CHALLENEGES AND OPPORTUNITES IN BIG DATA AND CYBER CRIME

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Abstract:

E-Banking is knowledge based and mostly scientific in using the electronic devices of the computer resolution through the extensive use of IT without direct resources to the bank by the customers. The objective of the paper is to examine and analyze the progress made by the internet banking in India. This paper aims to capture how big data analytics is being successfully used in banking sector, with respect to security law and fraud management. Financial system plays an important role in the economic development of the country. Because of the advent of information technology there is a change in the banking sector which has paved way for the introduction of retail electronic payment system and has progressed in the recent years in various countries and India has left no way behind. Implementation of internet in the banking has modernized the banks. The paper also highlights the challenges faced by Indian banks in adoption of technology. The views of the author are depicted as conclusion at the end.

Key words:
E-Banking, Information Technology, Big Data Analytics, Fraud Management, Security Law.

Introduction:

Information technology has become the base of the recent financial sector reforms and has helped the banks in developing leaner and more flexible structure that can respond quickly to the dynamic of a fast changing market. The use of IT in the banking sector has increased beyond ones imagination with features like online loan application, online uploads of documents, net banking online bill payments etc. before couple of decades who would have thought these things could have been possible.

The banking industry in India has experienced radical changes since independence with the improvements in technology & automation. The banking sector has become highly competitive. To survive & grow in the changing market scenario banks are opting for best in class & latest technologies. Introduction of IT has changed the banking industry from paper & branch banks to digitize &network based banking services.

Big Data

These have provided new and improved ways of sifting through the infinite quantities of data available. The author adds that big data is in-field shorthand that refers to the sheer mass of data produced on a daily basis within global networks at a pace exceeding the capacity of current databases. Pence (2014) described big data not only by the amount of information but also its variety and complexity as well as the speed by which the data has to be analyzed or delivered. Ingram Micro Advisor (n.d.) distinguishes big data from congenital data with its three Vs, namely: Volume, Velocity and Variety.

Impact of Big Data in banking sector

Financial institutions are struggling to profit from the vast volumes of data and banks only use a small portion of the data to generate in-sights that would enhance customer experiences. The article posits that banks that apply big data analytics have a 4%point lead in market share over banks that do not. The key areas to focus for analysis are: Fraud detection, Marketing and Credit risk management**.** Big data analytics have become an essential part of any strategy to help detect and prevent financial crime. Marketing analytics will help banks sift through the data and assist in decision-making, which will lead to increase profitability. Thus banks should invest in customer analytics that effectively segment their customers. This will assist in determining pricing, products and services, the right customer approach and marketing methods.

Credit risk management is the practice of mitigating those losses by understanding the adequacy of both bank capital and loan loss reserves. According to a study by the financial services association of the European financial services community, country members have turned to data analytics to their credit risk models. Big data analytics tools aid bankers with deeper insights into their customer's behaviors by analyzing information including credit reports, spending habits and repayment rates of credit applicants. Big data software determines the likelihood that an individual would default on a loan or fail to constantly meet payment deadlines.

Review Literature

In order to ensure that the review of literature for this paper is rigorous and thoroughly, a systematic approach was adopted; this is the actual framework of literature review which is proposed by Vom Brocke et al, 2009

According to Dewey (2014) big data refers to a technological phenomenon which arose in the mid-1980s due to the improvement of computers, growing storage and processing capacities.

According to Pramanick (2013) states that banks are always at risk of losing customers and need strategies that are dependent in identifying the right action to the right customer. Thus banks should invest in customer analytics that effectively segment their customers.

Objectives:

1. To create more awareness about cyber legal issues and its challenges
2. To work on appropriate research & development and on cutting edge issues & challenges in cyber space.
3. To provide advice, inputs as also guidance to people on their day-to-day legal issues concerning the use of cyber space.
4. To enable the various banks to implement real time analytics on a large scale to meet its growing threats.
5. To study various precautions taken by user while using internet.

Hypothesis:

Cyber crime gives insecure feeling about internet usage for safe transaction.

Cyber Crime future:

Compared to today, the secure bank of the future will use more machine-learning technology and systems to proactively prevent potential breaches and data loss. In other words, we will see more 'attack as the best form of defence.' They will also defend the sensitive data they hold at every potential access point, regardless of whether that is a mobile device, internal network, connected internet of things device, through a website, through an app etc. And of vital importance, they will all then add more protection to the databases themselves that hold the key to the information the criminals are after. So, we will see proactive prevention, and more unique layers of defence to protect what the banks value the most.

Challenges In E-Banking:

Security Risk: The problem related to the security has become one of the major concerns for banks. A large group of customers refuses to opt for e-banking facilities due to uncertainty and security concerns. According to the IAMAI Report (2006), 43% of internet users are not using internet banking in India because of security concerns. So it's a big challenge for marketers and makes consumers satisfied regarding their security concerns, which may further increase the online banking use.

The Trust Factor: Trust is the biggest hurdle to online banking for most of the customers. Conventional banking is preferred by the customers because of lack of trust on the online security. They have a perception that online transaction is risky due to which frauds can take place. While using e-banking facilities lot of questions arises in the mind of customers such as: Did transaction go through? Did I push the transfer button once or twice? Trust is among the significant factors which influence the customers" willingness to engage in a transaction with web merchants.

Customer Awareness: Awareness among consumers about the e-banking facilities and procedures is still at lower side in Indian scenario. Banks are not able to disseminate proper information about the use, benefits and facility of internet banking. Less awareness of new technologies and their benefits is among one of the most ranked barrier in the development of e-banking.

Privacy risk: The risk of disclosing private information & fear of identity theft is one of the major factors that inhibit the consumers while opting for internet banking services. Most of the consumers believe that using online banking services make them vulnerable to identity theft. According to the study consumers" worry about their privacy and feel that bank may invade their privacy by utilizing their information for marketing and other secondary purposes without consent of consumers.

Strengthening the public support: In developing countries, in the past, most e-finance initiatives have been the result of joint efforts between the private and public sectors. If the public sector does not have the necessary resources to implement the projects it is important that joint efforts between public and private sectors along with the multilateral agencies like the World Bank, be developed to enable public support for e-finance related initiatives.

Availability of Personnel services: In present times, banks are to provide several services like social banking with financial possibilities, selective up gradation, 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 personnel service to the customers who come with expectations.

Implementation of global technology: There is a need to have an adequate level of infrastructure and human capacity building before the developing countries can adopt global technology for their local requirements. In developing countries, many consumers either do not trust or do not access to the necessary infrastructure to be able to process e-payments.

Non- Performing Assets (NPA): Nonperforming assets are another challenge to the banking sector. Vehicle loans and unsecured loans increases N.P.A. which terms 50% of banks retail portfolio was also hit due to upward movement in interest rates, restrictions on collection practices and soaring real estate prices. So that every bank have to take care about regular repayment of loans.

Competition: The nationalized banks and commercial banks have the competition from foreign and new private sector banks. Competition in banking sector brings various challenges before the banks such as product positioning, innovative ideas and channels, new market trends, cross selling ad at managerial and organizational part this system needs to be manage, assets and contain risk. Banks are restricting their administrative folio by converting manpower into machine power i.e. banks are decreasing manual powers and getting maximum work done through machine power. Skilled and specialized man power is to be utilized and result oriented targeted staff will be appointed.

Handling Technology: Developing or acquiring the right technology, deploying it optimally and then leveraging it to the maximum extent is essential to achieve and maintain high service and efficiency standards while remaining cost effective and delivering sustainable return to shareholders. Early adopters of technology acquire significant competitive advances Managing technology is therefore, a key challenge for the Indian banking sector.

Conclusion

Most of the banks have implemented E-banking facilities which are beneficial to both i.e., banks and the customers. Though there are many challenges and hurdles in the smooth implementation of E-banking system in India but at the same time E-banking is having a bright future. The use of ATMs, Debit and Credit has become a good source of usage of information technology and has paved a way for Digitalization. However, the financial service firms are still lagging behind in implementing big data analytic tools, which signifies an untapped potential for value creation, available for the banking industry. This needs to be evaluated from an IT (In-formation Technology) or LoB (Line of Business) perspective.

Recommendations

1) Designation-wise, in HRIS by IT Recruiters of selective software companies in HR processes, time and cost savings, information flow and even the decision making is more than others.
2) The IT Recruiters, Human Resource Managers and HR Staff also mean the actual use of HRIS and the HR processes is more than the mean usage of this variable of others.
3) In the area of time and cost savings IT Recruiters and Human Resource Executives mean the actual use of HRIS which is more than the mean use of this variable by others.
4) HRIS in information flow area, it is too a greater extent by the Human Resource Managers than the mean usage of this area by the other groups. The HRIS mean usage by Managers of other departments in the area of decision making is lesser than the HRIS mean usage.
5) HRIS in HR processes focuses on time and cost savings, information flow and decision making of IT Recruiters, Human Resource Executives and Human Resource Managers and their usage level of HRIS which is more than the mean usage of these variables.
6) There is no proper training /education actually given to the employees which is in respect of HRIS on-the-job and off-the-job and online so as to make the HRIS and its usage in the software companies more effective. Therefore there is a dire need to train the employees' in house and the online training.

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