

AN OVERVIEW OF DIGITAL BANKING-THE ROAD AHEAD

Dr. Anita Bajaj,

Associate Professor,
Department of Commerce, PGDAV College (E),
University of Delhi

ABSTRACT

Since the digitalization of banking industry is an absolute necessity in the modern networked world, it entails for an agile and lean banking system, which brings in convenience of anytime and anywhere banking for the customer. This paper tries to trace the emerging banking scenario in context of the pertinent changes that have to be incorporated, through enhanced cyber security measures that have to be installed to make the transactions free from any malware attack. The various operational systemic software architecture changes have to be inducted, so that seamless transactions can be easily performed by the staff and the customers.

Keywords: Digitalization, Encryption, Customer-centric

INTRODUCTION

The banking industry has undergone a sea change in the area of adopting updated operational systems along with giving the customers convenience at their fingertips. The systemic software architecture has evolved over the last decade in the financial sector and has given them a competitive edge over other sectors in the economy. The era of digital banking has led to a lean and agile banking system which has applied customer centric approaches to deliver safety and convenience to the customer. This has led to an increase in profitability and market innovation and business growth towards delivering higher ROI in the financial sector with special reference to the banking industry. Leveraging digital transformation capabilities is mission critical for the banking industry which helps in optimizing the operational cost of delivering value to the customer. Thus, a trailblazing financial firm must make use of emerging technologies, digitalization, data centric decision

making, cross-functional collaboration and innovative processes for an edge in a fiercely competitive marketplace.

There have been various studies done for comprehending the relevance of digitisation in the banking industry. These articles help in breaking the polarities of traditional and innovative banking practices. The study conducted by Srivastava, T.N.,(2004) provides basic knowledge of computerised and communication systems and their application in the banking industry. This study attempts to elucidate, all the basic concepts in a concise and lucid manner and describes all the applications of computers and communication for the banking industry. In fact, the study is oriented towards bankers operating as decision makers who not only need to comprehend the concepts of hardware and software systems, but also would like to get a deeper insight into its applications in banking. The author describes the relevance and background of computerisation in banks, which is

extremely relevant for bankers and new entrants to the banking system. The importance of total computerisation at branch level and the integration of its computerisation with the head office is highlighted. A brief account of digital storage, retrieval and transmission of documents, with particular focus on cheque instruments is mentioned, it also elaborates the magnetic ink character recognition system being used in the banking system.

While computerisation encompasses the entire gamut of banking operations, information dissemination and decision-making processes, it contains only four areas of applications which are, inter-branch Reconciliation, Foreign Exchange Operations, Portfolio and Funds Management and Statistical Analysis.

This study also includes all the computerised networks associated with banking in India. For improving customer service, the banks have made banking facilities available beyond banking hours and at places other than the branch where the customer has an account. This is popularly referred to as Any Time-Anywhere Banking. The author describes all the aspects of the guidance notes issued for banks in this regard by the Reserve Bank of India.

In an article by Khubchandani, B.S(2006), the author explains the origin of banks in India and functions of the bank, banking system in India and the promotional role of E-Banking in India. It covers the relationship between RBI & commercial banks and the banks and their respective customers also. The author gives a brief reference of all the banking operations performed by a bank like issuing Bills of exchange, closure of banks accounts, giving statement of accounts, providing various types of services for the customer. In the study the author also emphasises the laws affecting banking, many type of banking committees and their recommendations.

Yogeshwar Kumar in his study has focused on electronic technology, Internet, communication network such as INFINET, a closed user group

network for the banking and financial sector, using VSAT(very small aperture terminal used for transmitting data over a satellite communication network), encryption technology like DES(Data Encryption Standard), RSA, Biometric method and using firewalls to boost the security in the systems. With the rapid improvement in electronic technology and availability of higher computer power and faster communication technology, the society has become more sophisticated than in olden days. We have a better educated, better informed, better organised and better paid workforce than existed in olden days.

Consequently, the long term trend is for people on the whole, to be more financially sophisticated, that is, more aware of the value of funds, of time and convenience. This has led to a demand for more efficient banking system with efficient payment methods. The situation has resulted in more competition among banks and stimulated more technological developments. Hence, there is continuous increase in the use of electronic technology to meet the ever-increasing competition in banking which is virtually transforming brick and mortar banking to E-Banking.

In another study Mtitliotr, A.P., has stated the meaning of E-Banking which is performing banking activities using electronic systems. The range of services offered by E-Banking includes Electronic Fund Transfers, ATM, Point of Sales, Electronic Data Interchange, Internet Banking, Telebanking, Anywhere Banking with the benefits accruing to the customers, banks, merchants and traders and to government and nation also. The author presents the findings released in the survey of National Association of Software and Services Companies (NASSCOM) to evaluate E-commerce scenario in India. In this regard issues related to E-Banking, Cyberlaws, IT Bill 2000 are also discussed in the study. Wireless e-commerce is going to revolutionise the retail financial services offered to the customer.

According to statistics from Credit Suisse First Boston there will be 28 million mobile phone users in the UK by 2007 about half of the estimated

country's population. The emergence of other mobile devices means there will be more devices per person by 2012. So why are the banks so far behind in implementing WAP services, the main difficulty is ensuring that services offer the functionality and speed expected by the consumers to complete their transactions seamlessly.

It is estimated that 95 per cent of mobile devices will be WAP-enabled by 2008 but some banks are using short messaging service (SMS) banking as a half-way house towards an interactive wireless service.

Ganesh, S. describes E-commerce as the paperless exchange of business information between organisations and individuals. E-commerce extends to any form of buying and selling by consumers and companies over a computer network. E-commerce includes Electronic Data Interchange, Electronic Mail, Electronic Bulletin Boards, Electronic Funds Transfer and other technologies that are based on computer networks. The Buyer's Guide to Electronic Commerce defines E-Commerce as using information technology to improve relationships between partners.

The author emphasises on the issues and concerns to be taken into consideration by banks like, the risk of loss of security is present when an organisation makes use of the Internet for putting through an E-Commerce transaction. In the current Indian scenario legal issues arising, for example, on account of siphoning off cash electronically by cyber criminals, will pose a major challenge to Indian banks entering the E-Commerce arena.

E-Commerce in India is at a nascent stage but will grow quickly on account of the positive and encouraging developments that are taking place in the industry, such as framing of comprehensive cyber-laws, setting up of a national digital certification authority, providing global level telecom infrastructure with competitive tariffs and permitting private Internet Service Providers to set up gateways.

Slowly but surely, E-Commerce is making the banking industry seamless. Banks in India can

reap the benefits of participation in E-Commerce. In this regard, the experience gained by banks operating in "wired" countries such as USA, would be a good point of reference for Indian banks proposing to enter the E-Commerce arena.

Bhasin, T.M., (2003), in his study the author explains the scope and concept of E-Commerce, models and implementation strategy of E-Commerce in Indian banking scenario. The human life in general and the financial world in particular, have been profoundly effected by the digital age. Today, the words e-commerce, e-cash, e-purse, e-sourcing, e-trading sound like buzz words. Information technology and communication networking systems have revolutionised the functioning of banks and other financial institutions the world-over. Banks and financial institutions stand to benefit enormously from e-commerce in terms of reduced transaction costs, improved customer service, better customer loyalty and updated business intelligence about all the customers in its databases.

E-Banking is emerging as an effective delivery channel for the banks which provides a lean and agile business proposition which enhances profitability. Mobile banking is emerging as even more efficient and convenient channel which is all set to explode as the number of mobile users are increasing exponentially across the globe. Customer are being provided with additional delivery channels viz. Internet banking, mobile banking, ATMs, etc. in line with their expectations and requirements. Each of these channels has its own specific advantages in terms of convenience, improved customer service and reduced transaction cost. In order to facilitate E-banking, a reliable and robust networking and enhanced security features is an essential prerequisite.

Banks as well as other financial entities in India have entered the world of information technology and computer networking in a big way. However, due to large geographical spread of the banking in India and lack of basic infrastructure to support computerisation and networking, the process of technology adoption has been-relatively slow until the new millennium sets in with new

hopes and better scope.

Murthy, G.R.K., in his article "Banking in the DOTCOM World : A Preview", makes an attempt to present a preview of such a shift owing to rewritten banking style and its management rules. As a net result, emerging economy besides throwing open its own distinct opportunities demands for its own new rules. Many authorities on e-business are postulating that those who play by the new rules will prosper, those who ignore them will not.

DRBT, A report on "Indian Financial Network (INFINET)" presents that the INFINET is a Closed User Group (CUG) Network for the banking and financial sector. INFINET was inaugurated on June 19, 1999. To start with, it is a VSAT based satellite network and the plans to expand this network with a blend of terrestrial network of high-speed links (2 mbps or more) and VSAT network are in progress. In phase-I of the VSAT network, about 400 VSATs have been installed and commissioned. A number of banks have started using the network for various applications. Currently the banks are using this network mostly for messaging (E-mail), File transfer and Chat services. A few banks have started using this network for critical applications like multi-branch banking and some of the banks are in the process of building their own internal applications.

Plans for expansion of INFINET are already afoot and INFINET in future will be a blend of terrestrial network and VSAT network. As many as 21 major business centers have already been identified for linking through high speed fiber optics links and this terrestrial network will be seamlessly integrated with the VSAT network. It is also expected that the number of VSATs will increase to about 10000 VSATs by the middle of 2003.

Gulati, V.P., Ganapathy, K.R. and Saxena Ashu have discussed in their study the ardent need of a foolproof security policy for a bank during performing transactions through Electronic Banking .It becomes essential for each organisation to develop a robust security policy and subsequently design a plan, which is enforceable and provides assurance in the organisation.

In order to decide the security policy, we need to decide the exact security profile that is required. An effective way to do this is by applying the System Security Engineering Capability Maturity Model (SSE-CMM). The (SSE-CMM) is a tool for appraising and improving an organisation's secure engineering practices, and for augmenting existing assurance methods.

To create a security profile, we must first understand what are the components for the security profile. This involves a thorough understanding of the existing and forthcoming trends in a banking sector, the exact requirements to fully constitute the security profile and then identify how to go about building the security profile. For this we need to –

- 1) Understand and Measure the Risk Exposure,
- 2) Understand the Environment,
- 3) Identity Assurance Levels, and
- 4) Validate and Verify Security Profile.

The first step, is in the direction of having an effective security policy architecture for a banking network. The need of the hour is, therefore, to make the banking network secure, with a good security infrastructure and policy in place to support the network, so that none of the risks associated with networked banking become a reality. Hence, the top management of each bank, with nominated team members of the IT department and other operational departments should immediately take up the task of putting this security into their networks and systems with right earnestness.

REFERENCES

1. Srivastava, T.N. "An Introduction to Computers and Then Applications to Banking", Macmillan India Ltd., 2004.
2. Srivastava, Dr. Prem Kumar, "Banking Theory & Practice", Himalava Publishing House, 1994.
3. Diwan Parag and Dharm Bir Singh, "Computer Networks Driven E-Commerce Technologies" by, Amexcel Publishers Private Ltd., 2006.

4. Basandra, S.K, "Computer Systems Today", A.H. Wheeler & Co. Ltd., 2006.
5. Singh, Dr. Vir -J Shankar, "Development Banking in India", Deep and Deep Publications, 1985.
6. Bhasin T.M. "E-Commerce in Indian Banking", Authors Press, 2003.
7. Seybold Patricia B.,and Ronni T. Marshak,"E-Commerce.com" Pen-Times, New Delhi, 2000.
8. Diwan Parag & Sunil Sharma, "Electronic Commerce-A Managers Guide to E-Business" by, Vanity Books International, New Delhi, 2003.
9. Kalakota, Dr. Ravi, & Marcia Robinson "E-Business - Road Map for Success", Pearson Education Asia Pvt. Ltd.
10. Bajaj Kamlesh & Debjani Nag, "E-Commerce-The Cutting Edge of Business", Tata McGraw Hill Publishing Co. Ltd., New Delhi, 1999.
11. Kalakota Ravi, Andrew B. Whinston "Electronic Commerce", Pearson Education Asia Pvt. Ltd., 2006.
12. Wendy G. Lehnert, "Internet - A Beginners Guide to the Internet and the World Wide Web", University of Massachusetts, Amherst, 1999.
13. Bavveja Arun, "Information Technology and Development", Kalpaz Publication, 2006.
14. Bavveja Arun, "Introduction to Information Technology", Kalpaz Publication, 2006.
15. Naravan Ajit & L.K. Thakur, "Internet Marketing E-Commerce and Cyber Law", Printed in India at Tarsun Offset, Delhi.