

# **Evaluation of E-commerce (Internet Banking) Adoption in Nepal A Case Study of Bank of Kathmandu Limited**

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## RECOMMENDATION

This is to certify that the thesis

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**Evaluation of E-commerce (Internet Banking) Adoption in Nepal  
A Case Study of Bank of Kathmandu Limited**

*has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This Thesis is forwarded for examination.*

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## DECLARATION

I hereby declare that this thesis work entitled “**Evaluation of E-commerce(Internet banking) adoption in Nepal ‘A Case Study of Bank of Kathmandu Limited’** ” submitted to office of the Dean Faculty Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the degree of Master of Business Studies(M.B.S.) which is prepared under the supervision of respected supervisor Associate Professor *Jayanta Nath Khanal*, Padmakanya Multiple Campus, Tribhuvan University.

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## **List of Abbreviation**

ATM	Automatic Teller Machine
E-Banking	Internet Banking
EC	Electronic Commerce
E-Commerce	Electronic Commerce
EDI	Electronic Data Interchange
HBL	Himalayan Bank Limited
IT	Information Technology
KBL	Kumari Bank Limited
MIS	Management Information System
NCC	Nepal Chamber Of Commerce
NITC	National Information Technology Center
NPL	Non Performing Loan
PC	Personal Computer
SLC	School Leaving Certificate
SMS	Short Message Service
SWIFT	Society for Worldwide Interbank Financial Telecommunication
SWOT	Strong Weakness Opportunity Threats
UK	United Kingdom
US	United States
USD	United State Dollar
VSAT	Very Small Aperture Terminal
WTO	World Trade Origination
WWW	World Wide Web



## **ABSTRACT**

As most restrictively defined, electronic commerce is the buying and selling of goods and services, and the transfer of funds, through digital communications. Electronic commerce includes doing business online or selling and buying products and services through web storefronts. The new trends induced by developments in the fields of information and communication technologies are presenting both prospects and challenges for a country like Nepal. These technologies are increasingly redefining competitiveness and changing the way businesses are run thereby signaling a fundamental paradigm shift on the international trade and commerce.

In this study I have chosen one commercial bank in Nepal i.e. Bank of Kathmandu Ltd. and the main objectives of this study are to examine demographic characteristics on the bank customer's adoption of E-commerce in Bank of Kathmandu Limited, to assess the level of knowledge and the general opinion of customers regarding E-commerce in Bank of Kathmandu Limited and to identify the impact caused by using E-commerce or E-banking in Bank of Kathmandu Ltd. such as growth in number of customer and bank's profitability etc.

This study is based on both the primary and secondary data. Primary data were obtained by questionnaires, personal interviews, self observation etc. The secondary data are collected from brochures, annual report, other published reports /statements, internets etc. The achieved data were analyzed, processed and are presented with the help of graphical tool and in the table form.

The study was carried out by means of a survey amongst 50 customers. This study evaluated factors related to E-commerce (Internet banking) such as demographic characteristics (sex, age group, marital status, employment, monthly income) as well as customer's knowledge on usage of E-commerce (Internet banking), number of users of E-commerce during five years (2007-2011) and net profit of the bank during five years (2006/07-2010/11) a case study of Bank of Kathmandu Limited.

What emerged from the study was that customers were satisfied with their basic Internet banking experience. What they were not satisfied with, were cost issues and the lack of

personalized service. Overall, the study indicates that basic customer's expectations are being met by Bank of Kathmandu Limited. Study shows that customer's knowledge on new technology is within the satisfaction level. Nevertheless, due to lack of awareness, trust on technology and low computer literacy rate, customer hesitates to adopt new technology. In order to promote IT culture through E-commerce (Internet banking) in Nepal, public education concerning the use of Internet and E-banking services should be given because Internet skills are important factors that influence customers to adopt Internet banking services.

# **CHAPTER-I**

## **INTRODUCTION**

### **1.1. Background**

The globalization and economic liberalization is invariably affecting many aspects of economic life and has favored approaches more responsive to the global changes taking place, technology continues to play a significant role in revolutionizing the trade and the commercial sector. One such technological advancement that is having profound impact on this sector world-wide is widespread use of Information Technology, particularly the Internet and its offshoot, E-commerce. The dynamism which has characterized the trade sector over the past two decades, concomitant with the increasing liberalization of tariff and non-tariff barriers, is now being revolutionized and regenerated by the phenomenon of electronic commerce, particularly facilitated by the use of the Internet. The new trends induced by developments in the fields of information and communication technologies are presenting both prospects and challenges for a country like Nepal. These technologies are increasingly redefining competitiveness and changing the way businesses are run thereby signaling a fundamental paradigm shift on the international trade and commerce. More over Nepal being the member of WTO and its subsequent participation in multinational trade negotiations emerged great importance of E-commerce or Internet business.

The financial service industry, especially banks, has responded to constant market changes by adopting different types of delivery channel strategies. These market changes include: customer banking tastes and preferences, increasing competition from non-bank financial institutions, shifting demographic and social trends, government deregulation of the financial service industry, and technological innovation and development. The Automatic Teller Machine (ATM), telephone banking, Personal Computer (PC) banking, and Internet banking are examples of how the banking service industry has revolutionized. The Internet is widely used as a new media for interactive communications including banking.

Information technological development in the banking industry has speeded up communication and transactions between banks and customers (Giannakoudi, 1999). The information technology

revolution in the banking industry, especially in regards to distribution channels, begin in the early 1970 with the introduction of the credit card, the Automatic Teller Machine (ATM), and the ATM networks (Gan, Clemes, Limsombunchai, and Weng, 2006). This is followed by telephone banking, cable television banking in the 1980s, and the progress of Personal Computer (PC) banking in the late 1980s and in the early 1990s (Giannakoudi, 1999). Information technology enabled electronic channels to perform many banking functions that were traditionally carried out over the counter (Giannakoudi, 1999).

The success or failure of many retail banks is dependent upon the capabilities of management to anticipate and react to such changes in the marketplace (Gan et al., 2006). In addition, the structure and process have changed the banking relationships with customers today, as they are formed with little personal interactions. Consequently, the relationship building landscape has gradually shifted from the traditional over-the-counter personal relationship to a more cost efficient virtual relationship (Harden et al., 2002). For example, Internet banking is conducted through standardized web browsers requiring no additional software or infrastructure. This is a cost saving service to both banks and customers. Applications with major security and usability issues, such as online banking, are being used by more and more people who are less and less technically savvy. Most major banks currently support online banking, as it enables them to serve far more customers than by traditional banking, at a fraction of the cost (Adams, 1999). Internet banking enables speedy transactions access, and time and money savings while providing paper free, complete and up-to-date transactions (Wright and Ralston, 2002).

The global banking industry has used interactive advertising as a major distribution channel in order to sell products, provide services, contact customers, and create customer relationships (Samphanwattanachai, 2007). “Electronic commerce is transforming the marketplace by changing firms” business models and by shaping relationships amongst market actors and contributing to changes in market structure” (OECD, 1998). Customers have more financial options in banking services. Banks in general have attempted to build customer satisfaction through providing better products and services, and at the same time, reduce operating cost (Padachi et al., 2007). Thus, the banking industry has been innovative and receptive to new technological development in the financial service industry. The latest innovation is Internet banking (Hoecht et al., 2008).

The decision to provide online banking is currently perceived as vital for customer retention and maintaining competitive advantage in the banking industry (DeYoung and Duffy, 2002). Internet banking services are available in most banks today. The service allows customers to check their account balances, transfer funds, pay bills, trade stocks, and applying for loans. Integration, customer convenience, and retention are popular terms for bank managers, particularly at larger financial institutions that offer a wide range of products (Ambrosio and Martin, 2003). “Without a doubt, the word that constantly comes up from customers is convenience”, says Karl Felsen, marketing manager for Fleet bank (Ambrosio and Martin, 2003). The integration of the Internet in distribution strategies has obliged banks to make important organizational changes, involving additional integration of new technologies, upgrading and developing the workstation, training employees in the new tools, integrating the new front office applications into the bank office production chain.

Internet banking can be described as the provision of information or services by banks to their customers, via the Internet network and are synonymous with the automated teller machine (ATM) of the 21st century (Samphanwattanachai, 2007). Similar to the ATM, Internet banking services give users 24 hours 7 days access to their account, and allow customers to conduct more complicated transactions, such as pay bills, applying for housing loan applications, online shopping, account consultation, and stock portfolio management (Surmacz, 2003). At the basic level, Internet banking involves a bank setting up a World Wide Web (WWW) site to provide information about its products and services (Daniel, 1999; Sathye, 1999; Karjaluoto et al., 2002). Web banking allows consumers to purchase a wide range of products and services online. These include various accounts and card products (such as deposit accounts, debit and prepaid cards, credit and commercial products, loyalty and gift cards) and services (such as account management, statement payments, funds transfers). At the advanced level, Internet banking is the enabling of transactional services to customers over the Internet.

Though there aren't any sound policies regarding IT field, it has already entered the Nepalese business scenario too, to cope with changing international business. Among them banking sector

are the most effective service oriented business organizations who have been implementing internet and E-commerce way of business since last eight years. Therefore, there is the need of sound policies regarding this E-commerce business which requires studying its impacts in various fields. Keeping this in mind, this study is aimed to evaluate the E-commerce adoption in Nepal. In the context of commercial bank of Nepal Electronic Commerce is used in minimum level, minimum sources and lack of proper information and knowledge in the global platform. So, almost the new trends induced by developments in the fields of information and communication technologies are presenting both prospects and challenges for a country like Nepal. These technologies are increasingly redefining competitiveness and changing the way businesses are run thereby signaling a fundamental paradigm shift on the international trade and commerce scene. The developmental impacts and full potential of E-commerce are yet to be proven especially within the context of a developing country like Nepal, latest trends show clear pointers to a scenario where E-commerce will increasingly dominate trade and commerce sector in the years to come.

This invariably necessitates a proactive response from our part as a developing nation to the emerging scenario in terms of formulation of policies and development of strategies conducive to the growth of E-commerce in Nepal. E-commerce however presents a number of challenges that the policy makers have to be aware of, most conspicuous of these challenges being the speed of development in electronic commerce and its attendant financial, legal and security ramifications. This coupled with the speed of the changes that it brings strain the processes of traditional policy formulation in a country like Nepal.

The information age has opened powerful new business and social development opportunities throughout the world. The core requirement to realize these opportunities is to provide an environment that allows for the free access of information. However, success in the information age requires more than simple development of IT. It requires parallel development of supporting infrastructures, financial, legal and human resource areas coordinated under an agreed upon National Information Technology (IT) strategy.

Government of Nepal, in 1971, introduced Information Technology to process the National population census data. National Computer Centre (NCC) was established in 1974 for the

computerization of government and public sector. NCC developed software for various government agencies, processed examination results for SLC Board and Tribhuvan University. It also conducted regular training courses on Computer Literacy and software applications.

Before the dissolution of NCC in October 1998, there was a concept of establishing a National Information Technology Center (NITC) by restructuring the NCC with updated technology and mandate. But unfortunately it could not be realized.

Under the Nepal act 2061, Electronics transition act was established in Nepal. It defines the transition or data transferring using electronics media safely and adequately through this system. In Nepal consumers are facilitated with E-commerce via certain commercial banks, providing facilities like ATM card, online billing, SMS Banking, Mobile Banking, anywhere branch banking etc. which we can say hand full taken out of ocean. Consumer's e- banking is a comprehensive retail- banking platform available with wide range of functionality. Evaluation of E-commerce adoption in Nepal, topic on this thesis is a new concept so in the contest of commercial bank of Nepal very little effort and technology was innovated and used. So, the main purpose of this study is to identify how the E-commerce is using and what will be the future possibility and aspects.

## **1.2. Introduction**

Internet banking can be defined as the delivery of banking services to customers through the Internet network (Yiu et al., 2007). As most restrictively defined, electronic commerce is the buying and selling of goods and services, and the transfer of funds, through digital communications. The broadest definitions of E-commerce may also include other electronic forms of doing business, such as fax, telex, video conferencing, and even telephone calls. Usually these are not E-commerce, but they could be regarded as such, depending on how they are used.

Electronic commerce (EC) includes doing business online or selling and buying products and services through web storefronts. Products being traded may be physical products such as books or they may be services. Increasingly, they include digital products such as news, audio and video, database, software and all types of knowledge-based products, buying and selling over the

world-wide web and the Internet, electronic funds transfer, smart cards, digital cash ( credit card and debit card), and all other ways of doing business with digital network. In addition, EC also includes all inter-company and intra-company functions (such as banking and financing, marketing, manufacturing, selling, and negotiation) that enable commerce and use electronic mail, EDI, files transfer, fax, video conferencing, workflow, or interaction with a remote computer.

At the basic level, Internet banking means establishing a Web page by a bank to provide information about its product and services (Daniel, 1999). At an advance level, Internet banking is the enabling of transactional banking services to customers over the Internet (Karjaluoto et al., 2002) and the conduction of business communication and transactions over networks and through computers. Banking services involve: verifying account balances, moving funds from one account to another, confirming that transactions have taken place, ensuring checks have been cleared, placing orders for new cheque books, submitting applications for loans and credit cards, and carrying out bill payments (Rose and Hudgins, 2008).

Technology transfers have many aspects of business and makers activities. In its broadest sense, electronic commerce refers to the use of electronic means and technologies to conduct commerce, including within-business, business-to-business and business-to-consumers interactions, Electronic commerce offers a new market for existing products, this means that customers can be served, even attracted via a new distribution, sales and service channel.

For many people, E-commerce simply means online shops, exchanges, fund transfer, marketplaces, and auction sites and similar, where transactions are carried out online. (Ozuru et al., 2010; Singhal and Padhmanbhan 2008). Given the vagueness of the definition, estimates of the importance of E-commerce in the global economy tend to differ quite considerably. It's important to note that, despite the hype that surrounds E-commerce in Nepal, the projected use for E-commerce transaction will represent about minimal of the total worldwide sales of goods and services in Nepal.

As Internet technology continues to mature and widely used, Internet banking which has several advantages, such as maintaining competition, cost savings, enhancing mass customization,



marketing and communication activities, and maintaining and attracting consumers (Daniel and Storey, 1997; Mols, 2000; Sheshunoff, 2000; and Tomkin and Baden-Fuller, 1998). The primary advantage of Internet banking is cost savings from a customer's perspective (Kim et al., 2005). Chang (2003) shows Internet banking has a low transaction cost and provides high speed services when compared to traditional banking services. According to Chang's study, for money transfer, the cost of the transaction is USD 95 cents for checking and USD 27 cents for ATM, but it is only USD 1cent via the Internet (Chang, 2003). From the customer's satisfaction perspective, the digitization of the banking relationship is seen as substituting distant relationship channels, in particular the Internet, for branch banking.

Companies invest in E-commerce systems to eliminate human input. Orders and payments are made by machines rather than by people. This has several advantages. It cuts the cost of each transaction; speeds it up; and also makes it more convenient, because transactions can be performed at any hour of the day or night, often regardless of location. Consequently; customer satisfaction and customer retention are increasingly developing into key success factors in E-banking (Bauer et al., 2005). Technology in particular, has been increasingly employed in service organizations to enhance customer service quality and deliver, reduce costs, and standardize core service offerings (Ibrahim et al., 2006; Bauer et al., 2005).

For purchasers, online shopping offers convenience and choice, and intense competition between sites often means bargain prices, despite shipping costs. E-commerce obviously has particular promise when selling information, software or other products that can be "delivered" over the Internet as well. There is a faster deliver of information from the customer and service provider, thus differentiating internet enable electronic banking system from the traditional banking operation (Singhal and Pradhamnabhan, 2008). This transfer process makes money to be carried in information storage medium such as cheques, credit cards, and electronic means than its pure cash form. E-banking has thus become important channel to sell products and services; leading to a paradigm shift in marketing practices, resulting in high performance in the banking industry (Christopher et al., 2006; Singhal and Padhmanabhan, 2008).

However, many E-commerce sites have failed to live up to this promise. Purchasers have been concerned about delivery times and delays, privacy and data security issues, and shipping and

handling charges. Many E-commerce operations have suffered from poor website design, inadequate infrastructure (particularly storage and distribution facilities), terrible customer service and difficulties integrating online and offline activities. The problem is less with the concept of E-commerce itself, and more with the way it has been applied by businesses.

### **1.3. A Brief History of Internet Banking**

Banks operate in a strategic information system environment which indicates that they are information-intensive and highly dependent on information technology as their core technology (Broadbent and Weill, 1993). The developments in information technology have had an enormous effect on the development of more user-friendly banking services and increased the transaction and communication speed between banks and customers (Akinci et al., 2004; Giannakoudi, 1999).

The revolution of information technology in the banking industry began in the early 1970s, with the introduction of the automated teller machine (ATM) which was first installed by Barclays Bank in the United Kingdom (UK) (Introna and Whittaker, 2005; Giannakoudi, 1999). ATMs allow customers to deposit money, withdraw cash, request a balance and pay bills at any time. ATM services not only provide convenience for customers, but also decrease operating costs for the bank (Rose and Hudgins, 2008).

The next technology developed by banks was telephone banking which was firstly introduced by Seattle First National Bank in the United States (US) in the late 1970s (Shapiro, 1999). Telephone banking is more cost-effective than ordinary branch banking and the process increases customer convenience as well as expanding access to a wide variety of services for customers (Mols et al., 1999). However, telephone banking lacks visual verification (Giannakoudi, 1999), and customers cannot perform self-banking activities by using telephone banking (Guru et al., 2000).

Owing to the popularity of personal computers, PC-banking was launched during the late 1980s and the early 1990s (Polasik and Wisniewski, 2009; Giannakoudi, 1999). The first bank to offer

PC-banking was Citibank in the US (Shapiro, 1999). PC-banking requires its users to install propriety software on home computers and allows banking transactions and the accessing of account information with a bank's server in an offline mode (Polasik and Wisniewski, 2009; Shapiro, 1999). PC-banking is capable of delivering high-quality graphic pages (Shapiro, 1999) and increasing speed as well as improving the flexibility of business transactions (Guru et al., 2000). However, PC-banking is complicated to use and the closed system technology provides only a closed network, which is limited to existing clients (Chang, 2003; Mols et al., 1999).

Internet banking emerged in the 1990s and was first launched by the Wells Fargo bank in the US. There is a wide agreement that the channel has had a substantial impact on bank markets (Karjaluo et al., 2002). From the viewpoint of the banks, Internet banking helps banks to maintain profitable growth through reducing the operation and fixed costs (Hernando and Nieto, 2007; Chung and Paynter, 2002, Sathye, 1999). Jayawardhena and Foley (2000) reported that a simple transaction cost for a non-cash payment at a branch is likely to cost a bank as much as 11 times more than over the Internet based on a sample of New Zealand banks. Chung and Paynter (2002) estimated that an Internet transaction only costs a bank \$0.05 while a paper transaction at a branch cost approximately \$1. In addition, Internet banking enhances marketing and communication, as it serves 24 hours a day and a customer can be guided through a catalogue of products and services (Jayawardhena and Foley, 2000). Moreover, an Internet banking system allows banks to expand their business geographically without investing in the establishment of new branches and, as a result, the customer base is broadened (Giannakoudi, 1999).

From the viewpoint of consumers, Internet banking is attractive because of its convenience and lower fees. Internet banking users can perform financial transactions at anytime and anywhere without queuing at bank branches (Sayar and Wolfe, 2007). Moreover, Internet banking offers lower fees or better rates on deposit and loans which enable the cost savings to be passed on to consumers (Polasik and Wisniewski, 2009). Furthermore, Internet banking provides customer rapid updating, richness-information (Palmer, 2002; Shapiro, 1999), speedy transaction access (Mavri and Loannou, 2006) and absolute self-service (Eriksson and Nilsson, 2007).

Internet banking has become one of the most popular banking channels and the decision to provide Internet banking is perceived to be a vital strategy for customer retention and remaining competitive for banks and financial institutions (Kim, et al., 2005).

#### **1. 4. Banks and E-commerce in Nepal**

Electronic banking may be defined as a means whereby banking business is transacted using automated processes and electronic devices such as personal computers, telephones, fax machines, Internet, card payments and other electronic channels (Turban et al., 2006, Ozra et al., 2010). Some banks practice electronic banking for informational purpose, some for simple transactions such as checking account balance as well as transmission of information, while others facilitate funds transfer and other financial transactions. Many systems involve a combination of these capabilities. Today several banking institutions are offering Internet banking, many are offering basic telephone banking, and most of them have ATM services.

In Nepal, first ATM launched by Himalayan Bank Limited (HBL) in 1995 and then Tele-banking facility was introduced in 1997. Internet banking was first introduced by Kumari Bank Limited (KBL) in 2002. Consequently; SMS-banking (mobile banking) was first launched by KBL in 2004.

The internet has fundamentally changed the banking industry in Nepal by giving people more immediate control over the management of their finances. Of important consideration here, is the use of information and communication technology to provide the financial products and services for improved efficiency and effectiveness. These continuously affect the risk management, infrastructure provision, monetary policy development and regulatory framework of the financial system.

Advancements in information and communication technology have impacted positively on service delivery in the financial sector of Nepal's economy. These developments have however

not been matched with appropriate legislation/regulation to address the resultant changes in the relationships, responsibilities, liabilities and rights of the parties engaged in electronic banking.

Also of concern is the potential of digital money to replace fiduciary currency as the predominant payment medium and its ability to flow freely across national borders, raising questions about the effect of e-money on monetary policy. A central bank's oversight of the financial sector of any economy derives from the fact that it is the sole issuer of currency, and it is through control of money supply that the overall objectives of monetary policy can be realized. Therefore monetary policy objectives should not be constrained by the replacement of fiduciary money with the digital equivalent.

One of the effects is a growing convergence in the financial services industry, whereby traditionally specialized organizations are now offering financial services that cross all sections of the population. This means that traditional banks are fast losing their key differentiating characteristics. A great challenge, therefore, is to refocus their attention on their customers and gain a much better understanding what they want from a financial services perspective. This has forced banks to look at their internal procedures in order to cope with the fast-evolving needs and expectations of their customers: cost savings, customized products and services and more personalized attention. In addition Anywhere Banking, Personal Computer (PC) Banking, Tele-banking, Automated Teller Machines (ATM), Internet Banking, Cards, and Electronic Payments etc. are further services for customers doing banking transactions. Although, the basic types of risks generated by electronic banking and electronic money are not new, the magnitude of their impact on banks and merchants may be new for them and regulators/supervisors. The impact of the risks these banks/merchants face are embedded in the types of risks associated with E-banking and e-money. The risks associated with E-banking and E-money activities as per Nepal Rastra Bank's categorization of risks include strategic risk, operational risk, security risk, reputational risk, legal risk, money laundering risk, cross border risk etc. And, if a provider of E-commerce goods and services rigorously follows the "key factors" to devise an exemplary E-commerce strategy, problems such as failure to understand customers, client why they buy and how they buy, failure to consider the competitive situation, inability to predict environmental reaction, over-estimation of resource competence, failure to co-ordinate, failure to obtain senior

management commitment, failure to obtain employee commitment, under-estimation of time requirements, and failure to follow a plan can still arise.

#### **1.4.1. A Brief Profile of Bank of Kathmandu Limited (BOK)**

Bank of Kathmandu Limited (BOK) was incorporated in 1993 with a culmination of a comprehensive vision of the Nepalese promoters to take the Nepalese economy to a newer realm in the global Market. BOK came into operation in March 1995. In the F/Y 2052/53 Siam Commercial Bank, Thailand bought public shares and took over the management of BOK. Again in F/Y 2055/56 Siam Commercial Bank, Thailand sold its shares to general public and handover the management to Nepalese management. And the promoter's comprehensive vision and government's overwhelming support gave birth to BOK as one of the private sector banks of Nepal. The main objective of Bank of Kathmandu Limited is to identify business prospects not yet catered by the existing commercial banks and offer new banking products and services and introduce modern and advance banking technology facilitating bank and business operations and transactions. To bring healthy market oriented technology, mobilize domestic savings and investment in production areas, promoting the country's overall development.

Currently, shareholding pattern of BOK shows that 42% of Bank's shares are owned by Nepalese promoters and remaining 58% owned by general public (Source, BOK annual report 2010/11). Initially, bank authorized capital was Rs. 240 million, issued capital Rs 120 million and paid up capital Rs 42 million. At present bank's authorized capital is Rs. 27,607.93 million and paid up capital Rs 1604.19 million. (Source BOK annual report F/Y 068/69).

BOK is now operating with 43 branches and six counters in different parts of the country to facilitate its customers. Apart from this, the customers can utilize the facility of its network in 52 ATM counters. It provides anywhere banking services, which connects customers from any branches to every branch.

BOK is regulated by Nepal Rastriya Bank, the Central Bank of Nepal. BOK enjoys a unique and strong foothold in the banking industry in Nepal. BOK's activities globe around deposit mobilization, advancement of various credits, international banking including trade financing,

inward and outward remittances and funds and portfolio management. Through its wide and strong correspondent banking network, BOK is able to connect its customers to all-important financial centers in the world.

BOK is committed to providing products and services of the highest standards to its customers by understanding their requirements best suiting the market needs. In pursuit to deliver the products and services of the highest standards, BOK is fully equipped with state-of-art technology for appropriate and efficient Management Information System (MIS) and rendering quality services, VSAT and Radio Modem for networking, SWIFT for international trade and transfer of funds around the world, correspondent banking relationships with over 300 banks worldwide for effective and proficient execution of international trade and remittance activities, gamut of corporate and retail banking products and services and centralized banking operations for better risk management, consistent service deliveries and lowering operating cost. And now, BOK has become able to create a position as the reputed bank in a shortest possible span of time.

### **1.5. Statement of problem**

Technological innovations (Norton et al., 1995) are replacing the traditional ways of banking. With a greater competition brought by deregulation, globalization, and widespread mergers and acquisitions in the banking industry, more banks are focusing on developing internet banking. The use of phone banking and Internet banking is strongly promoted to bring about a change in consumers banking behaviors. However, Internet banking has not been widely adopted by bank customers in Nepal.

The number of people having access to the Internet is one factor that determines the level of demand for Internet banking services. The cost and speed of Internet connections are other important factors (Li and Worthington, 2004; Sohail and Shanmugham, 2003). Li and Worthington (2004) also argue that customer confidence on Internet banking transactions also influences the adoption rate. For example, how banks deal with any erroneous transactional and security concerns that may occur during online banking impacts on confidence. Jayawardhena and Foley (2000) also reveal that there is a significant correlation between the website download

speed and web-users satisfaction in a banking context. Moreover, other website features such as content and design, interactivity, navigation, and security are also important factors that influence the adoption of Internet banking (Jayawardhena and Foley, 2000).

Even if a provider of E-commerce goods and services rigorously follows these "key factors" to devise an exemplary E-commerce strategy, problems can still arise. Sources of such problems include failure to understand customers, client why they buy and how they buy, failure to consider the competitive situation, inability to predict environmental reaction, under estimate of time requirements. Failure to co-ordinate, to obtain senior management, employee commitment to follow plan.

Face-to-face communication is a better medium to transmit complex messages which are essential to establish a personal contact (Daft and Lengel, 1986). However, Clark and Mills (1993) explain that while some individuals may want to establish relationships that are more personal and friendship-like, there may be others individuals who value efficiency of services and prefer a more impersonal association. Padachi et al., (2007) argue that customers desiring social and psychological benefits by establishing personal relationships with banks will prefer face-to-face interactions to the impersonal virtual Internet banking relationship. Internet banking does not need face-to-face interaction, and this delivery channel could potentially affect a bank's ability to create a trusting relationship between their customers and the bank. On the other hand, for those customers whose relationship is primarily based on efficiency of services, Internet banking may be an attractive alternative (Padachi et al., 2007).

## **1.6. Justification**

Although, many consumers have turned to Internet banking because of its greater convenience, low cost, and speed (Kerem, 2003; Chang, 2003). There are several benefits have a role in the success of any E-commerce venture of internet banking such as dramatically reduced operation costs, overhead costs and time, better information delivery and report system, being a factor to develop E-commerce via E-banking, better relationship with business via improved



communication, better market information regardless of location and time, more convenient ways of communication with clients, customers and partners, customer relationship management, reduced product cycle, better contact with customers from E-commerce, better presentation of products and services, improved competitiveness, access to multiple vendors, domestically and internationally, elimination of intermediaries etc. Although numerous consumers are still not using internet banking services due to several factors, such as lack of internet access and perceived risks (Lee, 2009; Lichtenstein and Williamson, 2006) including Nepal. Gerrard and Cunningham (2003) pointed out that the relative success of Internet banking can be gauged by identifying the number of current users and anticipated future adopters. Hence, there is a need to understand the factors that influence customer's choices of Internet banking.

The commercial banking organization is playing vital role towards economic development by E-commerce. The general objective of this study is to analyze and evaluate its impact through implementation of Electronic Commerce adopted by the one of the leading bank of Nepal, Bank of Kathmandu Limited. The study is mostly focused in Bank of Kathmandu but I have made some study of other banks which is shown in appendices as well.

### **Acceptance of E-commerce**

Consumers have accepted the E-commerce business model less readily than its proponents originally expected. Even in product categories suitable for E-commerce, electronic shopping has developed only slowly. Several reasons might account for the slow uptake, including concerns about security, lack of instant gratification with most e-purchases (non-digital purchases), the social aspect of shopping.

### **Role of E-commerce in commercial bank**

Bank, a financial institution, is playing a vital role in the E-commerce and economic development of the country. The function of banks are not only accepting deposits and granting loans but also, including wide range of services and e-service to the different strata of society, to facilitate the growth of commerce, trade, industry and agriculture of the national economy. In the absence and insufficiency of banking and financial facilities, the growth of the economic

development becomes slow. However, bank is a resource for economic development, which maintains the self-confidence of various segments of society and advances credit to the people.

The major problem in almost all underdeveloped countries like Nepal is lack of capital formation and their proper mobilization. In such countries, commercial banks should use the electronic medium for the development of commercial banks. Nepal is a small and poor country but it has improving in Information Technology and insufficient technique and technology products to utilize. One of the field in which IT is being that is commercial banks in different technologies.

Therefore, the fate of the country is greatly determined by the active role of commercial banks. Banks provides IT facilities to their customers by providing E-banking services, Like Online banking, SMS Banking, Anywhere Branch banking, Telephone Banking, Mobile Banking and Internet Banking just started few Commercial Bank of Nepal. Banks provide loans, remitting funds, purchase and sale of bills and other market information through the medium of Technology. These services help to run the business and other economic activities rapidly as well as smoothly which ultimately helps in economic development.

### **1.7. SWOT analysis on E-commerce**

The widespread use of IT in the present day world has made it a necessity than just a mere need. E-commerce has now evolved as a major component of the IT revolution with its applicability in almost all the sectors including banking. In this context, the SWOT of E-commerce has been evaluated in the following matrix:

<p><b>Strength:</b></p> <ul style="list-style-type: none"> <li>• <b>Time saving:</b> Since E-commerce is done via using internet it helps to save time of roaming around the market for buying the product</li> <li>• <b>Cost Effective:</b> Saves different cost that occurs in the process of buying the product, i.e. Transportation cost etc.</li> <li>• Easy way of running the business: Since the business can be run online it is easy to run the business.</li> <li>• Fastest way of advertising of company</li> <li>• Easy way of marketing, buying, selling and servicing of the services</li> </ul>	<p><b>Weakness:</b></p> <ul style="list-style-type: none"> <li>• Lack of information or education to the people about the E-commerce technology.</li> <li>• In Nepal people hesitate to know about the product</li> <li>• IT (Information Technology) is still in the developing phase here in Nepal and people do not have full idea about dealing with the technology.</li> <li>• Lack of secure access payment methodology</li> <li>• There is no such law for E-commerce</li> </ul>
<p><b>Opportunity:</b></p> <ul style="list-style-type: none"> <li>• Since IT is a fast growing business and E-commerce is a part of IT there is a greater chance of development of E-commerce in Nepal</li> <li>• Easier way of penetrating into the market.</li> <li>• With the use of E-commerce there can be the increment in the market share</li> <li>• Both IT and WEB is changing the needs of the consumer. Consumers take less time in choosing the services that are provided by the different banks</li> </ul>	<p><b>Threat:</b></p> <p>Security purpose:</p> <ul style="list-style-type: none"> <li>• By the hackers: They try to hack the information or there are chances of theft of information</li> <li>• By the crackers: They try to crack the system or they cause damage to the system.</li> <li>• Exclusion of economically and socially disadvantage groups</li> <li>• Many people will not use credit cards over the Internet due to concerns about theft and fraud.</li> <li>• Credit card providing over net is risky.</li> </ul>

**Figure 1. SWOT analysis on E-commerce**

## **1.8. Objectives**

### **The specific objectives of this study are:**

- To examine demographic characteristics on the bank customer's adoption of E-commerce in Bank of Kathmandu Ltd.
- To assess the level of knowledge and the general opinion of customers regarding E-commerce in Bank of Kathmandu Ltd.
- To identify the impact caused by using E-commerce or E-banking in Bank of Kathmandu Ltd. such as growth in number of customer and bank's profitability etc.

## **1.9. Significance and importance of the study**

- This study serves as a partial requirement for the completion of the Master's degree as specified by the Tribhuvan University, Nepal.
- This study can be fruitful for the concerned organization because it intends to provide various information, feedback and conclusions and to suggest suitable recommendations to the Commercial Banks of Nepal.
- It will be helpful for general readers, researchers, colleagues and the government.
- It is appropriate for library use also.
- It assists in future study, as it becomes a pilot project.

### **1.10. Limitations of the study**

No study can be free from its own limitations. So, the present study also has some limitations. Reliability of statistical tools and lack of research experience are the major limitations and some other limitations are enlisted below:

-This study is simply presented to fulfill a partial requirement of M.B.S. programme.

-The study covers the time period of last 5 years from the year 2007 to 2011.

-The study is fully based on the student's financial resources and it is to be conducted and submitted within a time constraint. Further, the study is not a final study on the subject.

-There are 32 commercial banks in Nepal (Source, [www.bfr.nrb.org.np](http://www.bfr.nrb.org.np)). Due to time and resource constraints, only one bank; namely Bank of Kathmandu Limited has been selected as sample in the study.

-Separate data's for information system were not easily available.

The interpretation and conclusions were drawn within the limitations of individual knowledge and judgment abilities and on the basis of data provided and other published and unpublished sources. So, it may lack the professional and expert touch.

### **1.11. Organization of the Study**

This study has been comprised into five chapters, each devoted to some aspects of E-commerce (Technology used to progress in Marketing) and practices of commercial banks. The titles of each of these chapters are summarized and the contents of each of these chapters of this study are briefly mentioned here.

Chapter I:	Introduction
Chapter II:	Review of Literature
Chapter III:	Research Methodology
Chapter IV:	Presentation and Analysis of Data
Chapter V:	Summary, Conclusion and Recommendations

The first chapter deals with the subject matter consisting background of the study, introduction, justification and objective of the study, significance, limitation and importance of the study and theoretical frame work.

The second chapter concerns with literature review that includes all the Profile, historical background, development, evolution of technology, E-commerce, articles from different journals and newspapers and the summary of related study done by others.

The third chapter describes the research methodology adopted in carrying out the present research. It deals with research design, population and sample, sources of data, data processing procedures, and data analysis tools, period of the study, method of analysis and financial and statistical tools.

The fourth chapter is concerned with data presentation and analysis tools it also includes the presentation of data and its analysis's and major findings of the study. Data presentation is one of the most important procedures in my thesis because I have to search from different sources and my thesis is very new topic so it is very vast and width range of data collection.

The fifth and the final chapters are concerned with the suggestive framework that consists with the overall findings, issues and gaps, conclusions and recommendations of the study.

The bibliography and appendices are incorporated at the end of the study.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

#### **2.1. Introduction**

This chapter presents a review of relevant literature that gives an overview of the research. It covers previous studies on adoption of E-commerce/Internet banking, E-banking in Nepal, Theoretical Framework and research gaps.

#### **2.2. Studies on E-commerce (Internet Banking)**

Hong Kong was the first Asian country to provide electronic banking services via the Internet in 1990 (Ongkasuwan and Tantichattanon, 2002). In 2000, the Hongkong Shanghai bank corporation (HSBA) bank in Hong Kong provided the first Internet based retail banking services to the public (Ongkasuwan and Tantichattanon, 2002).

Previous studies have identified a number of criteria that consumers consider important in the adoption of Internet banking (Sathye, 1999; Polatoglu and Ekin, 2001; Gerrard and Cunningham, 2003; Wang et al., 2003; Jaruwachirathanakul and Fink, 2005; Chiemeke et al., 2006; Padachi et al., 2007; Polasik and Wisniewski, 2009).

Sathye (1999) found there are six factors that affected the adoption of internet banking by Australia consumers. In order of frequency, the factors were security concerns, lack of awareness of the benefits of internet banking, ease of use, price, resistance to change, accessibility to computers/internet.

Polatoglu and Ekin (2001) conducted an exploratory study of consumer acceptance of internet banking in Turkey. The authors examined consumer-related factors, such as complexity, perceived risk and relative advantages, as well as organizational factor such as marketing effort that affect the adoption of Internet banking. The authors also found young, affluent and highly educated groups are more likely to accept Internet banking than other groups.

According to Emor's study (2002) on the growth of Internet usage among the Estonian population, the author shows the competition among the Internet service providers has intensified as many of them have lowered their prices for permanent connection (Kerem, 2003). This change motivated old users to move from slow and expensive dial-up connections to faster quality connections and has also attracted new users to the Internet.

Gerrard and Cunningham (2003) measured the factors relating to the adoption of internet banking using a sample of Singapore consumers. The factor analysis results indicated that social desirability, compatibility, convenience, complexity, confidentiality, accessibility, economic benefits and computer proficiency are the influential factors of Internet banking adoption.

Wang et al., (2003) examined the determinants of user acceptance of internet banking in Taiwan. The results of the study demonstrated the significant effect of computer self-efficacy, perceived ease of use, perceived usefulness and perceived credibility on the consumer's behavioral intention to adopt Internet banking.

Jaruwachirathanakul and Fink (2005) identified factors, such as the features on the web site, perceived usefulness, and perceived behavioral control that encourage consumers to use internet banking services in Thailand. The significant demographic characteristics to internet adoption were gender, educational level, and income.

Chiemeke et al., (2006) investigated the adoption of internet banking in Nigeria and found the main factors that inhibit the adoption of internet banking are security and inadequate operational facilities including proper telecommunications and power. The author suggested that further improvements on security and provision of key ingredients of internet banking including confidentiality, effective communication integrity and availability should be considered in order to satisfy customer's requirements and increase the rate of internet banking adoption.

Padachi et al., (2007) used factor analysis to identify the factors that affect the adoption of internet banking in Mauritius. The results of their study revealed that the most significant factor is ease of use and the other important factors are trust, cost of computers, internet accessibility, convenience, and security.



A study conducted by Bastola (2007) in Nepal, found that some banks are in lack of having regular back up website information and E-banking policy. In his study, no significant correlation was found between use of E-banking and gender, marital status or salary of customer. However, use of E -banking signification association was found with age and education (Bastola, 2007).

Study carried out by Singhal and Padhmanabhan (2008) examined the major factors responsible for internet banking based on respondents perception on various internet applications and provided a framework of the factors which are taken to assess the internet banking perception.

Polasik and Wisniewski (2009) identified five main factors affect consumer's decisions to adopt internet banking, perceived security, internet experience, marketing exposure, use of other banking products, and demographic characteristics in Poland.

A survey on the new wave of Internet banking by Novametrie, Internet banking available 24/7 obtained almost the same level of customer satisfaction as the branch banking relationship. The physical relationship between the customers and banks will soon no longer have the unique, irreplaceable qualities of intimacy, confidence and empathy associated with it (White paper, 2004). Internet banking technologies allow consumers easier access to financial services, lower bill-paying, and time saving in managing their finances (Anguelov et al., 2004). As customers continue to make increased use of Internet banking, the number of Internet connections is higher than the volume of telephone calls to bank branches (Anguelov et al., 2004). For example, Anguelov et al., (2004) show the U.S. households use Internet banking increased from 4.1% in 1995 to 21% in 2001.

In Thailand, due to the economic crisis and Non Performing Loan (NPL) in 1997, many banks were forced to reduce costs via a reduction in human resources (Ongkasuwan and Tantichattanon, 2002). Many experienced bank employees were offered early retirement and the remaining employees faced increased workloads with shorter service hours (Ongkasuwan and Tantichattanon, 2002). This change caused the majority of the Thai banks to use Internet banking to reduce waiting time, errors and costs, and ultimately improve customer's satisfaction. This allowed customers to access and inquires about their accounts and performs simple transactions

via the Internet from their computer at home or work at their convenience (Ongkasuwan and Tantichattanon, 2002).

The private customers banking portal of Hansabank has more than 397,000 registered users (Kerem, 2003). In Estonia, Internet banking possibilities are provided by all major banks. Out of the 233,700 people used Internet banking, many customers have used the services of more than one bank (Kerem, 2003). Estonia in general, is very suitable for Internet banking applications due to the relatively high penetration of personal computers and Internet access. The heavy user demographic group of Internet banking is between 35-49 years. The lowest usage rates are among 15-24 year olds since many of these younger people might not need a banking service (Kerem, 2003). In addition, single (not married) customer seem to be the dominate users of Internet banking (Kerem, 2003).

In Australia, Internet banking growth has continued despite initial consumer security fears. In 2005, there were approximately 5.5 million Internet banking users (approximately 34 per cent of the adult population) (AC Nielsen, 2005). By offering Internet banking, the traditional financial institutions wanted lower operational costs, improve consumer banking services, retain customers, and expand their market share (Lichtenstein and Williamson, 2006).

In China, the electronic-based Internet banking is a relatively new banking method and provides financial transaction services to customers. The service includes 24 hour access to customer bank accounts, transfer transaction between accounts, personal financial consulting, online stock trading, shopping, and utilities fee payments (Ongkasuwan and Tantichattanon, 2002).

Related work is discussed both here and other appropriate places throughout the paper. Hertzum et al., (2004) analyzed the usability of Danish online banking security for a particular task (money transfer to a specific account) with respect to the usable security definition of Whitten and Tygar (1999); and evaluated installation of special client-end E-banking software (as required by some Danish banks), logon, money transfer, and logoff. Several usability weaknesses in online money transfer were revealed. Chung et al., (2002) studied the effectiveness of web interfaces of several banks in New Zealand. Nilsson et al., (2005) exposed the security implications of system generated versus user password for online banking. Edge et al., (2007)

analyzed online banking (money transfer in particular) security using attack trees, and proposed solutions to known attacks using protection trees and multi-factor authentication. Karjaluoto et al., (2003) conducted a survey among non-users and users of Finnish online banking, and analyzed differences of the demographic profile of these two groups of users. A similar survey (Benamati et al., 2006) attempts to examine the effect of trustworthiness among online banking users. Jin et al. (2005) briefly analyzed online banking risks for banks, and how these risks may be managed. As opposed to analyzing the usability of offered features or any specific security mechanism (e.g. password) for online banking, this study focuses on the usability of major online banking requirements.

### **2.3. E-banking in Nepal**

In Nepal, a large proportion of Internet users are also using Internet banking. The old banking culture is cash-carry banking. People withdraw lots of cash from one bank and deposit in another bank. It is very common in Nepal for people to physically transfer money. As the technology integrates into the Nepali banking system, mobile banking and online banking is taking precedent over the traditional cash banking methods. Nepali banks, especially the major commercial banks, have their own Internet banking websites to allow their customers to execute their bank transactions via the Internet. Many Nepali banks have invested in the Internet technology because it is a new channel in banking transactions and services and the customers can conduct their banking needs with little time required and at a cost saving.

Nepal is in the growth phase of the technology life cycle. Evolving internet technology and standards access to the internet has spread mainstream users and customer acceptance across a wider range. Nepalese living abroad already has footholds in Nepal by operating their account through the net. For banks in Nepal, the internet is a major opportunity for growth, efficiency and marketing initiatives. Internet has raised the service bar in the provision of banking services to the Nepalese who are well versed by 24 hours, 7 days a week service. Whereby, providing instantaneous transaction processing. Customer interactivity allows for the development of highly customized banking services. Customers can quickly ascertain comparative services (or pricing) being offered by competitor banks.

E-commerce could be the best tool for a landlocked country like Nepal to reduce dependency upon other countries. The respondents under 26-35 age groups were the dominant buyers of computers in Nepal and no relationship between sex and age group of respondents concerning the purchase behavior of personal computers was found in the study conducted by Nepal (2009). Nepal is in the process of getting the membership from the World Trade Organization (WTO) by which it will be able to sell its goods and services to various countries under the WTO framework. In a way, E-commerce is an obligatory tool when a country enters the WTO (Jha, 2059). Therefore, there is a urgent need to carry out the study regarding E-commerce (internet banking) to consumers make a decision on the adoption of internet banking based on perceived security, internet experience, web design figure, internet skill, marketing exposure, reliability and demographic characteristics (gender, age, marital status, qualification, occupation and household income) etc.

#### **2.4. Theoretical Framework**

Internet banking is the latest technology which has advantages in saving time and cost, and can be regarded as one of the inputs for banking transactions (Kim et al., 2005). Study conducted by Kim et al., (2005), estimated an adoption model for Internet banking and show that consumer's ability, attitude, and the opportunity cost of time play significant roles in their decisions to adopt Internet banking. Younger and well-educated consumers were more likely to adopt Internet banking. Their results also show age effect varies across education groups, the differences across households that use cheque, ATM or debit card, direct payment, and Internet banking as payment methods. The findings show that there are significant differences in terms of the demographic characteristics of the households that use different payment methods (Kim et al., 2005). Internet banking was found to be a low transaction cost and a high speed services when compared to traditional banking services by Chang (2002). In general, consumers responded differently to Internet banking because they have different technology capabilities, opportunity costs of time, and attitudes towards Internet banking (Kim et al., 2005).

Anguelov et al., (2004) also show that Internet banking technologies allow consumers easier access to financial services, lower bill-paying, and time saving in managing their finances. At an advanced level, Internet banking found to be enabling of transactional services to customers over

the internet. Transactional services involved ordering cheque or deposit books, checking bank statements and account balances, undertaking banking transactions, and opening new bank accounts (Giannakoudi, 1999; Jayawardhena and Foley, 2000).

In the study of product innovation by Trajtenberg (1989, 1990), the author introduced a measurement for innovations. The author revealed that despite its prevalence and intuitive appeal, the distinction between product and process innovations is by no means unambiguous. Many advances primarily affect production processes and are consist with quality improvements in capital goods, whereas others are embedded in products that can serve both in production and in final consumption (such as personal computers, communication systems and devices) (Trajtenberg, 1989; 1990). For many commodities and services, the individual's choice was discrete and the traditional demand theory has to be modified to analyze such choice (Ben-Akiva and Lerman, 1985). Trajtenberg (1989, 1990) points out that in the discrete choice models of demand for different products consumers will maximize their utility (Trajtenberg, 1989; 1990).

The variable of primary interest in this research is dependent variable of E-commerce/internet banking adoption. Five independent variables are gender, age group, status, employment, monthly income of the customers. Barnett's (1998) findings show that the younger the consumers, the more comfortable they are with using Internet banking compared to older consumers who are more likely to be non-Internet bankers. Similarly, Karjaluoto (2002) demonstrates that Internet banking users are younger than non-Internet banking users. These findings imply that older consumers are the less likely to favor Internet banking. In regards to marital status, Stavins (2001) identifies that married consumers are more likely to adopt Internet banking. Therefore, the following relationships are hypothesized:

- Younger age is positively related to adoption of Internet banking.
- Marital status is positively related to adoption of Internet banking.

The segmentation of gender characteristic also influences preferences for Internet banking. Katz and Aspden's (1997) findings show that males are more likely to use Internet banking than females. Similarly, Karjaluoto (2002) finds that Internet banking users are dominated by males. Therefore, the following relationship is hypothesized:

- Male consumers are more likely to adopt Internet banking than female consumers.

(Munene et al., 2005) identify a significant relationship between the respondent's occupations and online banking. The authors show that people in managerial, administrative, professional, or paraprofessional occupations are more likely to use electronic banking. Similarly, Babiarz and Devaney's (2007) study show that holding a managerial, professional, or technical job is positively related to Internet banking adoption. Hence occupation level has an impact on consumer's choice of Internet banking. It can be postulated that occupation level is positively related to the choice of Internet banking (Stavins, 2001). Therefore, the following relationship is hypothesized:

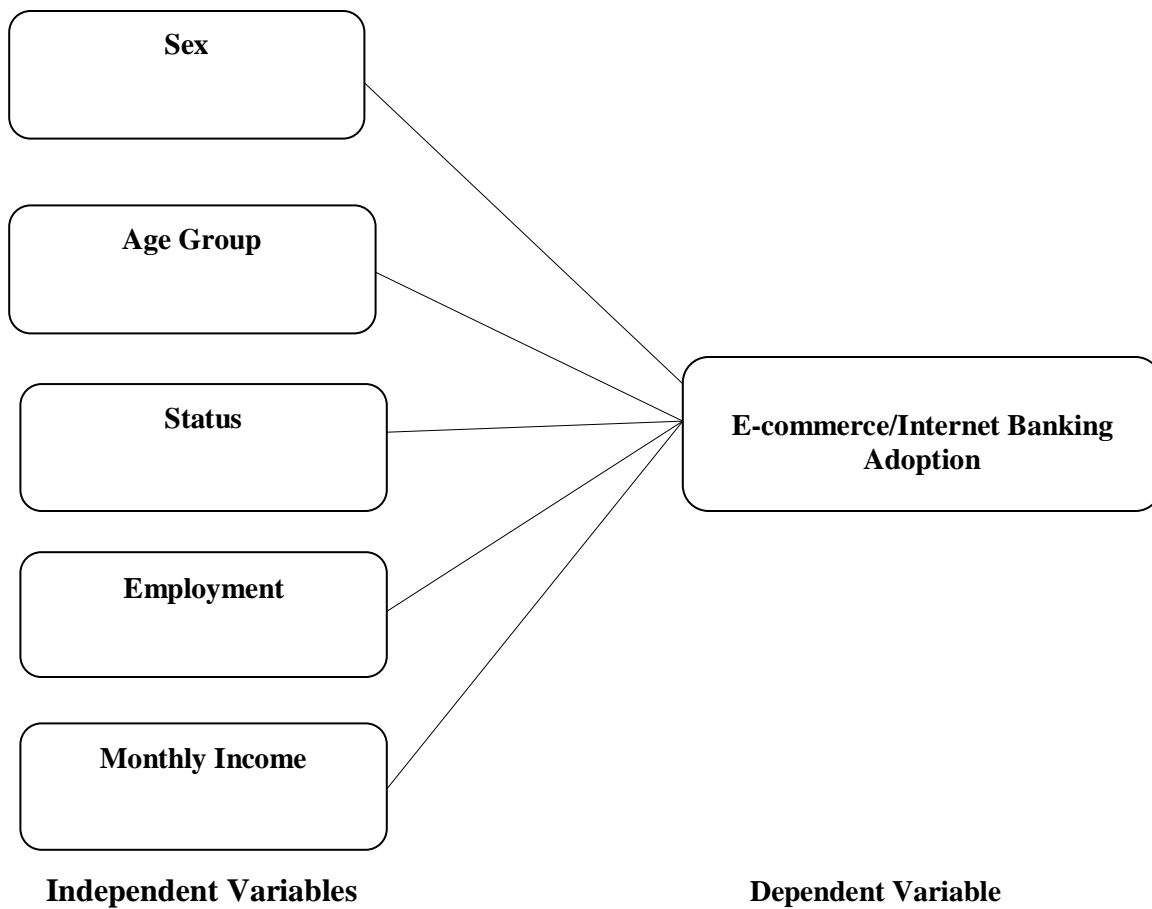
-Occupation has a positive impact on the adoption of Internet banking

Empirical findings also suggest income positively influencing the adoption of Internet banking (Al-Ashban and Burney 2001; Stavins, 2001; Karjaluo, 2002). For example, Al-Ashban and Burney's (2001) conclude that there is a positive relationship between consumer's level of income and the adoption of Internet banking. Similarly, Stavins (2001) and Karjaluo's (2002 ) identify that as consumer's income levels increase they are more likely to use Internet banking. Therefore, the following relationships are hypothesized:

- Income is positively related to adoption of Internet banking.

- There are different perceptions of the adopting Internet banking factors between demographic groups

On the basis of the above arguments, we theorize that there would be positive correlation between internet banking adoption and each of the following variables: age group, gender, status, employment and monthly income. The theoretical frame work is depicted in Fig 2.in which E-commerce/Internet banking adoption is the dependent variable where as its effects and impact due to different factors is the independent variable.



**Figure.2 Schematic diagram of the theoretical framework**

### **2.5. Research Gap**

Based on literature review, three fundamental research gaps in customer’s adoption of E-commerce (Internet banking) in Nepalese banking industry have been identified.

- (1) In the first place, limited published research on the factors influencing customer’s adoption of E-commerce (Internet banking) in the Nepalese banking industry.
- (2) Secondly, limited published research in academic marketing journals focusing on customer’s adoption of E-commerce (Internet banking) in the Nepalese banking industry, and
- (3) Lastly, limited empirical research on customer’s adoption of E-commerce (Internet banking) in the Nepalese banking industry.

## **CHAPTER – III**

### **RESEARCH METHODOLOGY**

#### **3.1. Research Design**

The different aspect of this thesis work regarding to evaluation of E-commerce(Internet banking) adoption in Nepal 'A case study of Bank of Kathmandu Limited' have been mentioned in the previous chapters. An introduction relating to this thesis work is made in the first chapter and relevant literatures are reviewed in the second chapter. The 'research methodology', which is used to analyze to collected data, are mentioned in this chapter.

Methodology means the techniques or the methods used during the data collection for the study. For the collection of data different activities were performed, informal interview, observation of the work, study of the related documents and published materials were analyzed.

This chapter highlights about the methodology adopted in the process of present study. It also focuses about sources and limitations of the data, which are used in the present study. 'Research Methodology' is a way for systematically solving the research problem. In other words, research methodology indicates the methods and processes employed in the entire aspects of the study. "Research methodology" refers to the various sequential steps to be adopted by a researcher in studying a problem with certain object/objects in view" So, it is the methods, steps, and guidelines, which are to be followed in analysis, and it is a way presenting the collected data with meaningful analysis. A systematic methodology is required to pick out an actual result for any special study. Research means the search for knowledge and methodology refers to various sequential steps that are adopted in the study. This fieldwork is undertaken to have a clear picture of lending procedure of Bank of Kathmandu Limited. For this purpose different kinds of research methods are being used. The research design for this fieldwork was based mostly on the exploratory design method. Diagnostic approach of research is employed in this study. The methods used are discussed below

#### **3.2. Sources of Data:**



Data is very reliable and effective source of all fieldwork reports. Data is a foundation of all fieldwork projects. Data may be obtained from several sources. It also depends on the objectives and necessity of the field report. Thus, the sources of data collection were both based on primary and secondary sources. For the already existing data, the information was derived from the secondary source and for the data that was looked for the first time; information was derived from the primary source. Keeping in the view of explorative nature of the study, primary source is the main source of information and data. Likewise, some other related information's are gathered from related bank. The sources of data collection can be better being explained as:

### **3.3. Types of data used:**

The study is based on two sources of data, which are primary and secondary.

#### **3.3.1. Primary Source:**

Primary data: Visited the bank in order to have an acquaintance with different aspects of the banks. Met with the banking people and had direct contact with them for relevant information. Several interviews were conducted with the appointed person of the respected field. Questionnaires were developed to gather primary data. Those questionnaires were designed for the customers of Bank of Kathmandu Limited. Questionnaires were structured into a closed as well as open questions for collecting specified information. One of the staffs of Bank of Kathmandu Limited helped gather information in context of E-banking in Bank of Kathmandu Limited. I distributed the questionnaires in the corporate office of Bank of Kathmandu Limited was assisted by one of the personnel's to send the questionnaires to other branches. Statistical tools like arithmetic mean, percentage, are used to present the large data in a single figure. Similarly, horizontal and vertical bar diagrams is used for graphical presentation of data.

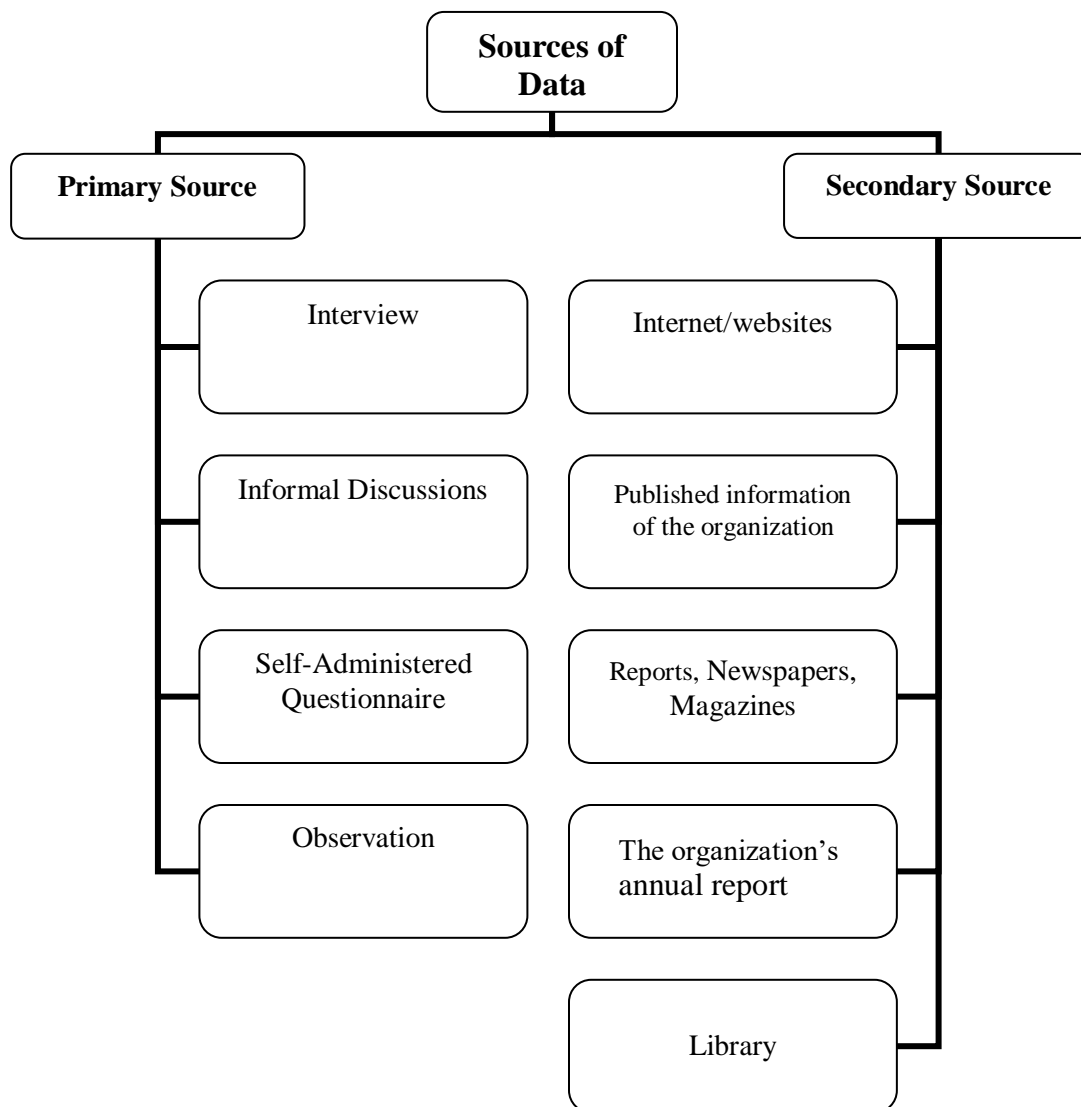
#### **3.3.2. Secondary Source:**

Apart from the primary data, other data were also collected from the secondary source. Secondary sources of data refer to the readymade data that is already published by the concerned organization or data that has been compiled by others. Secondary data is thus defined as the data collected earlier for a purpose other than the one currently being pursued. Secondary data are the brochures, annual reports, published reports and statements, published official documents,

etc. We can study two kinds of secondary data, Internal as well as external. In internal secondary data, there was the organizations prospectus and brochures, report prepared by the concerned department on the issue and various other reports that were published by the Banks. External secondary data were collected from different branch offices working to provide services to the customers, who support customers to take services and advantages from the recognized banks.

### 3.3.3. Data collection Methods

Data are the raw facts, which need to be assembled. The collected data are classified, processed, systematically arranged and represented to make it easily understandable and pleasing to the examiner, reader or researchers. Diagrams have been plotted and analyzed for the proper explanation of the topic. As already mentioned, both primary and secondary sources of data were collected for the fieldwork. The method of data collection process can be further explained as:



### **Figure 3. The data collection process.**

#### **3.3.3.1 Primary Source**

The data collection methods used for primary sources mainly was structures interviews and personal observation.

➤ **Structured Interviews**

Structured interviews with the concerned authority were conducted. At first, a structured list of question to be asked during the interviews was formulated. Then they were prioritized according to the importance of the question.

➤ **Personal Observation**

During the exploratory phase, I spent quite a considerable time with Bank's customer. For the observation, I had conversation to know the response of concerned employees of the Bank during the work.

#### **3.3.3.2 Secondary Data**

The data collection method from secondary sources mainly were the brochures and annual report of Bank of Kathmandu Limited, brochures and other published reports /statements was used as the data. Data collected from the secondary sources were both internal as well as external.

#### **3.3.4. Tools of Analysis and Design**

For the preparation of this fieldwork study data are collected from various sources. The data are collected through Questionnaire / Interview and observation. The achieved data were analyzed, processed and are presented with the help of graphical tool.

#### **3.4. Population and Sample:**

At present, there are 32 commercial banks operating in Nepal. Due to time and resource factors, it is not possible to study all of them regarding the study topic. The samples are selected from Bank of Kathmandu Limited and I have not taken as sample of all banks because the data of all banks have been huge. On the other hand, the time and financial constraints are other factors that I have not taken as samples to all the commercial banks.

### **3.5. Limitations of the Methodology:**

The Limitations of the methodology are as follows:

1. There was a great constraint of time for the preparation of the thesis report and its submission within the specified time.
2. Due to the lack of authority and trade secrets, every facts and proof may not be provided for the study.
3. Due to the unavailability of relevant data all the information regarding the study cannot be presented.
4. This report deals only with the particular E-banking system of the whole existing system, so it cannot show the entire performance of the entire system.
5. This study in some case suffers from lack of relevant data.
6. Cost constraints also play a major role in this fieldwork study.

### **3.6. Period of the study.**

The study is based on five years secondary data of sample bank (i.e., Bank of Kathmandu Limited) from the year 2007 to 2011.

**CHAPTER IV**  
**DATA ANALYSIS AND PRESENTATION**

**4.1. Survey Analysis and Interpretation**

The total sample size for the survey was taken as 50. The questionnaire was developed and administered to the customers of the Bank of Kathmandu Limited in order to evaluate the level of E-commerce in the bank. Demographic characteristics, level of knowledge and general opinion of customers of Bank of Kathmandu Limited, impact caused by using E-commerce (E-banking are tabulated in table 1, 2 and 3 and figured in 4-8.

**4.2. Demographic Characteristics**

**Table 1. Demographic Characteristics on Internet banking/ E-commerce Adoption.**

<b>Demographics</b>	<b>Items</b>	<b>No. of Respondents</b>	<b>Percent %</b>	<b>E-banking adoption</b>
Sex	Male	31	62	25 (50%)
	Female	19	38	12 (24%)
	Total =50			Not adopted 26%
Age Group	Below 20 year	2	4	1 (2%)
	21-30 years	28	56	25 (50%)
	31-40 years	20	40	15 (30%)
	41 Above			Not adopted 18%
Total=50				
Status	Married	21	42	18 (36%)
	Widow	-	-	-
	Divorce	1	2	0
	Never Married	28	56	22 (44%)
Total=50			Not adopted 20%	
Employment	Employed	12	24	8 (16%)
	Employee	36	72	30 (60%)
	Self employee	02	4	1 (2%)
	Total=50			Not adopted 22%

Monthly Income	Below 10000	2	4	0
	10000-20000	30	60	23 (46%)
	20000-50000	18	36	16 (32%)
	50000 Above	Total =50		Not adopted 22%

As shown in table 1, the descriptive data for the respondents in relation to the adoption of Internet banking. A total of 50 local respondents (62% male and 38% female) were interviewed with the structured questionnaires. Altogether, the sample respondents comprised of 62% males and 38% female in which 25(50)% male were adopt Internet Banking where as 12(24%) female were adopt Internet Banking and 26% were not adopt.

The dominant age groups were between 31-40 years old (40%) and 21-30 years old (56%). Likewise, of the 28 age group (21-30), 50% practiced E-commerce (Internet banking) while of the 20 respondents of higher age group (31-40) 30% adopted E-commerce (Internet banking) and 18% of them were non internet banking users.

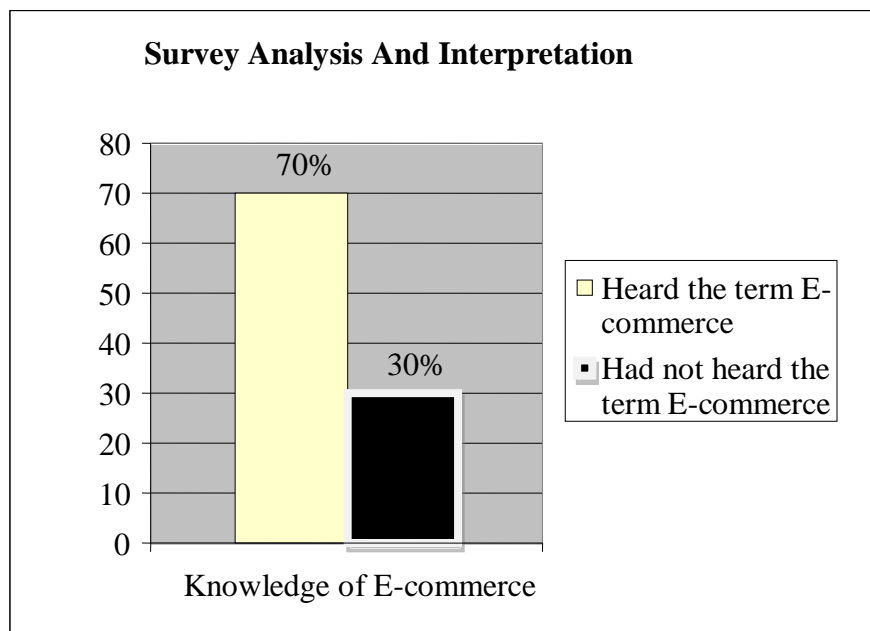
Similarly, 42% of the respondents were married and 56% were unmarried at the time of survey. Most of the Internet banking users were single 22(44%) compared to married 18(36%) and remaining 20% are of non Internet banking users (Table 1). This indicates that single persons are interested with new technologies.

Of the 36 (72%) employee, 12 employed (24%), and 2 self employed (4%) respondents, in which 60%, 16%, and 2% adopted E-commerce (Internet banking) respectively and 22% didn't adopt Internet banking (Table 1).

As tabulated in table 1, of the 30 (60 %) respondent's, monthly income having NRs. 10000-20000, whereas 46% adopted E-commerce (Internet banking). Similarly, 32% of the 18 (36%) respondents earn monthly NRs. 20000-50000 adopted E-commerce (Internet banking). And there is not any respondent having monthly income of NRs. 10000 and 50000 and 22% were not adopt Internet banking.

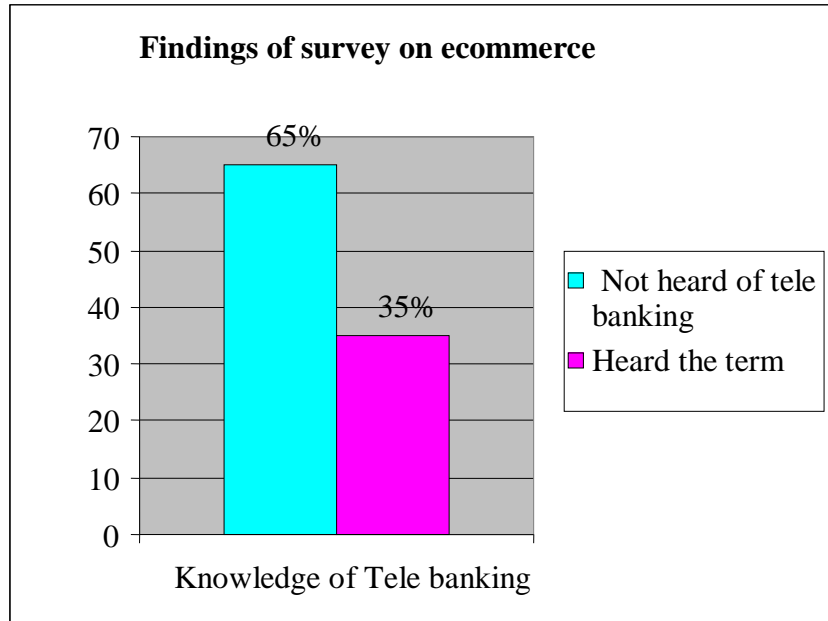
### 4.3. Knowledge of E-commerce

Response for the knowledge and opinion part of the questionnaire is summarized in figure 4-6. Respondents answered a total of 34 close ended, multiple choice questions about knowledge and opinion on E-commerce (Internet banking) and Tele-banking.

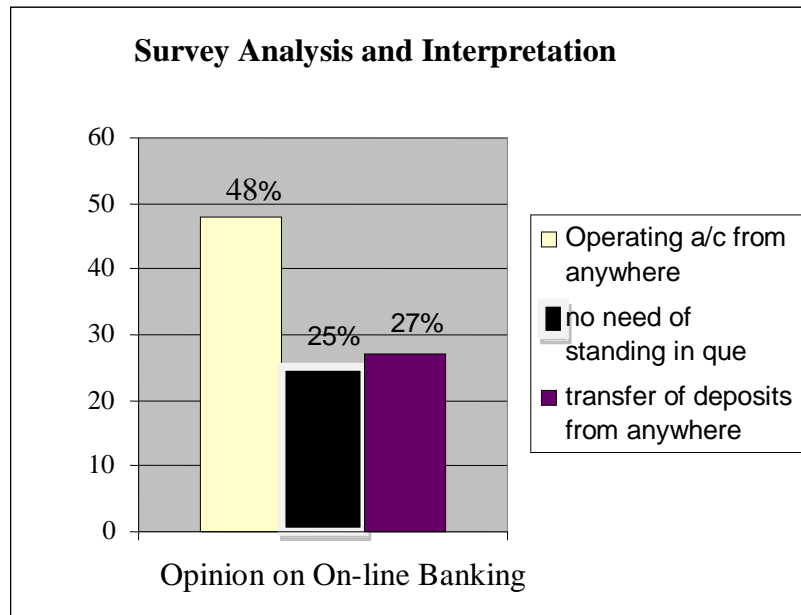


**Figure 4. Knowledge of E-commerce.**

Distribution of knowledge on E-commerce of the respondents showed that 70% of the respondents were aware of the E-commerce (Internet banking) while remaining 30% were not aware regarding E-commerce and its importance on banking (Figure 4). Similarly, 35% respondents found to be heard the term Tele-banking (Figure 5).



**Figure 5. Customer’s Knowledge of Tele banking.**



**Figure 6. Customer’s Opinion on Online Banking.**

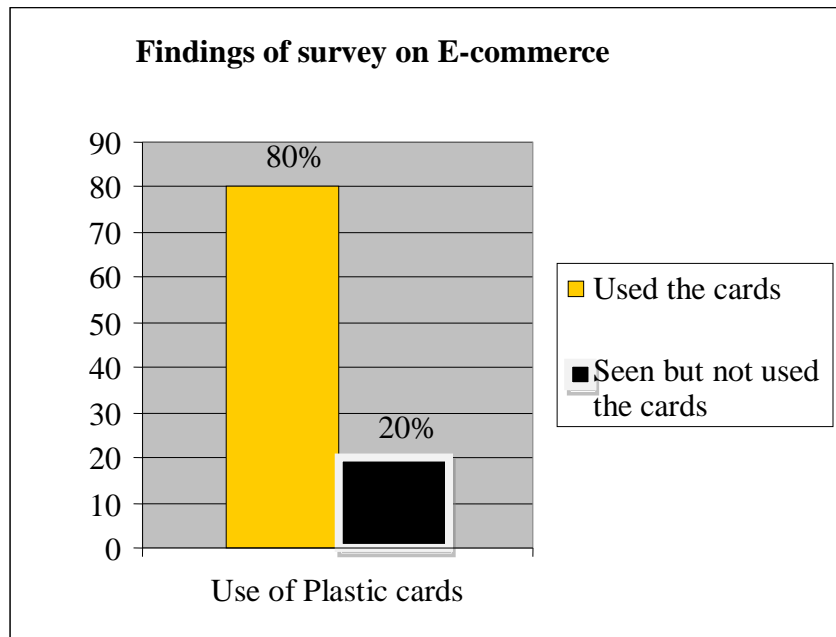
As figured in figure 6, majority of the customers surveyed considered on line banking as a means to operate account from anywhere. Around 27% of the customers considered on line banking as a



means to transfer deposits from anywhere. Around 25% felt that on line banking would prove to be vital for prompt service and they need not have to stand in que for hours.

#### 4.4. E-commerce Users/E-banking Users

In the survey questionnaire, there were questions and data related to use of plastic cards, number of users of E-commerce, net profit gained in 2007-2011. The responses regarding this is summarized in figure 7 and five years data are tabulated in table 2 and 3 and figured in figure 8.



**Figure 7. Use of Plastic Cards in Bank of Kathmandu Limited.**

Eighty percent of the respondents surveyed found to be use debit cards for withdrawal of cash from their accounts, while the remaining 20% had just seen but not used the card for the purpose of banking transactions (Figure 7).

**Table 2. Number of users of E-commerce in Bank of Kathmandu Limited.**

Year	2007	2008	2009	2010	2011
No. of users	65,792	71,713	83,904	105,718	132,444

Source: BOK MIS

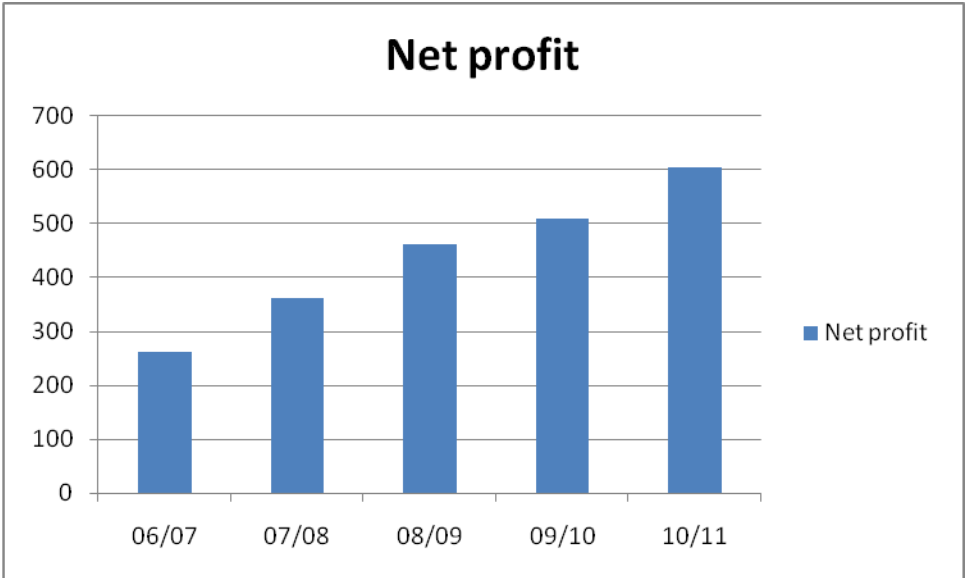
This study also attempts to examine the five years E-commerce users and net profit of Bank of Kathmandu Limited. Table 2, 3 and figure 8 shows the number of E-commerce (Internet banking) gradually increased from 2007 to 2011. In 2011, the highest numbers of users were 132,444 in Bank of Kathmandu in comparison to 65,792 in 2007. Similarly, the net profit gained by the bank was also increased in 2010/11 more than 200% (NRs. 605 million) in comparison to 2006/07 (Table 3 and figure 8).

**4.5. Net Profit of Bank of Kathmandu Limited During Five Years**

**Table 3. Five Year’s Net Profit of Bank of Kathmandu Limited.**

Year	Net profit after tax (NRs. in Million)
2006/07	262
2007/08	361
2008/09	462
2009/10	509
2010/11	605

Source: BOK Annual report 2010/11



Source: BOK Annual report 2010/11

**Figure 8. Five Year’s Net Profit of Bank of Kathmandu Limited (NRs. in Million).**

#### **4.6. Major Findings**

The major findings from the survey conducted amongst the customers of Bank of Kathmandu Limited with a view to test their knowledge regarding E-commerce (E-banking) has been highlighted here below:

1. From the total of 50 useable questionnaires, 80% of the respondents were Internet banking users, while 20% of respondents considered themselves as non-Internet banking users.
2. The study found that the sample respondents comprised of 62% males and 38% females, and 42% of the respondents were married and 56% were unmarried.
3. It is found that person earning monthly NRs.20000-50000 has highest rate 88.88% than that of earning between NRs.10000-20000.
4. This study also revealed that greater proportion (89%) of the respondents who adopted E-commerce (Internet banking) at the Bank of Kathmandu Limited were between 21–30 years age group, while 75% were of 31–40. The majority were therefore young bank customers who had adopted E-commerce (Internet banking).
5. This study also revealed that married customers (36%) are less than single (44%) who have adopted E-commerce (Internet banking).
6. Majority of the customers i.e. 70% of the customers has heard the term E-commerce. However, the remaining 30% had no idea about E-commerce and its practical implications in the banking sector.
7. Majority of the customers surveyed considered on line banking as a means to operate account from anywhere. Around 27% of the customers considered on-line banking as a means to transfer deposits from anywhere. Around 25% felt that on-line banking would prove to be vital for prompt service and they need not have to stand queue for hours.
8. The study revealed that the majority of the customers of banks had fairly good knowledge regarding plastic cards. 80% of those surveyed had used plastic cards in the form of ATM /Credit cards while only 20% had never used such cards.
9. It is also found that the E-commerce (Internet banking) users in Bank of Kathmandu gradually increased from the year 2007 to 2011 and reached up to 132,444 in 2011. The

number of users was 65,792 in 2007, it means that the bank provide good service pertained to E-banking.

10. From the study, it is also found that the net profit after tax of Bank of Kathmandu Limited from 2007 to 2011 was increasing gradually i.e in 2010/11 NRs.605 million from which we can say that may be one factor of increasing in the profit is due to services enhanced on E-commerce.

## CHAPTER V

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1. Summary

The objectives of this study is to examine demographic characteristics on the bank customer's adoption of E-commerce, assess the level of knowledge and the general opinion of customers and bankers regarding E-commerce and to identify the impact caused by using E-commerce or E-banking in Bank of Kathmandu Limited such as growth in number of customer and bank's profitability in Bank of Kathmandu Limited. This evaluates some factors such as demographic characteristics (gender, age group, marital status, employment, monthly income), knowledge of E-commerce including customer's knowledge of tele banking, customer's opinion on online Banking, E-commerce Users/E-banking users (use of plastic cards), number of users of E-commerce during five years (2007-2011) and net profit of the bank during five years (2006/07-2010/11).

This study identified that the majority of adopters were male than female, married, between 21–30 years, respondents having monthly income ranged from NRs. 10000-20000 had highest E-commerce (Internet banking) adoption rate. Therefore, bank should have different strategies in targeting different group of customers in terms of gender, age and income in order to promote and encourage E-commerce (Internet banking) adoption. They should be offered efficient services as E-banking facilities. In case of customer's knowledge of E-commerce (Internet banking), majority of customers were aware of E-commerce (Internet banking) and use plastic cards. There are lot of issues raised in the study which border on security, theft and fraudulent practices with regard to the use of E-banking services. These issues if not addressed can jeopardized the success of this innovative and laudable financial services in the banking industry. Since, knowledge is important factor when customers consider adopting Internet banking bank the government and banks have to raise the awareness by disseminating the information that can increase bank customer's knowledge and skills about computers and Internet banking and develop a more effective security system to attract customers and develop their trust. This study has shown the various benefits accruing to Internet banking and that many people are

increasingly using this service. The E-commerce (Internet banking) users in Bank of Kathmandu gradually increased from 2007 to 2011 and reached upto 132,444 in 2011. The number of users was 65,792 in 2007. Likewise, the net profit after tax was achieved by Bank of Kathmandu Limited in the year 2010/11 was NRs. 605 million. While in 2006/07 the net profit gained by Bank of Kathmandu Limited was NRs. 262 million. This presents a good picture that customers with long time relationship with the banks are satisfied with the bank's services and consequently results to most customers having an account with the banks and benefiting from other services provided by the banks. But it doesn't mean that the net profit achieved only through E-commerce (Internet banking). E-banking has become important phenomenon in the banking industry and it will continue as more progress is made in information technology. In addition, E-commerce facility should be implemented by each and every commercial bank of Nepal. The scope of E-commerce should be broadened as to simplify banking transactions and to provide prompt and convenient service to the customers. Developing country like Nepal must therefore be prepared to take advantage of the potentials of E-commerce if it is to improve its economic situation and energize its economy. The formulation and implementation of Cyber Law in Nepal can be considered a major break through in the development of Information Technology in the country. The implementation of the law has significant impact on different sectors where E-commerce comes into play in different forms and manifestations.

## 5.2. Conclusion

Technology has empowered top management of banks in Nepal to gain greater visibility and control. Electronic commerce i.e. E-commerce is basically the use of the Internet for buying and selling. It is commerce for the era of globalization, an era in which telecommunications networks, and in particular the Internet, make it possible to buy and sell without exchanging bundles of paper banknotes, in an electronic market operated through telephones and computers. E-commerce can be applied to any of the steps involved in commerce: from finding a buyer, negotiating the sale, handling of tariffs, taxes, insurance and transportation, payment, and notification of delivery of the product or service. All of these operations can now be done securely on the Internet.

According to Polatoglu and Ekin (2001) and Howcroft et al., (2002), demographic characteristics that describe typical electronic banking customers include young, affluent, and highly educated. A Finnish study (Mattila, 2003) reveals Internet banking users are relative wealthy, highly educated, and are in higher professions. Awamleh and Fernandes (2006) also find that in United Arab Emirates, young affluent and highly educated groups generally accept technological changes more readily. In this study, the data revealed that about the majority of the respondents were male than female. This reveals that there are more male customers than the female customers. This may be due to males have positive attitude toward the E-commerce (Internet banking) during the period of study. In contrast to the study carried out by Gbadeyan and Akinnyosoye-Gbonda (2011) this study also revealed that single customers (44%) are greater than married (36%) who have adopted E-commerce (Internet banking). This indicates in Nepalese society single persons have a tendency to save time and money than married persons due to their social and family responsibilities.

Several studies have been conducted to profile the Internet consumer's demographic characteristics and the results of these studies suggest that innovators who belong to the high income category are normally initial users of the Internet (Flynn and Goldsmith, 1993; Gan, Clemes et al., 2006). Further, Sakkthivel (2006) reveal that the profile of an Internet user tends to be young, male, well educated, and earning an above-average income. This study also revealed

that greater proportion (50%) of the respondents who adopted E-commerce (Internet banking) at the Bank of Kathmandu Limited was between 21–30 years age group, while 30% were of 31–40. The majority were therefore young bank customers who had adopted E-commerce (Internet banking). This indicates Nepalese youths have more zeal and aptitude toward technological development through the adoption of Internet banking. In the study it was revealed that employee respondents have highest (60%) rate of adoption of E-commerce (Internet banking). Respondents having monthly income ranged from NRs. 20000-50000 had 32% E-commerce (Internet banking) adoption rate indicates the youths and employee customers constitute important category of bank's customers and therefore, they should be offered efficient services as E-banking facilities.

This study attempts to examine the customer's knowledge of E-commerce (Internet banking). This study reveals that 35 (70%) customers had knowledge of E-commerce (Internet banking) and 35% customers heard about Tele-banking. The reasons for this may be due to lack of knowledge of computer, preference for face to face banking, lack of information or awareness of services, not comfortable with E-commerce (Internet banking) services and security concern about the banking services. Similarly, 48% customers consider online banking as a mean to operate account from anywhere. Whereas, 27% customers considered online banking as a mean to transfer deposits from anywhere. Eighty percent of customers used plastic cards (ATM and Credit Cards). The E-commerce (Internet banking) users in Bank of Kathmandu gradually increased from 2007 to 2011 and reached upto 132,444 in 2011. The number of users was 65,792 in 2007. Likewise, the net profit after tax was achieved by Bank of Kathmandu Limited in the year 2010/11 was NRs. 605 million. While in 2006/07 the net profit gained by Bank of Kathmandu Limited was NRs. 262 million. This consequently results to most customers having an account with the banks and benefiting from other services provided by the banks. But it doesn't mean that the net profit achieved only through E-commerce (Internet banking). Although this presents a good picture that customers with long time relationship with the banks are satisfied with the bank's services. There are lots of factors that may account for this customer loyalty amongst which include: prompt and effectively delivery of services, good customer's relationship, conducive environment, good public image and financial capability of the bank. This may be due to understanding and experiences on availability of banking facility anytime



and anywhere, easy to use, saves time, faster than conventional banking, offers a convenient way of operating banking transactions, no need for queuing, very flexible virtual banking system, and customer friendly environment. There is another side of the coin also existed: customer's understanding on E-commerce (Internet banking). This include lack of easy accessibility, password protection, security concerns, risk of hackers, leaked customer information, card retrieval problem, slow response of Internet connection, delay due to wrong codes, unreliable power supply, system failure/error and inaccessibility. Nevertheless, this means that in spite of awareness on E-commerce (Internet banking) and satisfactory use of plastic cards by the customers, there is still need to disseminate the knowledge about information technological advances in modern banking technology and spread the awareness regarding the advantages or benefits of E-commerce (Internet banking) over the traditional banking system.

E-banking has become important phenomenon in the banking industry and it will continue as more progress is made in information technology. The financial industry thus is gradually experiencing transformation from cash based system to a "paperless" system that is more convenient and reliable. In addition, E-commerce facility should be implemented by each and every commercial bank of Nepal. The scope of E-commerce should be broadened as to simplify banking transactions and to provide prompt and convenient service to the customers.

It is evident that E-commerce will increasingly mark a major paradigm shift in international trade and commerce domain in banking sectors. Developing country like Nepal must therefore be prepared to take advantage of the potentials of E-commerce if it is to improve its economic situation and energize its economy. Even though a number challenges do exist in making full fledged E-commerce a reality in a country like ours, a concerted effort must be made to facilitate the growth and development of E-commerce in Nepal. The government in conjunction with the private sector can and should play crucial roles in this regard. The formulation and implementation of Cyber Law in Nepal can be considered a major break through in the development of Information Technology in the country. The implementation of the law has significant impact on different sectors where E-commerce comes into play in different forms and manifestations. Strict implementation of the Cyber Law will definitely go a long way in checking

fraudulent activities, unauthorized check-in attempts and other cyber crimes that cause loss to the banking and financial institutions and the customers.

### **5.3. Recommendations**

From the present study, following recommendations are made to the concerned authorities and further researches:

1. E-commerce is one of the key success parts of technology development in the country, so every commercial bank shall take commencement to adopt it and banks need to give information and knowledge about their products and services to each and every customer, so that everyone can facilitate with the new technologies.
2. The bank should have different strategies in targeting different group of customers in terms of gender, age and income in order to promote and encourage E-commerce (Internet banking) adoption.
3. Bank should enhance their services pertained to E-commerce to increase their customer, transactions and profitability as well.
4. Customers need to be given more sustained public education concerning the use of E-banking services such as proper maintenance of ATM cards, how to make various online transactions without giving room for Internet fraudsters, and ensuring more security for their online transactions.
5. The commercial banks need to enhance the scope of E-banking activities as a cost cutting measure.
6. In order to enable the bank and the economy to capitalize on the enormous benefits of E-banking and E-commerce the Government need to understand the level of benefits to the customers, to the banks and to the country, to understand the risk associated, develop the requisite law and framework i.e. cyber law.
7. This is also evidenced by the results of the consumer survey which revealed that majority of the customer were not fully assured and convinced of the security of E-commerce transactions. Therefore, banks need to take appropriate steps to create awareness amongst the customers regarding the safety of the on-line transactions.

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[www.wikipedia.com](http://www.wikipedia.com)

Commercial Banks Annual Reports (2007-2011)

## Appendix -1

### Questionnaire

Dear Ladies and Gentlemen,

In order to enable me to achieve my goals in regards to complete the Thesis paper on "**Evaluation of E-commerce/Internet Banking adoption in Nepal**", Case Study of Bank of Kathmandu Limited, as a part of the requirement for Master of Business Study (MBS) students of Tribhuvan University., I hereby solicit for your cooperation by completing the questionnaire below. I undertake, in line with my usual practice that information furnished will be treated with strict confidentiality and will be used only for the purpose stated above. Your sincere and accurate responses to the questions are necessary, if I am to achieve our objectives.

**Thanking you**

**Shreema Tiwari**

**Name: -**

1. Sex: -  M  F  
2. Age: -  20 below  21-30  31-40  41- above  
3. Status: -  Married  Widow  Divorce  Never married  
4. Employment: -  Employed  Employee  Self Employee

5. What is your monthly income range?

- Below 10,000  10,000-20,000  20,000- 50,000  50,000 and above

6. The First Commercial Bank (Private) of Nepal is

- Himalayan Bank Ltd  Bank of Kathmandu Ltd  Everest Bank Ltd  
 Kumari Bank Ltd  Laxmi Bank Ltd  Nabil Bank Ltd.

7. What does bank do?

- Safe deposit  Provide loan  Agency Services  All Three

8. Which is your bank?

- Himalayan Bank  Bank of Kathmandu  Standard Chartered Nepal Bank  
 Krishi Bikash Bank  Nepal Banijay Bank  Laxmi Bank  Kumari Bank  Others

9. Which facility you know your banks provide?

- Consumers loan  Education Loan  Foreign Employment Loan  ATM  
 Online transition  Tele banking  Others

10. Have you heard about E-commerce?

- Yes  No  Not clear about

11. What E- commerce means

- Electronic Commerce  
 Economic Commerce  
 Element Commerce  
 Education Commerce

12. What facility you can get from E-commerce

- On line shopping       Online chatting       Online transaction  
 Online money transfer       Online Banking

13. What do you think online banking means?

- Operate account form anywhere  
 Transfer or deposit money any time  
 No need of standing in Queue  
 Transacting From anywhere

14. Do you know you might need computer to do Online Banking?

- Yes       No       I suppose yes

15. Are you sure you can safely operate Account from computer?

- Yes       No       I can't use computer

16. Have you ever used or seen Plastic (Debit/Credit) cards?

- Yes       No       I have seen it       I have used it

17. Does your bank provide Plastic Card, Name as Debit/Credit Card?

- Yes       No       I have seen it

18. Do you know you can pay your shopping bill from those cards as cash?

- Yes       No       I have seen it       I have used it

19. Do you know you can withdraw your money from ATM using your Plastic Card Provided by bank?

- Yes       No       I have seen

20. Do you know carrying those plastic cards is just like carrying all your money in your pocket?

- Yes       No

21. Do you think carrying those cards is safe system?

- Yes       No

22. Is any where banking a part of E-Commerce?

- Yes       No       I don't Know

23. Does your bank give you the facility of Any where banking within or out of your bank branch?

- Yes       No

24. Have you heard about Telebanking?

- Yes       No

25. Does your bank provide this facility?

- Yes       No

26. Does your bank pay your entire utilities bill by Telebanking?

- Yes       No

27. Do you think online business is growing in Nepal?

- Yes       No       I don't care

28. What is the immediate facility you want from your bank?

- ATM       Online transition       Tele banking       Consumers loan  
 Internet banking       Education Loan       Foreign Employment Loan

29. Do you think E- Commerce facility should be provided by all bank?

Yes                       No                       I don't care

30. Have you heard about Cyber Law?

Yes                       No

31. Do you know E-Commerce is provided security with Nepal Cyber Law?

Yes                       No

32. Do you know what is the E-Commerce Facility provided by Overseas Bank?

Yes                       No                       I have seen it                       I have used it

33. Do you know you can deposit and withdraw money from ATM at any time from your account?

Yes                       No

34. What do you think about the Services provided by the Commercial bank of Nepal?

Excellent                       Very Good                       Good                       Average                       Poor

## Appendix-2

**Table I. List of commercial banks in Nepal.**

<b>Name of Bank</b>	<b>Establishment Date</b>
1. Nepal Bank Ltd	1937/11/15
2. Rastriya Banijya Bank	1966/01/23
3. Agriculture Development Bank	1968/01/02
4. Nabil Bank Ltd	1984/07/16
5. Nepal Investment Bank Ltd	1986/02/27
6. Standard Chartered Bank	1987/01/30
7. Himalayan Bank Ltd	1993/01/18
8. Nepal SBI Bank Ltd	1993/07/07
09. Nepal Bangladesh Bank Ltd	1993/06/05
10. Everest Bank Ltd	1994/10/18
11. Bank of Kathmandu Ltd	1995/03/12
12. Nepal credit and commerce bank Ltd.	1996/10/14
13 Machhapuchchhre Bank Ltd	2000/10/03
14. Kumari Bank Ltd	2001/04/03
15. Lumbini Bank Ltd	1998/07/17
16. Siddhartha Bank Limited	2002/12/24
17.Laxmi Bank Ltd.	2002/04/03

18. Nepal Industrial and Commercial Bank	1998/07/21
19. Global Bank Ltd.	2007/01/02
20. Citizens Bank International Ltd.	2007/06/21
21. Prime Bank Ltd.	2007/09/24
22. Sunrise Bank Ltd	2007/10/12
23. Development Credit Bank Ltd.	2001/01/23
24 NMB Bank Ltd.	1996/11/26
25. Bank Of Asia Ltd.	2007/10/12
26.Kist Bank Ltd.	2009/05/07
27.Janata Bank Nepal Ltd.	2010/04/05
28.Megha Bank Ltd.	2010/07/23
29.Commerz & Trust Bank Nepal Ltd.	2010/09/20
30.Civil Bank Ltd.	2010/11/26
31.Century Commercial Bank Ltd.	2011/03/10
32.Sanima Bank Ltd.	2012/02/11

Source: [www.bfr.nrb.org.np](http://www.bfr.nrb.org.np)

### Appendix-3

**Table II. Application received on E-commerce in Commercial Banks**

Banks/Year	2007 in %	2008 in %	2009 in %	2010 in %	2011 in %
Standard Chartered Bank	2	7	19	27	41
Bank Of Kathmandu	2	9	17	26	36
Himalayan Bank Limited	6	13	18	23	39
Kumari Bank Limited	5	15	19	33	46
Laxmi Bank Limited	9	16	23	38	48
Everest Bank Limited	4	8	18	21	37
Citizen Bank Limited	-	10	17	28	31

*Source: The Bankers*

### Percentage of Use of E-commerce in Commercial Banks

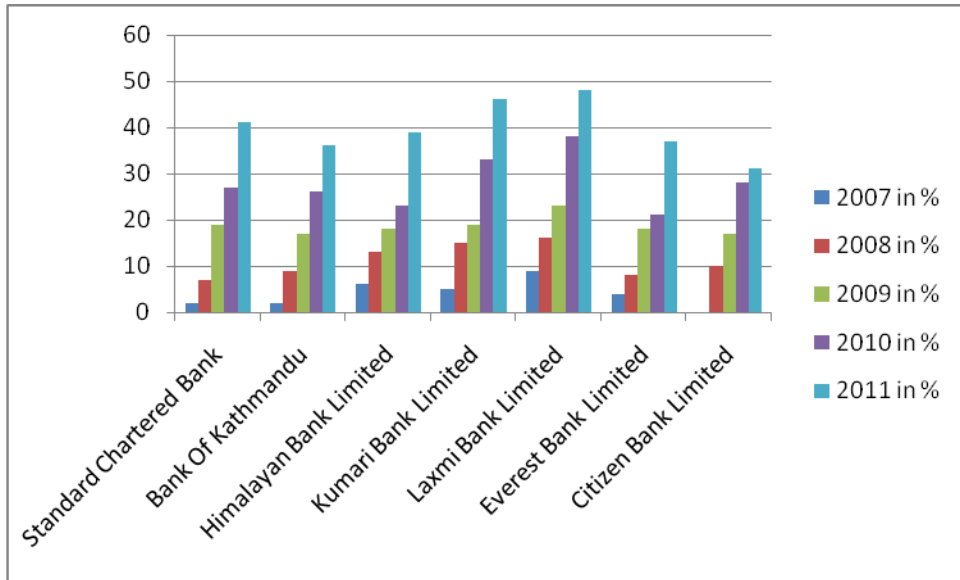


Figure I. Percentage of Use of E-commerce in Commercial Banks