondary data collection. Sources of secondary data are banking books, journals, annual reports of RBI, various websites and research papers etc.

2) LITERATURE REVIEW

"A study on Role of Technology in Banking Sector", by Aswin Raj T, Mr. Bala Nageshwara Rao, 2018 [1]. This research paper examines the relationship between the implementation of new technology in the banking sector and the clients. Discusses also about customers' awareness of technologies, and how they use them. Findings in this paper suggest the need for banks to raise awareness of e-banking services.

In his paper, "New Technological Changes in Indian Banking Sector" in 2017 [2], Dr. G. Anbalagan focuses on innovation development, such as the Unified Payments Interface (UPI), cloud technology adoption, etc. The paper highlights the new technological changes in the Indian banking sector and also the challenges that banking faces for changing needs and the insights of customers.

"A study of impact of Information technology in Indian Banking Industry" by Ibha Rani, June 2015 [3]. This paper focuses on technology's impact on Indian banking sector. Without Information technology and communication one cannot think about the success of banking industry. This paper also highlights about the investment done in banks for technology such as, Mobile banking, Net banking, Tele banking, Automated teller machines, smart cards, credit cards, debit cards, Customer relationship management software, Electronic payment systems and data warehousing and data mining solutions to bring improvements in quality of customer services and the fast processing of banking operation.

The research paper on "Information Technology in Indian Banking Sector: Some recent developments", by Satinder Singh, Ajaydeep Singh Brar, in August 2016[4]. This paper discusses the new transformations in India's banking sector and how the Indian banking industry is gradually moving towards adopting best accounting, corporate governance and risk management practices. There was also talk of the various opportunities for the banking sector. As regards the banking sector, the paper also addresses Information technology (IT), as it plays a n important role in the banking industry. Further, emphasis was placed on the future prospects of the banking sector.

"Technological Infovations in Banking Sector: Impact, Behavior and Services", by Ankita Sharma and AkanshaKansal, 2014 [5]. This paper outlines the impact e-banking has on the behavior of consumers towards e-service quality. It also states the changes brought about by information technology that transformed the banking industry's structure. This paper also provides a critical review of the organizational literature on the effect of e-banking on the efficiency of banks to analyze how banks have successfully achieved customer satisfaction by providing high quality service through the online delivery system, in addition to reducing operating costs and optimizing revenue.

3) TECHNOLOGY

Computers are becoming increasingly sophisticated. They gave banks the opportunity we could only dream of, and gave high aspirations to bank customers. The changes brought to banking by new technologies have been enormous in their impact on banks' officers, employees and customers. Advances in technology allow banking products and services to be distributed more efficiently and more effectively than ever before-thus creating new competitive bases. Rapid access to critical information and the ability to act swiftly and effectively will distinguish future successful banks. Through having a direct marketing and transparent customer service climate, with modern, simplified business processes, the bank gains a critical competitive advantage. In the banking marketplace, consistent management and decision support systems provide the bank with the competitive edge to move forward.

Major applications: The benefits of computerization are three way - to the client, to the bank and to the employee.

- **For the customer**: Banks are mindful of the need for new services for consumers, and plan to make them affordable. To order to satisfy their clients, IT has increased competition and forced them to integrate the new technologies. They have a number of solutions already developed and implemented among them:

- Self-inquiry facility: Facility to sign in to designated branch self-inquiry terminals to ask about and show the account transactions.
- Remote banking: Remote terminals on the customer's website linked to the respective branch via a modem, allowing the customer to ask online about his accounts without having to leave his office.
- Anytime banking- Anywhere banking: Installation of ATMs that offer cash withdrawal, remittances, and inquiry facilities. Computerized inter-city and intra-city branch networking would allow customers of those branches to transact from any of these branches when interconnected.
- Tele-banking: A 24-hour facility, through which balances and account transactions can be inquired over the phone.

- Electronic Banking: This helps the bank to provide the Graphical User Interface program on a PC to corporate or high-value clients, to ask about their financial transactions and accounts, cash transfers, cheque book issue and rate inquiry without entering the branch. Furthermore, the customer can submit LC text and bill information, and the bank can access the same. The technology used to make this service available is called Electronic Data Interchange. It is used in a standard format for transmitting business transactions between organizations and individuals in machine readable form.

➢ **For the bank**: In addition to a large number of new products, banks have applied IT during the last decade to a wide range of back and front office tasks. The advantages for the bank are:

- Availability of a wide range of enquiry facilities to assist the bank in the growth and monitoring of business.
- Immediate responses to customer questions are given to managers and chief executives, without reference to the ledger-keeper as terminals.
- Complete and timely implementation of the standing instructions on due date and report generation.
- Different MIS reports and periodic returns are produced at due dates.
- Quick and up-to-date transfer of information allowing faster decision-making, the interconnection between computerized departments and offices of management.

➢ **For the employees:**

- Accurate calculation of cumbersome and time-consuming jobs, such as balancing and calculating interest on due dates
- Electronic printing of timetables, deposit receipts, transfer book / pass sheets, freeing workers from these time-consuming tasks and enabling them to pay more attention to the customer's needs.
- Signature retrieval system, helping with transaction verification.
- Avoid duplication of entries as single-point data entry exists.

4) INDIAN BANKING TRANSFORMATION

Over the last decade Indian banking has undergone a complete transformation. It has been a marvel to move smoothly from a manual, scale-constrained world to a place of technical lead. In such a short span of time such a transformation takes place at such a low cost.

Entry of technology in the Indian banking industry can be traced back in the 1990s, as the banking sector witnessed various measures of liberalization. One of the main objectives of reforms in the Indian banking sector was to foster operational self-sufficiency, flexibility, and system competition and to enhance the banking standards in India to international best practices.

New private and foreign banks emerged armed with the latest technology, with the ease of licensing requirements. Through diversifying into investment banking, insurance, credit cards, mortgage financing, depository services etc., deregulation has opened up new opportunities for banks to increase revenues.

Market Size:

The Indian banking system consists of (as of 2020) (Source: IBEF)-
Public sector banks: 12
Private sector banks: 22
Foreign banks: 46
Regional rural banks: 53
Urban cooperative banks: 1542 and
Rural cooperative banks: 94384.

Investments/developments:

Investments and developments in banking sector include:

- Government e-Marketplace signed a Memorandum of Understanding with Union Bank of India in October 2019 to promote a paperless, cashless and transparent payment system for a wide range of services.
- In October 2019, the Post Department launched a mobile banking facility for all Core banking solutions post office holders of post office savings accounts.

- Unified Payments Interface transactions amounted to Rs 1.15 billion of 1.91 lakh crore in October 2019.
- The Government of India launched India Post Payments Bank in September 2018 and has opened branches across 650 districts to achieve the goal of financial inclusion.

Achievements:

The achievements of the government in the year 2017-18 are:

- As at 31 March 2019, there were 925 million debit cards and 47 million credit cards issued, respectively.

- To boost connectivity in the villages, the National Bank for Agriculture and Rural Development has approved 204,000 Point of Sale (PoS) terminals from the Financial Inclusion Fund.

Recent IT devices evolution as below:

- **Use of MICR Technology**- MICR overcomes the shortcoming of cheque clearance within banking hours and allows the customer to quickly get the credit. These are device-readable codes added at the bottom of each cheque leaf that helped to sort banks and branch-wise checks for smooth delivery to the respective banks on which they are drawn. This certainly helped speed up the clearing process, but even under this partial automation the physical distribution of checks continued.

- **Electronic Payment and Settlement System**- Receipts and transfers via banks are the most common media with negotiable devices like cheques. Those tools could be used in place of cash. Clearing house networks may be used to realize interbank cheques. There was initially a manual clearing system, but the increasing volume of banking transactions resulted in the need to automate the clearing process.

- **Cheque Truncation System**- Truncation means restricting the flow to the drawee branch of the actual cheques provided by a drawer. At some point on the way to the drawee branch, the physical instrument is truncated and a digital image of the cheque is sent to

the drawee branch along with relevant details such as the MICR fields, presentation date, etc. This would remove the need to transfer physical instruments through departments, except in extraordinary cases, resulting in a significant reduction in the time needed to pay cheques, the related transport costs and processing delays, etc., thus speeding up the process of obtaining or making cheque.

- **Electronic Fund Transfer**- EFT was a national retail electronic funds transfer system between the connected branches of banks. NEFT allowed for integration with the Indian Financial Network's Structured Financial Messaging System. The NEFT uses SFMS for generating and transmitting EFT messages from the branch to the bank's gateway and to the NEFT Center, thus significantly improving the security of funds transfer.

- **Electronic Clearing Service**s- ECS has been India's first edition of the "Electronic Transactions." This is a method of transfer of electronic funds from one bank account to another bank account using the clearing house mechanism. It is very useful when moving bulk from one account to other accounts, or vice-versa. The beneficiary will hold an account at ECS Center with the bank's service. ECS are of two types

- **Core Banking Solutions**- Bank branch computing had begun with the installation of simple computers to automate branch functioning, particularly in high-traffic branches. Core Banking Solutions is the networking of a bank's branches so that customers can access their accounts from either branch of the bank, regardless of which branch they have opened their account.CBS branch networking allows for centrally controlled data management and assists with internet and mobile banking implementations. In fact, CBS assists in putting banks' entire activities into a common technical framework.

- **Real Time Gross Settlement**- RTGS is a fund transfer mechanism where money is transferred from one bank to another on a 'real time' and a 'gross basis.' This is the fastest possible money transfer system via banking channel. Real time settlement means there is no waiting period during payment transaction. Once processed, the transactions are settled.

- **Automated Teller Machine**-Virtual banking is perhaps the most revolutionary aspect of ATMs. The facility to use ATM is provided by means of plastic cards with a magnetic strip containing customer and bank details. In today's world ATMs are the most valuable tool to maintain the "Any Time Banking" and "Any Where to Banking" principles.

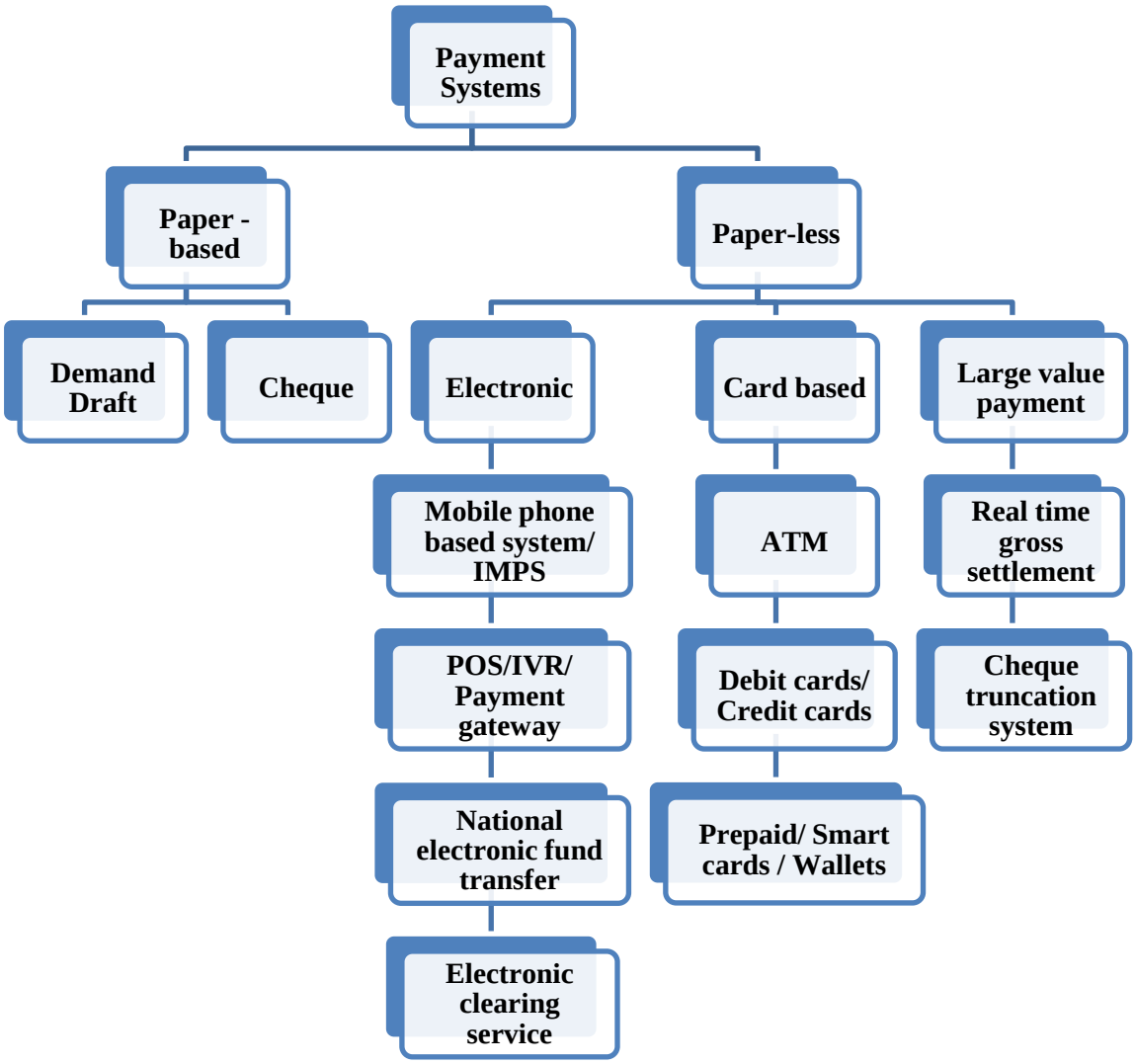
- **Phone Banking**- Customers can now call up the telephone number programmed by the banks and then call their ID number to get access to the machine assigned by the bank. By using Automatic voice recorder for basic queries and transactions and staffed telephone terminals for complicated transactionsand queries, customers can do all non-cash phone banking related activities.

- **Tele Banking**- It is yet another breakthrough that provided the consumer with the 24-hour banking facility. Tele-banking is based on the facilities available for voice processing on bank computers. The caller normally calls the bank at any time and can ask about his account balance or other transaction history.

- **Internet Banking**- Internet banking helps a customer to do financial transactions on the internet via the bank's website. It is a means of accessing financial products and services accounts and general information through a computer while sitting in your office or home. That is also known as virtual banking.

- **Mobile Banking**- Mobile banking service is an Internet Banking extension. Mobile banking is a service offered by bank that allows thecustomers to make transactions using a mobile device anywhere. In comparison to the related internet banking, it uses software, typically called an app, supported for this purpose by the financial institution. Currently, mobile banking is available 24 hours. Some institutions have limit on the accessibility of accounts through mobile banking also as restriction on the quantity which will be transacted.

Chart 1: CLASSIFICATION OF PAYMENT SYSTEMS



Source: Forbes India

5) FINTECH REVOLUTION

The rise in digitization and innovations such as mobile, VR, IoT, AR, Block-chain has revolutionized every segment of the global market. The FinTech industry is booming with the growth of digital investment, as seen in the current scenario.

FinTech is a concept for the field at the juncture of financial and digital services. This effectively encourages the use of digital technologies concentrating on start-ups and new business entrants driving goods and services to innovate. Customers today do not go to conventional financial services industry for facilities. They are looking for services which can provide them with a fast and prompt response based on their question. Throughout this way, FinTech is gaining tremendous popularity in the industry and challenging the conventional value chain.

So, how has FinTech changed the banking experiences for customers today? Let us get insight.

Smart Solutions- Customers' ever-growing need and no time clause have forced the banking industry to search for solutions that is fast, rapid, reliable and versatile. Having analyzed the existing offerings of conventional banks, the industry decided to depend on FinTech solutions to analyze customers' urgent and oriented needs. FinTech solutions have begun to build established and highly successful banking solutions which have managed to step in and take over those categories that banks had ignored in terms of offerings. In this scenario, a good example would be a surge in online loans.

Better customer experience-FinTech provides 24/7 access to customers and services available via the new digital platforms such as internet, social media, mobility and so on.Social networking is expected to become the predominant platform for communicating, interacting, educating, and understanding customers by 2020. It will also be the platform where customers look for and compare offerings from banks.

Quicker Reachability-Banks are now focused on expanding the use of open technology and FinTech providers providing Software-as - a-Service (SaaS) solutions. This helps the banks to make efforts to easily incorporate and optimize operational capabilities in the banking system, and to improve mobile distribution.

6) EMERGING TECHNOLOGIES AND THEIR ROLE IN SHAPING BANKING EXPERIENCES

For most consumers today online banking has become the primary interface channel. It is now becoming clear that the most important force transforming the financial services industry globally is the mounting pace of technological reforms.

Over the last decade the banking industry has undergone radical technology-led transformations. Most banking managers look to their IT support teams to optimize productivity and promote ground-breaking creativity while maintaining existing processes and reducing costs. In the meantime FinTech start-ups are taking advantage of established markets and winning with consumer-friendly solutions. Today's consumers have a slew of choices and scaled their expectations requiring agile, flexible, real-time, seamless, creative and interactive experience. And the speed of the developments in change & technology shows no sign of slowing.

According to Gartner's trend study, "80% of financial companies will either go out of business or become inoperative due to evolving consumer preferences, rivalry and technical developments within 12 years."

In the coming years, digital banking strategies will involve more complex approaches with big data, predictive analytics, and new technologies that automate tasks allowing banks to improve flexibility as well as customer service efficiency.

According to Atos report, the most disruptive challenges and opportunities for banking future include responding to consumer needs, reducing costs, generating new revenue sources, enhancing security & enforcement frameworks, increasing digitalization and innovation. Both of these have a few items in common: a customer-centered approach, real-time & smart data integration, and an open platform basis. Although some of these changes would entail the modernization of obsolete technology and the rethinking of conventional legacy models, the others would entail strategic collaborations and cooperation with Fin-tech companies. But one thing is clear-the need for change. If applied successfully, financial companies using advanced digital technologies could theoretically see a 30 per cent reduction in IT costs.

In the coming years, the banking landscape is set to evolve to a greater magnitude. The good news is that there are still major opportunities for many of the emerging developments that challenge the banking sector today. Organizations capable of collecting insights, data, and technology to improve user experience will inspire consumer confidence that is vital to success.To provide an outstanding customer experience, here are some technologies banks should consider:

1. Cloud Adoption:

As part of their IT Roadmap, banks should move their current applications (core banking / digital banking offers/risk management applications) to a cloud environment. As part of the IT program transitioning to a cloud environment, banks would receive the following benefits:

- Data protection & data privacy play a vital role, as banks provide sensitive financial consumer data and transactions as part of their customer service offerings. Cloud providers ensure that the financial and non-financial data stored in the cloud environment is highly secure.
- Meeting compliance regulation:Banks / FIs want to ensure that consumer data are stored in the cloud as per the regulatory structure for central banks. Any cloud service provider such as AWS, Google Cloud and Microsoft Azure must ensure that data is processed in the cloud according to a legal requirement, taking into account a country's regulations.

2. Business Process as service (BPaas):

Financial Institutions and Banks would like to leverage technology and just pay for the services provided by the software / product vendors. This will be the pattern which will emerge in the coming days. Through BPaas, banks will continue to enjoy the following benefits:

- Decreases software licensing and inventory costs
- Lowers operational costs for data center maintenance
- Charge for service by device / services suppliers based on the number of transactions or customer-based licenses provided for in the agreements
- Meeting regulatory and enforcement requirements based on central bank regulations.

3. Cloud Banking:

- Cloud banking is the new technology banks & financial institution want to follow. This is largely due to banks needing to cut costs and deliver competitive product & service offerings across corporate banking segments and retail.
- A main differentiating factor in cloud banking space would be faster-to-market for new product releases, with the aid of API integration, which can be quickly incorporated into any platform or fintech business in a short time. Enterprise level support would be the main differentiating factor in cloud banking, since group-wide data can be combined and delivered to its customers as services.
- According to the IT road map, banks should be able to determine the items and data that need to be on cloud and premise and deploy the solution. In addition, as per the business decision, banks may decide to store data in the private, public or hybrid cloud. This can also help banks follow the regulatory and enforcement requirements that central bank / regulatory authorities are implementing.

4. Cyber Security:

Over the course of several years, the banking and finance industry has been under immense strain with financial data breaches / crimes. Cyber security plays a key role, as banks offer a majority of their transactions through Omni-channel networks and transaction processing across various payment networks around the world.

Banks expect an endpoint security solution to overcome data breaches over external networks / gateways of payment. This will ensure that financial data as part of transaction processing is not tampered with malicious code / data breaches.

Innovative technologies built on cyber security are available for commercial banks, such as multi-factor authentication and virtual reality with the aid of facial recognition. In addition to these steps, bank is introducing firewalls and anti-malware software to prevent data breaches.

Banks can conduct security and network audit to detect suspected / fraudulent transactions with the aid of Machine Learning/ Artificial Intelligence technology solutions. AI / ML can help banks identify the area of weakness in the current application, and develop more protection.

5. Instant Payments:

The payments market is by far one of the banking industry's most diverse fields of innovation. This trend would help consumers exploit technology and process payment instantly without risking the security of transactions.

Today, instant payment methods are available in most countries and a few where banks are working to deliver an instant P2P payment experience, appealing to a wider consumer base. Though major Fintech firms, tech players and financial institutions continue to innovate on the basis of changing consumer demands and developments in technology, this sector will soon be part of what customers do. Together with the Internet of Things, mobile wallets, cryptocurrency, point of sale and block chain, revolutionary payment patterns may occur. Banks and credit unions have a greater scope to develop a creative portfolio of customer-friendly services by diversification and infusing instant transaction capabilities across e-commerce and m-commerce space. And companies that value customer payment insights as an analytical organizational asset will further segment their core behavior trends, and create customized customer experiences.

6. Personalize with AI:

For banks and credit unions, the advantages of using Artificial Intelligence include optimizing back-end processes, data processing, customer service, enforcement, product distribution, and risk management. It's no longer just about products and services on a well-integrated digital interface; consumers expect customized experiences that align with their preferences and behaviors.

The disruption brought by AI would enable organizations of financial services to better anticipate their consumer needs and deliver unparalleled levels of customization. Many industries, including financial services, have recognized that AI-ready business applications are becoming the norm and help speed up initiatives for digital transformation.

AI's ability to predict outcomes with a high degree of accuracy in many fields opens up new possibilities. For example, in the lending space, business applications with data-driven intelligence systems powered by advanced machine learning help organizations reduce levels of delinquency, boost recovery and improve operational efficiency.

7. Robotic Process Automation:

The Robotic Process Automation relates to the use of virtual assistants able to perform routine and laborious tasks; making it suitable for the banking industry. Business process outsourcing models can be disrupted by RPA in banking, as it minimizes costs while optimizing efficiency.

The RPA assists banks in creating effective, real-time, fast, efficient and successful customer interaction. It helps to execute pre-programmed rules for both customer-facing and back-office functions across structured & unstructured data.

RPA helps reduce costs and simplifies compliance with comprehensive logs to collect automatic information and makes automatic decisions to remove space for human error based on previous data patterns. By implementing RPA effectively, banks will reduce manual work and allow bank executives to concentrate on the more complex strategic tasks.

8. Open Banking with API Platforms:

It is based on open application programming interfaces (APIs), which enable trusted third-party developers to build financial institutions services & technology interface. APIs help create new products for a better customer experience, where the bank acts as a forum through which third-party companies construct applications using the bank's data.

7) FUTURE OF BANKING IN INDIA

Information technology gives the Indian banking sector tremendous capacity and varying opportunities. It provides the customer with cost-effective, fast and systematic service provision. Efficient use of technology has allowed accurate management of banks' increased volumes of transactions that come with larger consumers. Banking industry all over the world is benefiting from IT revolution.

Virtual bankingis gaining worldwide prominence. According to this, only electronic distribution networks typically provide goods, services and financial transactions without any physical branch. Due to lower branch maintenance and labor costs, these banks may provide better rates for their products and services compared to conventional banks.

In offering online banking, Indian banks lag too far behind the international banks. This is not, in reality, possible without the existence of adequate infrastructure or the participation of enough users. Software will carry keys to banking future. So banks might try to work out the shift cause. Indian banks need to concentrate on prompt and ongoing technology infusion.

Banking is at the crossroads right now in India. They are under tremendous pressure to digitize and to embrace and grow. Their very life is at stake. They need to follow a systematic digitization approach.It is not just a tool for customer relations, nor is it just something that accelerates a banking operation. The entire definition of banking is evolving. The new buzzword is product creativity and growth according to the needs of individual consumers.

The resilience that banks have shown in India over the last few decades demonstrates that they will continue to develop. The banking sector in India will continue to expand and digitization will continue. Banking would be a big part of economic development. Banking technology's future is e-banking or digital banking.

What can we expect?

As digitization in the banking industry matures, we can envision a situation that is much like what we are seeing today with the World Wide Web. Banks will lose their independent identity as they will all be linked to the customer and offer all of their services online. No more physical Bank trips, no more banks counters etc. Instead consumers can use all banking facilities in the comfort of their homes or offices and do all their banking activities over the internet.

Indian banking sector's future is bright because we have seen them take technology on board, develop its use, and digitizing their customer services. Recent developments in the banking sector are giving us confidence in the growth of India's banking sector.

Artificial Intelligence and Business Analytics have the potential to bring about a significant change. Robotics, enabled by AI, is expected to be the banks' future game changer. Many private banks are preparing to deploy robots for customer support, investment advice and credit-approval processes to boost efficiency and render long-term cost-effective.

Challenges:

- **Security Risks**- External threats such as hacking, spoofing and sniffing put banks at risk from security. Banks are also exposed to internal risks, particularly in collusion with customers by employees / employees.
- **Financial Literacy**- Lacking people's awareness about using e-banking facilities is big constraint in India.
- **Fear factor**- One of the biggest obstacles in online banking is that older generations, and mostly rural people, prefer the traditional banking system. The fear of losing money in the online transaction represents obstacle to use e-banking.
- **Training**- Lack of appropriate expertise and skills is a significant disincentive for staff to address disruptive and growing bank innovations. Training on the evolving IT trends at all rates is the day's necessity for the banks.

8) CONCLUSION

Despite so many changes taking place in the banking industry, are the new generations of bankers ready for digital-first banking? This is the most important problem to be addressed today.

Although Fin-Tech is revolutionizing the banking industry and offering access to financial services for millions of people for the first time, new banking models are emerging with Fin-Tech start-ups and technology companies potentially challenging the status quo. But business schools and universities are not training upcoming bankers for these shifts, says Henri Arslanian.

The need for the hour is to educate students not only in finance but also in how to harness technology capacity in finance. At a young age we need to start developing the necessary skills. This will increase the next generation of financial professionals who are well versed in technology and its potential, and who will help drive the industry forward into the future.

Governments and companies should invest in domestic talent by working with educational institutions to build Fin-Tech expertise to prepare for the future of finance. Therefore, it is important to integrate the right curriculum to train students for the financial world they will inevitably walk through.

The only good news, however, is that the millennial generation has already managed to navigate gracefully through this transition, as most of them have grown up using smart devices, online learning andconnected homes. But in order to train the next generation with the best of the tech skills sets, schools do need to follow a tech-driven curriculum pattern, especially in finance, to make them the next cutting-edge innovators in finance.

The Bottom Line

Finance dominates the world, but finance will soon be governed by technology. If you don’t know how technology is already changing finance, then probably you’re lagging behind. In fact, if you don't train the next generation of leaders to embrace creativity, you’ll never catch up.

As FinTech moves from an upstart movement into the mainstream, it's vital to prepare students for the future of finance. As Henri Arslanian states, the next generation of bankers will not be regarded simply as bankers. To make a difference in the banking industry they need to possess diverse expertise and implementation skills.Therefore, the essential need of the hour is to shape their financial futures as designers, programmers and creative thinkers. A theoretical approach to finance could just not be enough.

9) REFRENCES

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