

# Role of Information Technology in Banking Sector

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**Abstract - Information Technology is the order of the day in all the sectors of economy all over the world. The Banking area has embraced the usage of technology to serve its clients quicker and also to do extra with much less. Emerging technologies have changed the banking enterprise from paper and department-based banks to digitalized and network banking services. Unlike before, broadband internet is cheap and it makes the switch of statistics clean and primary. Technology has modified the accounting and management gadget of all banks. Information era refers to the acquisition, processing, storage and dissemination of all sorts of records the usage of PC technology and telecommunication systems. Information technology structure is an integrated framework for acquiring and evolving it to reap strategic desires. The branches are strolling on the concept of 24 x 7 running, made feasible with the aid of the use of tele banking, ATM's, Internet Banking, Mobile Banking and E -Banking. These technologies pushed transport channels are being used to reach out to maximum quantity of clients at lower value and in most green way. The beauty of these banking improvements is that it places both banker and patron in a win- win situation. Effective use of era has a multiplier effect on growth and development.**

**Index Terms – IT, ATM, Tele-Banking, Internet-Banking.**

## I. INTRODUCTION

At the heart of any transformation strategy is the customer. The current covid 19 pandemics has highlighted to accelerate digital transformation all the sectors of the economy all over the world specially in banking sector. Banking Sector, to avoid of potential future disruptions, it has to adjust its front-end back-office operations using the business models. Adoption of new technologies such as black chain, IOT, cloud computing is the base for digitalization of banking operations. Digitalization of activities brought down interest rates and banking fee for its services drastically due to automation of business processes. The applications like artificial intelligence, automation and cloud technology etc. can speed up the

omnichannel products, functionality and services that will create loyalty and trust among the customers in banking operations.

- The present study is focused on introduction of information technology in banking sector and its impact on baking operations and user experience.
- How it has taking care of their accounting and back-office requirements.
- Customers' reactions on adoption of it in baking activities.

## II. REVIEW OF LITERATURE

### Information Technology Considerations

Since the early nineties, every Indian financial institution has done a few IT development efforts. The first and predominant compulsion is the fierce opposition. While deciding on the required architecture for the IT consideration is given to following realities.

(1.) Meeting Internal Requirement: The necessities of the banks are exclusive personally relying upon their nature and extent of enterprise focus on a particular section, spread of branches and a like. Many a time's banks do have the required data however its miles scattered. The operating gadgets seldom recognize the reason of collecting the data by way of their higher authorities.

(2.) Effective In Data Handling: As said earlier the banks have maximum of the wanted records but are disbursed. further the value of collection of statistics and setting the same to apply is prohibitively excessive. The accuracy and timeliness of information era turns into the causalities in the technique. Best of the intentions on computerization are wished away due to the fact there may be no visible reduction in price /efforts/time required for the specified records gathering.

(3). Extending Customer Services: Addressing to rising clients expectations is full-size particularly in the history of extended competition. In case bank a is

unable to provide the required service at a aggressive charge and in an correct way with velocity. There is continually a bank it at its next-door waiting to hire the client. awareness of customers approximately the availability of services and their pricing as also available alternatives have introduced into sharp recognition the difficulty of patron pride.

(4.) Creative Support for New Product Development: It has emerged as important for the banks to vitalize the process of product development. Marketing functionaries needs plenty of records not handiest from the outside resources but additionally from inside the banks. Banks are searching to retail section because the destiny market places for sales efforts. having full-fledged statistics of existing consumer is the key for this purpose. The emergences of records requirement and a suitable structure to support the same are tremendous troubles to be dealt with on this regard.

(5.) End-Person Development of The Non-Technical Staff: Banking being a provider enterprise, it's miles the staffs at counters that deliver the products. In Indian situation, virtual banking is likely to have some greater years to establish. The dependence on counter workforce is unavoidable. The staffs are big in variety and the general public is non-technical. The purchaser pride tiers at the counter determine the final advantage of it offensive. Giving due consideration to this thing in choosing structure in essential.

#### Benefits of IT

Information Technology enables sophisticated product development, higher market infrastructure, implementation of dependable techniques for manipulate of risks and helps the financial intermediaries to attain geographically remote and assorted markets. Internet has considerably stimulated delivery channels of the banks. Internet has emerged as an important medium for transport of banking services and products. The customers can view the bills; get account statements, switch funds and buy drafts by way of just punching on few keys. The Smart Card's i.e., Playing cards with microprocessor chip have brought new measurement to the state of affairs. collection of electricity bills and smartphone bills has turn out to be smooth. No doubt banking offerings have passed through drastic modifications and so additionally the expectancy of customers from the

banks has accelerated extra. Milestone in India, banks as well as other economic entities entered the sector of records era and with Indian financial net (infinite). infinite, An extensive region satellite TV for PC Primarily Based Network (WAN) Using VSAT (Very Small Aperture Terminals) Technology, became mutually installation by way of the reserve bank and institute for development and research in banking technology (IDRBT) in June

#### E-Banking

E-Banking made its debut in UK and USA 1920s. It will become prominently popular at some stage in 1960, through electronic funds switch and credit score cards. The concept of net-primarily based baking got here into existence in Europe and USA in the starting of 1980. Only inside the early nineteen nineties has there been a begin within the non-branch banking offerings. Many banks have modernized their offerings with the facilities of laptop and digital device's. The electronics revolution has made it feasible to offer ease and flexibility in banking operations to the gain of the purchaser. The E-Banking has made the purchaser say goodbye to big account registers and huge paper financial institution money owed. The E-Banks, which may additionally name as easy financial institution gives the following services to its customers:

- Credit Cards/Debit Cards
- ATM
- E- Cheque
- Demat Accounts
- Mobile Banking
- Edi (Electronic Data Interchange)

### III.BENEFITS OF E-BANKING

#### 1. Customer:

- Anywhere banking -no matter wherever the customer is in the world. balance enquiry, request for services, issuing instructions etc., from anywhere in the world is possible.
- Anytime banking - managing funds in real time and most importantly, 24 hours a day, 7days a week.
- Convenience acts as a tremendous psychological benefit all the time.

- On-line purchase of goods and services including online payment for the same.

#### 2. Bank:

- Innovative, scheme, addresses competition and present the bank as technology driven in the banking sector market
- Reduces customer visits to the branch and thereby human intervention
- Inter-branch reconciliation is instantaneous thereby reducing chances of fraud and misappropriation
- On-line banking is an effective medium of promotion of diverse schemes of the financial institution, an advertising device indeed.
- Integrated patron records paves manner for individualized and customized offerings.

### IV. RECENT DEVELOPMENTS IN BANKING SECTOR

#### (1.) Internet:

Internet is a networking of computers. In this advertising and marketing message can be transferred and received global. The statistics may be sent and obtained in any part of the sector. In no time, internet facility can do many an activity for us. it consists of the following:

- This internet can paintings as electronic mailing system.
- It may have get entry to the remote database, which can be a newspaper of overseas us
- We can exchange our ideas via internet. we can make touch with all people who is a connected with net.

#### (2.) Society for worldwide inter-bank financial telecommunications (Swift):

Swift, as a co-operative society turned into formed in May 1973 with 239 collaborating banks from 15 international locations with its headquarters at brussels. It commenced functioning in May 1977. RBI and 27 different public region banks as well as eight overseas banks in India have received the club of the swift. Swift provides have rapid, comfy, reliable and price effective mode of transmitting the monetary messages worldwide. Swift is a way of the state-of-the-art message transmission of international fame.

This is exceedingly fee powerful, dependable and secure manner of fund transfer.

#### (3.) Automated Teller Machine (Atm):

Atm is a digital gadget that is operated via the purchaser himself to make deposits, withdrawals, and other economic transactions. ATM is a step-in development in customer service. ATM facility is available to the customer 24 hours an afternoon. The customer is issued an ATM card. This is a plastic card, which bears the consumer's call. This card is magnetically coded and may be study with the aid of this gadget. Each cardholder is provided with a mystery personal identity wide variety (Pin). when the customer desires to use the card, he has to insert his plastic card in the slot of the gadget. After the cardboard is a diagnosed via the machine, The customer enters his non-public identity quantity. After setting up the authentication of the clients, The ATM follows the client to go into the amount to be withdrawn with the aid of him. After processing that transaction and locating sufficient balances in his account, the output slot of atm give the desired cash to him. when the transaction is finished, the ATM ejects the client's card.

#### (4.) Bank Internet:

Bank Internet is a primary country wide degree network in India, which became commissioned in February 1991. It is conversation network installed by way of RBI on the premise of advice of the committee appointed by using it underneath the chairmanship of the executive director T.N.A. Lyre. Bank Net Has Phases: Bank Net-I and Bank Net- II.

Areas of operation and application of bank internet:

- The message of banking transaction can be transferred inside the shape of codes from the town to the alternative.
- Quick settlement of transactions and advice.
- Improvement in customer support-withdrawal of price range is possible from any member department.
- Easy transfer of information and different statements to RBI.

#### (5.) Phone Banking:

Customers can now dial up the bank's designed smart phone range and he with the aid of dialing his id range

might be capable of get connectivity to bank's exact computer. The software supplied within the machine interactive with the PC asking him to dial the code variety of provider required by means of him and suitably solutions him. By the use of automatic voice recorder (AVR) for easy queries and transactions and manned telephone terminals for complicated queries and transactions, the patron can sincerely do entire non-cash referring to banking on phone: anywhere, anytime.

(6.) Tele-Banking:

Tele Banking is another innovation, which provided the ability of 24-hour banking to the purchaser. Tele-Banking is based totally on the voice processing facility available on financial institution computers. The caller usually a patron calls the financial institution each time and can enquire balance in his account or other transaction records. In this system, the computers at financial institution are connected to a smart phone link with the assist of a modem. Voice processing facility furnished in the software program. This software identifies the voice of caller and gives him appropriate respond. Some banks also use telephonic answering machine However that is limited to a few quick capabilities. This is handiest telephone answering machine and now tele-banking. Tele Banking is becoming popular in view that queries at ATM's are now becoming too long.

(7.) Internet Banking:

Internet Banking allows a patron to do banking transactions through the bank's internet site at the internet. It is a gadget of accessing debts and fashionable statistics on bank products and services through a laptop at the same time as sitting in its workplace or home. This is likewise called virtual banking. It is extra or much less bringing the financial institution in your computer. In traditional banking one has to technique the department in man or woman, to withdraw cash or deposit a cheque or request a statement of debts and so forth. However, internet banking has modified the way of banking. At gift you may operate a majority of these forms of transactions on his laptop via website of financial institution. All such transactions are encrypted; the use of sophisticated multilayered security structure, which

include firewalls and filters. One may be rest assured that one's transactions are comfy and personal.

(8.) Mobile Banking:

Mobile Banking facility is an extension of net banking. The financial institution is in affiliation with the cellular provider providers gives this carrier. For this provider, cell phone need to both be SMS or WAP enabled. These facilities are available even to the one's customers with handiest credit score card accounts with the financial institution.

(9.) Nri Banking Services:

This generation has been embraced in nations like India, USA, UAE, simply to say but a few. Since many humans cross overseas to work, they've a want of supporting their families. So, technology has made it easy for them to send cash to their loved ones effortlessly.

(10.) Any in which banking:

With expansion of era, it is now possible to acquire monetary info from the bank from far flung places. Automated Teller Machines are gambling an essential role in offering far flung offerings to the clients. Withdrawals from different stations were possible due to inter-station connectivity of ATM's. The Rangarajan committee had additionally cautioned the setup of atm at non-department locations, airports, motels, railway stations, office computer's, remote banking is being in addition extended to the customer's office and domestic.

## V. CHALLENGES

Important Business Challenges:

- Meet patron expectations on carrier and facility provided through the bank.
- Customer Retention.
- Managing the spread and maintain the working earnings.
- Retaining the current market proportion inside the enterprise and the enhancing the identical.
- Competition from other players inside the banking enterprise.

Important Operational Challenges:

- Frequent challenges in technology used focusing up grades in hardware and software program, attending to that implementation problems and well-timed roll out.
- Managing generation, protection and business risks.
- Defined and carried out green tactics so that it will obtain blessings off era to its fullest potential.

## VI. DATA ANALYSIS

### Analysis Based on Survey Questions

In the survey questionnaire, the researcher has used different types of survey questions to collect information.

1.You are satisfied with online banking facilities of your current bank

Key	Male	Female	Total
Strongly Disagree	10	5	15(10%)
Disagree	18	21	39(26%)
Neutral	8	4	12(10%)
Agree	34	22	56(37.3%)
Strongly Agree	20	8	28(18%)
Total	90	60	150(100%)

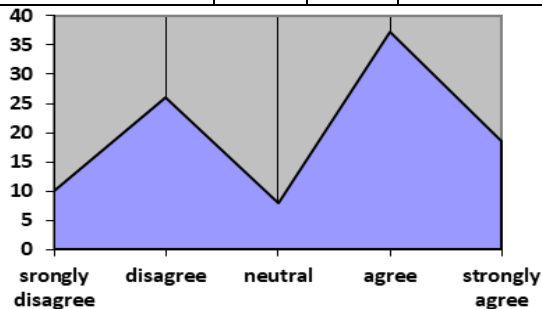


Figure-1

2.Transaction Process is Fast and Fair

Key	Male	Female	Total
Strongly Disagree	10	11	21(14%)
Disagree	14	11	25(16%)
Neutral	9	14	23(15.33%)
Agree	40	19	59(39.33%)
Strongly Agree	17	5	22(14.66%)
Total	90	60	150(100%)

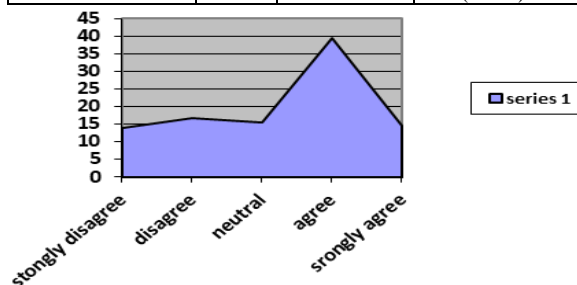


Figure-2

## VII. CONCLUSION

Indian Public Region Banks that preserve around 75 % of market share do have taken initiative in the discipline of IT. Awareness and appreciation of it are very much everywhere. What is wanted is a “big push” the way it changed and it is to be adopted by the customers. It presents fee-effective, rapid and systematic provision of services to the customers. Applications of it in banks enables sophisticated product improvement, reliable techniques for threat management, brings transparency to the machine and facilitates banking region reach geographically remote and varied markets. IT and conversation networking machine have important impact on money, capital and foreign exchange market. Banks need to have a clean strategy driven from the pinnacle and ought to make certain proper management of dangers concerned in internet banking via adopting powerful polices, strategies, and controlling measures. Policy makers and supervisors have to continuously investigate the existing framework and have to introduce required amendment in it.

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