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## INFLUENCE OF TECHNOLOGY ON THE PERFORMANCE OF INDIAN BANKING SECTOR

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### ABSTRACT:

Banking industry is a backbone of Indian financial system and it is afflicted by many challenging forces. One such force is revolution of information technology. In today's era, technology support is very important for the successful functioning of the banking sector. Without IT and communication we cannot think about the success of banking industry, it has enlarged the role of banking sector in Indian economy. For creating an efficient banking system, which can respond adequately to the needs of growing economy, technology has a key role to play. In past 10 years, banks in India have invested heavily in the technology such as Tele banking, mobile banking, net banking, ATMs, credit cards, debit cards, 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. Heavy investments in IT have been made by the banks in the expectation of improvement in their performance. But important in the performance depends upon, differences in the deployment, use and effectiveness of IT.

**KEYWORDS:** Banking industry, Indian financial system.

### INTRODUCTION

Information technology in banking sector refers to the use of sophisticated information and communication technologies together with computer science to enable banks to offer better services to its customers in a secure, reliable and affordable manner and sustain competitive advantage over other banks. The significance of technology is greatly felt in the financial sector in view of the competitive advantage for banks resulting in the efficient customer service.

In the development of Indian

Economy, Banking sector plays a very important and crucial role. With the use of technology there had been an increase in penetration, productivity and efficiency. It has expanded the cost adequacy as well as has helped in making little esteem exchanges practical. Electronic delivery channels, ATMs, variety of cards, web based banking, and mobile banking are the names of few outcomes of the process of automation and computerization in Indian banking sector.

### TRANSFORMATION OF INDIAN BANKING:-

Indian banking has undergone a total transformation over the last decade. Moving seamlessly from a manual, scale-constrained

environment to a technological leading position, it has been a miracle. Such a transformation takes place in such a short span of time with such a low cost.

Entry of technology in Indian banking industry can be traced back during the 1990s, the banking sector witnessed various liberalization measure. One of the major objectives of Indian banking sector reforms was to encourage operational self-sufficiency, flexibility and competition in the system and to increase the banking standards in India to the international best practises. With the ease of licensing norms, new private and foreign banks emerged-equipped with latest technology. Deregulation has opened up new

opportunities to banks to increase revenues by diversifying into investment banking, insurance, credit cards, mortgage financing, depository services etc. The role of banking is redefined from a mere intermediary to service provider of various financial services under one roof acting like a financial supermarket.

#### IMPORTANT EVENTS IN EVOLUTION OF INFORMATION TECHNOLOGY:-

- Introduction of MICR based cheque processing
- Arrival of card based payments
- Introduction of Electronic Clearing Services
- Introduction of RTGS/NEFT
- Introduction of Cheque Truncation System (CTS) or Image-based Clearing System (ICS)
- Introduction of Core Banking Solutions (CBS)
- Introduction of Automated Teller Machine (ATMs)
- Introduction of Phone and Tele Banking
- Introduction of Internet and Mobile Banking

#### RECENT IT TRENDS OF INDIAN BANKS:-

The banking industry is going through a period of rapid change to meet competition, challenges of technology and the demand of end user. Clearly technology is a key differentiator in the performance of banks. Banks need to look at innovation not just for product but for process also.

Today, technology is not only changing the environment but also the relationship with customers. Technology has not broken barriers but has also brought about superior products and channels. This has brought customer relationship into greater focus. It is likewise seen as an instrument of cost decrease and successful correspondence with individuals and organizations related with the financial business. The RBI has appointed need to the up degree of mechanical framework in money related framework. Innovation has opened new items and administrations, new market and effective conveyance channels for banking industry. IT also provides the framework for banking industry to meet challenges in the present competitive environment. IT enables to cut the cost of global fund transfer.

#### SOME OF THE RECENT IT DEVICES DESCRIBED AS BELOW:-

**Electronic Payment and Settlement System** – The most common media of receipts and payment through banks are negotiable instruments like cheques. These instruments could be used in place of cash. The inter bank cheques could be realized through clearing house systems. Initially there was a manual system of clearing but the growing volume of banking transaction emerged into the necessity of automating the clearing process.

**Use of MICR Technology** – MICR overcomes the limitation of clearing the cheques within banking hours and thus enables the customer to get the credit quickly. These are machine – readable codes added at the bottom of every cheque leaf which helped in bank and branch-wise sorting of cheques for smooth delivery to the respective banks on whom they are drawn. This no doubt helped in speeding up the clearing process, but physical delivery of cheques continued even under this partial automation.

**CTS (Check Truncation System)**– Truncation implies halting the progression of the physical checks issued by a cabinet to the drawee branch. The physical instrument is truncated sooner or later on course to the drawee branch and an electronic picture of the check is sent to the drawee branch alongside the applicable data like the MICR fields, date of introduction, exhibiting banks and so on. This would wipe out the need to move the physical instruments crosswise over branches, with the exception of in outstanding conditions, bringing about a viable decrease in the time required for installment of checks, the related expense of travel and deferrals in preparing and so on., hence accelerating the procedure of accumulation or acknowledgment of checks.

**Electronic Clearing Services (ECS)** – The ECS was the first version of “Electronic Payments” in India. It is a mode of electronic funds transfer from one bank account to another bank account using the mechanism of clearing house. It is very useful in case of bulk transfers from one account to many

accounts or vice-versa. The beneficiary has to maintain an account with the one of the bank at ECS Centre.

### There are two sorts of ECS (Electronic Clearing Service)

**ECS – Credit** – ECS Credit clearing works on the standard of 'single charge different credits' and is utilized for exchanges like installment of compensation, profit, benefits, intrigue and so on.

**ECS – Debit** – ECS Debit clearing administration works on the rule of 'single credit various charges' and is utilized by utility specialist organizations for gathering of power charges, phone bills and different charges and furthermore by banks for accumulations of standard and premium reimbursements.

**Electronic Fund Transfer (EFT)** – EFT was a nationwide retail electronic funds transfer mechanism between the networked branches of banks. NEFT furnished for reconciliation with the Structured Financial Messaging Solution (SFMS) of the Indian Financial Network (INFINET). The NEFT utilizes SFMS for EFT message creation and transmission from the branch to the bank's door and to the NEFT Center, in this way significantly improving the security in the exchange of assets.

**Continuous Gross Settlement (RTGS)** – RTGS framework is an assets exchange instrument where exchange of cash happens starting with one bank then onto the next on a 'constant' and on 'net premise'.

This is the fastest possible money transfer system through the banking channel. Settlement in 'real time' means payment transaction is not subjected to any waiting period. The transactions are settled as soon as they are processed. "Gross settlement" means the transaction is settled on one to one basis without bunching with any other transaction.

**Core Banking Solutions (CBS)** – Computerization of bank branches had started with installation of simple computers to automate the functioning of branches, especially at high traffic branches. Core Banking Solutions is the networking of the branches of a bank, so as to enable the customers to operate their accounts from any bank branch, regardless of which branch he opened the account with. The networking of branches under CBS enables centralized data management and aids in the implementation of internet and mobile banking. Besides, CBS helps in bringing the complete operations of banks under a single technological platform.

**Development of Distribution Channels** – The major and upcoming channels of distribution in the banking industry, besides branches are ATMs, internet banking, mobile and telephone banking and card based delivery systems.

**Automated Teller Machine (ATM)** – ATMs are perhaps most revolutionary aspect of virtual banking. The facility to use ATM is provided through plastic cards with magnetic strip containing information about the customer as well as the bank. In today's world ATM are the most useful tool to ensure the concept of "Any Time Banking" and "Any Where Banking".

**Phone Banking** – Clients would now be able to dial up the banks structured phone number and he by dialing his ID number will almost certainly get availability to bank's assigned PC. By utilizing Automatic voice recorder (AVR) for straightforward questions and exchanges and kept an eye on telephone terminals for muddled inquiries and exchanges, the client can really do whole non-money relating betting on phone: Anywhere, Anytime.

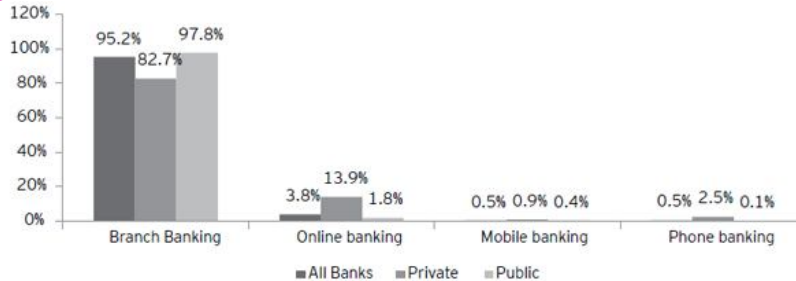
**Tele Banking** – It is another development, which gave the office of 24 hour banking to the client. Tele-banking depends on the voice preparing office accessible on bank PCs. The guest as a rule a client calls the bank whenever and can enquire balance in his record or other exchange history.

**Internet Banking** – Internet banking enables a customer to do banking transactions through the bank's website on the internet. It is system of accessing accounts and general information on bank products and services through a computer while sitting in its office or home. This is also called virtual banking.

**Mobile Banking** – Mobile banking facility is an extension of internet banking. Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device. Unlike the related internet banking it uses software, usually called an App, provided by the financial institution for the purpose. Mobile banking is usually

available on a 24 hour basis. Some financial institutions have restrictions on which accounts may be accessed through mobile banking, as well as a limit on the amount that can be transacted. Exchanges through versatile banking may incorporate getting account adjusts and arrangements of most recent exchanges, electronic bill installments, and store exchanges between a client's or another's records.

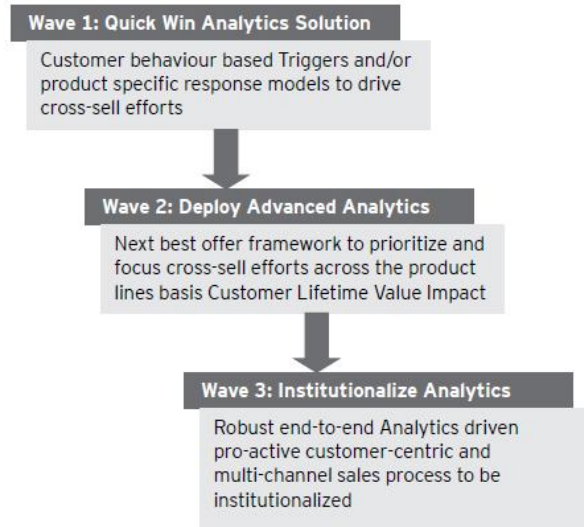
**Customer Management**



Banks need to clearly articulate and measure the expected benefits from the winning strategies which would be dependent on the value various initiatives provide customers. These include:

- Customer segmentation
- Co-creation
- CRM to customer experience
- Use of alternative channels
- Effective cross and up sell

**Business Intelligence**



India's financial industry is on the cusp of a noteworthy change, with new financial licenses expected to acquire more players in an effectively focused condition. In such a situation, banks crosswise over India are progressively embracing business insight (BI) and examination to drive their general gainfulness.

RBI has likewise urged banks to receive BI to expand straightforwardness and command over the financial business. The Automated Data Flow (ADF) activity has been a key advance toward this path, looking to guarantee accommodation of right and reliable information from banks' frameworks to the RBI with no manual intercession.

There is a wide variety in the innovation motivation and usage capacity crosswise over various players of the financial business:

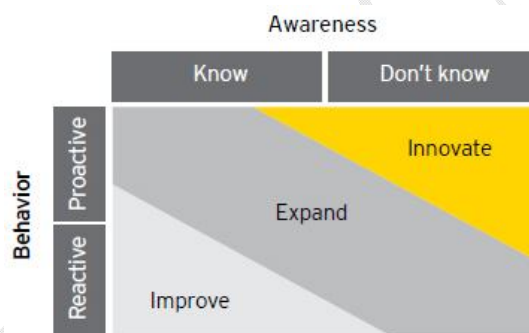
- Upgrading center financial esteem
- Revamping the digital agenda
- Moving from information to insight
- Dealing with a changing risk regime
- From cash to electronic modes of payment
- Grappling with financial inclusion
- Empowering employees
- Accelerating innovation

### Risk management and information security

The Indian Bank's Association (IBA) review and EY investigation uncovers that Core Banking System (CBS) is broadly utilized over the banks for exchange the board. In any case, its joining with hazard the board and other undertaking level applications is still at fundamental stages.

### Some key risk management methods include:

- Credit systems
- Enterprise Risk Management Systems
- Liquidity risk systems



With the advent of mobile computing, social media, cloud computing and increasing sophistication of hackers it is evident that the risk environment is changing. With more and more cases being registered under the IT Act 2000, banks can no longer ignore privacy of customers.

**Financial inclusion**

The six cornerstones pillars of financial inclusion

<p>The ability of technology to bring services to people wherever they are and whenever they need them is the biggest driver of achieving comprehensive financial inclusion.</p>	<p>Electronic payments are accelerating this drive, and new developments, including Big Data, ubiquitous internet access and cloud computing, are expected to have enormous impact.</p>	<p>Regulators should consider relaxing restrictions in areas that disproportionately affect unbanked customers, e.g., through KYC, agent banking and mobile banking.</p>	<p>Interoperability can create value for customers to attract large volumes.</p>	<p>Keeping pace with technology changes in the financial inclusion space will require significant investments in the regulatory capacity and changes made in regulatory processes.</p>	<p>Government can incentivize service providers to introduce technology-enhanced business models that improve last mile delivery by deploying their own resources, e.g., DBT payments and universal service funds.</p>
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The spread of computerized network and cell phones have made alluring open doors in the Indian money related consideration scene. Specifically, innovation guarantees to empower a huge number of individuals to get to budgetary administrations out of the blue because of its wide achieve, accommodation and ease of conveyance.

India is trying different things with a few new thoughts in money related incorporation in practically all zones requiring prompt center — banking and installment channels, innovation stages, administrative.

Significant progress is required in financial inclusion, as indicated clearly by the World Bank .

**CONCLUSION:-**

Information Technology offers enormous potential and various opportunities to the Indian Banking sector. It provides cost-effective, rapid and systematic provision of services to the customer. The efficient use of technology has facilitated accurate and timely management of the increased transaction volumes of banks which comes with larger customer base. Indian banking industry is greatly benefiting from IT revolution all over the world.

Another concept i.e Virtual Banking or Direct Banking is now gaining importance all over the world. According to this concept Banks offer products, services and financial transaction only through electronic delivery channels generally without any physical branch. Owing to lower branch maintenance and manpower cost such banks are able to offer competitive pricing for their product and services as compared to traditional banks.

The Indian banks lag far behind the international banks in providing online banking. In fact, this is not possible without creating sufficient infrastructure or presence of sufficient number of users. Technology is going to hold the keys to future of banking. So banks should try to find out the trigger of change. Indian Banks need to focus on swift and continued infusion of technology.