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E-INNOVATIONS IN INDIAN FINANCIAL SERVICES: THE VANGUARD OF BANKING REVOLUTIONS

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ABSTRACT

The main purpose of this paper is to discuss the technological changes and financial innovations in Indian financial services particularly in banking sectors which has created an opportunities for providers and users of financial products. Indian banking industry is one of the most established sectors and also important for the country's economy. It has become one of the most preferred banking destinations in the world because of the better banking system. The methodology of the paper based on the electronic banking services in India. The findings of the paper are based on the various financial innovation in the form of different benefits of e-banking services to the customers and service provider banks in India. Public sector banks make prominent part of it, and account for Seventy Eight per cent of the country's total banking possessions. This paper has highlighted the various internet banking services are available

Keywords: Innovations, Planning, Organizations, Strategy, Management, Vanguard.

I. INTRODUCTION

"*Everyone talks about economic improvement but (almost) nobody empirically tests hypotheses about it*."

Frame and White

Banking in India appeared in the first decade of 18th century with The General Bank of India coming into existence in 1786 and Bank of Hindustan followed this. These both banks are now defunct. The oldest bank in existence in India is the State Bank of India being remarked as 'The Bank of Calcutta' in Calcutta in June 1806. Today banking is being redefined as 'trading on information related to money and markets'. The definition has emanated from emergence and use of Information Technology in financial product and services. Banking all over the world has been using IT from 1960 onwards, and today it is implausible to think of banking without sustain from IT. Indian banks started their mechanization or computerization program in 1980s predominantly guided by the bipartite agreement between the management and staff unions. The basic business of a bank is to borrow funds cheap and to lend it dear. The implementation of core banking systems has proven to be a big benefit in providing anywhere admittance to banking services and the treatment of a customer as that of a bank and not as a ingredient of a unambiguous branch.

Innovation is a continual process of creative destruction where barren and irrelevant ideas, mechanisms and systems are replaced by new and more productive ones. According to Benjamin Friedman, "*Financial innovation is thus central to both economic growths*." Innovation is generally a response to a change in the environment. However, innovations in financial products also have given rise to some new challenges for

market member and their supervisors in the areas of corporate governance and compliance. The process of modernization is not always painless as individually all innovations are not necessarily successful but collectively it is the process of innovations that leads us to the front in the path of advancement. Recently we have seen this process of creative destruction at work more intimately in the financial segment. The business environment across the globe has been witnessing an unprecedented confusion over the last couple of years. Financial innovations have become a conventional and popular phenomenon for the contemporary world of finance. These innovations have enabled them to win new customers by increasing demand for their products and have also amplified their magnitude in the eyes of other businesses. The customers of today have become smarter and more knowledgeable. As a result, their demands and standards have also risen. In order to meet those demands, financial institutions have come up with their own set of innovations that they employ to achieve a high degree of customer satisfaction.

II. LITERATURE REVIEW

It is necessary to take a close look at the main features of the current beckon of financial innovation and assess objectively what it has achieved and at what cost. It is also important to classify the lessons the financial modify and innovation in foreign markets offer to countries like India in building our future financial policies. The financial industry in major developed countries and in the international markets has undergone exceptional changes in topical years. While referring to the main features of the process of these changes several haunting phrases such as globalization, financial market integration, securitization and innovation are being extensively used. With the progressive dismantling of dogmatic and technological barriers, competition among financial institutions inside and athwart national frontiers and amid different types of financial and non-financial institutions has intensified (*Verghese, 1990*).

According to **Luecke and Katz**, "Innovation is generally understood as the successful introduction of a new-fangled thing or method. modernization is the embodiment, combination or synthesis of knowledge in original, pertinent, valued new goods, processes or services."

According to **Joseph E. Stiglitz,** Professor, Columbia University, "The right kind of innovation obviously would help the financial sector fulfill its core functions; and if the financial sector fulfilled those functions better, and at lower cost, almost surely it would contribute to improvement and societal well-being. But, for the most part, that is not the kind of innovation we have had."

According to **Ross Levine** Merryl Tisch and James Professor of Economics, Brown University, "Finance is powerful. As the last few years expose, financial innovations can be used as tools of economic destruction. But the last few centuries demonstrate that financial innovation is central, indeed indispensable, for sustained economic growth and prosperity."

Financial systems afford fundamental services- they evaluate, monitor and allocate capital, monitor the use of that capital, and facilitate risk management and transactions. If financial systems offer these services well, capital flows to the most promising firms, promoting and assisting economic growth. Financial innovation-the creation of new securities, markets and institutions-can recover financial services and thus hasten economic growth.

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Moreover, financial and technological innovations are inevitably bounce together and progress collectively, suggesting that financial innovation is essential for developing the abundance of nations. As described by Adam Smith, the very essence of economic growth involves increased specialization and the use of supplementary urbane technologies. The increased complexity makes it more difficult for the existing financial system to appraise new enterprises or administer their original risks. Thus, economic progress itself makes any existing financial system archaic. Devoid of a commensurate modernization of the financial system, the suspecting of financial services falls, slowing economic growth.

III. E-BANKING METHODOLOGY

It is a generic term for delivery of banking services and products throughout electronic channels, for instance the cellular phone the internet, the cell phone, etc. It is otherwise known as internet banking and the concept and scope of e-banking is still evolving. There is no official definition of this term, but it usually implies a service that allows consumers to use some form of computer to access account-specific information and perhaps demeanor transactions from a inaccessible location-such as at home or at the workplace. E-banking system, any user with a personal computer and a browser can get connected to his banks website to perform any other virtual banking functions. Under this internet banking system, the bank has a centralized database which is web-enabled. Services of a bank which is permitted on the internet are displayed in the menu and a customer can select any one of his own choice and further interaction is dictated by the nature of service. Once the branch offices of the bank are connected through satellite links, there would be no physical identity for any branch. Several initiatives in use by the government of India, over and above the Reserve Bank of India (RBI), have facilitated the improvement of E-banking in India. The Government of India enacted the IT Act, 2000, which provides proper recognition to electronic transactions and extra resources of electronic exchange. The network which connects the various locations and gives connectivity to the middle office contained by the organization is called intranet. These networks are bounded to organizations for which they are association. SWIFT is a subsist example of intranet application.

Managing innovation in a financial services context is challenging, and in many ways different, from a product environment. Only a superior innovation capability can generate a sustainable benefit It is practically impossible to create sustainable competitive advantage with a single innovation. Most innovations in pecuniary services can and will be copied by competitors. Innovation is a perennial scorching topic in business, extensively viewed as the explanation to commercial success. Services are becoming increasingly important as an engine for India's economic growth. Financial innovation refers both to technological advances which facilitate access to information, trading and resources of payment, and to the emergence of new financial instruments and services, new forms of organisation and further developed and inclusive financial markets. To be successful, financial innovation must either decrease costs and risks or make available an improved overhaul that meets the particular needs of financial system participants. Innovation of finance enhances the sustainability of institutions and their outreach to the poor. A useful distinction between different types of financial innovations includes:

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IV. FINANCIAL SYSTEM/INSTITUTIONAL INNOVATIONS

It includes the financial sector as a whole, related to changes in business structures, to the establishment of new types of financial intermediaries, or to changes in the officially authorized and administrative framework. imperative examples include the use of the group mechanism to retail financial services, formalizing informal finance systems, reducing the access barriers for women, or setting up a completely new service structure.

1. Product innovations:

It includes the introduction of new credit, deposit, insurance, rental, hire acquire, and added financial products. Innovations of products are introduced to respond better to changes in market demand.

2. Process innovations:

It includes cover the introduction of new business processes leading to increased efficiency, market expansion, etc. Examples contain office mechanization and employ of computers with accounting and client data management software.

V. FINDING: INTERNET BANKING IN INDIA

The Reserve Bank of India constituted a working group on internet banking. They are:

i) **Information Only System:** Under this system, general information like interest rates, branch location, bank products and their features, mortgage and drop calculations are provided in the banks website. There is no interaction between the customer and bank's application classification. No detection of the customer is done. This system only provides wide variety knowledge about the banking information.

ii) **Electronic Funds Transfer System (EFTs):** Under this system, the banks transfer the salaries from company's account to employee's account as per the instruction of the employer.

iii) **Automated Teller Machine (ATMs):** An ATM is an electronic fund transfer terminal capable of handling cash deposits, transfer between financial statement, cash withdrawals balance enquiries, and reimburse bills. It may be on-line or off-line. The on-line ATM enables the customer to gain banking amenities from wherever. In off-line the facilities are confined to that particular ATM assigned. Any customer possessing ATM card issued by the collective Payment Network System can go to any ATM linked to Shared Payment Networks and perform his transactions. ATM is operated by plastic card with its special features which is replacing cheque.

iv) **Debit Card:**

A debit card is a pre-paid card (plastic money) which is used as a way of payment to purchase goods or services on credit. When a person uses this card, the Internet Banking house gets money transferred to its account from the bank of the buyer. As it is a pre-paid card, the customer can never overspend, because the system rejects any transaction which exceeds the balance in his account.

v) **Credit Card:**

A credit card is a post paid card (plastic money) which is used as a way of payment to purchase goods or services on credit. The credit card holder is empowered to spend everywhere and at whatever time he wants with his credit card within the limits fixed by his bank. It helps to purchase goods or services on credit without any hassle of carrying cash, thus making the shopping much easier. It provides several

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benefits such as free credit period, online shopping, offering reward points on purchases, borrowings etc. It is used to withdraw cash through ATMs at anytime anywhere, i.e., 24 X 7.

vi) **Smart Card:**

A smart card is known as an *electronic purse* or *wallet*, which is readily acknowledged as '*Key to the universal village*'. It is a plastic card that contains an embedded computer chip–either a remembrance or microprocessor type–that provisions and transacts data. This data is usually associated with either worth information, or both and is processed and stored within the card's chip. The card data is transacted through a reader that is component of a computing system. Systems that are enhanced with smart cards are in use today throughout numerous enter applications, together with banking, healthcare, entertainment, and transportation. New information and applications can be supplementary depending on the splinter capabilities. Smart cards can store several hundred times more data than a conventional card with a alluring hoop and can be programmed to divulge only the relevant information. The smart card is the ideal prop up for expense over the internet, whether in currency or as credit. However, the internet shopper needs to connect his smart payment card to his computer and through the computer to the internet. Smart card readers are inexpensive, low-power policy which can be effortlessly additional to accessible computers.

10 Major Trends

1. Retail banking will be immensely benefited as of the Indian demographic surplus Mortgages will cultivate fast and may cross Rs. 40 trillion by 2020.
2. Rapid accumulation of wealth in prosperous households will impel assets management to 10x size.
3. The Next Billion consumer segment will emerge as the largest in number and will accentuate the demands for low cost banking solutions.
4. Branches and ATMs will require to raise 2X and 5X respectively to dish up the huge addition to bankable population. Low cost branch network with smaller sized branches will be adopted.
5. Mobile banking will move toward of age with widespread access to internet on mobile.
6. Banks will adopt CRM and data warehousing in major way to reduce customer acquisition costs and improve risk management.
7. Boundaries will see descending pressure in cooperation on retail and corporate banking spurring banks to generate more fees and improve operating efficiency.
8. Banks will find out the importance of the SME segment for profitability and improvement and new models to serve SME segment beneficially will be originate
9. Venture banking will grow 10x, driven by demand from corporate for transaction support and funds market access.
10. Infrastructure liability will surpass Rs. 45 trillion–half of which will be on bank's books. It will stroke the ALM restrictions of banks and will entail a significant upgrade of banks' risk management systems.

VI. BENEFITS OF E-BANKING

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There are several benefits enjoyed by a customer who are using the e-banking facilities. A customer can check his transactions at any time of the day, and as many times as he wants to. E-banking facilities provide several benefits to customers as well as to the banks. The details of the benefits are given below:

6.1 Benefits to the Customer

i) 24 hours Continuous service
ii) Acceptability of card across multiple bank ATMs, even foreign tourists can access Maestro/VISA ATMs.
iii) Financial discipline
iv) Greater customer satisfaction
v) Greater security to the customer
vi) Less time for transactions
vii) Plethora of services available in addition to cash dispensing.
viii) Services available from everywhere

6.2 Benefits to the Service Provider Bank

i) ATMs serve as the crucial touch points for cross selling of bank's products
ii) Building competitive strength
iii) Cost of setting up ATMs much lower than the branch.
iv) Enables the bank to display products on the screen and serves as a media for publicity for the bank.
v) Less hassle in handling cash
vi) Migration of the routine transactions to the ATMs frees the bank's staff for more productive work
vii) Reduction of load on branches
viii) Unlimited network to the bank

6.3 Internet Banking Frauds and Precautions

Internet banking fraud is a fraud or theft which is committed by transferring money from a bank account to another account in the bank without the knowledge of the former bank account holder. It is usually possible through the techniques of phishing. Under the phishing arrangements, fraudsters posing as banker, who float a site similar to that of the person's bank. Usually they asked to provide all personal information along with the number and password. The number and password are then used to carry out transactions on their behalf without their knowledge. The bank usually provides customers identity number and password to secure dealings. Except due to some lack of knowledge or impractical mistakes, many customers are easily fall into the trap of cyber criminals.

For safe internet banking, customers are advised not to provide sensitive account-related information over unsecured e-mails or over the phone. They should avoid online banking on unsecured wifi systems and operate only from PCs at home. The private information should not be reserved in a communal computer or in emails. One should not reveal password to anyone, nor even write it on a piece of paper or in a diary. The PIN (Personal Identification Number) should be alpha-numeric and the customer should change it frequently. The customer

may install a personal firewall to prevent hackers from gaining unauthorized access to the computer, especially if the customer connects to the internet through a cable or a modem.

6.4 Discussion: severe challenges for the next decade

Information is at the heart of today's business, and the all-enveloping collision of I.T. in harnessing, collating and processing huge volumes of information is ultimate. In this situation, the necessitate for ensuring that information is kept confidential adhering to accepted norms of solitude and making it obtainable to authorized users at the appropriate time assumes great significance. This is chiefly valid for the banking sector wherever routine operations are centered on information and information processing, which in turn is exceedingly reliant on Technology. This symposium on " Security Framework in Indian Banks" jointly organized by the Indian Banks' Association, the Data Security Council of India in collaboration with the Institute for Development and Research in Banking Technology as the information collaborator is thus not only apposite but also of topical relevance to banks. There are two areas in which the Indian banking trade will be sternly challenged to find a solution over the next decade. First pertains to the intensifying expectation from banks to unearth an economically viable solution to financial exclusion. The second pertains to HR challenge in the public sector. While the first challenge demands unusual innovation and experimentation, the second threatens to cripple the aptitude of the principal segment of the banking industry from being able to innovate and stay competitive. Banking as a business involves the management of risks based on a repository of trust extended by the customers. If this purpose has to be proficient, it becomes imperative for all security concerns especially customer susceptible data to be addressed in an valuable way so as to ensure that the trust levels are well preserved and information possessions execute the function that they are invented to. While every banker understands the implications of financial risks, the risks arising out of the bulky scale execution of technology and IT is not so well defined. Security in banks therefore assumes noteworthy proportions, comprising corporeal security in addition to the factors relating to security of Information and Information Systems each and every one of which have an impact on the reputational risk faced by banks.

VII. CONCLUSION

Electronic banking is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution. Indian banking has around 225 years of history and has undergone many transformations since independence. The growth in the Indian Banking Industry has been more qualitative than quantitative and it is predictable to remain the same in the impending years. Earlier, banking was virtually a monopoly of the public sector banks with full fortification from the condition. Nevertheless the process of reforms in the Indian banking system has thrown them out to more liberal and free market forces. Innovation is good if used with prudence, with due diligence, with adequate safeguard and above all with control of the Reserve Bank of India. Apart from physical proximity, strong cultural ties and shared heritage, there are sound complementariness between the financial services industry in India. India can be the doorway to the world for the financial services if the synergies can be developed between the investors and clients. The most important battlefront, however, is around the leadership and governance of financial

institutions. In commerce with market and bloodthirsty pressures, financial executives must demonstrate genuine leadership in making decisions that assistance all stakeholders, together with the society at large.

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