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Title of the Paper/s...... A Study on Technological Advancement in Indian ......
...... Banking Sector. ......
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Topic: A Study on Technological Advancement in Indian Banking Sector.

***Mr. Mohan D**

Abstract:

Financial innovation is the survival of banks in contemporary banking environment. Indian Banking system touches the lives of millions of peoples and cities growing at fast pace. The banking sector in India has seen a number of changes. And to meet the challenges of changing needs and perceptions of customers, new regulations over the years and great advances in technologies, most of the banks have begun to take an innovative approach towards banking with the objective of creating more value for customers in the banks. Today we have electronic payment system along with currency notes. Banking industry in India is facing number of challenges like changing needs and perceptions of customers, new regulations from time to time and great advances in technologies. The pressure of meeting these challenges have compelled banks to change the old ways of doing business. The research paper focuses on how the technology has transformed the face of banking and challenges of technological innovations of banks like ATMs, Credit Cards, Debit Cards, Internet banking, Mobile banking, Online banking, ECS, RTGS, EFT, NEFT, Retail banking and many more Value added products and services. Banks are investing heavily in adoption of these innovations, the need of hour is to design such a system that encourages the efficiency of investment in innovations and winds the gap between revenues and costs involved with reference to technological up gradation in banking sector.

Key Words: Technological Changes, Recent Trends, Challenges for Banking Sector, Dynamic Growth, Globalization.

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Introduction:

The Banking sector is facing stiff competition across the globe due to global competition; it is why innovation is required. Banking industry in India has undergone a significant process of changes over time. From nationalization of large scale banks in 1969, and strong dominance of public ownership till1980, A wide range of financial sector reforms was introduced in India in the year 1991, with Liberalization, Privatization and Globalization, such reforms were initiated to improve resources efficiency and accelerate the growth process by removing structural deficiency affecting the performance of financial markets as well as financial institutions. The rate of transformation was particularly high in the 1990s and 2000s, in the banking sector in India saw grater emphases being placed on technology and innovation. Banks began to use technology to provide better quality of services at greater speed. Information technology has made it convenient for customers to do their banking from geographically diverse places which earlier remain uncovered.

Objectives of the Study:

- To study how innovations have contributed to the development of Indian Banking.
- To know the trends, customer services, diversified products and innovations used in banks.
- To study the challenges faced by Indian banks.

Methodology: This is a descriptive type of research and conceptual data based on secondary information.

Innovations in banking sector

Over the years, the banking sector in India has seen a number of changes. Most of the banks have begun to take an innovative approach towards banking with the objective of creating more value for customers, and consequently, the banks. Banking industry in India has also achieved a new height with the changing times. Customer services and customer satisfaction are prime responsibilities of banks now days. Information technology has given rise to new innovations in the product designing and their delivery in the banking and finance industries. 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. Banking through internet has emerged as a strategic resource for achieving higher efficiency, control of operations and reduction of cost by replacing paper based and labor intensive methods with automated processes thus leading to higher productivity and profitability. Financial innovation associated with technological change totally changed the banking philosophy and that is further tuned by the competition in the banking industry. Challenging business environment within the banking system create more innovation in the fields of product, process and market.

The Changing Face of Banking

Many analysts predict still more revolutionary changes in the banking sector in India. The chief of these are likely to be the concept of Universal Banks and the introduction of Smart Card technology. Although the Indian banking sector has made rapid progress particularly in the number of innovations introduced, some analysts are skeptical about the efficiency and practical use of many of these services Financial Sector reforms initiated in the country as a part of the economic reforms since the year 1991 has brought about revolution in the structure of banking environment. While deregulation has opened up new opportunities for banks, liberalization has intensified competition in the banking industry by opening the market to new foreign and private sector banks. Declining interest rates and reduced lending margins have thrown up new challenges to banks, particularly public sector banks. Banks need to equip themselves sufficiently to operate in such a competitive environment. In 1996, the World Bank made a commitment to become a global knowledge bank. The Bank's stated intention was to develop a world-class knowledge management system and to improve and expand the sharing of development knowledge with clients and partners. The objectives of this commitment were to improve the quality of Bank operations and enhance the capacity of clients to achieve development results.

Competition

Globalization has brought competition from international banks. In order to compete with new entrants effectively commercial banks need to posses strong balance sheets which indicate the real strength of the bank. The entry of new private sector banks and foreign banks equipped with latest technology and technology -driven product lines have really sensitized the ordinary customers of the banking services to the need for quality in terms of innovative products as well as delivery process These banks are aggressively targeting the retail business and consequently grabbing the market share of public sector banks.

Various forms of Technological Innovations (Electronic Delivery Channels)

This segment describes the various forms of technological innovations or Electronic Delivery Channels adopted by Banks. Technological innovations have been identified to contribute to distribution channels of Banks. The various Electronic Delivery Channels are discussed bellow.

ATM-An automated teller machine (ATM) is a computerized telecommunications device that provides a financial institution's customers a secure method of performing financial transactions in a public space without a human clerk or bank teller. ATM facilitates customers deposit and withdraw money, fund transfer, bill payment also multiple services.

Debit Card and Credit Card-A debit card is an electronic card issued by a bank which allows bank clients access to their account to withdraw cash or pay for goods and services. This removes the need for bank clients to go to the bank to remove cash from their account as they can now just go to an ATM or pay electronically at merchant locations. This type of card, as a form of payment, also removes the need for cheques as the debit card immediately transfers money from the client's account to the business account.

A credit card is issued by a financial company giving the holder an option to borrow funds, usually at point of sale. Credit cards charge interest and are primarily used for short-term financing. Interest usually begins one month after a purchase is made and borrowing limits are pre-set according to the individual's credit rating.

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

RTGS- Real Time Gross Settlement system(RTGS), 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. As the name suggests, funds transfer between banks takes place on a 'Real Time' basis. Therefore, money can reach the beneficiary instantaneously and the beneficiary's bank has the responsibility to credit the beneficiary's account within two hours.

Electronic Banking- banking will be driven more of technology and telecommunication systems. Aided by improved telecommunication and technology, Public sector banks have made rapid strides in product innovation and delivery, thereby improving quality of customer service. Technological changes have brought about paradigm shift in the process today's banking may be redefined as 'Triple A.' banking-anytime anywhere, anyhow banking .Internet banking will enable three profit centers', namely treasury, corporate banking and retail banking, to launch new products and provide quality service to a wider customer base.

Internet banking – also referred as online banking, web banking or virtual banking, an outgrowth of PC banking, is a more developed service, a system that enables bank customers to access accounts and general information on bank products and services or perform account transactions directly with the bank through a personal computer using the internet as the delivery channel; customers are able to access all of their accounts through the website of the bank and are allowed to conduct banking activities such as transferring funds, paying bills, viewing account balances, paying mortgages or purchasing financial instruments and certificates of deposits.

Mobile banking - is a system that allows bank customers to conduct different financial transactions through a mobile device, being the newest service in electronic banking; mobile banking relies on WAP (Wireless Application Protocol) technologies since a mobile device requires a WAP browser installed in order to allow access to information.

Core Banking- is a banking service provided by a group of networked bank branches where customers may access their bank account and perform basic transactions from any of the member branch offices.

Core banking is often associated with retail banking and many banks treat the retail customers as their core banking customers. Businesses are usually managed via the Corporate banking division of the institution. Core banking covers basic depositing and lending of money. Core Banking functions will transaction accounts, loans, mortgages and payments. Banks make these services available across multiple channels like ATMs, Internet banking, mobile banking and branches. The Core banking facilitates the customers to access their accounts anywhere anytime through ATM and Net Banking.

Technology-With the help of innovative information technology, banks are able to reduce the transaction cost and handle a large number of transactions in time. Now banks can provide customized products easily and customers could access many services through internet by sitting at home. To provide better services to their customers, banks are embracing Customer Relationship Management [CRM] facilitated by the availability of conductive technology. Innovation is technology is also helping banks to cross sell the products of insurance and securities firms, which are swelling their fee-based income in the total income. Innovative technology not only brings benefits, but risks too. Major impediments and risks associated with the implementation of innovative technology are; Cost associated with adoption of new technology might not bring cash flows required to cover that cost. Increased capacity due to a new technology could result excess capacity in the financial institution. Another problem banks face with implementation of latest technology is integration of existing system with the new one.

Innovations in Housing Loans- Housing loans are one of the products that banks are concentrating more. The booming housing loans market positively affects many industries. So to provide impetus to any economy, booming housing market is vital. Banks benefit from higher security, low risk weights and reasonable margins.

Innovations in Customer Services

Satisfied customer is the best guarantee for stability of the organization in the long-run. Banks can satisfy their customers only by providing customized, cost effective and timely services .With the help of technology banks are able to provide plethora of products and services to their customers which suit them. Major services provided by the Indian banks that are of international standards are Any time banking, Anywhere banking, Global ATM and Credit Cards, Internet banking facility etc.

- The Core banking facilitates the customers to access their accounts anywhere anytime through ATM and Net Banking.
- Due to technological changes and computerization in banking sector, maintenance of various types of documents and access to those it has become easier and faster to deliver the services to customers.
- New technologies enabled banks to serve and assist customers not only in branches, but anywhere in the world at any time and through any delivery channel a customer cares to select.
- With the convenience of digital channels, customers are visiting branches less often and they use online and mobile technology for their banking needs more often.
- Online and mobile banking are growing fast while branch importance decline rapidly. Nevertheless, branch banking is still preferred by customers when it comes to getting banking advice.

Challenge ahead for Banking sector

Managing technology is a key challenge for the Indian banking sector, developing countries like India has a huge number of people who don't have access to banking services due to scattered and fragmented locations. But if we talk about those people who are availing banking services, their expectations are raising as the level of services are increasing due to the emergence of information technology and immense competition between the services and products provided by different banks. Since, foreign banks are playing in Indian market, the number of services offered has increased and banks have laid emphasis on meeting the customer expectations.

Some of the challenges that the banks are facing today are:

- Competition from private banks
- Managing diversified needs of customers
- Keeping pace with technology up-Gradations
- Problem of Non-Performing Assets (NPA)

The banking industry is changing at a phenomenal speed. While at the one end, we have millions of savers and investors who still do not use a bank, another segment continues to bank with a physical branch and at the other end of the spectrum, the customers are becoming familiar with ATMs, e-banking, and cashless economy. This shows the immense potential for market. Banks are setting up alternative delivery channels to contain operating costs like off-site ATMs, internet banking, telebanking, outsourcing, centralized transaction processing, etc.

Findings of Other Authors

According to a report, "Trends and Progress of banking in India", published by RBI technology based service banking has failed due to a number of reasons such as socio-economic, technological, legal, infrastructural and psychological factors .

Seema Malik, analyzed that how technology is affecting the employees' productivity. There is no doubt, in India particularly public sector banks will need to use technology to improve services, develop new products, strengthen risk management etc, the study concludes that technology is the only tool to achieve their goals.

Kamaleswar Boro, analyzed that various technological innovations adopted in banking sector due to technological changes.

From the above reviews it is observed that the banking industries itself adopted various innovative schemes for furtherance of their business and to attract more and more customers. These has resulted their sustainability and keep their brand image even in the competitive environment. Further, technology is one of the important segments where maximum stresses are provided for dissemination of innovative ideas and it is observed that major innovation took place in this field in recent years.

Conclusion

Technological banking is popular among all the age and income groups. Further, with increasing consumer demands, banks have to constantly think of innovative customized services to remain competitive. Technological Banking is an innovative tool that is fast becoming a necessity. It is a successful strategic weapon for banks to remain profitable in volatile and competitive marketplace of today.

The banking sector has tremendous potential to grow. Usage of ATMs is also high. Also the scope for mobile and internet banking is big, now a day's mobility and customer convenience are viewed as the primary factors of growth and banks are continuously exploring new technology. However, Indian banking industry faced the numerous challenges such as increasing competition, pressure on spreads, and systemic changes to align with international standards have necessitated a re-evaluation of strategies and processes in order to remain competitive in this dynamic environment. Banks have to adopt a holistic approach to fulfill the ever changing needs of customers and to grab a better market share.

The banks who understand the market dynamics, perceive threats, anticipate volatility, show high degree of professionalism and dynamism in their functioning and respond promptly to the market needs would survive and prosper.

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