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"RECENT TRENDS OF BANKING SYSTEM IN INFORMATION TECHNOLOGY"

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Abstract-

In the last few decades, the banking sector has witnessed a series of important transformations. These days, the Indian banking system is regarded as a well-developed and well regulated banking system throughout the world. Today the banking industry is stronger and capable of withstanding the pressures of competition. Internationally accepted prudential norms have been adopted, with higher disclosures and transparency, Indian banking industry is gradually moving towards adopting the best practices in accounting, corporate governance and risk management. The paper examines the new trends in the banking sector in India. The various opportunities for banking sector have also been discussed. The paper also discusses the Information Technology (IT) with regards to banking sector, as it plays an important role in the banking sector. Further, the future prospects of banking sector have been stressed upon.

CHAPTER 1 INTRODUCTION

Banks are the oldest, biggest and fastest growing financial sector in India. Banks meets the needs of farmers, businessman, entrepreneurs, Government and other segments of the society. Banks provide the contribution to the economic growth of a country by mobilizing the financial resources for productive purposes. Banking is the process or activity used by the banks for providing services to the customers. The banking industry in India has a huge canvas of history. Bank accepts the deposits for the purpose of lending or investment, withdrawal either by cheque, draft or otherwise. Now a day, Banks are using electronic mode for providing better, efficient, frequent, transparent, speedy services to customers. E-Banking or Internet banking is a form of electronic bank that provides financial services for the individual client by the means of internet. E-Banking provides benefits to consumers in terms of ease and cost of transaction through internet, telephone or electronic delivery.

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With the reforms in 1991, the Indian banking sector has witnessed an unprecedented growth. The major factors contributing to growth are, increase in retail credit demand, proliferation of ATMs and debit cards, decreasing NPAs due to Securitization, improved macroeconomic conditions, diversification, interest rate spreads, and regulatory and policy changes. Certain trends like growing competition, product innovation and branding, focus on strengthening risk management systems, emphasis on technology have emerged in the recent past. The Banking sector has been immensely benefited from the implementation of superior technology during the recent past, almost in every nation in the world. Productivity enhancement, innovative products, speedy transactions. and transfer of funds, real time information system and efficient risk management are some of the advantage derived through the technology. India's banking sector has made rapid strides in reforming itself to the new competitive business environment. Technological infrastructure has become an indispensable part of the reforms process in the banking system.

1.1 REVIEW OF LITERATURE

Klinkerman (2000) Facing extremely intensive competition from non-banking sector, the banking industry has adopted a more aggressive approach to fight competitors for the financial services market share. For example, a number of banks, especially some community banks, decided to provide Internet access to their customers and becoming the dominant provider of local Internet connection services for the local community, thus hoping to lock in customers to their financial institution. Avasthi & Sharma (2001) have analyzed in their study that advances in technology are set to change the face of banking business. Technology has transformed the delivery channels by banks in retail banking. It has also impacted the markets of banks. The study also explored the challenges that banking industry and its regulator face. Arora (2003) highlighted the significance of bank transformation. Technology has a definitive role in facilitating transactions in the banking sector and the impact of technology implementation has resulted in the introduction of new products and services by various banks in India. Agboola (2006) observed that payments are automated and absolute volume of cash transactions have declined under the impact of electronic transaction brought about by the adoption of ICT to the payment system particularly in the developed economies. Sobol and Cron (2006) in the article named "Impact of information Technology on Indian banks", conducted the study to find the relationship between computerization and several measures of overall firm performance. Three performance comparisons are presented: users versus non-users of computers, three levels of usage, and class of computer usage. Results indicate that computerization is related to overall performance. Non-users tend to be small firms with about average overall performance. Shetty (2006) in his study

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found that globalization in banking is based on four important pillars viz. trade in goods and services; flow of capital and movement of human beings across boundaries; harmonization of regulatory framework in different countries; and developments in technology, particularly those in information technology.

1.2 OBJECTIVES OF THE STUDY

1. To study the recent trends in Indian Banking Industry.
2. To highlight various challenges faced by banks in the changing scenario.
3. To study the opportunities available for Indian Banking Industry.
4. To study the role of Information Technology in Indian Banking Industry.

1.3 RESEARCH METHODOLOGY

This study 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, annual reports of RBI, various websites and research papers etc.

CHAPTER 2 FEATURES OF BANKINGINDUSTRY

These features have left the Indian banking sec- tor with weaknesses and strengths. A big challenge facing Indian banks is how, under the current own-ership structure, to attain operational efficiency suit- able for modern financial intermediation. On the other hand, it has been relatively easy for the public sector banks to recapitalize, given the increases in nonperforming assets (NPAs), as their Government- dominated ownership structure has reduced the con- flicts of interest that private banks would face. Public sector banks are the backbone of the Indian economy, and now more than ever, private players are entering the fray. This is good news for customers, who will be offered a widening menu of savings and loan products and innovative services like online banking: an introduction to easy transaction methods. However, it is also good news for banks, as they will be forced to improve their services and compete more aggressively to retain customers. The banking sector in India has been undergoing transformation, driven by public sector banks (PSBs). Banking is the process of storing money for future use, either in cash or by investing it. Banks are where people get money from when they need it to make payments or buy goods and services. Businesses can also borrow money to grow or expand. Banks must have a wide network of branches across the country and overseas to perform these functions effectively They must also be able to keep their records safe in computerized databases

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that cannot be easily hacked. Banks handle money and valuable items such as gold, silver, diamonds, and other precious items. They accept deposits and make loans and payments to their customers. They also provide credit cards, debit cards, checkbooks, etc.Banking institutions are divided into three categories: Commercial Banks also referred to as deposit banks - Mutual Funds, Central/State Governments Various Aspect of Banking.

- **Public sector banks-**

  Public sector banks are the backbone of the Indian economy, and now more than ever, private players are entering the fray. This is good news for customers, who will be offered a widening menu of savings and loan products and innovative services like online banking: an introduction to easy transaction methods. However, it is also good news for banks, as they will be forced to improve their services and compete more aggressively to retain customers. The banking sector in India has been undergoing transformation, driven by public sector banks (PSBs).

- **The Indian banking sector** –

  The Indian banking sector has been experiencing a wave of change over the past decade. The growth in mobile banking and biometrics have, to an extent, affected the traditional business models of banks. However, most banks have shown tremendous resilience to these changes through adaptability and innovation.the banking sector has become most relevant for everyone. Through online banking, we can do our transactions from anywhere and at any time. The Internet has made sending money and transferring funds from one account to another at no cost. The government's extensive recapitalisation exercise of public banks over the years has also helped these lenders become more self-sufficient. As public banks still dominate the Indian banking landscape, the good health of these banks is of utmost importance for credit and GDP growth. Banking sector's outlook

- **The banking sector's outlook**

  The banking sector's outlook has improved, with asset quality and growth metrics possibly looking at their best over the last decade. The Reserve Bank of India (RBI), in its Financial Stability Report for June, showed India's gross net performing assets' ratio falling to a six-year low of 5.9% in March, highlighting the banking system's rising ability to support economic growth.

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CHAPTER 3 RECENT TRENDS IN BANKING IN INDIA

The Indian banking industry has transformed itself in a big way. The various new trends witnessed by banking sector are as follows: Electronic Payment Services: Now-a-days we witness some concepts like e-governance, e-mail, e-commerce, e-tail etc. In the same manner, a new technology is being developed in US for introduction of e-cheque, which will eventually replace the conventional paper cheque. India, as harbinger to the introduction of e-cheque, the Negotiable Instruments Act has already been amended to include; Truncated cheque and E-cheque instruments. Real Time Gross Settlement (RTGS): Real Time Gross Settlement system was introduced in India since March 2004, through which electronics instructions can be given by banks to transfer funds from their account to the account of another bank. The RTGS system is maintained and operated by the RBI and provides a means of efficient and faster funds transfer among banks facilitating their financial operations. As the name suggests, funds transfer between banks takes place on a „Real Time" basis. Therefore, money can reach the beneficiary instantly. Electronic Funds Transfer (EFT): Electronic Funds Transfer (EFT) is a system whereby anyone who wants to make payment to another person/company etc. can approach his bank and make cash payment or give instructions/authorization to transfer funds directly from his own account to the bank account of the receiver/beneficiary. Complete details such as the receiver's name, bank account number, account type, bank name, city, branch name etc. should be furnished to the bank at the time of requesting for such transfers so that the amount reaches the beneficiaries" account correctly and faster. Electronic Clearing Service (ECS): Electronic Clearing Service is a retail payment system that can be used to make bulk payments/receipts of a similar nature especially where each individual payment is of a repetitive nature and of relatively smaller amount. This facility is meant for companies and government epartments to make/receive large volumes of payments. Automatic Teller Machine (ATM): Automatic Teller Machine is the most popular device in India, which enables the customers to withdraw their money 24 hours a day 7 days a week. It is a device that allows customer who has an ATM card to perform routine banking transactions without interacting with a human teller. In addition to cash withdrawal, ATMs can be used for payment of utility bills, funds transfer between accounts, deposit of cheques and cash into accounts, balance enquiry etc. Point of Sale Terminal: Point of Sale Terminal is a computer terminal that is linked online to the computerized customer information files in a bank and magnetically encoded plastic transaction card that identifies the customer to the computer. During a transaction, the customer's account is debited and the re tailor's account is credited by the computer for the amount of purchase. Tele Banking: Tele Banking facilitates the customer to

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do entire non-cash related banking on telephone. Under this device Automatic Voice Recorder is used for simpler queries and transactions. For complicated queries and transactions, manned phone terminals are used. Mobile Van Banking: along with technological advancement, a whole bank side can compress right laptop, which can be carried anytime by a method, there by developing a many selections in cellular banking. Many banks also have started mobile/motorbike banking. Lobby Banking: Reception banking provides the a world-wide web banking kiosk, cell phone banking, examine drop capability and ATM, all in a tailor created lobby, such as premises. Pretty much, it implies machine, primarily based, staff- much less banking where in every transactions are generally executed simply by self-managed machines. Electronic Data Interchange (EDI): Electronic Data Interchange is the electronic exchange of business documents like purchase order, invoices, shipping notices, receiving advices etc. in a standard, computer processed, universally accepted format between trading partners. EDI can also be used to transmit financial information and payments in electronic form. The banks were quickly responded to the changes in the industry; especially the new generation banks. The continuance of the trend has re-defined and re-engineered the banking operations as whole with more customization through leveraging technology. As technology makes banking convenient, customers can access banking services and do banking transactions any time and from any ware. The importance of physical branches is going down.

(1.) Internet:

Internet is a networking of computers. In this marketing message can be transferred and received worldwide. The data can be sent and received in any part of the world. In no time, internet facility can do many a job for us.

It includes the following:

- This net can work as electronic mailing system.
- It can have access to the distant database, which may be a newspaper of foreign country.
- We can exchange our ideas through Internet. We can make contact with anyone who is a linked with internet.

(2.) Society for Worldwide Inter-bank Financial Telecommunications (SWIFT):

SWIFT, as a co-operative society was formed in May 1973 with 239 participating banks from 15 countries with its headquarters at Brussels. It started functioning in May 1977. RBI and 27 other public sector banks as well as 8 foreign banks in India have obtained

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the membership of the SWIFT. SWIFT provides have rapid, secure, reliable and cost effective mode of transmitting the financial messages worldwide. SWIFT is a method of the sophisticated message transmission of international repute. This is highly cost effective, reliable and safe means of fund transfer.

(3.) Automated Teller Machine (ATM):

ATM is an electronic machine, which is operated by the customer himself to make deposits, withdrawals and other financial transactions. ATM is a step in improvement in customer service. ATM facility is available to the customer 24 hours a day. The customer is issued an ATM card. This is a plastic card, which bears the customer‟s name. This card is magnetically coded and can be read by this machine. Each cardholder is provided with a secret personal identification number (PIN). When the customer wants to use the card, he has to insert his plastic card in the slot of the machine. After the card is a recognized by the machine, the customer enters his personal identification number. After establishing the authentication of the customers, the ATM follows the customer to enter the amount to be withdrawn by him. After processing that transaction and finding sufficient balances in his account, the output lot of ATM give the required cash to him. When the transaction is completed, the ATM ejects the customer‟s card.

(4.) Bank net:

Bank net is a first national level network in India, which was commissioned in February 1991. It is communication network established by RBI on the basis of recommendation of the committee appointed by it under the chairmanship of the executive director T.N.A. Lyre. Bank net has two phases: Bank net-I and Bank net-

3.1 Areas of Operation and Application of Bank net:

- The message of banking transaction can be transferred in the form of codes from the city to the other.
- Quick settlement of transactions and advices.
- Improvement in customer service-withdrawal of funds is possible from any member branch.
- Easy transfer of data and other statements to RBI.

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(5) **Phone Banking:**

Customers can now dial up the bank‟s designed telephone number and he by dialing his ID number will be able to get connectivity to bank‟s designated computer. The software provided in the machine interactive with the computer asking him to dial the code number of service required by him and suitably answers him. By using Automatic voice recorder (AVR) for simple queries and transactions and manned phone terminals for complicated queries and transactions, the customer can actually do entire non-cash relating banking on telephone: Anywhere, Anytime.

(5.) Tele-banking:

Tele banking is another innovation, which provided the facility of 24 hour banking to the customer. Tele-banking is based on the voice processing facility available on bank computers. The caller usually a customer calls the bank anytime and can enquire balance in his account or other transaction history. In this system, the computers at bank are connected to a telephone link with the help of a modem. Voice processing facility provided in the software. This software identifies the voice of caller and provides him suitable reply. Some banks also use telephonic answering machine but this is limited to some brief functions. This is only telephone answering system and now Tele-banking. Tele banking is becoming popular since queries at ATM‟s are now becoming too long

(6.) Internet Banking:

Internet banking enables a customer to do banking transactions through the bank‟s website on the Internet. It is a 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. It is more or less bringing the bank to your computer. In traditional banking one has to approach the branch in person, to withdraw cash or deposit a cheque or request a statement of accounts etc. but internet banking has changed the way of banking. At present one can operate all these type of transactions on his computer through website of bank. All such transactions are encrypted; using sophisticated multilayered security architecture, including firewalls and filters. One can be rest assured that one‟s transactions are secure and confidential.

(7.) Mobile Banking:

Mobile banking facility is an extension of internet banking. The bank is in association

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with the cellular service providers offers this service. For this service, mobile phone should either be SMS or WAP enabled. These facilities are available even to those customers with only credit card accounts with the bank.

(8.) 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.

(9.) Anywhere Banking:

With expansion of technology, it is now possible to obtain financial details from the bank from remote locations. Automated Teller Machines are playing an important role in providing remote services to the customers. Withdrawals from other stations have been possible due to inter-station connectivity of ATM‟s. The Rangarajan committee had also suggested the installation of ATM at non-branch locations, airports, hotels, Railway stations, Office Computers, Remote Banking is being further extended to the customer‟s office and home[1]

CHAPTER 4 CHALLENGES

Customer Satisfaction: Today in sector customers are more value oriented in their services because they have alternative choices in it. So that each and every bank have to take care about fulfill of our customer's satisfaction. To provide several personnel services: The present times demands that banks to provide several services for which they have to expanse in service, social banking with financial possibilities, selective upgradation, computerization and innovative mechanization, better customer services, effective managerial culture, internal supervision and control, adequate profitability, strong organization culture etc. Therefore, banks must be able to provide complete personal service to the customers who come with expectations. Retail Lending: Recently banks have adopted customer segmentation which has helped in customizing their product folios well. Thus retail lending has become a focus area particularly in respect of financing of consumer durables, housing, automobiles etc., Retail lending has also helped in risks

[1] Dhanwani, S.K. (2014), "Recent Trends in Indian Banking Industry", Abhinav, Volume 02, Issue 03, pp. 60-63

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dispersal and in enhancing the earnings of banks with better recovery rates. Indian Customers: The biggest opportunity for the Indian banking sector today is the Indian customers. The Indian customers now see to fulfil his lifestyle aspirations at a younger age with an optimal combination of equity and debt to finance consumption and asset creation. He represents across cities, towns and villages i.e. in rural areas. Consumer goods companies are already tapping this potential is for the banks to make the most of the opportunity to deliver solutions to this mark. Technological challenges: It is due to lack of awareness regarding technology that customers are not gaining momentum in its used. There is lack of proper infrastructure for the installation of E-delivery channels.

Security problem: The main disadvantage of e-banking is the security problems that surround it. It's fact that making transactions online possess a much bigger risk compared to making transactions in a physical branch. This is due to hacking problems and identity theft.

CHAPTER 5 OPPORTUNITIES

The various opportunities that the new trends bring for the development of banking sector are mentioned below: Internet Banking: It is clear that online finance will pick up and there will be increasing convergence in terms of product offerings banking services, share trading, insurance, loans, based on the data warehousing and data mining technologies. Anytime anywhere banking will become common and will have to upscale, such up scaling could include banks launching separate internet banking services apart from traditional banking services. Retail Lending: Recently banks have adopted customer segmentation which has helped in customizing their product folios well. Thus retail lending has become a focus area particularly in respect of financing of consumer durables, housing, automobiles etc., Retail lending has also helped in risks dispersal and in enhancing the earnings of banks with better recovery rates. Rural area customers: Contributing to 70% of the total population in India is a largely untapped market for banking sector. In all urban areas banking services entered but only few big villages have the banks entered. So that the banks should tap the rural market in the years to come. Offering various Channels: Banks can offer so many channels to access their banking and other services such as ATM, Local branches, Telephone banking, mobile banking, video banking etc. to increase the banking business.

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- **Other Opportunities**:

  There are many other opportunities in future in the field of Indian banking sector e.g. to enter new business and new markets, to improve efficiency, to deliver high level of customer services.

CHAPTER 6 INFORMATION TECHNOLOGY IN BANKING

Indian banking industry is going through IT revolution. A combination of regulatory and competitive reason has led to increasing importance of total banking automation in the Indian Banking Industry. Infrmation Technology is basically used in two different ways in banking, firstly in Communication and Connectivity and secondly in Business Process Reengineering. Information technology enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets. To compete in today's economic environment, it is imperative for the Indian Banks to adopt the latest technology. Banks not only need greatly enhanced use of technology to the customer friendly, efficient and competitive business, but they also need technology for providing newer products and newer forms of services in an increasingly dynamic and globalize environment. Information technology offers a chance for banks to build new systems that address a wide range of customer needs including many that may not be imaginable today.

- It is becoming increasingly imperative for banks to assess and ascertain the benefits of technology implementation. Banks should use technology with precautions and the safety nets
- The increasing use of technology in banks has also brought up „security" concerns. To avoid any pitfalls or mishaps on this account, banks ought to have in place a well-documented security policy including network security and internal security. The passing of the Information Technology Act has come as a boon to the banking sector, and banks should abide such rules and regulations. An effort should also be made to cover e-business in the country's consumer laws.
- Some are investing in it to drive the business growth, while others are having no option but to invest, to stay in business. The choice of right channel, justification of IT investment on ROI, e-governance, customer relationship management, security concerns, technological obsolescence, mergers and acquisitions, penetration of IT in rural areas, and outsourcing of IT operations are the major challenges and issues in the use of IT in

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banking operations. The main challenge, however, remains to motivate the customers to increasingly make use of IT while transacting with banks. For small banks, heavy investment requirement is the compressing need in addition to their capital requirements.

- The banks may have to reorient their resources in the form of reorganized branch networks, reduced manpower, dramatic reduction in establishment cost, increasing the skills of the staff and innovative ways of attracting talented managerial pool. The Government of India and the Reserve Bank of India (RBI) on their part would strengthen the existing norms in terms of governing and directing the functioning of these banks. Banks needs to strengthen their audit function. They would be evaluated based on their performance in the market place

6.1 The impact of technology in banking

As technology continues to advance at a rapid pace, the banking industry has been quick to adopt new tools and techniques to enhance the customer experience, increase efficiency, and improve security. From mobile banking to blockchain, technology is changing the way we interact with financial institutions and manage our money.

One of the most significant impacts of technology in banking is the rise of digital banking. With the widespread use of smartphones and the internet, banks have developed mobile apps and online platforms that allow customers to perform a range of financial transactions from the comfort of their own homes. This has made banking more convenient and accessible than ever before, enabling customers to check their account balances, transfer funds, and pay bills with just a few clicks.

Another area where technology is making a big impact is in the fight against fraud and cybercrime. Banks are investing heavily in cybersecurity measures to protect against cyberattacks and data breaches, and are using advanced analytics and machine learning to identify and prevent fraudulent activity. This not only protects customers' money and personal information but also helps to maintain the integrity of the financial system as a whole.

Blockchain is another technology that is starting to have a major impact on banking. By providing a secure, decentralized ledger of transactions, blockchain has the potential to reduce costs, increase transparency, and improve the speed and efficiency of financial transactions. This is particularly relevant for international transactions, where blockchain can eliminate the need for

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intermediaries and reduce settlement times from days to just minutes.

Overall, technology is transforming the banking industry in a multitude of ways, from improving customer experiences to increasing security and reducing costs. As new technologies continue to emerge, we can expect to see even more innovation in the financial sector in the years to come[2]

CHAPTER 7 ROLE OF IT IN BANKING SECTOR

As Information Technology (IT) advances, the banking industry continues to change. In recent years, the incorporation of IT has fundamentally changed the way banks run, converting conventional banking procedures into highly effective and client-focused platforms. This abstract seeks to give a thorough overview of the important role information technology plays in the banking industry.

Information Technology has significantly increased the operational effectiveness of banks. Automation has greatly decreased manual labour, minimised errors, and increased overall productivity for regular jobs including account administration, transaction processing, and document verification.

Secondly, information technology has revolutionized customer interactions and experiences in the banking sector. Internet banking, mobile banking applications, and digital payment solutions have empowered customers with round-the-clock access to their accounts, enabling transactions, bill payments, and fund transfers at their convenience. Furthermore, IT has facilitated the development of personalized services by analyzing customer data, allowing banks to offer tailored products and recommendations, thereby strengthening customer relationships and satisfaction.

Moreover, IT has contributed to enhancing the security and risk management practices in the banking sector. Advanced security measures, including encryption, biometric authentication, and real-time fraud detection systems, have been integrated into banking systems to protect customer data and prevent unauthorized access. IT-driven analytics and predictive models enable banks to assess credit risks, detect potential fraudulent activities, and ensure compliance with regulatory

[2] Avasthi G P M (2000-01), "Information Technology in Banking: Challenges for Regulators", Prajnan, Vol. XXIX, No. 4, pp. 3 – 17

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frameworks, thereby safeguarding the financial interests of customers and the stability of the banking industry.

Finally, the adoption of emerging technologies, such as artificial intelligence, blockchain, and big data analytics, presents immense opportunities for the banking sector. AI-powered chatbots and virtual assistants offer personalized customer support, while blockchain technology ensures secure and transparent transactions. Big data analytics enables banks to derive valuable insights from vast amounts of data, facilitating data-driven decision-making and driving innovation.

On the whole information technology has become an indispensable part of the banking sector, revolutionizing operations, enhancing customer experiences, ensuring security and risk management, promoting financial inclusion, and unlocking opportunities for further growth. As technology continues to evolve, banks must adapt and harness the power of IT to stay competitive and meet the ever-changing demands of customers in the digital era.

7.1 INFORMATION TECHNOLOGY CONSIDERATIONS -

Since the early nineties, each Indian bank has done some IT improvement effort. The first and foremost compulsion is the fierce competition. While deciding on the required architecture for the IT consideration is given to following realities.

(1.) Meeting Internal Requirement:

The requirements of the banks are different individually depending upon their nature and volume of business focus on a particular segment, spread of branches and a like. Many a time‟s banks do have the required information but it is scattered. The operating units seldom know the purpose of gathering the information by their higher authorities.

(2.) Effective in Data Handling:

As stated earlier the banks have most of the needed data but are distributed. Further the cost of collection of data and putting the same to use is prohibitively high. The accuracy and timeliness of data generation becomes the causalities in the process. Best of the intentions on computerization are wished away because there is no visible reduction in cost /efforts/time required for the required data gathering.

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(3.) Extending Customer Services:

Addressing to rising customers' expectations is significant particularly in the background of increased competition. In case bank A is unable to provide the required service at a competitive price and in an accurate manner with speed. There is always a bank IT at its next-door waiting to hire the customer. Awareness of customers about the availability of services and their pricing as also available options have brought into sharp focus the issue of customer satisfaction.

(4.) Creative Support for New Product Development:

It has become necessary for the banks to vitalize the process of product development. Marketing functionaries needs a lot of information not only from the outside sources but also from within the banks. Banks are looking to retail segment as the future market places for sales efforts. Having full-fledged information of existing customer is the key for this purpose. The emergences of data requirement and an appropriate architecture to support the same are significant issues to be handled in this regard.

(5.) End-user Development of the Non-Technical Staff:

Banking being a service industry, it is the staffs at counters that deliver the products. In Indian scenario, virtual banking is likely to have a few more years to establish. The dependence on counter staff is unavoidable. The staffs are large in number and the majority is non-technical. The customer satisfaction levels at the counter determine the ultimate benefit of IT offensive. Giving due consideration to this aspect in choosing architecture in necessary.

7.2 BENEFITS OF IT

Information Technology enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets. Internet has significantly influenced delivery channels of the banks. Internet has emerged as an important medium for delivery of banking products and services. The customers can view the accounts; get account statements, transfer funds and purchase drafts by just punching on few keys. The smart card's i.e., cards with microprocessor chip have added new dimension to the scenario. Collection of Electricity bills and telephone bills has become easy. No doubt banking services have undergone drastic changes and so also the expectation of customers from the banks has increased greater.

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7.3 E-BANKING

E-banking made its debut in UK and USA 1920s. It becomes prominently popular during 1960, through electronic funds transfer and credit cards. The concept of web-based baking came into existence in Europe and USA in the beginning of 1980. Only in the early 1990s has there been a start in the non-branch banking services. Many banks have modernized their services with the facilities of computer and electronic equipment's. The electronics revolution has made it possible to provide ease and flexibility in banking operations to the benefit of the customer. The e-banking has made the customer say good-bye to huge account registers and large paper bank accounts. The e-banks, which may call as easy bank offers the following services to its customers:

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

7.4 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 immediate thereby reducing chances of fraud and misappropriation
- On-line banking is an effective medium of promotion of various schemes of the bank, a marketing tool indeed.

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- Integrated customer data paves way for individualized and customized services.

CHAPTER 8 TECHNOLOGY AND INNOVATIONS IN BANKING

Technology has opened up new markets, new products, new services and efficient delivery channels for the banking industry. The various technological platforms provided by the banks to its customers bring greater flexibility and operational convenience by providing computerised banking environment. Major technology and innovation banking sector in India are:

- APPLICATIONS PROGRAMMING INTERFACE(API)
- Innovation Labs
- UPI
- Digital Wallets
- Wearable Technology
- The 3 Big B's
- Real time gross settlement(RTGS)
- National Electronic Funds Transfer (NEFT)
- Electronic fund transfer
- Point of sale (POS)
- Electronic Clearing Service (ECS)

CHAPTER 9 APPLICATIONS PROGRAMMING INTERFACE(API)

An API (Application Programming Interface) is an interface that allows to synchronize, link and connect the database of service with any application. Their implementation in the banking system is basically the same: they link a bank's database (its customers' information) with different applications or programs, thus forming a network encouraging the promotion of services, payments, and products appropriate to each person. Its benefits range from cost reduction, optimization of services, reduction of time spent on transactions, increased revenue and facilitation in all the needs of those who accept it.

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ϖ Innovation Labs:

Many banks have adopted proactive strategy by establishing their own internal innovation labs. Innovation labs operate with the primary objective of evaluating and adopting emerging technologies and contribute to bank‟s motive of digitalization. Eg: AXIS Bank has set up its Innovation Lab named Thought Factory

ϖ UPI :

National Payments Corporation of India (NPCI) launched Unified Payments Interface (UPI) in 2016 with 21 member banks. UPI is a system that powers multiple bank accounts into a single mobile application, merging several banking features and seamless fund routing. UPI has been considered as the revolutionary product in payment system. Example: BHIM app, Google Tez, Paytm,SBI Pay, BOB UPI, Axis Pay

ϖ Digital Wallets:

Digital Wallets allow an individual to make electronic transactions using a smartphone. Awareness and use of e-wallets increased post demonitisation in India. It is indeed one step towards "less cash" economy. Example: mRupee, ICICI Pockets, HDFC PayZapp, Citi MasterPass, YONO SBI ϖ Wearable Technology : "To wear your bank on your wrist" is a reality today. Smart watch banking helps the customers check their balance, get fraud alerts, carry out both financial and information transactions and offers many more services, all on their wrist. In India, ICICI has launched an app named iWear for all smart watches. ICICI is among few global players allowing transactions using this app on both Apple and Android platforms. As technology is redefining banking, wearable banking and transactions via smart watches and smart glasses is gearing up as a key trend

- **The 3 Big B's :**

The 3 Big B‟s prominently trending today in Indian banking sector are Biometrics, Blockchain and Big Data Analytics.

1) **Biometrics**:-

Biometrics technology makes use of biological data and behavioural characteristics that differentiates one human being from another. Biometrics is secure and cost effective method for authentication process of the customers of the bank. It eliminates the burden

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of remembering passwords, PINs and card numbers. Biometrics application in banking sector

2) **Blockchain:-**

A blockchain is a data structure that is used to create a digital ledger of transactions and share it among a distributed network of computers. The underlying principle used is cryptography, wherein each participant on the network is allowed to manipulate the ledger in a secure way without the need for a central authority. Present day applications in India In October 2016, ICICI Bank carried out India‟s first international trade transaction and overseas remittances using blockchain technology. ICICI partnered with Dubai‟s largest bank Emirates NBD for this project. AXIS Bank and YES Bank too are working on blockchain technology.

3) **Big Data Analytics** :-

Big Data are said to be extremely huge data set that has to be analysed, handled, managed and validated through typical data management tools. Indian banks have millions of customers. The data of these customers is stored in the database. Retrieving the data in meaningful manner becomes a complex process as many times the data collected is unorganized. Big Data Analytics helps in resolving this problem. To achieve competitive edge in today‟s modern banking era, banks in India are using data analytics to attract new customers, retain them and make the entire process consumer centric.

ϖ Real time gross settlement(RTGS):

Real time gross settlement is a fund transfer system. Settlement in “real time” means the transactions happen almost immediately “grosssettlement “means transaction is settled one to one basis. This is mainly used for transaction which high in value and need to be cleared immediately. Real Time Gross Settlement system, introduced in India since March 2004, is a system through which electronics instructions can be given by banks to transfer funds from their account to the account of another bank. The RTGS system is maintained and operated by the RBI and provides a means of efficient and faster funds transfer among banks facilitating their financial operations.

ϖ National Electronic Funds Transfer (NEFT):

According to Reserve Bank of India, National Electronic Funds Transfer (NEFT) is a nation-wide payment system to facilitate one-to-one funds transfer. Under NEFT, individuals, firms and

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corporates can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in the Scheme. The funds under NEFT can be transferred by individuals, firms or corporates maintaining accounts with a bank branch. Even individuals not having a bank account can deposit cash at the NEFT-enabled branches with instructions to transfer funds using NEFT. However, such cash remittances will be restricted to a maximum of Rs.50, 000/- per transaction. Such walk-in-customers have to furnish full details including complete address, telephone number, etc. NEFT, thus, also help in transfer of funds even without having a bank account. This is a simple, secure, safe, fastest and cost effective way to transfer funds especially for Retail remittances.

ϖ Electronic fund transfer:

It is a system of transforming money from one bank account direct to another without any paper money charging hands. Direct deposits are one of the most widely used EFT program. It refers transfer of funds initiated through on electronicterminal, including credit cards, ATM, and point of sale transactions. It used for both credit transfer and debit transfer. Electronic fund transfer transactions are processed through the automated clearing house network. The growing popularity of EFT for online bill payment in paying the way for paperless universe where checks, stamps, envelops, and paper bills are obsolete. Through EFT administrative costs should be reduced, increase efficiency, simplified bookkeeping and greater security.

ϖ Point of sale (POS):

Point of Sale Terminal is a computer terminal that is linked online to the computerized customer information files in a bank and magnetically encoded plastic transaction card that identifies the customer to the computer. During a transaction, the customer's account is debited and the retailer's account is credited by the computer for the amount of purchase.

ϖ Electronic Clearing Service (ECS):

Electronic Clearing Service is retail payment systems that can be used to make bulk payments/receipts of a similar nature especially where each individual payment is of repetitive nature and of relatively smaller amount. This facility is meant for companies and government departments to make/receive large volumes of payments rather than for funds transfers by individuals.

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CHAPTER 10 IMPACT OF FINTECH IN BANKING

10.1 What is Fintech?

Fintech is an umbrella term for any technological innovation in financial services. It includes various financial services like mobile payments, online banking, and peer-to-peer lending. Fintech companies are often startups that use technology to provide financial services more efficiently and cost-effectively.

The term Fintech refers to the use of technology to provide financial services to customers.
It can range from online banking services to mobile payment platforms and digital currencies. Fintech companies use cutting-edge technology to provide customers with innovative financial services that are often faster, cheaper, and more convenient than traditional banking services.

10.2 The Rise of Fintech

The rise of Fintech has been fueled by several factors, which include the increasing use of mobile devices, the rise of e-commerce, and the rising demand for faster and more convenient financial services. Fintech companies have been able to leverage these trends to develop innovative financial products and services that are disrupting the traditional banking industry.

Fintech has been on the rise for several years, and its growth shows no sign of slowing down.
In 2019, global Fintech investments reached $135.7 billion, up from $111.8 billion in 2018. The demand for more innovative financial services and the growing adoption of digital technology drive this growth.

10.3 How is Fintech Disrupting Traditional Banking?

Fintech is disrupting traditional banking in several ways:
First, Fintech companies provide consumers with alternative ways to access financial services. It includes mobile banking, online banking, and peer-to-peer lending.

Second, Fintech companies use technology to provide financial services at a lower cost. It is because Fintech companies have lower overhead costs than traditional banks.

Third, Fintech companies are providing consumers with more personalized financial services. They use data analytics and artificial intelligence to analyze consumer behavior and offer customized financial products and services.

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10.4 Advantages of Fintech companies

Here are three key advantages of Fintech companies:

1. Convenience and accessibility:

Fintech companies often use digital channels to offer financial services, making it easier and more convenient for customers to access and manage their finances. Customers can perform transactions, such as making payments, transferring funds, and checking account balances, from the convenience of their own residences using computers or mobile devices.This level of accessibility is especially beneficial for people who live in remote locations.

2. Lower operating costs:

Fintech companies have lower operating costs than traditional financial institutions because they don't have to maintain physical branches or large staff teams. It allows them to offer lower fees and interest rates to their customers. In addition, fintech companies often use algorithms and automation to streamline their operations, minimizing the need for manual labor and the possibility of human error.

3. Innovation and customization:

Fintech companies are often founded by entrepreneurs with technology backgrounds, allowing them to approach financial services in new and innovative ways.

To enhance their products and services, they continually experiment with new technologies such as artificial intelligence and machine learning. can benefit from personalized financial solutions tailored to their specific needs and preferences.

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10.5 Impact of Fintech on Traditional Banking

The rise of Fintech has had a substantial impact on traditional banking. Fintech companies have challenged the dominance of traditional banks, offering innovative financial products and services that are often more convenient, faster, and cheaper. As a result, traditional banks have been forced to adapt to new technologies and improve their services to remain competitive.

One of the ways that traditional banks have responded to the rise of Fintech is by investing in new technologies and developing their digital banking services. It has enabled traditional banks to offer customers various digital banking services, including online banking, mobile banking, and digital wallets. Traditional banks have also embraced data and analytics to provide more personalized financial services to customers.

Another way that traditional banks have responded to the rise of Fintech is by partnering with Fintech companies.

By partnering with Fintech companies, traditional banks can offer their customers access to innovative financial products and services without developing them in-house. It has enabled traditional banks to remain competitive while providing customers with a broader range of financial services.

10.6 Challenges for Fintech Companies

While Fintech companies are disrupting traditional banking, they also face several challenges. One of the main challenges is regulation. Fintech companies are often subject to less regulation than traditional banks, which can lead to a lack of consumer trust.

Fintech companies also need help with funding. While the amount of investment in Fintech is growing, it is still concentrated in a few large companies. It means that smaller Fintech companies may need help securing funding.

Financial technology's (fintech) impact on conventional banking has been nothing short of transformative. By providing different avenues for people and businesses to obtain financial services, fintech firms and innovations have disrupted the banking sector. Customer experience improvement is one of the most notable effects. Fintech businesses have brought about user-friendly interfaces, speedier account setup procedures, and 24/7 access to financial services via

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smartphones and laptops. Due to this, conventional banks have been compelled to modernize their digital systems and services in order to meet client expectations.

Additionally, the efficiency of financial transactions has grown dramatically as a result of fintech. Digital wallets, peer-to-peer lending, and blockchain technology have all expedited payment procedures, cut down on transaction fees, and minimized the need for middlemen. As a result, traditional banks have been obliged to review their charge schedules and consider how to maintain their competitiveness in the face of less expensive fintech options.

Recognizing the difficulties that fintech presents for conventional banks is necessary, though. Given that fintech operations are increasingly worldwide, these institutions must traverse a complicated regulatory environment to maintain compliance with financial regulations and protect customer data. As more financial transactions take place online, worries about cybersecurity and data privacy have also increased.

Fintech has also boosted competition, which could reduce traditional banks' profit margins. Traditional banks are increasingly collaborating with or investing in fintech firms in order to take advantage of their innovations and remain relevant in this rapidly changing market.

In conclusion, fintech has significantly improved traditional banking's accessibility, effectiveness, and innovation, which has benefited customers. However, it has also brought about issues with regulation, cybersecurity, and competition. The banking sector's future performance in the fintech era will depend on how well it can adjust to these changes.[3]

CHAPTER 11 AI: AN AID TO BANKING SECTOR

India's financial sector relies heavily on technology. The Indian banking sector is testing with AI to enhance client experience. The banking industry has embraced cutting-edge technology in a variety of ways, from basic banking and payment systems to risk management and, more recently, digital efforts. Artificial intelligence (AI), as described by John McCarthy as "the science and engineering of making intelligent machines," has been around for decades. Because of its vast potential, its adoption has been dubbed the fourth industrial revolution. The banking industry, in

[3] impact-financial-technology-fintech-traditional-banking-ravneet-singh?utm_source=share&utm_medium=member_android&utm_campaign=share_via

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particular, is undergoing a digital change. The banking business in India has evolved from a people-driven one to a machine-driven model in recent years. Global spending on AI applications has surged from $4 billion in 2015 to 5.1 billion dollars presently, according to a 2017 PwC Fintech India study. In the fields of business, management, operations, and finance, the banking industry has discovered the usage of AI. If it is to keep abreast of the competitive times and provide speedy services to its consumers, the banking sector cannot remain unaffected by technology. AI is utilised for personalised financial services, underwriting, smart wallets, voice aided banking, application to assist in lending decisions, customer assistance, and digitization, to name a few. More banks are embracing new technologies like artificial intelligence (AI), cloud computing, and block chain to cut operating costs and boost efficiency. The expansion and development of the AI business will increase productivity while cutting prices. Emerging technologies such as block chain and analytics are being eagerly anticipated by banks as a live defence. Banks are incorporating artificial intelligence into their front, middle, and back offices. The bank offices are a network of self-service terminals that provide consumers with a variety of value-added e-services. AI can assist with data structuring and sorting, as well as assisting the banking sector in utilising data to better customer relationships. The impact of AI is far-reaching and even individual customers profit from its use. Because of the government's ambitions to drive India into a digital economy, AI is unavoidable in the banking sector. This could only be realised if India's financial sector made considerable use of AI. Artificial intelligence (AI) has emerged as a major game changer in the Indian banking industry.

11.1 WHY IS ARTIFICIAL INTELLIGENCE USED IN THE BANKING INDUSTRY?

Artificial intelligence holds a lot of promise for the banking industry's advancement and expansion.It automates and streamlines the working process. Here are some of the most important reasons for banks to use AI:

In the banking industry, there are numerous problems.

- Extensive challenges in the banking sector.
- Thrust for an activity that is based on interaction.
- Self-administration should be started in the branches.
- Reduce your workload.
- Obtain substantial insights by collecting and analysing relevant data.
- Boost banking revenue
- Systemize your risk management.

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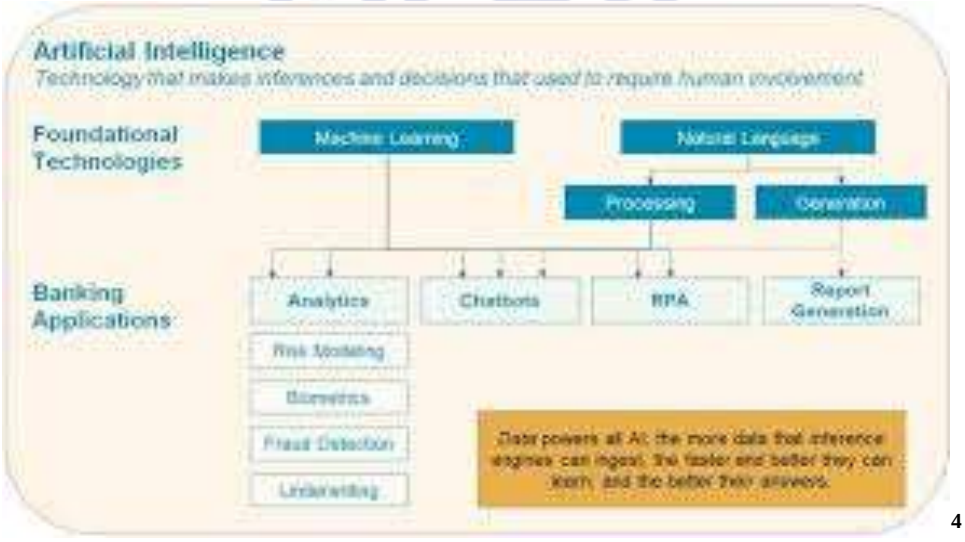
- To lessen the odds of being a victim of fraud
- Investing management
- assisting consumers in making rapid and productive decisions
- Customers want a variety of personalised solutions.
- Employee productivity is increasing
- To assist in concentrating on productivity and efficiency.
- With the use of modern techniques, visualisation can be used to expand human potential.

11.2 ARTIFICIAL INTELLIGENCE IN BANKING –

This article will be useful to bankers looking for an overview of AI practices in the banking industry. AI in banking can be regarded as a technological advancement that aided in the making of choices and decisions that required direct human inclusion. The entirety of AI is supported by a series of vital and interconnected technologies centred on machine learning and natural language. Importantly, AI is about more than just improved innovation. It's not about faster processing, more informational indices, or even a large number of strictly implemented rules. These advancements have produced incredible results; but they are now executing old tasks better. One of AI's main strengths is its ability to respond probabilistically to legitimate sources of input. The four main AI applications today are Analytics, Chatbots, Robotic Process Automation (RPA), and Report Generation, which are based on the basic breakthroughs and applied in a banking setting. The outline beneath portrays the core AI connections between fundamental advances and banking applications, all of which depend on huge measures of information, AI's backbone.



[4]

[4] https://www.datavsn.com/the-rise-of-fintech-and-its-impact-on-traditional-banking/

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- **Drive-thru Banking Service** -.

If you use this service, the banking exchanges should be possible without getting out from the vehicle. There is a way where the client can share data through a window. In July 2018, Clinc, an Ann Arbor-based start-up that created voicecontrolled AI platforms for banking sector in the year of 2015, volunteered to help with a drive-through assembly. Its conversational AI development could understand orders even if people spoke with a heavy accent or had language barriers, and it could improve the dialogue. Bank Stations - Artificial intelligence can be utilized at the front, centre, and administrative centres of banks. The bank stations are a collection of self-service terminals that provide customers with a wide range of important e-administrations, such as bill payments, government e-administrations, and so on. Bid data is now the industry norm, and banks are using it to revolutionise the sector. Artificial Intelligence is assisting the organisation in coordinating the data, and the banking sector is using the data to strengthen client relationships. To serve the e-age, AI is the fate of banking. Passbook update kiosks – In recent years, the Indian banking sector has advanced from a people-headed to a machine-driven model. A passbook printing kiosk is a self-service machine that serving the clients. Banks named State Bank of India and BOB, have done an outstanding job of introducing this feature. They have introduced selfservice passbook counters, which allow consumers to print their own passbooks. For example, Swayam (passbook printing kiosk) is a service offered by Indian Bank, SBI that employs barcode technology to allow clients to update their passbooks. Regardless of the way that banks have been recruiting, the assortment of ranges of skill set is moving, with a focus on front-end staff.

- **The Intelligent Banking Assistant - Chatbots** –

  They are innovative technologies that work as an answering machine and provide constant service to customers. It is designed to make human-computer interaction easier. They are examples of artificial intelligence in banking that are replacing front-desk areas at banks. These Artificial Intelligence -driven devices furnish clients with a next-generation digitised and customised instinctive experience. SBI, an Indian bank, has created SIA (SBI Intelligent Assistant), a chatbot that assists customers with routine financial tasks in the same way that traditional bank staff do. It also answers NRI customers' questions by providing answers via the SBI gateway's chat box. Chatbots aid with basic tasks such as opening and cancelling accounts, transferring funds, and so on. In comparison to a phone call, the chatbot gives the customer more options by providing useful links for finishing the interaction. The chatbot can also provide quick availability and help customer service representatives minimise their workload. Cash Deposit Machines - Cash Deposit

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Machines are self-aid terminals that permit you to put aside a cash deposit at any time. This help takes out the need to stand by in huge lines at banks to deposit cash. Each completed transaction generates a receipt for the customer. This machine can also be used to make payments to various accounts.

- **ATM Machine Helpline** –

  These aid customers in contacting their banking firm in the event of a crisis, and client services are also available at ATMs. In addition, AI has been shown in ATMs. The following are the fragments that have been offered. Machine learning in action includes AI for ATM security, machine vision ATM cameras, facial recognition for security and improved client experience, ATM machine care, and analysing ATM cash requests.

- **Mobile Banking –**

  Mobile phones are becoming smarter all over the world. A major number of individuals are dedicated to mobile banking services, and that implies that versatile applications of banking appeal to them. Clients have promptly progressed to phone banking services. Having a personal attendant, regardless of whether it's Siri (Apple) or Alexa (Amazon) is delightful. Clients all across the world have praised it and expressed their delight with it.

- **Banking and Block chain Technology** –

  A block chain is a distributed, decentralised, and sophisticated record. It is a database of digital data that is open to the public. AI is the cerebrum or motor that enables decisionmaking and aids in data analysis. Block chain includes encoded information, and Artificial Intelligence is the intellect that enables directing and controlling and assists in data analysis. Block chain technology is beneficial to the digital currency sector; however this is not the case. Data security, fraud prevention, and other challenges associated with computerised transactions are addressed with block chain technology.

- **Algorithms based on AI and Fraud Detection** –

  Algorithms in light of artificial intelligence and Fraud Detection - Artificial intelligence is based on problem solving operations. AI includes an assortment of rules, guidelines, critical thinking activities that computers must obey. AI uses behavioural indicators to make risk-reduction recommendations. Feedzai, a data science start-up, for example, utilises algorithms to detect fraud. Algorithms are used in artificial intelligence and

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machine learning systems to analyse patterns and avoid financial fraud. Fraud detection has advanced and will continue in the coming years.

11.3 BANKING SECTOR OVERVIEW AND ARTIFICIAL INTELLIGENCE APPLICATION IN STRATEGY IMPLEMENTATION-

Significant recent developments, such as demonetization and government supported efforts aimed at establishing digital India, have pushed economy in India to go cashless, but have also amassed a big amount of data in banks, needing quick, precise, and predictable record upkeep. Automation has been the backbone of modern banking since the 1990s, and the banking industry has long considered computers to be a vital part of its operations. Cash withdrawals, fund transfers, check book requests, and so on are examples. Because of critical changes in the economy, like expanded work volume, changes in purchaser inclinations, client mentalities, destinations, populace development, contenders, managerial essentials, and the need to have strong admittance to the executives and a safe financial climate for trades, the financial area has started to utilize AI to digitise the dreary labour-intensive operations. As a result, traditional branch banking has been changed into internet banking. The objective of 'Advanced India' is to change India into a carefully empowered and informed economy. Technological advancements in computing, storage, mobile phones, and widespread usage of social media are assisting and supporting this movement. 'Digital India' aims to transform India into a digitally enabled and informed economy. Organizations are heavily reliant on interconnection, computerization, machine learning, and continuing data processing in this era of change to combine actual creation/administrations with advanced innovations. This shift is alluded to as Industry 4.0, or the fourth modern revolution. It is a perfect platform for integrating digitalized advancements, such as artificial intelligence, with banking duties, which provides Banks with significant opportunities for profit while also reducing reaction time for their customers. As a result, both customers and banks will become increasingly interested in using AI to enable more productive, rapid, and unbroken processes. Whenever innovation is appropriately made due, it advances an adjustment of status, progress, and a greater for conveying services.[5]

[5] Bellman, R. (1978). An Introduction to Artificial Intelligence: Can Computers Think? San Francisco: Boyd & Fraser Pub. Co.

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CHAPTER 12 CONCLUSION

The banking today is re-defined and re-engineered with the use of Information Technology and it is sure that the future of banking will offer more sophisticated services to the customers with the continuous product . An upgradation of technology banks are playing vital role in economic development. Banking sector in India is resulting with increased growth in customers. By providing innovative facilities of banks. The changes made by banks are mostly focused on financial inclusion for expansion into rural areas and bringing stability by boosting credit growth making banking services near to the customer directly and reducing customer valuable time. The current trends in banking are building blocks of the "Cashless Economy". Though there are few challenges, technology will keep evolving and with collaborative efforts of Banks, Government and end users, overcoming these challenges will certainly be possible. The initiative of Government of India will very soon achieve its mission and rural India too would be "digitally literate". Banks will have to develop a strategy to bridge the gap of technology in rural banks and urban banks. Today, Indian banking industry is on the threshold of "next generation banking". ICT innovation clubbed with dream of "cashless economy" will certainly bring about metamorphosis in the banking sector.

process innovations. Thus, there is a paradigm shift from the seller‟s market to buyer‟s market in the industry and finally it affected at the bankers level to change their approach from "conventional banking to convenience banking" and "mass banking to class banking". The shift has also increased the degree of accessibility of a common man.

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