



Project on Online banking

ENVIRONMENTAL STUDIES (University of Calcutta)

CHAPTER-1

INTRODUCTION

The advent of Internet has initiated an electronic revolution in the global banking sector. The dynamic and flexible nature of this communication channel as well as its ubiquitous reach has helped in leveraging a variety of banking activities. Electronic banking, also known as electronic funds transfer (EFT), is simply the use of electronic means to transfer funds directly from one account to another, rather than by cheque or cash. You can use electronic funds transfer to:

- 1* Have your pay check deposited directly into your bank or credit union checking account.
- 2* Withdraw money from your checking account from an ATM machine with a personal identification number (PIN), at your convenience, day or night.
- 3* Instruct your bank or credit union to automatically pay certain monthly bills from your account, such as your auto loan or your mortgage payment.
- 4* Have the bank or credit union transfer funds each month from your checking account to your mutual fund account.
- 5* Have your government social security benefits check or your tax refund deposited directly into your checking account.
- 6* Buy groceries, gasoline and other purchases at the point-of-sale, using a check card rather than cash, credit or a personal check.
- 7* Use a smart card with a prepaid amount of money embedded in it for use instead of cash at a pay phone, expressway road toll, or on college campuses at the library's photocopy machine or bookstores.

1.1 BACKGROUND

The history of Internet banking began nearly as soon as the Internet became widely known in the 1980s. A person would need a computer terminal, monitor, and phone line to access his or her bank

account. The push buttons on the phone could be used to send messages to the bank. As the Internet grew in prominence in the 1990s, banks offered services via web browsers. The Stanford Federal Credit Union was the first to offer customers access to 24-hour banking through the Internet in 1994.

1.2 LITERATURE REVIEW

Past research related to channel adoption has identified a number of demographic, psychological, attitudinal and behavioural factors. Several studies have been made regarding this topic in the past.

Swinyard and Ghee (1985) found that ATM cardholders differed from non-cardholders on several attitudinal characteristics. ATM cardholders were found to have more favorable attitudes towards ATMs, towards change, towards computers, and were more venturesome and have more self-confidence. Age was also significant in a study of the characteristics affecting the acceptance of retailing technologies by **Zeithaml and Gilly (1987)**. In their study, it was concluded that the impact of age depended on the product category; while elderly consumers, compared to non-elderly, were the main adopters of electronic funds transfer, they were less likely to adopt innovations, such as ATMs; some people feel strongly that the use of machines (i.e., technology interfaces) dehumanizes service encounters and consequently, value of their perceived quality of human interaction. **Rugimbana (1995)** contrasted consumers' perceptual characteristics with demographic characteristics to predict a retail banking customer's ATM user status. Although perceptual variables had a superior predictive capability, he found age and occupation to be the important predictors of consumers' ATM usage particularly in answering 'who' the users are. Customers who are younger, more educated, and wealthier are more likely to use Internet banking (**Sathye, 1999; and Karjaluoto et al., 2002**). **Karjaluoto et al. (2002)** indicated that prior computer

experience, such as Internet, e-mail and e-payment had the most significant impact on online banking usage, and also technology experience, such as ATM, e-ID, was significant. Prior experience of technologies, especially prior experience of computers, had impact on consumer beliefs and attitudes towards related systems and technology. **Mattila et al. (2003)** identified that household income and education had a significant effect on the adoption of Internet banking among mature consumers in Finland, whereas perceived difficulty in using computers combined with lack of personal service in e-banking were the main barriers. **Akinci et al. (2004)** conducted an empirical study on adoption of Internet banking by academicians in Turkey.

1.3 OBJECTIVES

Internet banking has become very much popular now a day's throughout the globe. It has made the banking activities easier, faster and more accessible. Now people are trying to learn more about the E-banking. The primary objective of the research is to get the full acquaintance of the internet banking and its benefits. To add more knowledge about internet banking the following are the secondary objectives of this research study.

1. To know how the internet banking has revolutionised the banking sector.
2. To help the learners to know about the current concerns in the internet banking.
3. To know how challenging internet banking has become and how the banking sector applies different strategies to cope up with the challenging environment.

1.4 RESEARCH METHODOLOGY

A. PRIMARY SURVEY : -

Questionnaire distributed among people having bank accounts. A sample questionnaire of 10 questions distributed to 50 people.

B. SECONDARY SURVEY :

Secondary data has been collected from different publication material and web site as well as the books and material from different libraries, the hand note of the various seminar and research related to the issue are taken into account.

1.5 LIMITATIONS

Each and every theory has a limitation, this project being no exception has its fair share of limitations as well, some of which are as follows:-

- The research is on adoption of basic E-banking services in India but this study was conducted for mainly kolkata only and all regions of India are not covered.
- While collecting primary data, information were not collected from the service providers.
- There were several time constraints.
- The sample size of only 50 was taken from the large population for the purpose of study, so there can be difference between results of sample from total population.

- Due to continuous change in environment, what is relevant today may be irrelevant tomorrow.

1.6 CHAPTER PLANNING

Each chapter has been planned systematically.

Firstly, under introduction background of the topic is discussed and various aspects of online banking. Secondly the conceptual overview of the topic is given. Thirdly, analysis and findings is done on the basis of survey and questionnaire. Finally the conclusion and overall summary is given.

CHAPTER 2

CONCEPTUAL OVERVIEW

2.1 MEANING

In simple words, Banking can be defined as the business activity of accepting and safeguarding money owned by other individuals and entities and leading out this money in order to earn a profit. However, with the passage of time, the activities covered by banking business have widened and now various other services are also offered by banks. The banking services these days include issuance of debit and credit cards, providing safe custody of valuable items, lockers, ATM services and online transfer of funds across the country / world

2.2 BENEFITS

For Banks:

- **Price-** In the long run a bank can save on money by not paying for tellers or for managing branches.
- **Customer Base-** the Internet allows banks to reach a whole new market- and a well off one too, because there are no geographic boundaries.
- **Efficiency-** Banks can become more efficient than they already are by providing Internet access for their customers.
- **Customer Service and Satisfaction-** Banking on the Internet not only allow the customer to have a full range of services available to them but it also allows them some services not offered at any of the branches.
- **Image-** A bank seems more state of the art to a customer if they offer Internet access. A person may not want to use Internet banking but having the service available gives a person the feeling that their bank is on the cutting image.
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For Customers:

- **Bill Pay:** Bill Pay is a service offered through Internet banking that allows the customer to set up bill payments to just about anyone. Customer can select the person or company whom he wants to make a payment and Bill Pay will withdraw the money from his account and send the payee a paper check or an electronic payment.

- **Other Important Facilities:** E- banking gives customer the control over nearly every aspect of managing his bank accounts. Besides the Customers can, Buy and Sell Securities, Check Stock Market Information, Check Currency Rates, Check Balances, See which checks are cleared, Transfer Money, View Transaction History and avoid going to an actual bank. The best benefit is that Internet banking is free. At many banks the customer doesn't have to maintain a required minimum balance. The second big benefit is better interest rates for the customer.

2.3 ONLINE BANKING VS TRADITIONAL BANKING

Online banking (or Internet banking or E-banking) allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank, credit union or building society.

A system allowing individuals to perform banking activities at home, via the internet. Some online banks are traditional banks which also offer online banking, while others are online only and have no physical presence. Online banking through traditional banks enable customers to perform all routine transactions, such as account transfers, balance inquiries, bill payments, and stop-payment requests, and some even offer online loan and credit card applications. Account information can be accessed anytime, day or night, and can be done from anywhere. A few online banks update information in real-time, while others do it daily. Once information has been entered, it doesn't need to be re-entered for similar subsequent checks, and future payments can be scheduled to occur automatically.

While in traditional banking all financial transactions has to be done through physical presence. It is time consuming and costly. All payment needs to be done via banks and not through internet facility. Therefore e-banking is far compatible than traditional banking.

2.4 FORMS OF E-BANKING

○ AUTOMATED TELLER MACHINES (ATM):

An automated teller machine or automatic teller machine(ATM) is an electronic computerized telecommunications device that allows a financial institution's customers to directly use a secure method of communication to access their bank accounts, order or make cash withdrawals (or cash advances using a credit card) and check their account balances without the need for a human bank teller.

○ SMART CARD:

A smart card usually contains an embedded 8-bit microprocessor (a kind of computer chip). The microprocessor is under a contact pad on one side of the card. Think of the microprocessor as replacing the usual magnetic stripe present on a credit card or debit card. The microprocessor on the smart card is there for security. The host computer and card reader actually "talk" to the microprocessor. The microprocessor enforces access to the data on the card. The chips in these cards are capable of many kinds of transactions. For example, a person could make purchases from their credit account, debit account or from a stored account value that's reload able.

○ OTHER FORMS:

- E-CHEQUE
- DEBIT CARD
- TELE BANKING
- DIRECT DEPOSIT
- ELECTRONIC BILL PAYMENT

2.5 NATIONAL AND INTERNATIONAL SCENARIO

Since the Lehman Brothers declared bankruptcy in 2008, incidences, every now & then, have sustained the concerns over global financial stability. While most emerging market economies (EMEs), including India, have recovered from global financial crisis, advanced countries continue to be plagued with growth figures looking dismal. Euro zone crisis seems

to be spreading across the EU countries following ripple effect, political turmoil persists in Middle East & North African (MENA) region, economic stagnation in US augurs no imminent respite from the worsening global situation. Indian banks, however, not only emerged unscathed from the global financial crisis but continued to manage growth with resilience during 2010-11.

Presently, domestic demand stays constrained on account of slower pace of growth & high level of commodity prices but favorable demographics & growth potential of Indian economy are expected to mitigate the dampening effect in the long run. As per Census 2011, about 40 % of households still do not avail banking facilities . Banks with their forward looking strategies, improved customer relationship, diversification of revenue sources etc are expected to continue their impressive performance.

Faced with mutually interdependent forces of competition, regulation, technology, and expectations of the customers, banks are set for a range of roles. The future mantra: intelligent integration.

CHAPTER 3:

ANALYSIS AND FINDINGS

3.1 RESEARCH DESIGN

Research design for this study is descriptive. This research is undertaken with an idea to see

customer satisfaction regarding e-banking. The main aim of such a design is to ensure that the required data collected objectively, accurately and economically.

3.2 DATA TYPE

Both descriptive and statistical analysis of the collected data will be done to study the problem. Data is mostly collected from different locations of Kolkata.

3.3 SAMPLE SIZE

50 samples were selected because few customers opt for e-banking and data is collected from selective zones.

3.4 DATA SOURCE

Both Primary and Secondary data were used.

Primary Data: Data regarding the topic is collected directly by interacting with the customers by using structured questionnaire.

Secondary Data: The secondary data was collected from the existing data sources, Catalogues, internet and World Wide Web.

3.5 PERIOD OF STUDY

The study on this project was conducted on almost a period of three months.

3.6 TOOLS USED

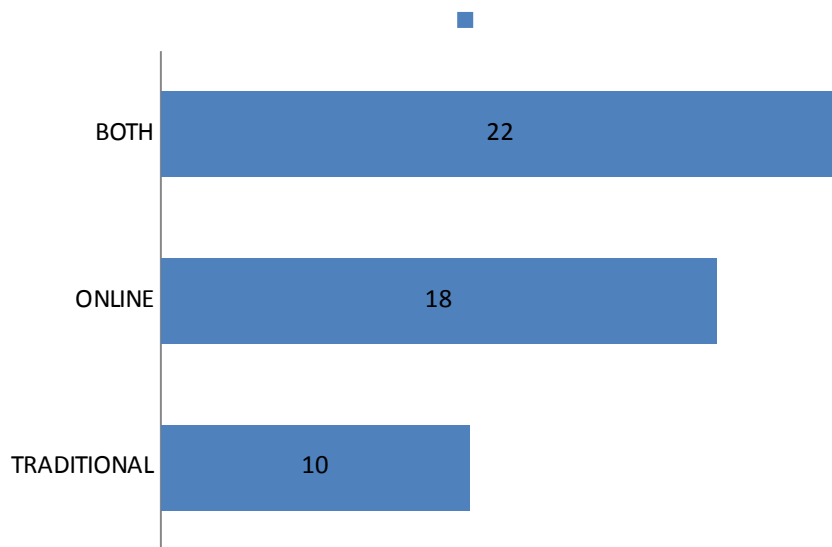
The questionnaire was developed to get the feedback from the various respondents. The length of survey questionnaire was kept optimum to avoid the psychological burden of

responding for the sampled entrepreneurs.

3.7 DATA ANALYSIS

A survey was conducted on online banking in India for the primary data among 50 people. The analysis of this survey or data is as follows:-

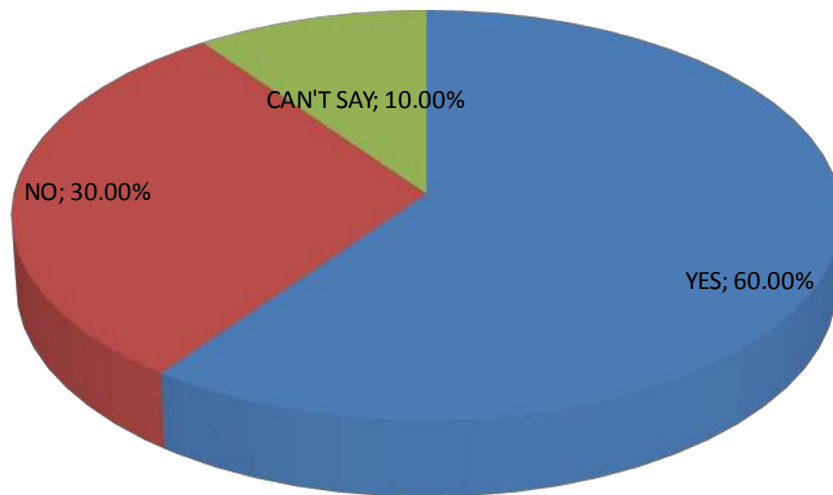
Q. What kind of banking do you prefer?



POLL OUT OF 50:- Traditional 10; online 18; both 22.

ANALYSIS:- This shows us the preference of the people towards the type of banking. They prefer to use the services of both the online and traditional banking rather than a particular type.

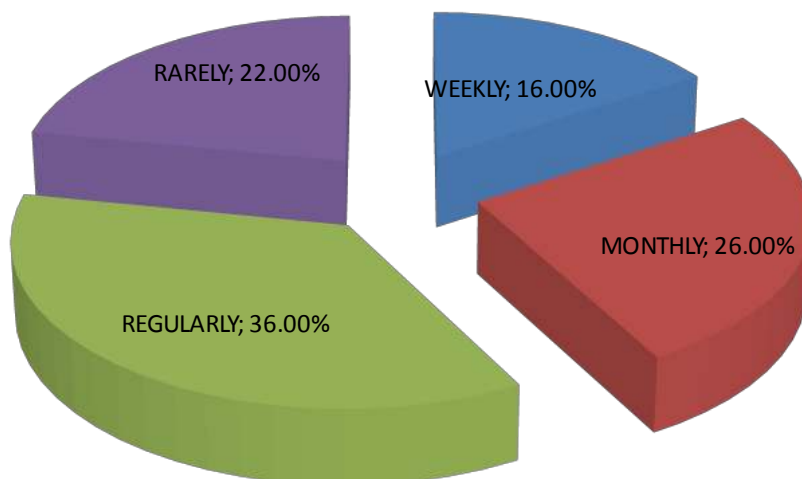
Q. Do you think online banking is better than traditional banking?



POLL OUT OF 50:- YES- 30; NO-15; CAN'T SAY-5

FINDINGS: The people understand that online banking is better than the traditional banking because of its nature. While a few of the people are still not fully convinced.

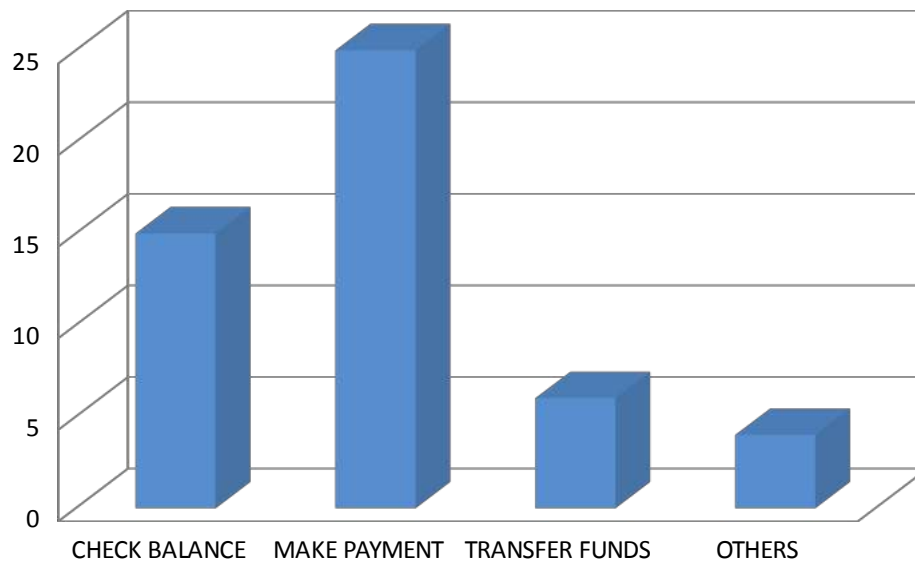
Q. How frequently do you use banking services?



POLL OUT OF 50:- Weekly-8; Monthly-13; Regularly-18; Rarely-11.

ANALYSIS- This shows the usage of banking services by the people. Most people use it either regularly but many people rarely use online banking.

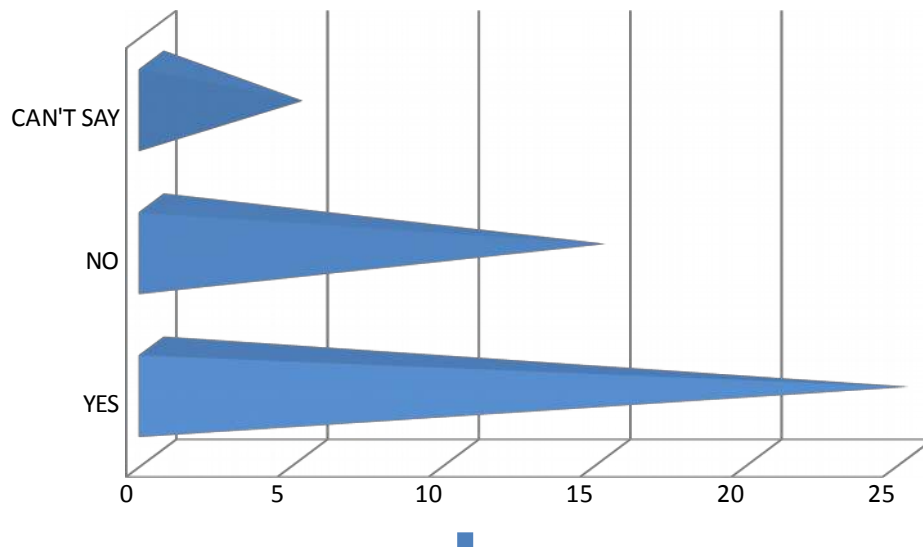
Q-what type of transaction do you make in online banking?



POLL OUT OF 50:- check balance-15; make payment-25; transfer funds-6; others-4.

ANALYSIS- This graph shows the different transactions for which people use online services. Most people use it for making payment.

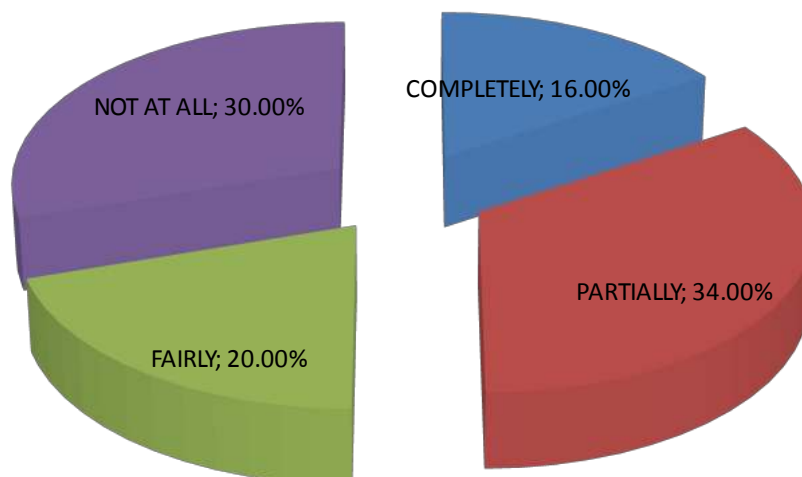
Q-Do you feel your account is completely secured in online banking?



POLL OUT OF 50:- Yes-25, No-15; Can't say-5

ANALYSIS- Most of the people feel that account is completely secured in case of online banking.

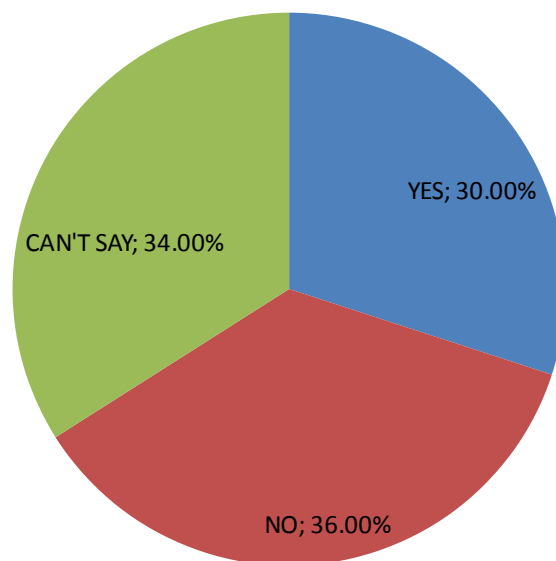
Q-Are you happy with the services of online banking provided by your bank?



POLL OUT OF 50:- Completely-8; Partially-17; Fairly-10; Not at all-15.

ANALYSIS- This pie chart shows that though online banking has emerged but very few people are completely satisfied with the banking services provided by the banks. So it needs to be improved totally.

Q-Do you feel online banking has a growth potential in India?



POLL OUT OF 50:- Yes-15; No-18; Can't say-17.

ANALYSIS- This shows most of the people have no idea about the online banking growth potential in india.

3.8 CHALLENGES TO BANKING REVOLUTION

Electronic banking is the wave of the future. It provides enormous benefits to consumers in terms of the ease and cost of transactions. Electronic banking also makes it easier for customers to compare banks' services and products, can increase competition among banks, and allows banks to penetrate new markets and thus expand their geographical reach. Some even see electronic banking as an opportunity for countries with underdeveloped financial systems to leapfrog developmental stages. Customers in such countries can access services more easily from banks abroad and through wireless communication systems, which are developing more rapidly than traditional "wired" communication networks.

Electronic banking has been around for some time in the form of automatic teller machines and telephone transactions. More recently, it has been transformed by the Internet, a new delivery channel for banking services that benefits both customers and banks. Access is fast, convenient, and available around the clock, whatever the customer's location (see illustration above). Plus, banks can provide services more efficiently and at substantially lower costs. For example, a typical customer transaction costing about \$1 in a traditional "brick and mortar" bank branch or \$0.60 through a phone call costs only about \$0.02 online.

The flip side of this technological boom is that electronic banking is not only susceptible to, but may exacerbate, some of the same risks—particularly governance, legal, operational, and reputational—inherent in traditional banking. In addition, it poses new challenges. In response, many national regulators have already modified their regulations to achieve their main objectives: ensuring the safety and soundness of the domestic banking system, promoting market discipline, and protecting customer rights and the public trust in the banking system. Policymakers are also becoming increasingly aware of the greater potential impact of macroeconomic policy on capital movements.

3.9 REGULATORY TOOLS TO OVERCOME CHALLENGES

There are four key tools that regulators need to focus on to address the new challenges posed by the arrival of E-banking. Adaptation: In light of how rapidly technology is changing and what the changes mean for banking activities, keeping regulations up to date has been, and continues to be, a far-reaching, time-consuming, and complex task. In May 2001, the Bank for International Settlements issued its "Risk Management Principles for Electronic Banking," which discusses how to extend, adapt, and tailor the existing risk- management framework to the electronic banking setting. For example, it recommends that a bank's board of directors and senior management review and approve the key aspects of the security control process, which should include measures to authenticate the identity and authorization of customers, promote nonrepudiation of transactions, protect data integrity, and ensure segregation of duties within E-banking systems, databases, and applications. Regulators and supervisors must also ensure that their staffs have the relevant technological expertise to assess potential changes in risks, which may require significant investment in training and in hardware and software.

- **Legalization**: New methods for conducting transactions, new instruments, and new service providers will require legal definition, recognition, and permission. For example, it will be essential to define an electronic signature and give it the same legal status as the handwritten signature. Existing legal definitions and permissions—such as the legal definition of a bank and the concept of a national border—will also need to be rethought.
- **Harmonization**: International harmonization of electronic banking regulation must be a top priority. This means intensifying cross-border cooperation between supervisors and coordinating laws and regulatory practices internationally and domestically across different regulatory agencies. The problem of jurisdiction that

arises from "borderless" transactions is, as of this writing, in limbo. For now, each country must decide who has jurisdiction over electronic banking involving its citizens. The task of international harmonization and cooperation can be viewed as the most daunting in addressing the challenges of electronic banking.

- **Integration**: This is the process of including information technology issues and their accompanying operational risks in bank supervisors' safety and soundness evaluations. In addition to the issues of privacy and security, for example, bank examiners will want to know how well the bank's management has elaborated its business plan for electronic banking. A special challenge for regulators will be supervising the functions that are outsourced to third-party vendors.

CHAPTER 4:

CONCLUSIONS AND RECOMMENDATIONS

4.1 OVERALL SUMMARY

In a country like India, there is need for providing better and customized services to the customers. The usage of E-banking is all set to increase among the people. Some people at the moment are not using the services thoroughly due to various hurdling factors like insecurity and fear of hidden costs etc. So banks should come forward with measures to reduce the apprehensions of their customers through awareness campaigns and more meaningful advertisements to make E-banking popular among all the age and income groups. Further, with increasing consumer demands, banks have to constantly think of innovative customized services to remain competitive. E-Banking is an innovative tool that is fast becoming a necessity. It is a successful strategic weapon for banks to remain profitable in a volatile and competitive marketplace of today.

However, with banking customers growing increasingly comfortable with the digital lifestyle, but Indian customers were not aware about e-banking in India. They were not fully understand the power of technology and seek to leverage it to enjoy better control over their banking operations. To conclude that e-banking also provided other benefits. For instance, creating new markets, and reducing operational costs, administrative costs and workforce are increasingly important aspects for the banks' competitiveness, and e-banking improved these aspects as well. So, Indian banks should take these advantages of e-banking in India economy as early as possible. In future, the availability of technology to ensure safety and privacy of e-

transactions and the RBI guidelines on various aspects of internet banking will definitely help in rapid growth of internet banking in India.

4.1.1 FINDINGS

Findings on online banking has been done through questionnaires and various other data collected from websites, books, journals and banks. Both primary and secondary data have been used,

4.1.2 CONCLUSION

From all of this, we have learnt that information technology has empowered customers and businesses with information needed to make better investment decisions. At the same time, technology is allowing banks to offer new products, operate more efficiently, raise productivity, expand geographically and compete globally. A more efficient, productive banking industry is providing services of greater quality and value.

E-banking has become a necessary survival weapon and is fundamentally changing the banking industry worldwide. Today, the click of the mouse offers customers banking services at a much lower cost and also empowers them with unprecedented freedom in choosing vendors for their financial service needs. No country today has a choice whether to implement E-banking or not given the global and competitive nature of the economy. The invasion of banking by technology has created an information age and commoditization of banking services. Banks have come to realize that survival in the new e-economy depends on delivering some or all of their banking services on the Internet while continuing to support their traditional infrastructure.

The rise of E-banking is redefining business relationships and the most successful banks will be those that can truly strengthen their relationship with their customers.

Without any doubt, the international scope of E-banking provides new growth perspectives and Internet business is a catalyst for new technologies and new business processes. With rapid advances in telecommunication systems and digital technology, E-banking has become a strategic weapon for banks to remain profitable. It has been transformed beyond what anyone could have foreseen 25 years ago. Two years ago, E-banking was a strategic advantage, nowadays, it is a business reality, if not a necessity.

4.2 SUGGESTION AND RECOMMENDATION

The following are the strategies may be applied by the banking sectors of the country:

■ Banks should ensure that online banking is safe and secure for financial transaction like traditional banking.

■ Banks should organize seminar and conference to educate the customer regarding uses of online banking as well as security and privacy of their accounts.

■ Some elderly customers are hindered by lack of computer skills. They need to be educated separately on basic skills required to conduct online banking.

■ Banks must emphasize the convenience that online banking can provide to people, such as avoiding long queue, in order to motivate them to use it.

E.g. ATM

■ Banks must emphasize the cost saving that online can provide to the people, such as reduce transaction cost by use of online banking.

■ Provide a platform from where the customers can access different accounts at single time without extra charge.

4.3 LIMITATIONS

The following limitations have been found by the team.

- The research study has been done from a selective material on the internet.
- Only selective journals, papers and articles have been put to use because of the time factor.
- There is the possibility of further updating of this research paper because of limited sources.
- The research is on adoption of basic E-banking services in India but this study was conducted for mainly kolkata only and all regions of India are not covered.
- While collecting primary data, information were not collected from the service providers.
- There were several time constraints.
- The sample size of only 50 was taken from the large population for the purpose of study, so there can be difference between results of sample from total population.
- Due to continuous change in environment, what is relevant today may be irrelevant tomorrow._