

Electronic Banking in India: Innovations, Challenges and Opportunities

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Abstract: Banking is the lifeline of an economy. The present and future of any economy depends upon the success and development of banking. The objective can't be achieved with the traditional banking as now is the age of technology. Indian banking industry, today, is in the midst of an IT (Information Technology) revolution. The competition among the banks has led to the increasing total banking automation in the Indian banking industry. E-Banking is a generic term encompassing internet banking, telephone banking, mobile banking etc. In other words, it is a process of banking services and products through electronic channels such as telephone, internet, cell phone etc. The concept and scope of E-banking is still evolving. The present paper has focused on the need and benefits of E-banking. It has also revealed the current status of financial innovations in Indian Banking sector. It also highlighted the challenges faced in E-banking and the opportunities available with the banks in E-banking.

Keywords: E-Banking, ATMs, Information Technology, RTGS, Debit and Credit cards

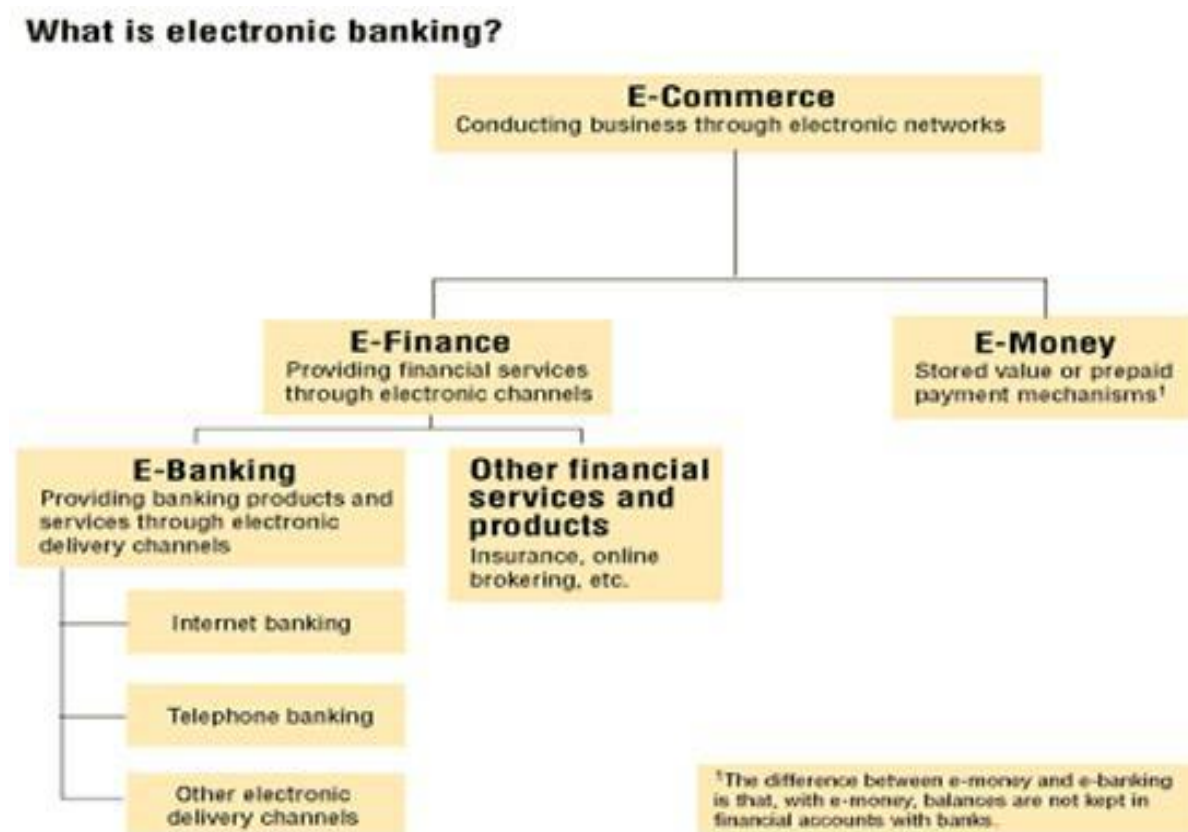
1. INTRODUCTION

Banking is the lifeline of an economy. The present and future of any economy depends upon the success and development of banking. The objective can't be achieved with the traditional banking as now is the age of technology. Indian banking industry, today, is in the midst of an IT (Information Technology) revolution. The competition among the banks has led to the increasing total banking automation in the Indian banking industry. Finland was the first country in the world to have taken a lead in E-banking. In India, it was ICICI bank which initiated E-banking as early as 1997 under the brand name Infinity. Electronic banking is defined as "Delivery of bank's services to a customer at his office or home by using Electronic technology can be termed as Electronic Banking." Online Banking or Internet Banking or E-banking allows customers of financial transactions on a secured website operated by the institution, which can be a retail bank, virtual bank, credit union or building society. To access a financial institutions' online banking facility, a customer having personal internet access must register with the institution for the service, and set up some password for customer verification. To access online banking, the customer would go to the financial institution's website, and enter the online banking facility using the customer number and password. Popular services covered under E-Banking. The popular services covered under E-banking include:-

- Automated Teller Machines
- Credit Cards
- Debit Cards
- Smart Cards
- Electronic Funds Transfer (EFT) System,
- Cheques Truncation Payment System
- Mobile Banking, Internet Banking
- Telephone banking

E-Banking is a generic term encompassing internet banking, telephone banking, mobile banking etc. In other words, it is a process of banking services and products through electronic channels such as telephone, internet, cell phone etc. The concept and scope of E-banking is still evolving. E-banking facilitates an effective payment and accounting system

thereby enhancing the speed of delivery of banking services. While E-banking has improved efficiency and convenience, it has also posed several challenges to the regulators and supervisors. There are also many opportunities that are available in E-banking in the Indian Banking sector. E-banking concept has been clearly shown by the diagram.



2. HISTORY OF ONLINE BANKING

The originator for the modern home online banking services were the distance banking services over electronic media from the early 1980s. The term online became popular in the late '80s and referred to the use of a terminal, keyboard and TV (or monitor) to access the banking system using a phone line. 'Home Banking' can also refer to the use of a numeric keypad to send tones down a phone line with instructions to the bank. Online services started in New York in 1981 when four of the city's major banks (Citibank, Chase Manhattan, Chemical and Manufacturers Hanover) offered home banking services using the videotext system. Because of the commercial failure of videotex these banking services never became popular except in France where the use of videotex (Minitel) was subsidised by the telecom provider and the UK, where the Prestel system was used. The UK's first home online banking services was known as Homelink and it was set up by Bank of Scotland for customers of the Nottingham Building Society (NBS) in 1983. The system used was based on the UK's Prestel view link system and used a computer, such as the BBC Micro, or keyboard (Tandata Td1400) connected to the telephone system and television set. The system allowed on-line viewing of statements, bank transfers and bill payments. In order to make bank transfers and bill payments, a written instruction giving details of the intended recipient had to be sent to the NBS who set the details up on the Homelink system. Typical recipients were gas, electricity and telephone companies and accounts with other banks. Details of payments to be made were input into the NBS system by the account holder via Prestel. A cheque was then sent by NBS to the payee and an advice giving details of the payment was sent to the account holder. BACS was later used to transfer the payment directly. Stanford Federal Credit Union was the first financial institution to offer online internet banking services to all of its members in October 1994. Today, many banks are internet only banks. Unlike their predecessors, these internet only banks do not maintain brick and mortar bank branches. Instead, they typically differentiate themselves by offering better interest rates and more extensive online banking features.

3. REVIEW OF LITERATURE

Trivedi & Patel (2013) analysed the problems faced by customers while using e-banking facilities in India. It observed that most of the customers know about the e-banking services offered by their bank. The study found that there is a significant difference amongst different problems identified while using e-banking services. It also found that some problems affect more and some problems affect less in use of banking services. It concluded that all the reasons are not equally responsible for not using e-banking services. Haq & Khan (2013) analysed the challenges and opportunities in the Indian Banking sector. The study showed that only 28 per cent banking clients were using internet banking after evaluating the population characteristics. It found that there was no significant relationship in between age and use of cyber banking. It also depicted that there is no relation in between gender and the adoption of internet banking. It observed that qualification in terms of education and income of the respondents were playing the role in the acceptance of online banking. The study suggested that it is the need of time that financial literacy of the users should be increased through various programs which should be run by banks to increase the awareness of internet banking. Gupta & Mishra (2012) examined the new emerging trends of E-banking in Indian banking industry. The study found that there are many challenges faced by banks in E-banking and there are many opportunities available with the banks. It concluded that banking sector will need to master a new business model by building management and customer services. It also suggested that banks should contribute intensive efforts to render better services to their customers. Chavan (2013) described the benefits and challenges of Internet banking in an emerging economy. It observed that online banking is now replacing the traditional banking practice. It showed that online banking has a lot of benefits which add value to customers' satisfaction in terms of better quality of service offerings and at the same time enable the banks gain advantage over the competitors. It also discussed some challenges in an emerging economy. Srivastava (2007) analysed the customer's perception on usage of internet banking. It also focused on what are the drivers that drive consumers, how consumers have accepted internet banking and how to improve the usage rate. The study revealed that education, gender, income plays an important role in the usage of internet banking. It also observed that inhibitory factors like trust, gender, education, culture, religion, security, price can have minimal effect on consumer mind set towards internet banking.

Objectives of the study

- To study the need and benefits of E-banking.
- To study the current status of financial innovations in Indian banking sector.
- To study the challenges faced in E-banking.
- To study the opportunities available in E-banking.

Research Methodology

The present study is descriptive in nature. The data used for the study is secondary in nature and has been collected from RBI (Reserve Bank of India) bulletin, annual reports of RBI and, Report on trend and progress of banking in India, various reputed journals, newspapers, white papers and websites of RBI.

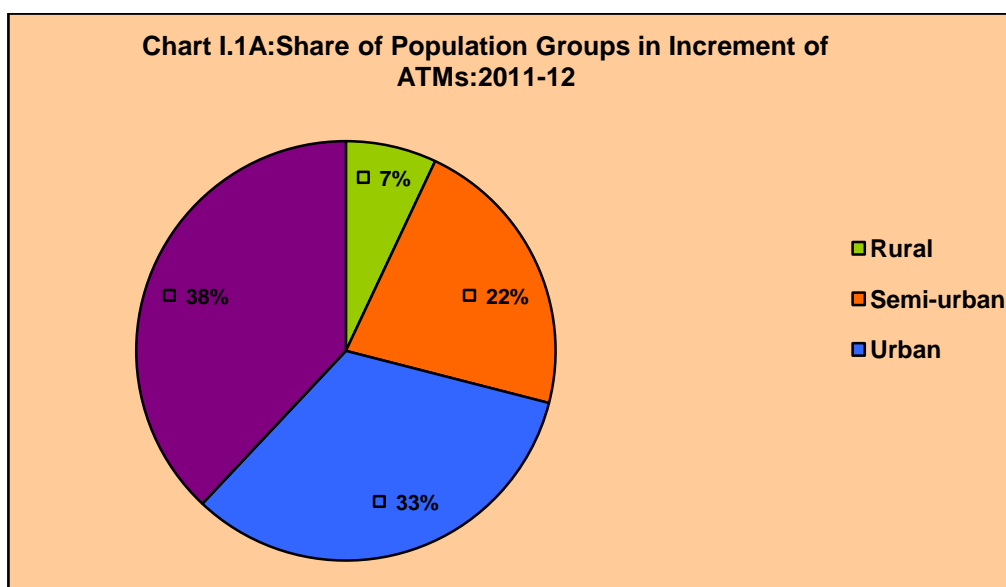
4. NEED AND BENEFITS OF E-BANKING

Many inventions and revolutions have taken place in the history of banking but no such things have changed the business of banking as fast as the e-banking revolution. Now-a-days, banks all over the world are making their business strategies in the light of new opportunities offered by e-banking. E-banking has facilitated banks to scale borders, change strategic behaviour and thus bring about new possibilities. E-banking has encouraged real banking behaviour closer to neoclassical economic theories of market functioning. As there is presence of absolute transparency of the market, clients (both business and retail) can make comparison of the services provided by various banks easily. For example, at every click on the internet you'll face your competitors. If clients are not happy and satisfied with the products, prices or services offered by a particular bank, they are capable of changing their banking partner very easily as compared to what happens in the physical or real bank-client relationship. Therefore, from the view-point of banks, use of the internet has significantly reduced the physical costs of banking operations. Thus, e-banking services whether delivered online or through other mechanisms, have spread quickly in recent years. The primary benefit of e-banking from the bank customers' point of view is significant saving of time by the automation of banking services processing and introduction of an easy maintenance tools for managing customer's money. Other benefits of E-banking are also there such as reduction in costs in accessing and using the banking services, increase in comfort and timesaving, quick and continuous access to

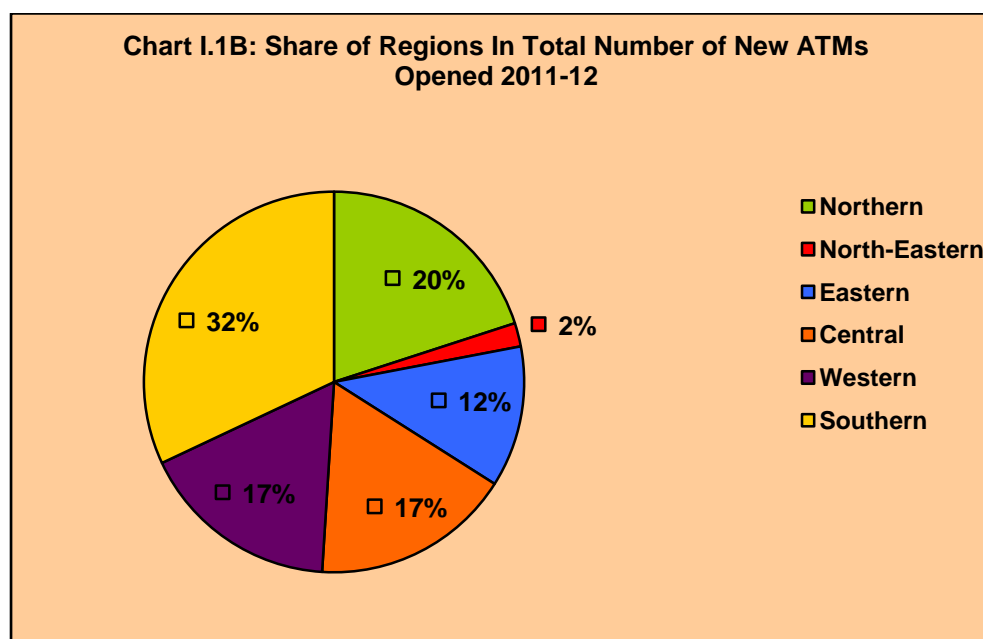
information, better management of cash, convenience in performing banking transactions, speed in getting response, proper management of funds.

Current Status of Financial Innovations in Indian Banking Sector

Today banking is known as innovative banking. Information technology has given rise to new innovations in the product designing and their delivery in the banking and finance industries. Customer services and customer satisfaction are their prime work. Current banking sector has come up with a lot of initiatives that oriented to providing a better customer services with the help of new technologies. 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 labour 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. A study on the Internet users, conducted by Internet and Mobile Association of India (IAMAI), found that about 23% of the online users prefer Internet Banking as the banking channel in India, second to ATM which is preferred by 53%. Out of the 6,365 Internet users sampled, 35% use online banking channels in India. Plastic money is the alternative to the cash or standard money. It is convenient to carry. The various Plastic money/cards include ATM cards, Debit Card, ATM cum Debit Card, Credit Card. Plastic money was a delicious gift to Indian market. Now several new features added to plastic money to make it more attractive. Credit card is a financial instrument, which can be used more than once to borrow money or buy products and services on credit. Banks, retail stores and other businesses generally issue these. On the basis of their credit limit, they are of different kinds like classic, gold or silver. The electronic payment systems such as Electronic Clearing Service (ECS) credit and debit, National Electronic Fund Transfer (NEFT) for retail transactions and Real Time Gross Settlement (RTGS) for large value, improved the speed of financial transactions, across the country. The introduction of ATMs in banks has transformed banking by providing banking services ANY TIME & ANYWHERE, ANYBANK to the customer. The customer is saved the risk or bother of carrying hard cash or travellers' cheque while travelling. It has also given cost savings to banks. Entry of ATMs has changed the profile of front offices in bank branches. Customers no longer need to visit branches for their day to day banking transactions like cash deposits, withdrawals, cheque collection, balance enquiry etc. Off-site ATMs has more significance than on-site ATMs for banking penetration. Off-site ATMs play an important role by providing the basic banking services like cash withdrawal, transfer of funds even without the presence of full-fledged brick-and-mortar branches. During 2011-12, there was an addition of 14,365 new off-site ATMs. However, metropolitan areas accounted for the maximum number of newly opened ATMs. Southern region had maximum number of newly opened ATMs, followed by northern region. However, the share of rural areas in the total number of ATMs continued to remain small. The details of share of Population Groups in Increment of ATMs and the share of Regions to total number of new ATMs opened are shown by Chart I.1A and I.1B.



(Source: Report on Trend and Progress of Banking in India for the year ended June 30, 2012, RBI)



(Source: Report on Trend and Progress of Banking in India for the year ended June 30, 2012, RBI)

The details of ATMs of SCBs (Scheduled Commercial Banks) at various locations at end-March 2012) are shown in Table I.6.

Table 1.6: Number of ATMs of SCBs at Various Locations (At end March 2012)

Bank Group	Rural	Semi-Urban	Urban	Metropolitan	Total
1	2	3	4	5	6
Public sector banks	6,673	15,135	19,213	17,172	58,193
	(11.5)	(26.0)	(33.0)	(29.5)	(100.0)
Nationalised Banks	3,383	6,800	10,186	10,681	31,050
	(10.9)	(21.9)	(32.8)	(34.4)	(100.0)
State Bank Group	3,290	8,335	9,027	6,491	27,143
	(12.1)	(30.7)	(33.3)	(23.9)	(100.0)
Private sector banks	1,937	7,520	11,525	15,097	36,097
	(5.4)	(20.8)	(31.9)	(41.8)	(100.0)
Old Private Sector Banks	523	2,025	1,876	1,347	5,771
	(9.1)	(35.1)	(32.5)	(23.3)	(100.0)
New Private Sector Banks	1,414	5,495	9,649	13,750	30,308
	(4.7)	(18.1)	(31.8)	(45.4)	(100.0)
Foreign Banks	29	22	268	1,095	1,414
	(2.1)	(1.6)	(19.0)	(77.4)	(100.0)
Total	8,639	22,677	31,006	33,364	95,686
	(9.0)	(23.7)	(32.4)	(34.9)	(100.0)
Growth over Previous year	(20.7)	(25.4)	(28.9)	(32.4)	(28.4)

Note: Figures in parentheses indicate population group-wise percentage share of total ATMs under each bank group.
(Source: Report on Trend and Progress of Banking in India for the year ended June 30, 2012, RBI)

Challenges in E-Banking

- **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.
- **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.
- **Confidentiality, integrity and authentication:** These three are the very important features of the banking sector and were very successfully managed all over the world before the coming of internet. Communication across an open and thus insecure channel such as the internet might not be the best base for bank-client relations as trust might partially be lost.
- **Customer Satisfaction:** In today's competitive world, satisfaction of customers is a major challenge for the banking sector because customers have alternative choices in various types of services provided by banks.
- **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.
- **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.
- **Other Challenges:**
 - a) Coping with regulatory reforms
 - b) Development of skill of bank personnel
 - c) Customer awareness and satisfaction
 - d) Corporate governance
 - e) Changing needs of customers
 - f) Keeping space with technology up gradation
 - g) Lack of common technology standards for mobile banking
 - h) Sustaining healthy bottom lines and increasing shareholders value
 - i) Structural changes
 - j) Man power planning

Opportunities

- **Untapped Rural Markets:** Contributing to 70% of the total population in India is a largely untapped market for banking sector. In all urban areas banking services entered but only few big villages have the banks entered. So that the banks must reach in remaining all villages because majority of Indian still living in rural areas.
- **Multiple Channels:** Banks can offer so many channels to access their banking and other services such as ATM, Local branches, Telephone/mobile banking, video banking etc. to increase the banking business.
- **Worthy Customer Service:** Worthy customer services are the best brand ambassador for any bank for growing its business. Every engagement with customer is an opportunity to develop a customer faith in the bank. While increasing competition customer services has become the backbone for judging the performance of banks.
- **Internet Banking:** It is clear that online finance will pickup and there will be increasing convergence in terms of product offerings banking services, share trading, insurance, loans, based on the data warehousing and data mining technologies. Anytime anywhere banking will become common and will have to upscale, such up scaling could include banks launching separate internet banking services apart from traditional banking services.
- **Retail Lending:** Recently banks have adopted customer segmentation which has helped in customizing their product folios well. Thus retail lending has become a focus area particularly in respect of financing of consumer durables, housing, automobiles etc., Retail lending has also helped in risks dispersal and in enhancing the earnings of banks with better recovery rates.
- **Indian Customers:** The growing Indian banking sector with its strong home country linkages, seek a unique combination of Indian ethnicity and global standards that offers a valuable nice opportunities for Indian banks. The biggest opportunity for the Indian banking sector today is the Indian costumers. Demographic shifts in terms of income level and cultural shifts in terms of life style aspirations are changing the profile of the Indian customer. This is and will be a key driver of economic growth going forward. The Indian customers now seek to fulfil his lifestyle aspirations at a younger age with an optimal combination of equity and debt to finance consumption and asset creation. The consumer represents a market for a wide range of products and services he need a mortgage to finance his house, an auto loan for his car, a credit card for on-going purchases, a bank account, a long term investment plan to his children's higher education, pension plans for his retirement, a life insurance policy the possibilities are endless and this consumer does not live just in India's top ten cities. He represents across cities, towns and villages i.e. in rural areas. Consumer goods companies are already tapping this potential it is for the banks to make the most of the opportunity to deliver solutions to this market.
- **Other Opportunities :**
 - a) To enter new business and new markets
 - b) To develop new ways of working
 - c) To improve efficiency
 - d) To deliver high level of customer services.

5. CONCLUSION

In the past few years, the Indian banking sector has completely transformed. The banks are facing many challenges and many opportunities are available with the banks. Many financial innovations like ATMs, credit cards, RTGS, debit cards, mobile banking etc. have completely changed the face of Indian banking. But still there is a need to have more innovative solutions so that the challenges can be solved and opportunities can be availed efficiently by the banks

REFERENCES

- [1] Chavan, J. (2013). Internet banking- Benefits and challenges in an emerging economy. International Journal of Research in Business Management, 1(1), 19-26.
- [2] Gupta, P., Mishra, C. M. (2012). E-banking- New emerging trends in Indian banking industry. Research Journal of Economics and Business Studies, 1(10), 1-3.
- [3] Haq, S., Khan, M. (2013). E-banking challenges and opportunities in the Indian banking sector. Innovative Journal of Business and Management, 2(4), 56-59.

- [4] Jatana, R., Uppal, R.K. (2007). E-banking in India: Challenges and opportunities. New Century Publications.
- [5] Kaptan, S.S., Choubey, N.S. (2003). Indian banking in electronic era. Sarup and Sons. New Delhi.
- [6] Singh, K. (2012). E-banking in India: Progress and Prospects. Lambert Academic Publishing.
- [7] Srivastava, R. K. (2007). Customer's perception on usage of internet banking. Innovative Marketing, 3(4), 67-73.
- [8] Trivedi, M. H., Patel, V. B. (2013). Problems face by customers while using e-banking facilities in India. International Journal of Scientific Research, 2(3), 121-123.
- [9] Sathiye, M. (1999). Adoption of Internet Banking by Australian customers: An empirical investigation. International Journal of Bank Marketing, 17(07), 101-122.
- [10] Srinivas, S. (2004). Role of trust in e-banking success. Information Management and Computer Security, 12(1), 33-35.
- [11] www.wikipedia.org
- [12] www.rbi.org.in