

PARADIGM SHIFT IN INDIAN E-BANKING - A STUDY

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Abstract

Due to the advancement of Technology peoples are familiar with E-commerce, E-marketing and E-Banking. A robust financial sector plays a pivotal role within the economic development of the country. Banking sector of a rustic and economic process may be a dependent phenomenon. Indian Banking originated within the last decade of the 18th century in modern scene. The normal concept is changing within the banking sector because it is changing in other prospective of life through the utilization of technology. Technology is harnessed to enhance the merchandise, services and efficiency within the banking sector.

With extensive use of technology banking is more hooked in to the technology in lately. The utilization of technology in banking sector not only benefited the banks but also to the consumers. By taking into consideration the advantages and competition, banks everywhere the world has led to the utilization of internet banking and automation within the banking system. The usefulness and acceptance of internet banking and government policies share a big relationship.

During this paper we getting to study the varied recent trends on the name of Banking like Mobile banking, internet banking, phone banking. On the opposite hands various issues which is usually referred to as cyber threats taken into consideration which become the barrier within the rapid climb of the banking sector.

Keywords: -E-Banking, Challenges, Security and Privacy, Technology.

Introduction

E-banking is that the latest within the series of technology that wonder the recent past of banking system. It refers to the utilization of technology and communication system to perform the banking transactions electronically without visiting the bank physically. The banking industry is growing at the rapid pace to satisfy the competition, technology and demand of the top user within the market. Bank of Bengal established in 1784, introduce the cheque system in India. ICICI Bank to supply the internet banking facility and HSBC (Mumbai) in 1987 introduces ATM. financial institution of India the primary public bank to introduce the credit card system.

The widespread use of technology within the banking operation has totally replaced the normal system of confining banking activities to the bank branches only. E-banking assists the purchasers to enjoy the facilities like anywhere banking and anytime banking. As we check out the security prospective of e-banking it isn't free from the defects within the sort of cyber crime and threats.

As per the report on February 2019, Bangalore registered most number of cyber crime cases in 2018. According to Gartner, due to rise within the cybercrime there is noticeable increase within the expenditure in product and services which was more than \$80 billion in 2016. Global expenditure on cyber security predicted to be exceeding \$1 trillion from 2017 to2021. Microsoft estimated that by 2020, 4 billion people will be online as human having moved before machines in digital world. Today, information technology not confined to facilities automation and processing instead it provides the worth addition to the banking sector.

The Biggest change within the Indian banking happened when the NDA government forced many Indian to urge checking account when Narendra Modi demonetized 86 percent of India's cash overnight on November2016. The banking system struggled to stay that up the gain were proved temporary. Nearly half Indian checking account were inactive in 2017, means there were not used within the least in previous twelve months-the highest share in the world as per International Bank for Reconstruction and Development report.

Review of Literature

Kumari, Nidhi. (2016), Analysis that financial innovation in sort of ATMs, credit and debit cards, RTGS, NEFT etc. have changed the face of Indian banking system. It also changed at the banker's level like the approaches took place paradigm shift from "conventional banking to convenience banking" and "mass banking to class banking". There is increase within the degree of accessibility of common man as per his need and requirement.

Zahoor,Zarka. Ud-Din, Moin. Sunami, Karuna. (2016) In their study they explain the dependency of banking sector has increased on information technology. Due to extend in the cyber crime they are facing the privacy and security risk to their valuable assets. They conclude that banks shouldn't left behind in term of advancement in technology in terms of security issues. The Eagle eye should be kept on vulnerable present in banking system and tricks and techniques employed by hackers to bypass banking security system.

Sharma, Geeta. Malviya, Surendra.(2014) This study was conducted in Indore City (Madhya Pradesh) to look at the relationship between service quality and customer satisfaction in internet banking. The empirical result show the direct relation between these two variables and allows bank managers and policy makers to direct efforts and resources in most effective and efficient way to extend bank business in long run and to extend the adoption of e-banking.

Kumar, Krishan. Mittal, Mohit. (2013) the study specialise in the high degree of acceptance of the e-banking among the Indian customer and their opinion regarding the security and privacy issues. They stated the strategies that ought to be followed to reinforce e-satisfaction and e-loyalty with reference to online banking system.

Zahid, Nauman. Mujtaba, Asif. Riaz, Adnan. (2010) the study happened in Pakistan in two cities within the light of technology acceptance model added with two other variables. This study was conducted with 221 respondents of three universities. The study proposed that the acceptance of online banking is influenced by the usefulness, quality of the internet and security and privacy. Moreover, during this study the perceived usefulness was found

significant variable with the acceptance of online banking whereas quality of internet, security and privacy were two insignificant variables in acceptance of online banking.

EzeohaEbeh, Abel. (2005) during this study “Problem and challenges in regulating internet banking in Nigeria” stated that the regulating deficiencies are the rising case of internet related fraud which makes the web banking system very complex. The banking industry isn't at the present enjoying that level of global integration and public confidence which will guarantee effective internet banking services. The deficiencies in existing electronic banking guideline and lack of proactive measures in banking regulation within the country, the right environment for internet banking remains presently not alive.

Methodology

This study has been exploratory in nature where pertinent information has been gathered from various secondary sources such as Journals, Newspapers, Books, Websites, and Government of India reports etc.

Various Forms of E-Banking

This involves the use of computer networks, internet, and digital store value system. Consumer can perform different banking transaction such as balance enquiries, bill payments, transaction histories and transfer of funds without visiting the physical store. Following are the channels.

Centralized Banking Solution (CBS)

It is an inter-branch networking and data sharing platform which helps the customer to operate their account from any city in India having CBS networked branches. This concept changes the “conventional banking into convenience banking” by changing the status of customer from “Customer of the branch” to “Customer of the bank”.

Automated Teller Machine (ATM)

The concept of ATM was introduced in 1987 by The Hongkong and Shanghai banking corporation (HSBC) in Mumbai. The total numbers of ATM in the country were 2,38,000 and the highest number of ATM is in the Maharashtra state. ATMs are designed to perform various activities such as deposit, withdrawal, transfer of money etc. without any human interaction. It serves the customer 24*7. These are categorized in on site, off site, white label, green label, orange label and many more as per the specific need and location.

Smart card

These are the chip-based card. Smart card having the microchip in it and this chip stores the monetary value. It performs all the function of magnetic stripe cards like ATM cards, credit card and debit card. Smart cards are essentially a technologically improved version of credit and debit card and could be used as ATM cards

Real-time gross settlement service (RTGS)

This system is out there in the least centralized Banking solution branches of bank. It promotes the e-payments and paperless banking. This system maintained by Reserve bank of India. This is used to transfer money within country with minimum limit Rs. 2 lakhs and there is no maximum limit. It eliminates the risk of loss of instrument.

National electronic fund transfer system (NEFT)

NEFT is another system to market e-payment and paperless banking with no minimum or maximum limit. It ensures the remittance of the fund on an equivalent day.

Mobile banking

Mobile banking is concept of banking and financial services with the assistance of mobile communication device. The services might be within the sort of account information, transactions, investment, and support and content services. The corporation service portfolio includes Rupay contactless, BHIM, UPI, BharatQR and Aadhar enabled payment system.

UPI (unified payment interface) may be a real time payment system that helps in instantly transferring of funds between banks through VPA (Virtual payment address), account number and IFSC and QR code. Every bank provides their own UPI for various mobile platforms like Android, Windows and IOS. This idea is predicated on 2 factor authentication in the form of MPIN.

Challenges in E-banking services

Online banking has provided ease and speed to customers to manage their banking services. But there are lists of challenges faced by banking system.

➤ Acceptance of Customer

Understanding the customer is that the major aspect of online banking. Within the world of fast changing technical scenario and obsolesce of technology the pc literacy is sort of low in India.

➤ Costly Technology

At the initial stage acquiring pc and other equipments add the begin cost for e-banking. On the other end, there may be a cost of maintenance of all equipment within the sort of modem, router and network management system which require skilled employees and knowledgeable professionals add on further cost.

➤ Legal Issues

IT Act 2000 provides the security and legal framework for e-commerce and banking transactions. IT Act and RBI guidelines suggest the criteria of Digital signature certificate board for authentication of electric record and communication.

➤ Privacy Issues

While opting for internet banking system there is usually the risk of exposing private information and fear of identity theft. As per the study consumer are worried that bank may invade their privacy by utilizing their information for marketing without consent of consumers.

➤ **Security issues**

The major threat for e-banking is that the security issues. These are often in the following forms.

Adware: -Adware may be a sort of spyware employed by marketers to trace internet user's habits and interests for the aim of customising future advertising material. The information is then went to customise future advertisements directed to the user, or are often sold to a 3rd party for an equivalent purpose.

Spyware: - spyware is a type of software that secretly collects user information while on the internet.

Phishing: - This system is employed to urge the sensitive information like credit card numbers and passwords. It includes the spear phishing (target specific people and departments), Whale phishing (target important people like CEOs), SMiShing (via message) and vishing (via voice phishing).

Sniffing: - Sniffing is that the way to grab the unencrypted data using malwares.

Trojans: - A Trojan is a destructive programme that poses as a harmless application. Unlike viruses, Trojans do no replicate themselves and does not need a host programme to attach to.

Key loggers: - If fraudster installs a software called "key loggers" on the pc or the device on which the customer is accessing online banking, the software copies to a file, every keystroke typed on that PC. This sensitive information gets captured that the fraudster can later use for fraudulent purposes and illegitimate access to one's account.

➤ **Protection against security issues**

Various measures could be used to get rid from such securities issues and the sensitive information is often protected.

Use of genuine anti-virus Software: - Anti-virus software helps in detecting the spyware and may steal the sensitivity information. It also protects computer system from phishing, malware and other threats.

Avoid use of public WI-Fi/VPN software: - The public Wi-Fi network is a simple target for the hackers to trace the data with none much effort. They see the unsecured connection as a chance.

Strong password and change it regularly: - Creating a strong password refers to including alpha-numeric and special character while setting up a password.

Subscribe for mobile notification: - By subscribing the mobile notification can alert us quickly for any suspicious transactions. It also tells you about unsuccessful login attempt on net banking and last time you visited to the site. It also notifies the daily limit, remaining balance and also messages regarding bank will never ask your trip via phone or email.

Update your system: - the operating system should be updated with latest security update. Because it brings the system up-to-date with latest drivers, fixing cookies and update security patches.

Avoid using public computer to login net banking: - Using public computer for login means risk of compromising your login credentials is higher. Also, never allow the browser to recollect your ID and password.

Always look for suspicious looking equipment: - this is often within the case of while using ATM fraudsters install a device on the highest of card reader in ATM machine that blend in with the ATM card and store the credit/debit card details. Further this retrieved information is copied onto another blank card's magnetic stripe and utilized in the name of actual account holder.

Two-Step Authentication: - As a part of two-step authentication, Net Guard works alongside your access number and password to supply an extra layer of protection when you are doing your internet banking. Net Guard card features a unique serial number comprise of numbers and letters. You'll be prompted to enter three randomly selected keys from your Net Guard card. Only your particular Net Guard card can provide the correct answer in sort of keys. Following Net Guard card of BNZ shows the two-step Authentication below.

Findings

Consumer feels that internet banking is easier than the traditional banking. Conventional banking lacks in speed especially publicly sector banks which push the client base towards the e-banking option available to them. The performance parameters within the form of accuracy, confidentiality, safety and empathy reveal the many dissonance between the expectation and actual performance. The mobile banking is much rated at the current scenario as on the basis of accuracy and safety. Banks should work on increase the amount of user of internet banking and encourage them to travel digital. E-banking service should expand its base the maximum amount as possible in order to scale back the number of visits of bank hall for customers. Banks can get investment cost advantage than opening bank because the current rent price per year for opening bank hall is far higher than buying an ATM machine. Unfortunately, the web world is a sketchy place. Many people are there who want to require what's yours and steal what you've got worked so hard to save lots of. But don't fall for their traps. Fight back and protect what's rightfully yours by implementing various security measures.

Conclusion

With the paradigm shift from “Conventional banking to convenient banking” e-banking facilitates both the banks also as the consumers. Various sort of innovation and cutting edge services such as ATM, RTGS, NEFT, Smart cards and mobile banking have completely changed the banking scenario. The security mechanisms adopted by banks aren't optimum. There is not any doubt about the challenges of securing sensitive information and financial assets of the customers. But this is often battle got to be fought against cyber crime at various fronts and execute the plan well, commit fully and exercise rigorously. Thus banks should stiffen their security measures and take appropriate countermeasures particularly those suggested regarding security issues during this paper to make sure safety and privacy to bank's most precious assets.

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