# E- BANKING IN COMMODITY MARKET AND ITS OPPORTUNITIES AND THREATS

## A THESIS


***Submitted By:***

**PRABINA TIWARI**

**T. U. Registration No: 7-1-3-1-719-97**

**Campus Roll No: 847/062**

**Shanker Dev Campus**


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# RECOMMENDATION

**This is to certify that the Thesis**

***Submitted By:***

**PRABINA TIWARI**

Entitled

**E-BANKING IN COMMODITY MARKET AND ITS OPPORTUNITIES AND THREATS**

Has been prepared as approved by this Department in the prescribed format of the faculty of Management. This thesis is forwarded for examination.

| ……. | ……..... | ……. |
|---|---|---|
| Mrs. Ruchila Pandey | Prof.Bishweshor Man Shrestha | Prof.Dr. Kamal Deep Dhakal |
| **(Thesis Supervisor )** | **(Head, Research Department)** | **(Campus Chief)** |

…….

Indra Prasad Sharma

**(Thesis Supervisor)**

# VIVA-VOCE SHEET

We have conducted the Viva-voce of the thesis presented

***Submitted By:***

**PRABINA TIWARI**

**Entitled:**

**E-BANKING IN COMMODITY MARKET AND ITS OPPORTUNITIES AND THREATS**

And found the thesis to be original work of the student and written according to the prescribed format. We recommend the thesis to be a accepted as partial fulfillment of the requirement for the degree of **Master of Business Studies**.

## Viva-Voce committee

Head, Research Department : …….

Member (Thesis Supervisor) : ……

Member (Thesis Supervisor) : …….

Member (External Expert) : …….....

# DECLARATION

I hereby declare that the work done in this thesis entitled ***"E- Banking in commodity Market and its Opportunities and Threats"*** submitted to Office of the Dean, Faculty of Management, Tribhuvan University is my original work done in the form of partial fulfillment of the requirement for the Master's Degree in Business Studies (M.B.S.) under the supervision of and Mrs. Ruchila Pandey and Mr. Indra Prasad Sharma, of Shanker Dev Campus.

.....

**PRABINA TIWARI**

**Researcher**

T.U. Regd. No: 7-1-3-719-97

Campus Roll No: 847/062

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Thank You,

**PRABINA TIWARI**

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# ABBREVIATION

| | |
|---|---|
| **ABBS** | **Any Branch Banking System** |
| **ATM** | **Automatic Teller Machine** |
| **A2A** | **Account to Account** |
| **AML** | **Anti-Money Laundering** |
| **BOK** | **Bank of Katmandu** |
| **CM** | **Clearing Member** |
| **COMEN** | **Commodity & Metal Exchange Nepal Ltd** |
| **EBPP** | **Electronic Bills Presentment And Payments** |
| **JV** | **Joint Venture** |
| **LBL** | **Laxmi Bank Limited** |
| **KYC** | **Know Your Customer** |
| **MEX** | **Mercantile Exchange Nepal** |
| **MBL** | **Machapuchhre Bank Limited** |
| **NDEX** | **Nepal Derivative Exchange** |
| **NEPSE** | **Nepal Stock Exchange** |
| **NIBL** | **Nepal Investment Bank Limited** |
| **NSBL** | **Nepal SBI Bank Limited** |
| **NSE** | **Nepal Spot Exchange** |
| **PC** | **Personal Computer** |
| **PDA** | **Personal Digital Assistant** |
| **PIN** | **Personal Identification Number** |
| **PKI** | **Public Key Infrastructure** |
| **POS** | **Point Of Selling** |
| **P2P** | **Person to Person** |
| **PNB** | **Panjab National Bank** |
| **RBI** | **Reserve Bank of India** |
| **TWS** | **Trader Work Station** |

# CHAPTER I

# INTRODUCTION

## 1. INTRODUCTION

This dissertation contains a brief summary regarding the objectives, scope and limitation of the dissertation at the initial stage. It then explains the methodologies used for sampling, data collection and analysis. It further contains a thorough insight of the e banking and its facilities in commodity market. It then presents the analysis and findings from the research conducted on the related field followed by necessary conclusion and recommendation based on the research conducted.

Thus, it is a brief attempt to study the e- banking in commodity market and its opportunities and threats in Nepal. The respondents' were the management committee member of the respective Banks and Commodity markets.

This dissertation provides a practical insight of e-banking in commodity market through the systematic process of research and the findings resulted after the research conduction. Also the critical discussions of the findings of survey analysis are done to arrive with the conclusion and recommendations.

### 1.1 INRODUCTION OF BANK

Banking has come to the present advanced from through various stages. Some sort of banking activities has been carried out since the time immemorial. Traditional forms of banking were traced during the civilization of Greek, Rome and Mesopotamia. In ancient Greece, the famous temple of Delphi and Olympia served as the great depositories for people’s surplus funds and there were the centre of money lending transaction. There was also reference to the activities of money changers in the temple of Jerusalem in the New Testament.

The first banking institution was established in 1157 A.D. known as "Bank of Venice". Following its establishment, a lot of banks in different parts of the world were set up as "Bank of

Barcelona" in 1401 A.D., "Bank of Genoa" in 1407 A.D., "Bank of Amsterdam" in 1609 A.D. and many more.

Banks are defined as institutions established by law which deal with money matters such as receiving money from customers, honouring customer's drawings against deposits and demand, collecting cheques for customers and lending or investing surplus deposit until they are required for payment. Various types of banks are widespread throughout the world. They are known as industrial banks, commercial banks, agricultural banks, joint stock banks, cooperative banks, development banks, etc.

The history of banking in Nepal is not very old. There was not any organized banking system until 1994. Nepal Bank Ltd was the first bank founded in Nepal in1994 followed by Nepal Rastra Bank in 2013, the Rastriya Banijya Bank in 2022 and the Agricultural Development Bank in 2024. With the inception of Nepal Bank Ltd organized as well as modernized commercial banking system began in Nepal.

Later, the Commercial Bank Act of 2031 provided ground to the inception of a number of joint venture commercial banks. The process of the development of banking system in Nepal was not satisfactory until 2040. During this period banks were primarily focused on extending their branches and sub-branches in different parts of the country.

After 2040 and particularly, after the advent of democracy in 2047, investment friendly banking policy and laws were introduced and enacted by the state in order to encourage foreign investment in banking sector. Consequently, the real form of the development of banking system took shape in Nepal and the competition among various banking groups began to accelerate.
The main objectives of the commercial banks are to encourage business, develop trade, establish industries and invest in various sectors by providing facilities.

Nepal Rastra Bank has fixed different criteria for the establishment of banks. These vary from Commercial banks to development banks. However, they all are regulated by the Nepal Rastra Bank.

## INTRODUCTION OF BANKS UNDER STUDY

### NEPAL SBI BANK LIMITED (NSBL)

Nepal SBI Bank Ltd. (NSBL) is the first Indo-Nepal joint venture in the financial sector sponsored by three institutional promoters, namely State Bank of India, Employees Provident Fund and Agricultural Development Bank of Nepal through a Memorandum of Understanding signed on 17th July 1992. NSBL was incorporated as a public limited company at the Office of the Company Registrar on April 28, 1993 under Regn. No. 17-049/50 with an Authorized Capital of Rs.12 Crores and was licensed by Nepal Rastra Bank on July 6, 1993 under license No. NRB/l.Pa./7/2049/50. NSBL commenced operation with effect from July 7, 1993 with one full-fledged office at Durbar Marg, Kathmandu with 18 staff members. The staff strength has since increased to 511. Under the Banks & Financial Institutions Act, 2063, Nepal Rastra Bank granted fresh license to NSBL classifying it as an "A" class licensed institution on April 26, 2006 under license No. NRB/I.Pra.Ka.7/062/63. The Authorized, Issued and Paid-Up Capitals have been increased to Rs. 200 Crores,Rs. 166.16 Crores and Rs. 165.36 Crores, respectively. The management team and the Managing Director who is also the CEO of the Bank are deputed by SBI. SBI also provides management support as per the Technical Services Agreement. Fifty five percent of the total share capital of the Bank is held by the State Bank of India, fifteen percent is held by the Employees Provident Fund and thirty percent is held by the general public.

### LAXMI BANK LIMITED (LBL)

Laxmi Bank was incorporated in April 2002 as the 16th commercial bank in Nepal. With total assets of NPR 20 billion at April 2010 and 22 branches across the country Laxmi Bank is amongst the top financial institutions in the country in terms of size and quality of operations. In 2004 Laxmi Bank merged with HISEF Finance Limited, a first generation financial company which was the first and ever merger in the Nepali corporate history.

Laxmi Bank is a Category ‘A’ Financial Institution and re-registered in 2006 under the “Banks and Financial Institutions Act” of Nepal. The Bank’s shares are listed and actively traded in the Nepal Stock Exchange (NEPSE).Laxmi Bank is technologically driven progressive Bank with

strong risk and corporate governance foundations. It is known for its innovation and claim too many "firsts" in the Nepalese financial market. It has the best asset quality among all financial institutions in the country and our technology has been rated "Highly Secure" by an independent internationally accredited information system auditors.

Laxmi Bank's award winning Annual Dissertation s has set the standards for quality, presentation and disclosure for the Nepalese corporate sector to follow since 2005. Laxmi Bank promotes a separate life insurance company – Prime Life Insurance Limited which came into operation in 2009. Laxmi Bank is a Category 'A' Financial Institution and re-registered in 2006 under the "Banks and Financial Institutions Act" of Nepal. The Bank's shares are listed and actively traded in the Nepal Stock Exchange (NEPSE).

**NEPAL INVESTMENT BANK LIMITED (NIBL)**

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one the largest banking group in the world. With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, had acquired on April 2002 the 50% shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd.
The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

- A group of companies holding 50% of the capital
- Rashtriya Banijya Bank holding 15% of the Capital.
- Rashtriya Beema Sansthan holding the same percentage.
- The remaining 20% being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange).

We believe that NIBL, which is managed by a team of experienced bankers and professionals having proven track record, can offer you what you're looking for. We are sure that your choice of a bank will be guided among other things by its reliability and professionalism.

**MACHHAPUCHCHHRE BANK LIMITED (MBL)**

Machhapuchchhre Bank Limited was registered in 1998 as the first regional commercial bank to start banking business from the western region of Nepal with its head office in Pokhara. Today, with a paid up capital of above 1,314 million rupees, it is one of the full fledged commercial bank operating in Nepal; and it ranks in the topmost among the private commercial banks.

Machhapuchchhre Bank Limited is striving to facilitate its customer needs by delivering the best of services in combination with the state of the art technologies and best international practices. Machhapuchchhre Bank Limited is the pioneer in introducing the latest technology in the banking industry in the country. It is the first bank in Nepal to introduce centralized banking software named GLOBUS BANKING SYSTEM developed by Temenos NV, Switzerland. Currently it is using the latest version of GLOBUS, referred as T-24 BANKING SYSTEM**.** The bank provides modern banking facilities such as Any Branch Banking, Internet Banking and Mobile Banking to its valued customers.

The bank in the last few years have really opened up with branches spread all around the country. At this stage, it has its Corporate Office in Kathmandu and branch offices in other parts of Kathmandu, Damauli, Bhairahawa, Birgunj, Banepa, and different parts of Pokhara in addition to the Head Office in Naya Bazar, Pokhara. A full-fledged banking branch is in operation in Jomsom located high up in the mountains too. The bank aims to serve the people of both the urban and rural areas. The bank intends to open many more branches in the coming years and have planned to open more than 4 branches in the year 2009/10.

**BANK OF KATHMANDU (BOK)**

Bank of Kathmandu Limited has become a prominent name in the Nepalese banking sector. We would like to express our sincere gratitude to our customers, shareholders, employees and other stakeholders for their support and co-operation for leading the bank to the present height of achievements. We wish to reiterate here that whatever activity we undertake; we put in conscious efforts to glorify our corporate slogan, "We make your life easier."

We would also like to elucidate that Bank of Kathmandu is committed to delivering quality service to customers, generating good return to shareholders, providing attractive incentives to

employees and serving the community through stronger corporate social responsibility endeavor. Bank of Kathmandu Limited (BOK) has today become a landmark in the Nepalese banking sector by being among the few commercial banks which is entirely managed by Nepalese professionals and owned by the general public.

BOK started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. BOK also aims to facilitate the nation's economy and to become more competitive globally. To achieve these, BOK has been focusing on its set objectives right from the beginning. To highlight its few objectives:

To contribute to the sustainable development of the nation by mobilizing domestic savings and channeling them to productive areas

- To use the latest banking technology to provide better, reliable and efficient services at a reasonable cost
- To facilitate trade by making financial transactions easier, faster and more reliable through relationships with foreign banks and money transfer agencies
- To contribute to the overall social development of Nepal

**COMMODITY AND METAL EXCHANGE NEPAL (COMEN)**

COMEN commenced futures trading in numbers of commodities on 25th January, 2007 on a national scale and the basket of commodities has grown substantially since then to include cash crops, food grains, plantations, spices, oil seeds, metals & bullion( which launched on 14th December 2006) among others. Research Desk of COMEN is constantly in the process of identifying the hedging needs of the commodity economy and the basket of products is likely to grow even further. COMEN has also made immense contribution in raising awareness about and catalyzing implementation of policy reforms in the commodity sector. COMEN is the first Exchange to take up the issue of differential treatment of speculative loss. It is also the first Exchange to enroll participation of high net-worth corporate securities brokers in commodity derivatives market. It is the Exchange, which shows a way to introduce Reservation Note/Offer Note system within existing legal and regulatory framework. It is the first Exchange to complete the contractual groundwork for dematerialization of the warehouse receipts. Innovation is the

way of life at COMEN. SBI bank limited is a banking partner for COMEN to provide the service to its customers.

## MERCANTILE EXCHANGE NEPAL LIMITED (MEX)

Mercantile Exchange Nepal Ltd (MEX) is incorporated as a Public Limited Company organized under Laws of Nepal during August 2007 with an authorized share capital of 100 Million NPR (equivalent to 1.4 Million USD) and a paid up capital as on 31st March 2009 is 25 Million NPR (equivalent to 340,000 USD). The company is governed by Board of Directors, comprising 7 members with 1 independent director as full time directors. M/s N.K Joshi and Co, a leading auditors firm functions as the statutory auditors of the firm and M/s BM Dhungana & Co acts as fulltime concurrent auditors. The B.O.D comprises of professionals in the field of finance and industry and who are also dominant promoters & shareholders of the company. The Managing Director works as a full time Director representing the Board in the day-to-day activities, while CEO of the Exchange is dedicated in running the business, reporting to the Board of Directors. Both the MD and CEO have about 10 years experience in the futures market. Professionals are our back bone, Transparency is their day-to-day practice. Technology is their stem. Commercialization of market is their goal. Reducing of risk is their motto. Laxmi Bank is the banking partner for the MEX one has to maintain account in Laxmi bank to be a customer to trade. Recently MEX has tie up with the Bank of Kathmandu as its clearing bank. Now onward customer has to maintain account with one of these banks.

**Board of Directors**

Mr. Kamlesh Rateria
Mr. Bal Krishna Upadhyaya.
Mr. Narendra Bahadur Thapa
Mr. Dipendra Khatiwada
Mr. Madhav Prasad Koirala.
Mrs. Himali Chand Rana.

**Managing Director**

Mr. Dipendra Khatiwada.

**Chief Executive Officer/ Management Consultant:**

Mr. Jitesh Surendran.

To implement effective governance, to improve services and to be more dedicated on their objectives MEX formed an advisory committee, which provides necessary advises to dedicate ourselves in their objectives: Formation of advisory committee shall be a team of eminent person of their field, who has long and valuable contribution to domestic economy and market development.

**Other committees:**

Member Services Committee
Surveillance Committee
Trading, Clearing and settlement committee
Disciplinary committee

A Futures Exchange shall work in line of interest of growers, merchandiser, exporter-importer, industrialist, investors and end users. These are known as market factors. MEX believes to serve the market factors. While serving the market factors MEX follows a globally accepted and tested norms and ethics.

**Functions:**

- Mechanism of effective price discovery.
- Mechanism of Price Risk Management.
- Technology Backed Marketplace for Investment.
- Facilitation of Physical trade with quality assurance.
- Mechanism for structured Finance.
- Dedication to Market Development.

**Possible benefits:**

- More efficient and effective price formation mechanism.
- Reliable and effective transfer of price risk.
- Development and improvement of investment environment.
- Reliable, accurate and transparent reference prices.
- Development of new era for Nepalese Banking sectors for effective and secure scope of lending as structured finance.
- Education and capacity building to growers, investors and hedgers.

- More market information on demand and supply pattern.
- Spot market develops with effective and reliable price sources.
- Domestic products may enter in global trading phase.
- Quality, grading and logistic improvement.
- With price transparency and demand supply pattern possibility for industrial development.

**NEPAL DERIVATIVE EXCHANGE LIMITED (NDEX)**

Agriculture has always been the backbone of Nepal's economy. Yet, lifting millions of Nepalese out of poverty requires a transformation from centuries-old subsistence agriculture to dynamic, technology-driven, market-oriented production. This can only happen if the market itself functions in such a way as to serve the needs of all concerned. Nepal's marketing system, like its agriculture, is based on age-old tradition. To date, agricultural markets have been characterized by high costs and high risks of transacting, forcing much of Nepal into global isolation. With only one third of output reaching the market, commodity buyers and sellers tend to trade only with those they know, to avoid the risk of being cheated or default. Trade is done on the basis of visual inspection because there is no assurance of product quality or quantity, which drives up marketing costs, leading to high consumer prices. For their part, small-scale farmers, who produce 95 percent of Nepal's output, come to market with little information and are at the mercy of merchants in the nearest and only market they, know, unable to negotiate better prices or reduce their market risk.

It is time for a marketing system that coordinates better, that links faster, and that protects the interests of both sides of the trade. It is time for a marketing system that is transparent, efficient, and innovative. It is time for a marketing system that will take Nepal agriculture into the new Millennium. Nepal, once a commercial trading hub in antiquity linking markets of East and West, can again claim a place in the global market arena. NDEX has banking tie up with NIBL one has to maintain the bank account in the assigned bank to become eligible to trade.

**NEPAL SPOT EXCHANGE (NSE)**

NSE is a state-of the-art; professionally organized, structured and managed online commodity spot exchange marketplace established in 2010. It has commenced operations and has plans to encompass the entire spectrum of commodities across the country to bring home the advantages of an electronic spot trading platform to all market participants in the agricultural and non-agricultural segments.

On the agricultural side, the Exchange will enable the farmers to trade seamlessly on the platform so that they receive the best possible price. The real time availability of information and simple delivery process will ensure that the farmers are the direct beneficiaries of this trading platform. The users of the commodities in the value chain will have simultaneous access to the Exchange on the buy side and procure at the best possible price. The efficiency levels attained as a result of such seamless spot transaction will result in major benefit for both producers and consumers as the supply chains are made more robust.

In the non-agricultural segment, both producers and consumers of commodities would have real time access to price information which will enable them to transact their business and lower cost through effective raw material and finished goods inventory management.

## 1.1 1.INTRODUCTION TO E- BANKING AND COMMODITY MARKET

#### 1.1.1.1 E-BANKING

E-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. E-banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM), kiosk, or Touch Tone telephone.

#### 1.1.1.2 FEATURES

Online banking solutions have many features and capabilities in common, but traditionally also have some that are application specific.

The common features fall broadly into several categories

- Transactional (e.g., performing a financial transaction such as an account to account transfer, paying a bill, wire transfer... and applications... apply for a loan, new account, etc.)
  - Electronic bill presentment and payment - EBPP
  - Funds transfer between a customer's own checking and savings accounts, or to another customer's account
  - Investment purchase or sale
  - Loan applications and transactions, such as repayments of enrollments

- Non-transactional (e.g., online statements, check links, co browsing, chat)
  - Bank statements
- Financial Institution Administration -
- Support of multiple users having varying levels of authority
- Transaction approval process
- Wire transfer

Features commonly unique to Internet banking include:

- Personal financial management support, such as importing data into personal accounting software. Some online banking platforms support account aggregation to allow the customers to monitor all of their accounts in one place whether they are with their main bank or with other institutions.

### 1.1.1.3 HISTORY OF E-BANKING IN NEPAL

- Banking started in Nepal in 1937 by 'Nepal Bank Limited' (Government Sector)
- Evolution of Joint Venture (JV) Banks and e-Banking
- Establishment of first Joint Venture Bank, Nepal Arab Bank Limited (now NABIL Bank), in 1984
- Introduction of Credit Cards in Nepal in early 1990 (by NABIL Bank)
- Automated Teller Machine (ATM) was first introduced by another JV Bank, Himalayan Bank Ltd. In 1995.
- Himalayan Bank Limited was also the first bank to introduce Tele-Banking (Telephone Banking) in Nepal.

Evolution of Private Sector Banks and e-Banking

- Kumari Bank Limited was established in the year 2001.
- Internet-Banking was first introduced by Kumari Bank Limited in 2002.
- Laxmi Bank Limited was the first bank to introduce SMS-Banking (or Mobile Banking) in Nepal in the year 2004.

Major Milestones

- Evolution of Joint Venture Bank in Nepal (NABIL Bank) in 1984.
- Introduction of Credit Cards in 1990.
- Establishment of first ISP in 1994 (Mercantile Office Systems).
- First ATM launched by Himalayan Bank Limited in 1995.
- Tele-Banking facility was introduced in 1997 by Himalayan Bank Limited.
- Formulation of IT Policy in 2000.
- Evolution of Private Sector Bank (Kumari Bank) in Nepal in 2001.
- Internet-Banking was first introduced by Kumari Bank in 2002.
- SMS-Banking (mobile banking) was launched by Kumari Bank in 2004.

  Electronic Transaction and Digital Signature Act (revised in 2005, yet to be brought in practice).

### 1.1.1.4 CURRENT STATUS OF E-BANKING IN NEPAL

Channels in e-Banking available in Nepal

- Automated Teller Machines (ATM)
- Point of Sales (POS)
- Telephone Banking (Tele Banking)
- Internet Banking
- Mobile Banking (SMS Banking)

Banks (and financial institutions) in Nepal

- Commercial Banks – 30
- Development Banks – 26
- Other Financial Institutions – 91
- Commercial Banks can be classified as:
  - Government/Semi-Government - 2
  - Joint Venture - 7
  - Private Sector -20

Services Provided in e-Banking

➢ In ATMs

→ Cash Withdrawal

→ Balance Inquiry

→ Fund Transfer is not available.

➢ In POS Terminals

→ Financial transactions are made via Cards.

→ Cash is debited from the client's account(s).

➢ In Tele-Banking

→ Account Status check

→ Balance Inquiry

→ No fund transfer facility.

➢ In SMS-Banking

→ Similar to Tele-Banking except telephone

→ Cell phone is required instead of telephone.

- In Internet-Banking

→ Fund Transfer within accounts (within the bank)

→ Get balance statement online

→ Pay bills online

Internet Users and e-Banking Customers

- Around 200,000 Internet Users in Nepal.
- Over 95% of Internet Users are using Dial-up access
- 50% of the users are inside the capital city, Katmandu
- Around 3000 users using Internet-Banking

Security measures in the Bank side

All banks that are providing internet-banking facility have the system consisting of the followings:

- Password controlled system entry.
- VeriSign issued Digital ID for the Bank's server.
- Secure Socket Layer (SSL) protocol for data encryption.
- Firewall setup.

### 1.1.1.5 FRAUDS IN E-BANKING

Most popular frauds in e-Banking (worldwide) are

- Card duplication

→ In this, the information in the cards is copied to another card.

→ Although the duplicated card may have other information, but the financial transactions are done from the original account.

- Key Loggers

→ These are the programs which stores the characters as typed in the keyboard.

→ The account no. /passwords entered can be tracked via key loggers.

- 'Phishing' e-mails

→ E-mails pretending to be from the bank asking to input the username and password to update the information.

→ After submitting the information, the information passes to the false site where the information is captured.

- In Nepal, no e-banking frauds have been found yet.
- Lack of understanding of internet technology may be the reason.
- E-banking is at its infancy right now; it means the system is not perfectly secure.
- Precaution must be taken.

### 1.1.1.6 PRECAUTION AND PROTECTION

Use of device that creates ID for one session only

→ Login to that device using account id and password

→ It creates a temporary ID to login to the bank's server

→ User should login from that newly generated ID

Some of the duties that the banks must do to prevent e-banking frauds:

→ Information Security Controls

→ Up-to-date knowledge of ongoing attack sources, scenarios, and techniques

→ Up-to-date equipments and network maps

→ Ability to show rapid response to react to newly discovered vulnerabilities.

→ Internal Controls

→ Dual Control

→ One person can a mistake, other can find the error

→ The possibility of two persons making the same mistake at the same time is negligible.

→ Control of Suspicious Activities

→ Controlling the withdrawal up to some limit

→ If an account is dormant for years and the transaction is unexpected, the account holder must be informed.

E-Banking users must consider these things while transacting electronically

→ Never give your cards, account no. to anybody

→ Update your antivirus program regularly

→ Don't use public computer for e-transactions

→ Don’t give your information in the websites which you don’t know

→ Before visiting any sites, check the certificate; and don’t continue unless you feel it is from trusted site

→ Use passwords which are difficult to guess

Regularly check your account status; if you feel something is wrong, then let this know to your bank.

### 1.1.1.7 ELECTRONIC AUTHENTICATION

Verifying the identities of customers and authorizing e-banking activities are integral parts of e-banking financial services. Since traditional paper-based and in-person identity authentication methods reduce the speed and efficiency of electronic transactions, financial institutions have adopted alternative authentication methods, including:

- Passwords and personal identification numbers (PINs),
- Digital certificates using a public key infrastructure (PKI),
- Microchip-based devices such as smart cards or other types of tokens,
- Database comparisons (e.g., fraud-screening applications), and
- Biometric identifiers.

The authentication methods listed above vary in the level of security and reliability they provide and in the cost and complexity of their underlying infrastructures. As such, the choice of which technique(s) to use should be commensurate with the risks in the products and services for which they control access.

### 1.1.1.8 COMMODITY MARKET

Commodities, in simple words are any goods that are common and unbranded. Gold, silver, rubber, pepper, jute, wheat, sugar, cotton etc., are some of the common commodities. For e.g. apple juice can be a commodity whereas the 'Real' apple juice cannot be called a commodity. You may be surprised to know that in the US commodities markets there are futures available even on cattle. Another feature of commodities is that they are commonly available. Commodity

markets represent the formal system for the interplay of demand for and supply of commodities. These markets can be broadly classified into spot market and futures market. Usually traded ones are the futures and options. However in Nepal options on commodities are not available and are expected to be introduced soon. The players in the futures markets are Hedgers, Arbitragers and investors.

**Spot Trading**

Spot trading is any transaction where delivery either takes place immediately, or with a minimum lag between the trade and delivery due to technical constraints. The players in the spot market are the actual producers and the consumers of the commodities. Spot trading normally involves visual inspection of the commodity or a sample of the commodity, and is carried out in markets such as wholesale markets. Commodity markets, on the other hand, require the existence of agreed standards so that trades can be made without visual inspection.

**Futures contracts**

The other type of market called the 'Futures market' is for facilitating contracts for future delivery. These markets make available for trading, the various derivatives based on commodities.

**Hedging**

Hedging, a common (and sometimes mandatory) practice of farming cooperatives insures against a poor harvest by purchasing futures contracts in the same commodity. If the cooperative has significantly less of its product to sell due to weather or insects, it makes up for that loss with a profit on the markets, since the overall supply of the crop is short everywhere that suffered the same conditions.

## 1.2 FOCUS OF THE STUDY

This dissertation has been conducted in the partial fulfillment of our master course MBS. This study is about e-banking in commodity market with its opportunities and threats in Nepal. This dissertation will help in relating the technical knowledge practically in organization. In this research I have tried to cover all the aspects of e-banking and commodity market with its business model, technology model, trading with other countries, their payment settlement,

regulatory issues and opportunity and threats in Nepal. With this dissertation I am sure enough that I will be able to clear the e-banking in commodity market in Nepal.

The major objective is to find the opportunities and threats of e-banking in commodity market with respect to Nepal.
With this purpose to find the overall know-how of the e-banking in commodity market, the decision for the research was undertaken.

However, the major purpose can be summarized as follows:

- To elucidate on the concept of e-banking in commodity market.
- To explain how the payment process is actually carried out for real business transactions and its settlement.
- To observe the different types of business model conducted for different purposes
- To conduct a research by ourselves and understand the process
- To conduct the survey through designed questionnaires to get the required information to fulfill the objective of the research
- To evaluate the findings of research using various analytical tools
- To derive recommendations and conclusion based on the analysis and interpretations of the findings

Besides these objectives, the main idea behind this dissertation is to give a more practical knowledge to the students and to enhance their technical knowledge in e-banking and commodity market. Also, it helps to analyze the present situation of e-banking in commodity market and the process taken under study.

## 1.3 FORMULATION OF PROBLEM:

- Find out the current status of e-banking system in Nepal focusing on the major drivers of e-payment adoption.
- Prospects and challenges of e-banking and commodity market in Nepal.
- Risk associated with e-banking adoption both by the banks as well as the customers.
- Find out e-banking frauds and its security.

- Examine the performance and future prospects of Nepalese banks in terms of providing banking products and services through electronic channels.

## 1.4 OBJECTIVE OF THE STUDY

The overall objective of the study is to find out the opportunities and threats regarding e-banking in commodity market with respect to Nepal.

The specific objectives are:

- To know about the delivery channels of e-banking.
- To find out the process of payment settlement in e-banking and commodity market.
- To find out the facility provide by e-banking and Problems faced by Customers.
- To provide purposeful recommendation on service improvements based on e-banking in commodity market survey.

## 1.5 SCOPE OF THE STUDY

This dissertation will work as a useful source of information for those who are looking as an investor in commodity market and comprehensive insight on overall e-banking facilities provided by banking industry. In fact this would be the first effort of undertaking a comprehensive analysis of e-banking in commodity market.

The dissertation will further elucidate on the particular e-banking research being carried out with an objective of understanding the opportunities and threats regarding e-banking in commodity market with respect to Nepal. It can also prove to be helpful to those interested in this field of e-banking and trading with the commodity market.

## 1.6 LIMITATIONS OF THE STUDY

- The samples taken are only from commercial banks and commodity trading organization; other financial intermediaries are not included in the study.
- Out of 29 commercial banks in Nepal, the study is based on the secondary data provided by the five sample banks and commodity exchange; therefore the reliability of study depends upon the accuracy of the provided data.
- The in-depth study could not be conducted due to resource constraint.
- It is prepared in a limited time frame due to which detailed analysis could not be performed.
- Respondents of the questionnaire were both users and non-users of e-banking system. This may have flaws due to lack of transparency and customer's unwillingness to fill up the questionnaire.
- The questionnaire could not be pre-tested.

## 1.7 ORGANIZATION OF STUDY

This dissertation is organized in to the Five chapters namely Introduction, Review of literature, Research design, presentation and analysis of data and summery, conclusion and recommendation. Each chapter contains different aspects which are presented below:

"Introduction' provides the background information of study, Purpose of Research, Formulation of problem, Objective of the study, Scope of study and limitation of the study.

Second chapter is "Review of literature" is a conceptual framework which includes Introduction to E-Banking and commodity market, History of E-banking in Nepal, Current status of e-banking in Nepal, Frauds in e-banking, Precaution and protection, Electronic Authentication, Commodity market, e-banking on commodity market, Theoretical reviews, Customer Privacy and confidentiality, Card Based Electronic payment, E-Banking delivery channel in commodity Trade, Know your Customer, Anti money laundry policy. Review of previous thesis work, paper presentation and related articles.

The chapter III “Research Methodology “explains the research methodology used in the study which includes Selection of Topic, Primary, Questionnaire development, Data analysis and finding, Preparation of final dissertation, Sources of data, Market research and summary, Research design, situation analysis, secondary research, Exploratory research, sample size determination, Data analysis and presentation.

The chapter IV “data presentation and analysis” includes presentation of data in tabular form and analyzed by using the percent method.

The chapter V “Summary, conclusion and Recommendation” revolves with suggestions which include the summary of main findings, recommendations and suggestions for further improvements and conclusion of the study.

# CHAPTER II

# REVIEW OF LITERATURE

**A Theoretical Review**

**2.1 Introduction of bank**

Banking has come to the present advanced from through various stages. Some sort of banking activities has been carried out since the time immemorial. Traditional forms of banking were traced during the civilization of Greek, Rome and Mesopotamia.

In ancient Greece, the famous temple of Delphi and Olympia served as the great depositories for people's surplus funds and there were the centre of money lending transaction. There was also reference to the activities of money changers in the temple of Jerusalem in the New Testament.

The first banking institution was established in 1157 A.D. known as "Bank of Venice". Following its establishment, a lot of banks in different parts of the world were set up as "Bank of Barcelona" in 1401 A.D., "Bank of Genoa" in 1407 A.D., "Bank of Amsterdam" in 1609 A.D. and many more.

With the expansion of commercial banking activities in Northern Europe, there sprang up a number of private banking houses in Europe and slowly it spread throughout the world. Through, Bank of England was established in 1694, the growth of banks accelerated only after the introduction of Banking Act-1833 in United Kingdom as it allowed opening joint stock company banks. These modern banks gradually replaced goldsmith and money lenders.

Banks are the financial institution that collects money from individuals as saving and disburse to the people or organization as loans when they need fund. Banks plays vital role to mobilize deposit from non productive to productive sector. It collects scatter money and invests it to the development projects.

According to Dr H.L. Hart "A bank is one who, in the ordinary course of his business, receives money which he pays by honouring cheque of persons from whom or whose account receives".

Banks are defined as institutions established by law which deal with money matters such as receiving money from customers, honouring customer's drawings against deposits and demand, collecting cheques for customers and lending or investing surplus deposit until they are required for payment. Various types of banks are widespread throughout the world. They are known as industrial banks, commercial banks, agricultural banks, joint stock banks, cooperative banks, development banks, etc.

The history of banking in Nepal is not very old. There was not any organized banking system until 1994. Nepal Bank Ltd was the first bank founded in Nepal in1994 followed by Nepal Rastra Bank in 2013, the Rastriya Banijya Bank in 2022 and the Agricultural Development Bank in 2024. With the inception of Nepal Bank Ltd organized as well as modernized commercial banking system began in Nepal.

Later, the Commercial Bank Act of 2031 provided ground to the inception of a number of joint venture commercial banks. The process of the development of banking system in Nepal was not satisfactory until 2040. During this period banks were primarily focused on extending their branches and sub-branches in different parts of the country.

After 2040 and particularly, after the advent of democracy in 2047, investment friendly banking policy and laws were introduced and enacted by the state in order to encourage foreign investment in banking sector. Consequently, the real form of the development of banking system took shape in Nepal and the competition among various banking groups began to accelerate.

The main objectives of the commercial banks are to encourage business, develop trade, establish industries and invest in various sectors by providing facilities.

Nepal Rastra Bank has fixed different criteria for the establishment of banks. These vary from Commercial banks to development banks. However, they all are regulated by the Nepal Rastra Bank.

**2. 2 Origin of Bank in Nepal**

Like other countries, landlords, moneylenders, merchant, goldsmith etc are the ancient bankers of Nepal. They used to issue the receipts to the common people against the promise of safe-keeping if their valuable items. On the presentation of the receipts, the depositors would get back their gold and valuables after paying a small amount for safe-keeping and saving. The goldsmiths and the moneylenders became bankers of those days who started performing two functions of modern banking- accepting deposits and advancing loans. Through establishment of banking industry was very recent; some crude banking operations were in practice even in the ancient time.

In the Nepalese history, it was recorded that in the Eight century, king “Gunkamdev” renovated the Kathmandu city by taking loan. At the end of same century merchant named “Shankhardhar” has started the ‘New year’ Nepal sambhat after freeing all people of Kathmandu from the debt. In the 11th century, during Malla reigns, there was an evidence of professional money lender and buyer. The establishment of “Tejarath Adda” during the year1877 A.D. was the first step in

institutional development of banking sector in Nepal. Tejarath Adda did not collect deposit from public but grated loans to public against the collateral of bullions at very low rate of 5%.

The development of trade with India and other countries increase the necessity of the institutional banker, which can act more widely to enhance the trade and commerce and touch the remote non-banking sector in the economy. Reviewing this situation, the 'Udyog Parishad' was constituted in 1936 A.D. One year after its formulation, it formulated the 'Company Act' and 'Nepal Bank Act' in 1937 A.D. Nepal Bank limited was established under Nepal Bank Act in 1937 A.D. as a first commercial bank of Nepal with 10 million authorized capital. Being a commercial bank, it was natural that Nepal Bank limited paid more attention to profit generating business. Having felt need of development of banking sector and to help the government formulate monetary policies, Nepal Rastra Bank was set up in 1956 A.D.(2013.01.14 B.S.) as a central under Nepal Rastra Bank Act 1956 A.D. Since then, it has been functioning as the government's Bank and has contributed to the growth of financial sector. In B.S. 2022, Government set up Rastriya Banijya Bank as a fully government owned commercial bank.

For industrial development, Industrial Development Centre was set up in 1956A.D. [2013 B.S.] which was converted to Nepal Industrial Development Corporation [NIDC] in 1959 A.D. [2016 B.S.]. Similarly, Agricultural development Bank [ADB] was established in 1976 A.D. [2024.10.07] with an objective to provide agricultural products so that agricultural productivity could be enhanced through introduction of modern agricultural techniques.

The process of development of banking system in Nepal was not satisfactory. Nepal was observing the events that were taking places in the world also. The country can't change it status by using only its own capital in the country without importing the new technology from Foreign country and accordingly, law and policy have been enacted by the state to encourage the foreign investment on banking sector. From this, the real form to the development of the banking system started in Nepal. In order to established and develop other Joint venture commercial banks and other financial institution, Nepal adopted liberal free economic policy. Accordingly, Nepal is allowed to established different joint venture banks under the collaboration with foreign banks. Since 2041 B.S, His Majesty's Government of Nepal established 5 rural development banks.

In order to establish and develop other joint venture commercial banks and other financial institution, Nepal adopted liberal free economic policy. After 2041 B.S., the government

gradually liberalized and opened up the financial sector, resulting in the rapid entry of the foreign banks. Later, in 2041 B.S., with the grand opening of NABIL Bank Ltd., other commercial banks started emerging in the private sectors. As a result, now there are altogether 26 commercial banks operating at different parts of the country. At present, the banking sector is more liberalized and there are various types of bank working in modern banking system. This includes central, development and commercial banks. Evolution of the information technology has revolutionized the banking sector is saving lots of time and money by implementing IT. Technology has changed the traditional method of the services of bank. Invention of different software and hardware, which are very essential and available for functioning bank such as Banking software, ATM, E-banking, Mobile Banking and card like Debit card, Credit card, Prepaid card etc which helps the customer as well as banks to operate and conduct their activities more efficiently and effectively. This helps bank to generate more customers, goodwill and profit.

## 2.3 CUSTOMER PRIVACY AND CONFIDENTIALITY

Maintaining the privacy of a customer's information is one of the cornerstones upon which trust in the U.S. banking system is based. Misuse or unauthorized disclosure of confidential customer data may expose a financial institution to customer litigation or action by regulatory agencies. To meet expectations regarding the privacy of customer information, financial institutions should ensure that their privacy policies and standards comply with applicable privacy laws and regulations, particularly the privacy requirements established by GLBA. The regulation implementing GLBA's requirements also describes standards on electronic disclosures that apply if an institution elects to display its privacy policy on its website.

## 2.4 CARD-BASED ELECTRONIC PAYMENTS

There is a growing array of card-based electronic payment systems available for retail use. Historically, these payments have been linked to a payee's or payer's existing account relationship with a financial institution. Card-based electronic payments can be defined in three ways, depending on the timing of the payment:

- "Pay Later" payments occur after receiving the goods or services and typically refer to credit payments. A credit card enables a consumer to access a credit line account at a financial institution.
- "Pay Now" payments occur when the goods or services are received and generally are associated with debit payments. Debit card payments are related to an existing transaction account at a financial institution.
- "Pay Before" refers to payments for goods or services with prepaid or stored-value cards, which are loaded with buying power before the purchase of goods or services occurs. The account associated with the pre-paid debit card may be the liability of a financial institution.

Both credit and signature-based debit card transactions are typically processed in batch mode at the POS, and settlement is delayed until the batches are processed at the end of the day. PIN-based debit card transactions, although processed in real time at the POS, typically settle at the end of the day using the ACH. Merchants often prefer that customers use PIN-based debit cards due to the lower costs associated with these transactions over the costs for signature-based credit and debit cards. With PIN-based transactions, the consumer must apply the pre-established PIN to validate the transaction.

In the United States, almost all cards are magnetic-strip-based, while in Europe and Asia, consumer account information is often stored on a computer chip embedded in the card. These computer-chip-based systems have more security features than the magnetic strip systems; therefore, more financial institutions and merchants in the U.S. are adopting chip processing infrastructure. Consumers have welcomed recent initiatives with chip-based contact less cards so, the growth in these chip-based-cards is expected to continue.

In general, credit cards have revolving credit arrangements that allow consumers to make purchases and be billed later. Most credit card accounts allow the consumer to carry a balance from one billing cycle to the next and make a minimum payment in each billing cycle (e.g., two to three percent of their total balance) rather than requiring payment of the full balance.

The bankcard companies set interchange fees, which are paid by the merchant acquirer to the issuing financial institution. The merchant acquirer typically passes this fee along with a discount or acquirer fee for processing services to its merchants. Bankcard issuing institutions generate their revenue from the interest charged on revolving balances, and from the interchange, late, over-limit, cash advance, and card fees. Merchant-acquiring institutions, which assist in clearing and settling credit card transactions, generate most of their revenue from the acquiring and other

processing fees (e.g., charge-back processing and account maintenance) they charge to the merchant.

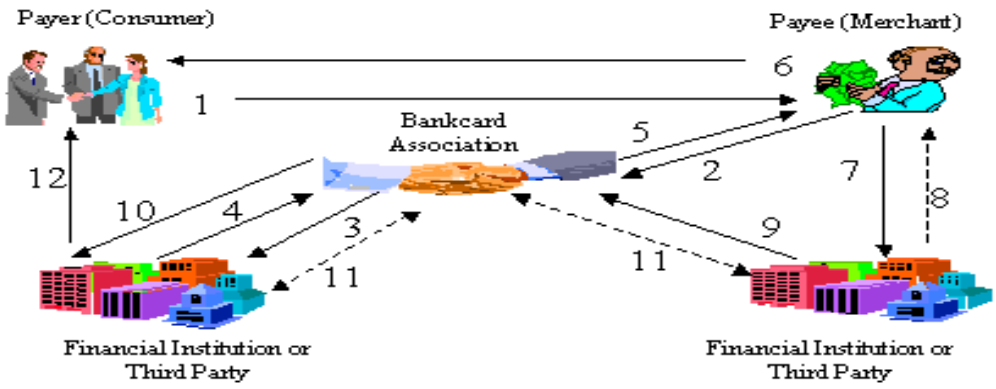


**Figure 1: Credit Card Clearing and Settlement**

- Solid lines represent the flow of information
- Dashed lines represent the flow of funds.

Figure 2 illustrates the payment and information flows for a typical credit card transaction. In this example, the consumer pays a merchant with a credit card (step 1). The merchant electronically transmits the data, at the POS and through the bankcard company's electronic network, to the card issuer for authorization (steps 2 and 3). If approved, the merchant receives the authorization to capture funds, and the cardholder accepts liability by signing the credit voucher (steps 4, 5, and 6). In cases involving purchases under $25, the cardholder does not have to sign. The merchant receives payment, net of fees, by submitting captured credit card transactions to its financial institution in batches or at the end of the day (steps 7 and 8). The merchant acquirer forwards the sales draft data to the bankcard company, who forwards the data to the card issuer (steps 9 and 10). The bankcard company determines each financial institution's net debit position. The bankcard company's settlement financial institution coordinates issuing and acquiring settlement positions. Members with net debit positions (generally issuers) send owed funds to the company's settlement financial institution, which transmits owed funds to the merchant acquirers. The settlement process takes place using a separate payment network such as Fed wire® (step 11). The card issuer will then present the transaction on the cardholder's next monthly statement (step 12). The cardholder makes a payment for the charges incurred in accordance with the cardholder agreement.

## 2.5 E-BANKING DELIVERY CHANNELS IN COMMODITY TRADE

E-banking is the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. E-banking includes the systems that enable bank customers to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), ATM, kiosk, or telephone.

### 1. INTERNET BANKING

Internet banking is a new age banking concept. It uses technology and brings the bank closer to the customer. Broadly, the levels of banking services offered through INTERNET can be categorized in to three types: (I) The Basic Level Service is the banks' websites which disseminate information on different products and services offered to customers and members of public in general. It may receive and reply to customers' queries through e-mail, (ii) In the next level are Simple Transactional Websites which allow customers to submit their instructions, applications for different services, queries on their account balances, etc, but do not permit any fund-based transactions on their accounts, (iii) The third level of Internet banking services are offered by Fully Transactional Websites which allow the customers to operate on their accounts for transfer of funds, payment of different bills, subscribing to other products of the bank and to transact purchase and sale of securities, etc. The above forms of Internet banking services are offered by traditional banks as an additional method of serving the customer. There are also banks that deliver banking services primarily through Internet or other electronic delivery channels. Some of these banks are known as 'virtual' banks or 'Internet- only' banks and may not have any physical presence in a country despite offering different banking services.

Internet banking, both as a medium of delivery of banking services and as a strategic tools for business development, has gained wide acceptance internationally and is fast catching up in India with more and more banks entering the fray. In India, with all the banks implementing core banking solution, one of the important delivery channels is net banking. Costs of banking service through the Internet form a fraction of costs through conventional methods. Informal studies carried out on the cost-benefit analysis of automation in the banking industry have shown that the

transaction cost of traditional banking has considerably comedown when the same service is offered through ATM or Internet or phone banking / mobile banking ( the last two delivery channels being cheaper than ATMs.)

Banks providing Internet banking services have been entering into agreements with their customers setting out the terms and conditions of the services. The terms and conditions include information on the access through user-id and secret password, minimum balance and charges, authority to the bank for carrying out transactions performed through the service, liability of the user and the bank, disclosure of personal information for statistical analysis and credit scoring also, non-transferability of the facility, notices and termination, etc. Internet banking is becoming very popular as it has brought banking to the drawing rooms of people.

**On Future Perspective the below delivery channel can be used in Commodity Market in Nepal.**

## 2. TELE / PHONE BANKING

Telebanking is a service that helps customers to access authentic, instantaneous information regarding their account, by using a telephone from any place, anytime. It not only gives the comfort of round the clock tele-banking, but also enables the customers to access information about their account from anywhere just by making a local call. For instance, a customer of Chennai branch of a bank can find out his account details sitting at either Chennai or Mumbai or New Delhi or any location. What he has to do is dial the local telebanking number and can get all details of his account almost instantaneously. In telebanking a facility called IVR is generally used for providing the required service. IVR is the abbreviation for Interactive Voice Response System. This is an automated Phone Banking system which allows customers to access confidential a/c information after dialing the authentication details. Some of the common basic services offered by banks in telebanking are account balance enquiry, cheque status Enquiry, Ordering a Cheque Book / Account Statement , Stopping Payment of cheques ,Loan Related queries ,information about banking products, Enquiry about latest Interest / Exchange rates ,reporting loss of ATM / Debit Card etc**.**

## 3. MOBILE BANKING

The customer while applying for this facility will have to give his mobile number which will be registered with the bank. This will facilitate authentication by the bank and will also enable the bank to send instant alerts. The bank may prescribe a default limit (monetary limit) to trigger SMS alerts that is if the account is debited or credited for more than the prescribed limit a alert will be sent. The customers may send SMS with some keywords describing the enquiry (like BALAVL for balance enquiry, CHQSTS for issued cheque status enquiry etc) followed by MPIN (mobile banking pin) to a specific phone number of the bank. The customer will get the reply as SMS on his cell phone.

**Mobile Banking Services**

Mobile banking can offer services such as the following:

- **Account Information**

1. Mini-statements and checking of account history
2. Alerts on account activity or passing of set thresholds
3. Monitoring of term deposits
4. Access to loan statements
5. Access to card statements
6. Mutual funds / equity statements
7. Insurance policy management
8. Pension plan management
9. Status on cheque, stop payment on cheque, Ordering cheque books
10. Balance checking in the account
11. Recent transactions
12. Due date of payment (functionality for stop, change and deleting of payments)
13. PIN provision, Change of PIN and reminder over the Internet
14. Blocking of (lost, stolen) cards

❖ **Payments, Deposits, Withdrawals, and Transfers**

1. Domestic and international fund transfers
2. Micro-payment handling
3. Mobile recharging
4. Commercial payment processing
5. Bill payment processing
6. Peer to Peer payments
7. Withdrawal at banking agent
8. Deposit at banking agent

A specific sequence of SMS messages will enable the system to verify if the client has sufficient funds in his or her wallet and authorize a deposit or withdrawal transaction at the agent. When depositing money, the merchant receives cash and the system credits the client's bank account or mobile wallet. In the same way the client can also withdraw money at the merchant: through exchanging SMS to provide authorization, the merchant hands the client cash and debits the merchant's account

## 4. AUTOMATED TELLER MACHINES (ATM)

Barclays Bank in UK claims to have installed the first cash dispenser in the world in June 1967. Customers were issued with paper vouchers, which were fed into the machine, which retained the voucher, and dispensed a single £10 note. The first generation machines were off-line; they were not connected to the bank's computers. The next major step forward occurred in 1972, when Lloyds Bank in the UK installed in the first on-line "Cash-Point" machines, which have been developed by IBM. Since the introduction of the first cash dispenser thirty years ago, the cash dispenser and the automated teller machine (ATM) have gradually become the electronic face of banking for the most customers.

There are two types of ATM machines. There are ATMs where the card is inserted and removed immediately (DIP ATMs) for authentication of the PIN. There are also ATMs where the cards will have to remain in the card reader till the transaction is completed.

❖ **FUNCTIONS OF ATM**

1. Cash Withdrawal.
2. Balance Enquiry (whether displayed on screen or print out).
3. Statement ordering facility.

❖ **Additional functions**

1. Chequebook Request facility.
2. Deposit (cash or cheque).
3. Funds transfer facility.
4. Mini-Statement Facility.
5. PIN change facility.
6. Passbook Update facility.
7. Traveler's cheque dispensing.

❖ **ATM Operations**

An ATM is a data terminal, connected to a host processor, which is a gateway through which the entire ATM networks become available to the cardholder. Most host processors support either leased-line or dial-up machines. The host processor is owned by a bank which provides ATM service to its customers. After gaining access the customer inserts his card in the slot of the ATM machine, the machine pulls the card and subsequently a welcome message is displayed along with the Customer's name and the menu options. The ATM waits for the customer's response only up to a predetermined time. In case the customer is slow in responding, the ATM throws out the card and the customers have to start the process again.

After establishing the genuineness of the card, the operational process starts depending upon the type of service required by the customer. In case of cash withdrawal, the customer selects the option for cash withdrawal. The ATM asks for the amount to be withdrawn. After successful authorization, ATM starts picking up the cash from the dispenser and throws it on to the cash dispenser tray. Generally the tray is closed and after the cash is dropped, the door opens and the customer takes out the cash. Once the transaction is over, the ATM gives a small print out of the

transactions concluded for customer's record. Then the card also comes out of the slot and is collected by the customer.

When the customer wishes to deposit cash or cheques he has to select the appropriate option through the menu. The customer is given an envelope through the concerned slot and he puts in the cash or cheque, pastes and records the details of the transactions in the ATM through appropriate option. The slot for depositing the cover opens up and after dropping the envelope the ATM, gives a provisional print out statement to the customer. The final receipt is issued only after the joint custodian of the bank verifies the content of the cover.

The customer is generally given three attempts to key in the correct PIN number. If the customer fails in all the three attempts, the card is with held by the ATM and a slip is issued to the customer to contact the branch. In case of hot card also, the ATM retains the card.
The process flow of an ATM transaction is explained below:

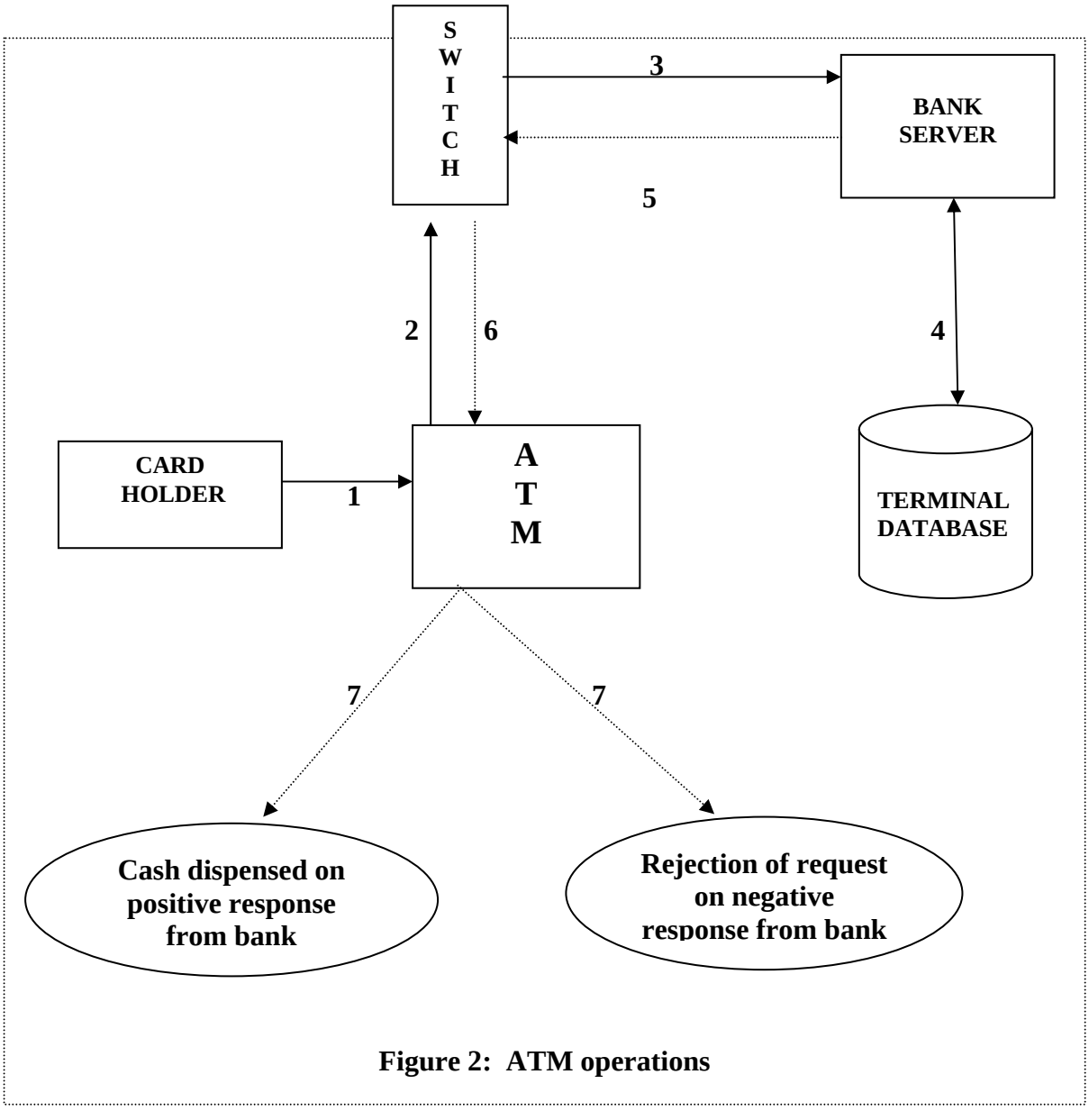


**Figure 2: ATM operations**

**Step 1-** A cardholder (Account holder) inserts his card in the ATM Terminal and enters his PIN (Personal Identification Number) through the keyboard.

**Step 2-** After checking all security aspects, this information is forwarded to the switch.

**Step 3- T**he switch verifies the authentication of the cardholder and passes on the transaction request to the Bank server.

**Step 4-** The Bank server verifies the customer profile in its database and maintains a record of the transaction request.

**Step 5-** The Bank server passes on the request back to the Switch.

**Step 6-** The switch then routes the transaction request to the ATM terminal**.** If transaction is valid then it sends a positive response to the cardholder otherwise request is rejected and the card comes out of the ATM machine.

## 2.6 ONLINE PERSON-TO-PERSON (P2P), ACCOUNT-TO-ACCOUNT (A2A) PAYMENTS AND ELECTRONIC CASH

Other electronic payments include person-to-person, account-to-account, electronic cash, and electronic benefit transfers. These payment instruments are usually associated with an established consumer deposit account and facilitate consumer access to recurring or one-time debit and credit transactions and a variety of federal, state, and local government benefit programs.

Online P2P or e-mail payments typically use traditional payment networks to transfer funds electronically from one consumer to another. Though these payments are named for their ability to send funds among individuals online, the majority of P2P payments are Internet purchases at online auctions or small businesses. In most cases, P2P transfers use existing retail payment systems to add and withdraw funds from accounts. The simplest case is when the person making a payment and the receiver maintain accounts at the same bank. This type of payment is called an "on-us" transaction. They are settled by posting accounting entries on the books of one financial institution. P2P transfers also may occur outside the traditional payment networks and, in their simplest form, may take place as an exchange of cash between two individuals. As technology

advances, the transfer of funds through the use of proximity devices, such as mobile telephones and personal digital assistants (PDAs), is likely.

Most P2P services charge to the receiver of the funds a fee that varies depending upon various factors, including payment method and the sender's credit history. Payments made with funds that originated from either ATM or ACH transactions are less expensive than payments made with funds originated from credit cards. P2P systems may offer to the receiver an opportunity to obtain funds through a check and for an additional fee.

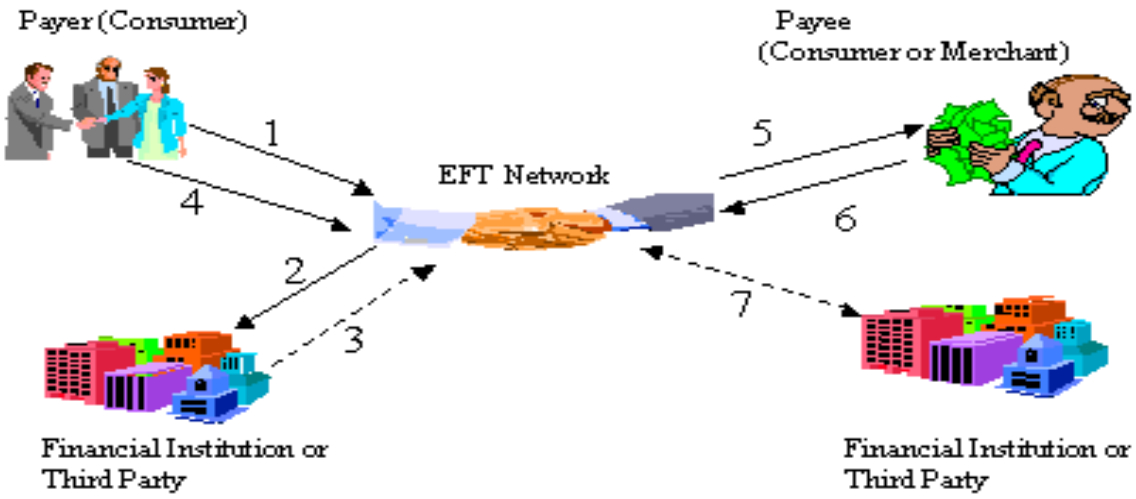


**Figure 3: Online P2P Clearing and Settlement**

**Legend**: Solid lines represent the flow of information and dashed lines represent the flow of funds.

Online P2P payments typically occur using the process described in Figure 4. The sender of the funds must have an account with the P2P service provider (Step 1). Depending upon the service, the funds may come from an existing credit card or transaction account or may be drawn from a previous balance with the online P2P payment provider (Step 2 and Step 3). The sender can designate the e-mail address of the intended funds recipient (Step 4). The P2P network transfers the funds to the receiver's account as an "on-us" transaction. Once the funds reach the receiver's account, notice of the transaction is sent through e-mail to the receiver (Step 5). The receiver of the funds must join the service if it does not already have an account (Step 6). The online P2P payment service can disburse the funds from the receiver's P2P account through an ACH payment, a check payment, an EFT credit, prepaid card, or a credit to a credit card account (Step 7).

**Account-to-account** (A2A) payments are similar to P2P payments. They involve the transfer of funds from one customer's account to another account at either the same or another financial institution. Like P2P payments, A2A transfers can be initiated through the customer's Internet banking service, a biller's payment Web site, or by telephone instruction from the customer. Unlike P2P transfers, consumers must access an existing retail payment account (deposit account) at a financial institution in an A2A transaction. To complete a transaction, the customer must know the recipient's account number or some other identifier. A2A payments can be effected on the ACH or ATM networks. On the ACH networks, funds are cleared and settled within two to three days. The ATM networks may allow same-day funds availability although settlement may not occur for two or three days. Same-day transfers using the ATM networks are usually less expensive than traditional wire transfers.

P2P payments are a growing segment of the A2A market. The success of the P2P online auction model is attributed to the consumers' demand for convenient and reliable P2P transactions. P2P payments may include transaction accounts and may be conducted through the use of proximity 32devices such as mobile telephones or PDAs. P2P payments are expected to grow as more reliable and convenient payment methods are introduced.

Financial institutions and retailers are also developing electronic cash-payment instruments. Similar to P2P payments, individuals can transfer electronic cash value to other individuals or businesses, generally through the Internet. Consumers can use the cash payment instruments for purchases at retailers' Web sites or they can transfer cash to other individuals through e-mail. Pre-funded accounts that consumers can use for online auction payments are among the most recent applications. In these applications, individuals use a credit card or signature-based debit card number to pre-fund the Web certificate or electronic account, and recipients redeem the value from the issuer.

## 2.7 KNOW YOUR CUSTOMER (KYC)

The Financial Institutions (Know Your Customer) Guidelines**, is** also referred to as KYC Guidelines, require financial institutions to perform customer identification procedure on all customers. This means that financial institutions are required by law to verify not only the identity of its customers, but the customers' residential addresses, and source and purpose of income/funds.

**The KYC Guidelines in Brief**

The main objectives of the KYC Guidelines are:

- To outline basic procedures that financial institutions shall ensure are in place in order to assist in suppressing unwanted vices through the banking system nationally and internationally;
- To prevent the financial institutions from being used, intentionally or unintentionally, by criminal elements for money laundering activities; and
- To enable financial institutions to know or understand their customers and their financial dealings in order to manage their risks prudently.

This means that financial institutions need to develop ways of educating clients about these requirements in order to ensure compliance with the KYC Guidelines.

## 2.8 ANTI - MONEY LAUNDERING (AML)

Money laundering is a process whereby the origin of funds generated by illegal means is concealed (drug trafficking, gun smuggling, corruption, etc.).In the process of money laundering, identity of illegally possessed money is changed so that it appears to have originated from a legitimate source. It involves transactions intended to disguise the true source of funds; disguise the ultimate disposition of the funds; eliminate any audit trail and make it appear as though the funds came through legitimate sources and evade taxes and inserting it into economic circulation. The source may include terrorism organized crime, fraud, drug trafficking, human trafficking etc. The money earned from the above source is called the dirty money. In other words, dirty money is made to look clean by the criminals attempt to hide and disguise the true origin and ownership of the fund.

Money laundering erodes the integrity of a nation's financial system by reducing tax revenues through underground economies, restricting fair competition with legitimate businesses, and disrupting economic development. Ultimately, laundered money flows into global financial systems where it could undermine national economies and currencies. Thus, money laundering is not only a law enforcement problem, but poses a serious national and international security threat as well. It has been recognized as a major social problem and crime by the governments around the world.

**AML Process**

It can basically involve three different steps that can occur simultaneously. They are:

**Placement:** The process of placing through deposits or other means, unlawful cash proceeds into traditional financial institutions.

**Layering:** The process of separating the proceeds of criminal activity from their origin through the use of layers of complex financial transaction, such as converting cash into traveler's cheque, money orders, wire transfers, Letter of Credit, stocks, bonds, or purchasing valuable assets, such as art or jewelry.

**Integration:** The process of using an apparently legitimate transaction to disguise the illicit proceeds, allowing the laundered funds to be dispersed back to the criminal. Different types of financial transactions, such as sham loans or false import/export invoices, can be used.

**Anti-money Laundering Policy Statement**

The Exchange will conduct its business in conformity with high ethical standards and will adhere to all Nepal's, laws and regulations pertaining to financial institutions. While it is accepted that the Exchange may not always be able to determine whether a transaction originates from, or is part of, any unlawful activity, the Exchange will conduct its business in compliance with the following general principles:

1. Will take reasonable steps to determine the true identity of all members and client, and beneficial owners of the Exchange's products and services.
2. Will not knowingly accept funds from, or do any type of business with any individual/company whose money the Exchange believes, is derived from any unlawful activity.
3. Will not ignore indications that a client's money originated from unlawful activities or other money laundering activities, and will take appropriate actions consistent with all applicable laws.
4. Will avoid providing support or assistance to clients seeking to deceive MEX laws enforcement authorities through the provision of false, altered, incomplete or missing information.

5. Will report all identified instances of suspicious activity to the relevant authorities as provided under all applicable laws.
6. Will cooperate fully with laws enforcement and regulatory authorities in executing their duties under all applicable laws.

## 2.9 DERIVATIVE

A derivative is a financial instrument (or, more simply, an agreement between two parties) that has a value, based on the expected future price movements of the asset to which it is linked called the underlying asset such as a share or a currency. Its value is determined by fluctuations in the underlying asset.

The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes. Most derivatives are characterized by high leverage. There are many kinds of derivatives, with the most common being swaps, futures, and options. Derivatives are a form of alternative investment.

A derivative is not a stand-alone asset, since it has no value of its own. However, more common types of derivatives have been traded on markets before their expiration date as if they were assets**.** Among the oldest of these are rice futures, which have been traded on the Dojima Rice Exchange since the eighteenth century.

Derivatives are generally used as an instrument to hedge risk, but can also be used for speculative purposes. For example, a European investor purchasing shares of an American company off of an American exchange (using U.S. dollars to do so) would be exposed to exchange-rate risk while holding that stock. To hedge this risk, the investor could purchase currency futures to lock in a specified exchange rate for the future stock sale and currency conversion back into Euros.

Derivatives are usually broadly categorized by:

- the relationship between the underlying asset and the derivative (e.g., forward, option, swap);
- the type of underlying asset (e.g., equity derivatives, foreign exchange derivatives, interest rate derivatives, commodity derivatives or credit derivatives);
- the market in which they trade (e.g., exchange-traded or over-the-counter);
- their pay-off profile.

Derivatives are used by investors to:

- provide leverage (or gearing), such that a small movement in the underlying value can cause a large difference in the value of the derivative;
- speculate and make a profit if the value of the underlying asset moves the way they expect (e.g., moves in a given direction, stays in or out of a specified range, reaches a certain level);
- hedge or mitigate risk in the underlying, by entering into a derivative contract whose value moves in the opposite direction to their underlying position and cancels part or all of it out;
- obtain exposure to the underlying where it is not possible to trade in the underlying (e.g., weather derivatives);
- Create option ability where the value of the derivative is linked to a specific condition or event (e.g., the underlying reaching a specific price level).

### 2.9.1 Common derivative contract types

There are three major classes of derivatives:

1. **Futures/Forwards** are contracts to buy or sell an asset on or before a future date at a price specified today. A futures contract differs from a forward contract in that the futures contract is a standardized contract written by a clearing house that operates an exchange where the contract can be bought and sold, whereas a forward contract is a non-standardized contract written by the parties themselves.

   A futures contract is: - an agreement to buy from, or sell to, - a futures exchange, - a standard quantity and quality - of a specified asset - on a specific date, - at a price that is determined at the time of trading the contract.

   In a world of volatile asset prices, futures contracts fulfill two purposes. Firstly, they allow investors to hedge the risks of adverse price movements. The standardized nature of futures contracts also lead to lower transaction and information costs. Secondly, futures markets provide speculators with a high degree of leverage, because the initial margin is relatively small in comparison with the size of the exposure given by the futures contract.

For futures contracts to fulfill these two primary purposes standardized contracts are essential. The standardization of contracts, where everything is fixed except the price, enables participants to buy and sell them freely on the exchange, where they are traded with precise knowledge regarding the characteristics of the contracts in question.

2. **Options** are contracts that give the owner the right, but not the obligation, to buy (in the case of a call option) or sell (in the case of a put option) an asset. The price at which the sale takes place is known as the strike price, and is specified at the time the parties enter into the option. The option contract also specifies a maturity date. In the case of a European option, the owner has the right to require the sale to take place on (but not before) the maturity date; in the case of an American option, the owner can require the sale to take place at any time up to the maturity date. If the owner of the contract exercises this right, the counter-party has the obligation to carry out the transaction.

3. **Swaps** are contracts to exchange cash (flows) on or before a specified future date based on the underlying value of currencies/exchange rates, bonds/interest rates, commodities, stocks or other assets. The following are the types of swap.

**Equity swaps** are exchanges of cash flows in which at least one of the indices is an equity index. An equity index is a measure of the performance of an individual stock or a basket of stocks.

**Commodity Swaps:** Producers need to manage their exposure to fluctuations in the prices for their commodities. They are primarily concerned with fixing prices on contracts to sell their produce. A gold producer wants to hedge his losses attributable to a fall in the price of gold for his current gold inventory. A cattle farmer wants to hedge his exposure to changes in the price of his livestock.

Though there are above three types of derivatives available in the foreign market for the customers but only future contract is available in Nepalese exchange. Here in Nepalese commodity exchange only future contracts is available for customer to trade which limits the customer choice in the commodity market. Now with the establishment of NSE the spot trading is also available for the traders.

**B) Review of Related Articles**

Online banked was first offered in 1995 when 16 of largest banks including compass bank, chase and national bank, began the service through Intuit Inc.'s Quicken financial software. Prior to 1998, there had been concerned over the slow rate at which consumers were adopting internet banking, so the burst of activity in the past year has surprised most industry observers. Two factors are responsible for driving the explosive in growth in online banking. One is the rising in the number of Nepalese people with access to the internet. The second is the "Build it and they will come" approach taken by financial institutions.
(http://www.bankrate.com/brm/news/bank/19990302 .asp)

The beauty of futures markets is that they're among the most meritocratic institutions ever devised. You bet on the chance that event X will occur on date Y, and regardless of where your office is or the size of your security detail, you make money if you're right and lose money if you're wrong. In 1997, Hewlett-Packard set up a similar market to help the company predict monthly sales figures. The participants were midlevel sales managers who, in the normal course of things, might have shaded their estimates on the high side to please their superiors (sound familiar, George Tenet?). The advantage of the company's futures market was that it was anonymous, meaning no one could be punished for hazarding an honest opinion. Factor in the profit motive, and it's no surprise that honesty is exactly what the market elicited. About 75 percent of the market's forecasts over the next three years proved better predictors of actual sales than the company's official forecasts.( The new York times Futures Markets in Everything, by Noam Scheiber, Published :14 December 2003)

There are two ways to offer internet banking. First, an existing bank with physical offices can establish a web site and offer internet banking in additional to its traditional delivery channels. Second, a bank may be established as a branch, internet only or virtual bank. Broadly, the level of banking services offered through internet can be categorized in three types: (i) The Basic Level Services use the banks websites which disseminate information on different products and services offered to customers and members of public in general. It may receive and reply to customer queries through email.(ii) In the next level are simple Transactional Websites which allow customers to submit their instructions, application for different services, queries on their account balances, etc, but do not permit any fund based transactions on their account.(iii) The third level of internet banking services are offered by Fully Transactional Websites which allow

the customers to operate on their account for transfer of funds, payment of different bills, subscribing to other products of banks and to transact purchases and sell of securities, etc. most of the banks providing interne banking product and services offer, to large extent, an identical and standard package of banking services and transactional capabilities. (RBI,2001)

Futures markets have expanded far beyond their initial application to farmer's planting and harvest cycles. These markets now allow investors and traders to set prices for a broad spectrum of assets and for a whole term structure stretching into the distant future. Some of these markets are often priced according to simple fair-value formulae, others are not. Futures markets can be in backwardation, where the future price is lower than the present, spot price. They can also be in contango, where the price rises with maturity and is higher in the future than it is today. The S&P/Case-Shiller Home Price Index is a recent invention that has transferred the mechanics of futures markets to the prices of single-family homes in ten real estate markets, in an effort to create a national market for residential real estate.

After 15 years of bear markets, commodity prices are on the rise and investors of all flavours are keen to get in on the action. Although in the past few years commodities have had an excellent run, experts, however, while suggesting the asset class is likely to continue it’s out performance, are keen to point out that it is not everybody's cup of tea. (Business magazines > Investing, Sale, and Marketing magazines > Investment Adviser articles > March 2005)

Commoditization is the dilution of a market sector's internal differentiation and competitive nuances in favor of a mass market where price alone determines consumer behavior. The industry's mode of competition thus moves away from innovation of the underlying, commoditized product and toward alternative methods of building value.

As industries mature, barriers to market entry gradually erode, competition intensifies, and the market becomes saturated, forcing prices downward. In the eye of the consumer, there is increasing parity among a market sector's products and services, and building customer loyalty becomes all the more challenging. As the proliferation of products within a market sector reaches the commoditization point, the perceived distinction between brands and varieties vanishes altogether, and customers base their purchasing decisions solely on price. This in turn leads to a pricing war that wreaks havoc on profit margins. To combat commoditization, firms generally seek out new operating models, bundle services to add value, or diversify or specialize their

product to capture a niche market within a broader market. If all else fails, firms may simply cut realized or potential losses by exiting the market.

The Internet's relationship to commoditization is something of a paradox. On one hand, the Internet provided a vehicle in which firms could escape commoditization of their products and services by opening new areas of competition. Firms shifted their business plans, often very rapidly, to quickly capitalize on the possibilities afforded by the Internet in fear of losing market share to rivals that were quicker to adapt. The avalanche that ensued, however, created another form of commoditization. Many firms simply established their online presence with too little attention to how to successfully integrate the Web into their existing operations, or how to distinguish their online storefronts from those of others. This process was greatly accelerated by the emergence of the World Wide Web as a medium of commerce, making transactions, comparison shopping, and bidding quick and effortless.

In the sort of mass merchandising that regularly takes place as industries mature and begin to consolidate through mergers and acquisitions, products and services grow more removed from the level of the customer, particularly in services, where the personal touch provided by local companies is replaced by larger national or multinational outfits. Meanwhile, personal dealings with customers are streamlined and mechanized in order to boost customer rolls and margins. This brings about a different sort of commoditization that requires careful remediation. Once again, the Web is a double-edged sword in this case. On one hand, it furthers this process since customer service is thoroughly mechanized and removed from the face-to-face medium. This dramatically decreases the firm's transaction costs and offers convenience to the customer. For those reasons, the Web has been vigorously embraced by firms across many industries. However, it also tends to erode any sense of personal connection to the firm.

A thoroughly commoditized market within the Internet spectrum was telecommunications bandwidth for high-speed Internet access. In this sector, commoditization was not so much fought as it was incorporated. The telecommunications industry established the Bandwidth Trading Organization to coordinate the trading of bandwidth in a manner similar to energy commodities. Such trading would facilitate the implementation of sophisticated financial tools that could manage market risk and generate stronger returns, much as is done in other financial markets.

There is no formula for combating commoditization; how it is dealt with largely depends on the nature of the industry and the mode of competition therein. Commoditization is less likely to infect markets that require more capital investment to enter, such as heavy manufacturing. But even those industries are affected by burgeoning online business-to-business marketplaces. The capital investment required to enter into the modern information technology and computer software industries, meanwhile, is relatively small. As technology develops, it gets smaller all the time. Companies can distinguish themselves and stay a step ahead of industry commoditization by augmenting their brick-and-mortar operations with their online operations, rather than allowing online storefronts to eat into existing sales channels. The latter often was the case in the 1990s and early 2000s. One way or another, commoditization was a fact of life in the Internet economy, and how firms adjust will largely determine whether they have a place in it.

This study examines the empirical relationship between changes in commodity prices and inflation by looking at the performance of non-oil commodity prices as stand-alone indicators of inflation and in conjunction with other leading indicators of inflation. The results indicate that the empirical link between commodity prices and inflation has changed dramatically over time. Commodity prices were relatively strong and statistically robust leading indicators of overall inflation during the 1970s and early 1980s, but they have been poor stand-alone indicators of inflation since the early 1980s.( Economic Review - Federal Reserve Bank of San Francisco by Furlong, Fred; Ingenito, Robert, Published date January 1, 1996)

The biennial publication Commodity Market Review (CMR) analyses important agricultural commodity market developments likely to have significant implications for FAO member countries, both developed and developing. This issue of the Review is devoted to exploring in depth a variety of issues related to global agricultural commodity value chains. Value chains have become more complex as production and processing activities turn out to be increasingly fragmented. Moreover, concentration and the prospective of market power, as well as the emergent scope of food standards add to this complexity. This issue includes articles that focus on both cross-commodity issues, such as strategic trade, foreign direct investment and the effectiveness of technical regulation, as well as on characteristics of individual commodity value chains, such as coffee, cocoa and frozen concentrated orange juice, which are of particular interest in terms of industrial organization.( Commodity Market Review 2007-2008)

Futures markets are predictive. Participants seek to anticipate where the price of gold will be near the end of the contract and invest accordingly. The futures price of any commodity is based on price expectations and the interest rate. Interest rates matter because there is an opportunity cost to investing money in a futures contact. The money is not earning interest in a bank account, so that opportunity cost is factored into the futures price of gold by the market. Because interest rates are currently low, and a small part of the price factor, for our purposes we can ignore the interest rate impact. (Written by Christian Koch, head writer, VP of market research and development for Buy N Sell Gold)

A market that transacts business with commodities of all nature referred as commodity markets. Commodity market was initially meant only for agricultural products and that too in the local market. Industrializations, globalizations, technological advancements, increasing demand from consumers and intense competition from other players has paved way for commodity markets to cross boundaries and break barriers with regards to the commodity traded.

Commodity markets deal in the trade of commodities like gold, cotton, crude oil, orange juice etc. Many items both perishable non perishable, finished goods, raw materials and semi finished goods will be traded in this market at the international level. Commodity market does not necessarily require you to buy or sell the commodities but you can even exchange them.

Commodity market works on certain principles. Firstly the trading has to be done only for standard products. Secondly the transaction takes place through a future contract. According to this contract the commodities will be sold or bought on a future date. However the price at which they are sold will be the price agreed during the contract. Similarly commodity marketing also makes use of another type of contract called spot contract. In this contract the goods are to be transferred as soon as the contract is made. However it has also been argued that the purpose of a spot contract is to exercise a future contact in due course of time. Some of the commodities investing market are commodity food market, commodity petroleum market and commodity fund investing.

***Investing in Commodities***

Commodity investing was initially received well only by a few sectors. Commodities investing were first restricted to the trade and exchange of commodities meant for regular and day to day

use. However the awareness in the subsequent stages has brought all sectors into the manifold of commodity investing and has enabled speedy movements, transfer and transaction of goods and services. The following are the benefits of investing in commodities market:

***Reduced Risks***

As an investor your chances of risks are very less if you choose to invest in commodity. Therefore the gains from commodity investing will be helpful for you to balance other losses due to other financial instruments in your portfolio. The chances of risks are lower because commodity investing primarily deals with diverse items. Moreover when the contracts are entered for a future date at the current time you can exercise reasonable care and see to it that the chances of risks are reduced or nil.

***Helps to Fix Price Easily***

The performance of commodity market can be monitored by analyzing the performance of bond and share market because in most cases a commodity market will perform well when the others don't perform and vice versa. It is therefore possible to easily predict the prices and make the contracts by considering the ups and downs in other markets. A prerequisite for this is that the assets in the commodity market should not be correlated with the stock and bond market. (www.ilikeinvesting.com)

Investment is the crux of financial planning. There is no exaggeration to say that it as important as earning and spending. The advancements in internet have helped people to make online investing a smooth experience this has revamped the process of investment and has helped investor's brokers and companies to transact in a scientific and systematic manner.

If you wish to make online investments, you must start an account with an investment broker. Some brokers may charge you a nominal amount for membership. You must also have a computer with internet connection. Besides you will be required to furnish a duly filled in application form to the investment broker to confirm your membership. (Online Investing - All it takes is a Click of Your Mouse, www.ilikeinvesting.com)

Mattila, M, Karjahuoto, H. Pinto, T (2003, p: 514-528) have found that the proportion of people in Finland who have adopted online banking is higher than anywhere else in the World. As early

as 2000, almost 40% of all retail banking transactions in Finland was made over the internet. All Finish banks offer a full range of internet banking services.

E- Banking may be defined as banking through the internet. A host of services are offered through e-banking by tech savvy banks such as opening of accounts, balance enquiries, Statement of accounts, sending requisition for check books, drafts, fund transfers sending stop payment orders, affecting remittances for services like telephone, electricity etc. e-banking allows the customers to access their accounts online from any part of the world. The transaction in e-banking are instantaneous and the user is alerted immediately.(Mahat,N.D)

**C) Review of Related Previous Thesis Work**

Katz, J.and Aspden, P (1997,P70-188) In their research on " Motivation for ands barriers to internet usage results of a national public opinion survey" have found the following findings about internet usage that income and education levels are especially relevant in explaining the use of internet service and other technological devices. Additionally to income, gender, age, and education effects, there is also evidence of ethnic differences in internet use.

Amrit Bastola (2007, p:96-104) in his study on" Prospect and Challenges of E-banking in Nepal" has drawn following conclusion of his study that advance in information technology and telecommunications have certainly introduced new delivery channels for Nepalese Commercial banks' products and services. These new delivery channels include ATM, Mobile banking and Internet banking. Among these, ATM's are the most widely accepted and highly utilized delivery channels. As per the information provided by the banks mobile banking seems to have good future prospect. PC banking is still not available in Nepal. How ever 35% of respondents have internet access at home and work and these indicates the positive indication for PC based banking and internet banking in the future.

Probably the biggest single obstacle on Net banking path to success is consumer skepticism about the security of the internet. Interestingly, the major risks in internet banking are probably not in the area which potential users focus on interception of financial data transmission. Banks and other entities sensitive information sent over the Net. Even current versions of netscape and internet explorer include encryption technology that makes it technically not feasible for a hacker to read the intercepted information". ( Thapa, D.2004,p:33)

Mahesh Pradhan in his study on " Internet banking in the context of Nepalese commercial banks " found the following conclusion of his study that only 5 % are satisfied with the traditional banking system rest of the 95% respondents want immediate technical improvement in their services system. Respondents feel the bank should imply online services to provide better facilities to them while asking about the difficulties faced with the traditional banking respondents complained about the time delay as the main factor besides staff behaviors and reliability.

Due to the time factor internet banking services seems invisible in the banking sector. At present SWIFT and ABBS are the services which are used by all the commercial banks while credit card facilities are given by only few of them. Most of the commercial banks are using ABBS system to transfer money. The main aim of introducing internet banking is to make the transaction smooth and easier.

Regarding the advantages to the customers they can transfer their fund, pay their utility bills or installments of loan online just pressing some keys on the computer, so that they can save their time and cost. As online bill concept is completely new to the Nepalese society it will catch up the market as soon as introduced. Online services will drastically enhance the efficiency of decision making or processing of any job.

**D) Paper Presentation**

Prabal Khanal (2006.p:1-29) in his presentation on "E-Banking in Nepal" has made following conclusion that in Nepal there is around 200,000 internet users in Nepal and over 95% of internet users are using dial-up internet access. 50% of the users are inside the capital city, Katmandu and around 3000 users are using internet banking

Vivek, S. Rana(2004, p:1-22) in his presentation on "Banking and E- Payment practices in Nepal" has found the following facts based on his study that to develop the e-payment in Nepal more utility companies are to form strategic alliance with the banks. At present Nepal telecom is only adopting e-payment. If this product is made online, these organizations can save up to 10% at a conservative estimate. Government should bring electronic transaction act for financial institutions to boost consumers and financial institution's confidence trust in technology.

**E) Research Gap**

This study made on “E-banking on commodity market and its opportunities and challenges” is a new study and some of study have been done on e-banking found be reviewed and I made an attempt to study on e-banking on commodity market. The study is based on the information collected from the customers and banks annual repots unlike the other studies that use authentic published financial data of various financial years. The study involves in making a subjective analysis rather than objective one. As such research gap analysis could not be made regarding this study about E-banking on commodity market.

This study incorporates the internet facilities provided by the NSBL, LBL, NIBL, MBL and BOK. Information was collected through questionnaire form customers and banks publication of respective banks. Simple statistical tools like Percentage and average have been used in the study to analysis the data collected by using questionnaire.

# CHAPTER III

# RESEARCH METHODOLOGY

This dissertation has been prepared with great deal of enthusiasm, hard work, patience and commitment. With all of theoretical understanding and based on the information that have accessed, I have tried to present an in-depth analysis on E-banking in commodity market.
All the information and facts are purely based on Market research findings.

The methodology of study for the preparation of this dissertation is explained below in a step-by-step process:

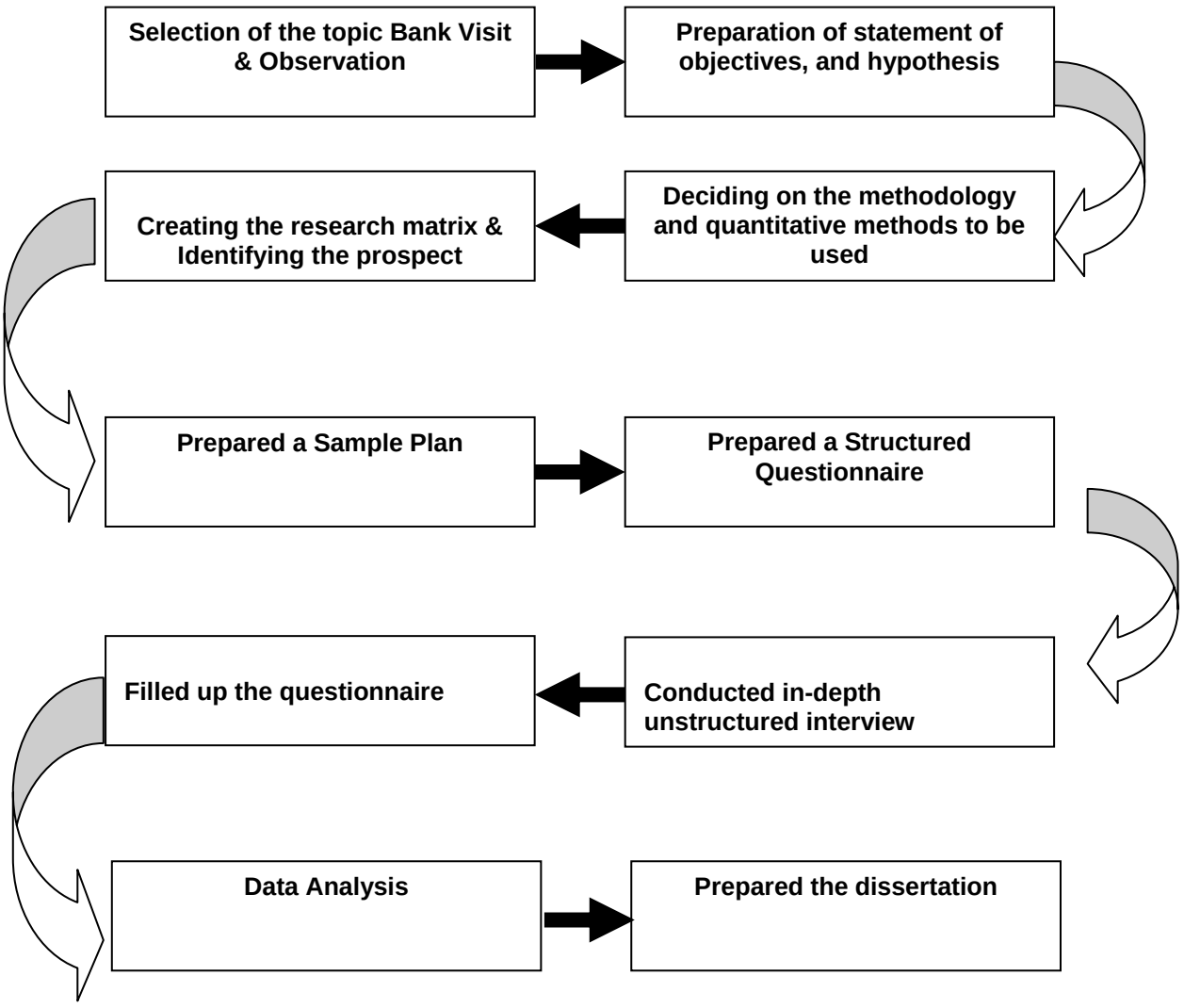


**Figure 4: Methodology used for the research**

### 3.1 Selection of Topic:

i. Development of information technology.
ii. Newspaper reading habits among students.
iii. E-banking facilities provided by the banks in Nepal.

Taking into consideration the increasing trend of technology in banks and commodity market, I decide to conduct the research on the e-banking and commodity market. And select the 4 banks out of 5 banks which have tied up with commodity exchange and facilitate commodity trading.

#### 3.1.1 Preliminary Research

After selecting the topic, first i had a formal discussion on the topic to have sound background and understanding of important issues. I collected information related to e-banking and commodity market through internet, understanding various and essential aspect of e-banking which helped to do the survey smoothly. Understanding prospects of e-banking and commodity market in Nepal made us clear about the research topic.

Finally I developed a research matrix to plan the research. It includes the developing of research questions, information required, and sources of information. After that, various hypotheses are developed to conduct the research.

#### 3.1.2 Questionnaire Development

For the research, a set of questionnaire was developed to fulfill the purpose of the study. The questionnaire was prepared with the help of outcome of the preliminary research and statement of the problem. The questionnaire provided adequate information for better analysis and development of e-banking. As far as possible we tried to make simple, close ended question and some multiple choice questions taking in regard the convenience of the respondents. The questionnaires were basically prepared for both the users and non users of e-banking facilities.

After conducting one in-depth Interview got an insight over various things that the bankers consider. With the ideas and knowledge gained from these two sources, i.e. the in-depth

interview and secondary research, questionnaire was developed on the basis of the designed framework.

### 3.1.3 Sources of data:

| Information | Sources |
|---|---|
| Primary | • Interviews<br>• Questionnaires |
| Secondary | • Internet<br>• Newspaper and magazines |

### 3.1.4 Data analysis and findings

After collecting all the information from different sources, the data's were analyzed. The data has been analyzed using MS Excel. The findings have been presented at the end of the dissertation. Based on the findings, a set of recommendations is prepared. The recommendations are entirely based on the research and the opinions put forth by the bankers in the unstructured in-depth interview.

### 3.1.5 Preparation of the final dissertation

All the findings and recommendations were aggregated to prepare the final dissertation.

### 3.1.6 Market Research Summary

The research method used is non-experimental because of the following reasons:

- Research is conducted in real world/ environment
- There is no control of extraneous variable.
- There is no manipulation of variables.
- There is no intervention beyond that needed for the purpose of measurement.

## 3.2 RESEARCH DESIGN

The research designed under this study is mixture of exploratory and descriptive research. The theoretical review of the details and background of various developers is based on the secondary information collected via brochures, newspapers and internet search. In this dissertation first did secondary research for being familiar with this dissertation. I learned various aspects that need to be taken account in completion of the overall research work from the banks itself and by doing a situational analysis. Questionnaires were developed with the information obtained from these researches and secondary data. Then, further analysis of the responses received from questionnaire was done to have better insights in the research work.

In the succeeding part of this section, overall framework of this research work is briefed. First to give a glance of the research process, here is the diagram.

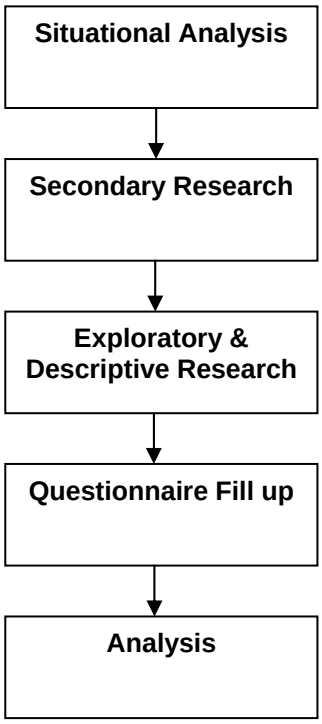


**Figure 5: Research Design**

### 3.2.1 Situation Analysis

To get a clear understanding of the e-banking in Nepal, I went through the several websites and understood the current scenario of e-banking and commodity market in Nepal. After having done this analysis I further proceeded with the other research tools.

### 3.2.2 Secondary Research

Secondary research helped us to establish the major objective of the research. Necessary research question were developed for the problem. After that, a series of research questions were developed and finally relevant information was determined to answer the research questions and the sources of required information was determined.

### 3.2.3 Exploratory research

For exploratory research, basically an unstructured in-depth interview was conducted with one of the banker. This further helped to prepare the questionnaire for the bankers.

## 3.3 Sample Size Determination

On the basis of the research, it was found that there are about 30 commercial banks in Nepal and then sample size was decided to be the five banks and two commodity exchanges. No statistical tools were used to decide on the sample size, i.e. Sample size was determined on the basis of the judgment and convenience of the researchers. Out of the five commercial banks under study four of them have tied up with the commodity exchange and facilitate the commodity trade. For the primary data 100 questionnaire have been distributed 20 in each bank.

### 3.3.1 Data Analysis and Presentation

For the research, MS Excel software was used for Data analysis to develop frequency tables, graphs and charts in detailed and comprehensive forms.

a. ***Data collection tool:*** Questionnaire Survey and Unstructured In-depth interview
b. ***Data coding and tabulation***: Microsoft Excel

c. ***Data Presentation:*** Graphs, Pie charts.
d. ***Data reduction and analysis:*** Use of Statistical tools such as mean, median, mode, standard deviation, frequency, percentile, range, etc.

The data collected from the sources are classified, tabulated and analyzed according to the needs of the research. Necessary tables, graphs and charts were constructed to fit the data obtained from the sources. From the questionnaire, firstly each question was analyzed separately then we build relationship between different questions based upon the needs of the study.

# CHAPTER – IV

# DATA PRESENTATION AND ANALYSIS

This chapter deals with the analysis and interpretation of data according to the research methodology to attain the objective of this study. During analysis data gathered from various sources have been inserted in tabular form. Using financial and statistical tools the data have been analyzed.

## 4.1 DATA PRESENTATION OF SAMPLE ORGANIZATION UNDER STUDY

### NEPAL SBI BANK LIMITED (NSBL)

NSBL commenced operation with effect from July 7, 1993 with one full-fledged office at Durbar Marg, Kathmandu with 18 staff members. The bank has paid up capital of NRS 166.16. Coroes, of which 55% share of foreign institution State Bank of India , 15% share of Government institution (EPF)and remaining 30% from public. NABL is the banking partner of COMEN.

**Table4.1.1: Share capital and ownership pattern (Equity participation) of NSBL**

| **Share Capital** | | **Shareholders And Promoters** | |
|---|---|---|---|
| | Amount (NPR) | State Bank of India | 55% |
| Authorized Capital | 2,00,00,00,000 | Government institution (EPF) | 15% |
| Issued Capital | 1,66.16 Crores | Public | 30% |
| Paid Up Capital | 165.36 Crores | Total | 100% |

*Source: Annex 1*

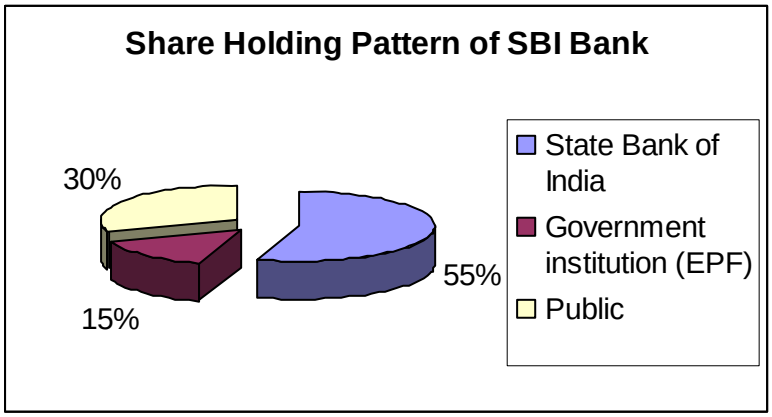


**Figure 6: Share Holding Pattern of NSBL**

**LAXMI BANK LIMITED**

Laxmi Bank was incorporated in April 2002 as the 16th commercial bank in Nepal. With total assets of NPR 20 billion at April 2010 and 22 branches across the country Laxmi Bank is amongst the top financial institutions in the country in terms of size and quality of operations. In 2004 Laxmi Bank merged with HISEF Finance Limited, a first generation financial company which was the first and ever merger in the Nepali corporate history. LBL is the banking partner of MEX Nepal.

**Table4.1.2: Share capital and ownership pattern (Equity participation) of LBL**

| **Share Capital** | | **Shareholders And Promoters** | |
|---|---|---|---|
| | Amount (NPR) | Other organization (Promoters) | 37.33% |
| Authorized Capital | 2,000,000,000 | Individuals | 35.56% |
| Issued Capital | 1613,520,500 | Others (Promoters ) | 27.10% |
| Paid Up Capital | 1613,520,500 | Total local ownership | 100% |

*Source: Annex 2*

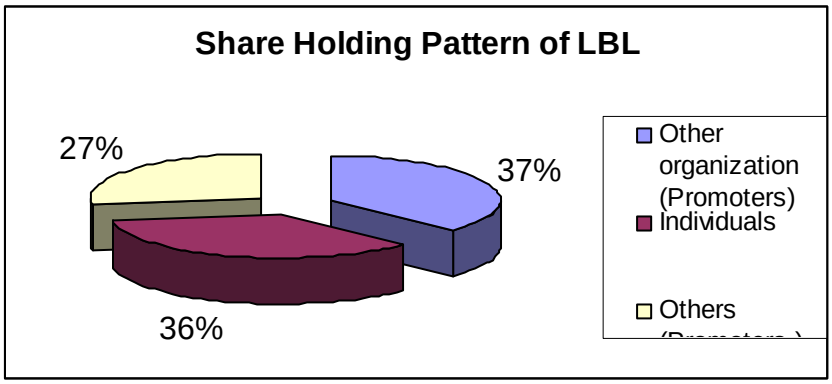


**Figure 7:Share holding Patterns of LBL**

**NEPAL INVESTMENT BANK LIMITED**

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one the largest banking group in the world. With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, had acquired on April 2002 the 50% shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd.

The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure. NIBL is the banking partner of NDEX.

- A group of companies holding 50% of the capital
- Rashtriya Banijya Bank holding 15% of the Capital.
- Rashtriya Beema Sansthan holding 15% of capital.
- The remaining 20% being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange).

**Table4.1 3 Share capital and ownership pattern (Equity participation) of NIBL**

| **Share Capital** | | **Shareholders And Promoters** | |
|---|---|---|---|
| | Amount (NPR) | Commercial Bank | 15% |
| Authorized Capital | 4,00,00,00,000 | Financial Institution | 15% |
| Issued Capital | 2,40,90,97,700 | Organized Institutions | 50% |
| Paid Up Capital | 2,40,90,97,700 | General Public | 20% |
| | | Total | 100% |

*Source: Annex 3*

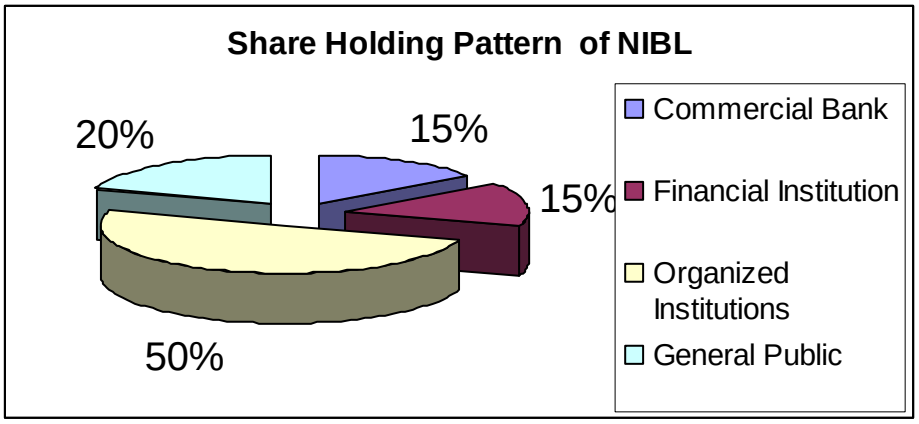


**Figure 8: Share holding pattern of the NIBL**

**MACHHAPUCHCHHRE BANK LIMITED**

Machhapuchchhre Bank Limited was registered in 1998 as the first regional commercial bank to start banking business from the western region of Nepal with its head office in Pokhara. Today, with a paid up capital of above 1,314 million rupees, it is one of the full fledged commercial bank operating in Nepal; and it ranks in the topmost among the private commercial banks.

**Table 4.1.4 Share capital and ownership pattern (Equity participation) of MBL**

| **Share Capital** | | **Shareholders And Promoters** | |
|---|---|---|---|
| | Amount (NPR) | | Percent |
| Authorized Capital | 2,000,000,000 | Other Institution | 22% |
| Issued Capital | 1,479,269,600 | General Public | 78% |
| Paid Up Capital | 1,479,269,600 | Total | 100% |

*Source: Annex 4*

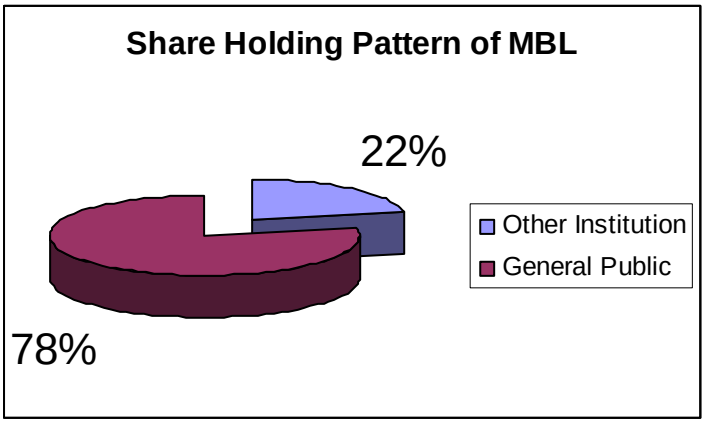


**Figure 9: Share Holding Pattern of MBL**

## BANK OF KATHMANDU LIMITED

Bank of Kathmanndu limited (BOK) started its operations in March1995 with the objective to stimulate the Nepalese economy and take it to newer heights. Its paid up capital is 1182 million in which 91.86% public share, 8.29% share others institution, and 0.03% other licensed institutions share. Now BOK is the clearing bank for MEX Nepal and it is also the banking partner of newly established commodity exchange i.e. wealth exchange.

**Table 4.1.5 Share capital and ownership pattern (Equity participation) of BOK**

| **Share Capital** | | **Shareholders And Promoters** | |
|---|---|---|---|
| | Amount (NPR) | Other licensed institutions | 0.03% |
| Authorized Capital | 2,00,00,00,000 | Others institutions | 8.29% |
| Issued Capital | 1,18,21,57,100 | Public | 91.86% |
| Paid Up Capital | 1,18,21,57,100 | Total local ownership | 100% |

*Source: Annex 5*

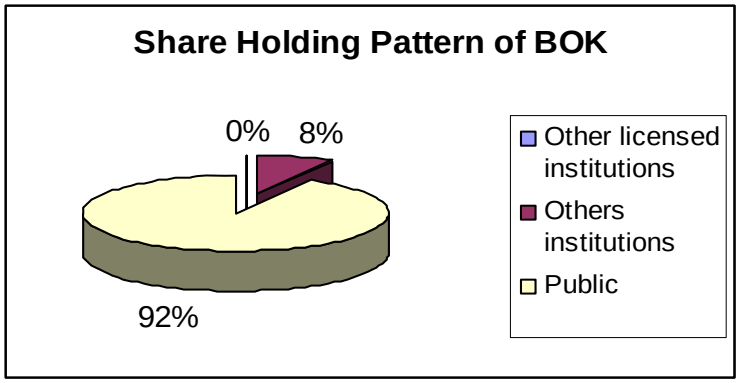


**Figure 10: Share Holding Pattern of BOK**

## MERCANTILE EXCHANGE NEPAL LIMITED (MEX)

Mercantile Exchange Nepal Ltd (MEX) is incorporated as a Public Limited Company organized under Laws of Nepal during August 2007 with an authorized share capital of 100 Million NPR (equivalent to 1.4 Million USD) and a paid up capital as on 31st March 2009 is 25 Million NPR (equivalent to 340,000 USD). The company is governed by Board of Directors, comprising 7 members with 1 independent director as full time directors. M/s N.K Joshi and Co, a leading

auditors firm functions as the statutory auditors of the firm and M/s BM Dhungana & Co acts as fulltime concurrent auditors. The B.O.D comprises of professionals in the field of finance and industry and who are also dominant promoters & shareholders of the company. The Managing Director works as a full time Director representing the Board in the day-to-day activities, while CEO of the Exchange is dedicated in running the business, reporting to the Board of Directors. Both the MD and CEO have about 10 years experience in the futures market. Professionals are our back bone, Transparency is their day-to-day practice. Technology is their stem. Commercialization of market is their goal. Reducing of risk is their motto.

To implement effective governance, to improve services and to be more dedicated on their objectives MEX formed an advisory committee, which provides necessary advises to dedicate ourselves in their objectives: Formation of advisory committee shall be a team of eminent person of their field, who has long and valuable contribution to domestic economy and market development.

**Other committees:**

Member Services Committee
Surveillance Committee
Trading, Clearing and settlement committee
Disciplinary committee

A Futures Exchange shall work in line of interest of growers, merchandiser, exporter-importer, industrialist, investors and end users. These are known as market factors. MEX believes to serve the market factors. While serving the market factors MEX follows a globally accepted and tested norms and ethics.

**Functions:**

- Mechanism of effective price discovery.
- Mechanism of Price Risk Management.
- Technology Backed Marketplace for Investment.
- Facilitation of Physical trade with quality assurance.
- Mechanism for structured Finance.
- Dedication to Market Development.

**Possible benefits:**

- More efficient and effective price formation mechanism.
- Reliable and effective transfer of price risk.
- Development and improvement of investment environment.
- Reliable, accurate and transparent reference prices.
- Development of new era for Nepalese Banking sectors for effective and secure scope of lending as structured finance.
- Education and capacity building to growers, investors and hedgers.
- More market information on demand and supply pattern.
- Spot market develops with effective and reliable price sources.
- Domestic products may enter in global trading phase.
- Quality, grading and logistic improvement.
- With price transparency and demand supply pattern possibility for industrial development.

## NEPAL DERIVATIVE EXCHANGE LIMITED (NDEX)

Agriculture has always been the backbone of Nepal's economy. Yet, lifting millions of Nepalese out of poverty requires a transformation from centuries-old subsistence agriculture to dynamic, technology-driven, market-oriented production. This can only happen if the market itself functions in such a way as to serve the needs of all concerned. Nepal's marketing system, like its agriculture, is based on age-old tradition. To date, agricultural markets have been characterized by high costs and high risks of transacting, forcing much of Nepal into global isolation. With only one third of output reaching the market, commodity buyers and sellers tend to trade only with those they know, to avoid the risk of being cheated or default. Trade is done on the basis of visual inspection because there is no assurance of product quality or quantity, which drives up marketing costs, leading to high consumer prices. For their part, small-scale farmers, who produce 95 percent of Nepal's output, come to market with little information and are at the mercy of merchants in the nearest and only market they, know, unable to negotiate better prices or reduce their market risk.

It is time for a marketing system that coordinates better, that links faster, and that protects the interests of both sides of the trade. It is time for a marketing system that is transparent, efficient, and innovative. It is time for a marketing system that will take Nepal agriculture into the new

Millennium. Nepal, once a commercial trading hub in antiquity linking markets of East and West, can again claim a place in the global market arena.

### 4.1.6 E-BANKING ON COMMODITY TRADE

As commodity trade become online trading system as of today's date so e-banking especially I-banking become very popular and very useful to the traders of commodity market. In Nepal commodity traders can only able to transfer fund through internet to segregate a/c of exchange then Clearing Member transfer that to Trading Window System (TWS) and can withdraw the fund from TWS to own A/c. For this transfer they have to maintain their own personnel bank account.

Below the figure depict the broad picture how i-banking transfer of fund to segregate then to TWS is shown.

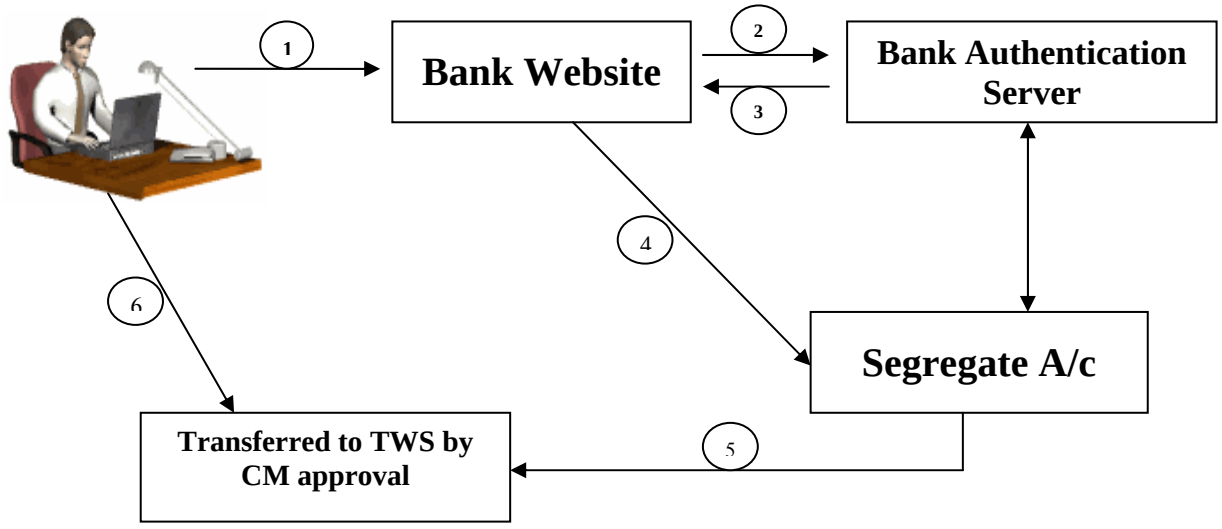


**Figure 11(a): Fund Transferred to TWS**

1. Trader (clients) opens the respective banks website and enters his/her username and password.
2. The username and password sent to the respected bank authentication server.
3. If rejected then user cant transfer the fund but if username and password is accepted then from his/her bank a/c user can transfer the fund.

4. Traders now can transfer the fund to the segregate a/c of exchange.

5. Now the fund in segregate a/c is then transfer to TWS of the respective traders.

6. Then the trader (clients) can trade on TWS.

On other page the figure depict the broad picture how online transfer of fund to own bank a/c from TWS is shown.

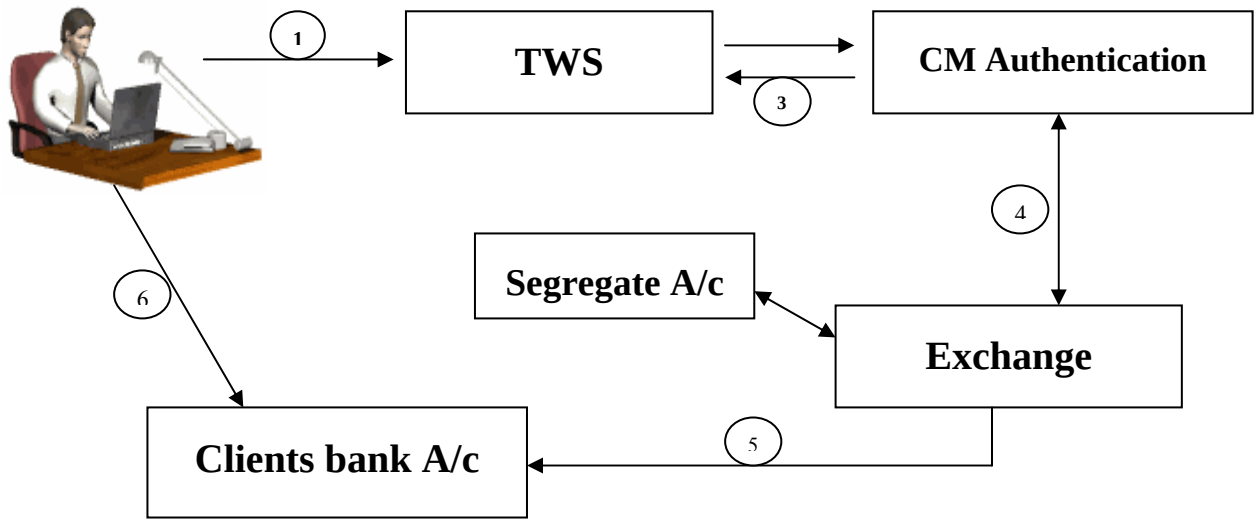


**Figure 11(b): Fund Withdrawal from TWS**

1. Trader (customer) from his/her TWS place withdrawal request.

2. The request sent to the respective Clearing Member authentication.

3. If rejected then user can't withdraw the fund but if accepted then from his/her own TWS, user can withdrawal the fund.

4. CM gives the approval to the exchange for the withdrawal request

5. Exchange now transfers the fund from the segregate a/c of exchange to the respective client's bank a/c after the approval from CM.

6. Then the trader (clients) can withdraw the amount from his/her bank a/c.

## 4.2 SURVEY METHODOLOGY

| Heading | Number of Questionnaire | Number of Respondent | In percentage |
|---|---|---|---|
| **Customer and Employee** | **100** | **80** | **80%** |

## 4.3 ANALYSIS OF DATA

First, the profile of the respondents based on gender, age, marital status, income level, educational level and occupation. The respondents of the study were customer of the commercial banks and the commodity market companies. The profile based on gender, age, marital status, income level, educational level and occupation are as follows:

### 4.3.1 Gender wise distribution of respondents

| Gender | No of Respondent | In Percentage |
|---|---|---|
| Male | 60 | 75% |
| Female | 20 | 25% |
| **Total** | **80** | **100%** |

*Source: Annex 6*

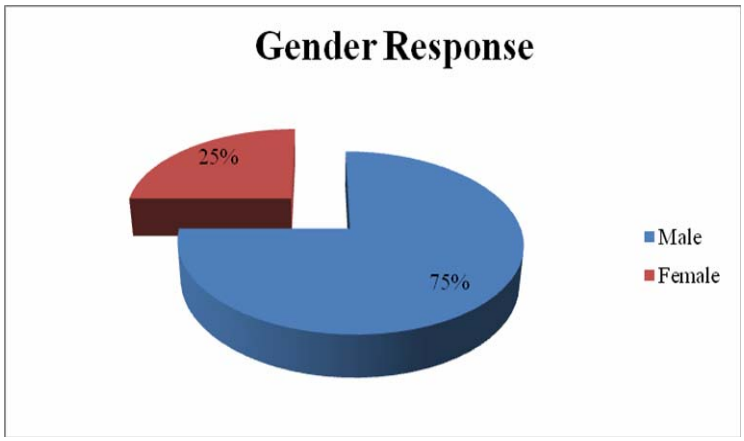


**Figure 12: Gender wise distribution of respondents**

This figure shows the respondents profile based on gender. Out of 80 respondents 60 were male and 20 were female i.e. 75% were male and 25% were female.

### 4.3.2 Marital Status wise distribution of respondents

| Marital Status | No of Respondent | In Percentage |
|---|---|---|
| Married | 65 | 81% |
| Unmarried | 15 | 19% |
| **Total** | **80** | **100%** |

*Source: Annex 6*

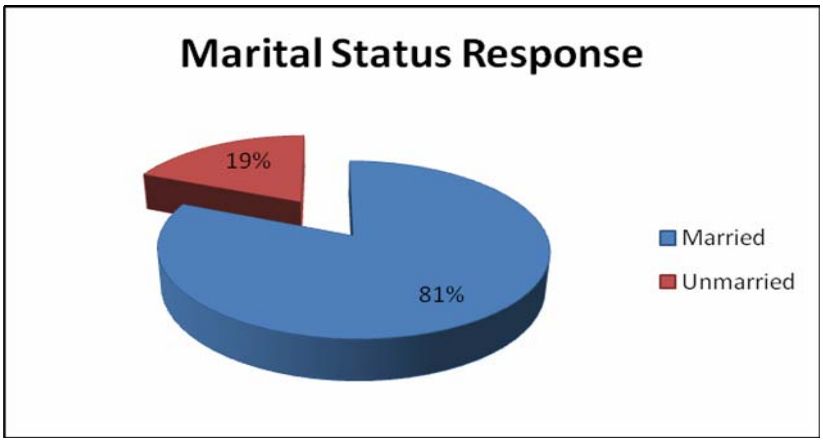


**Figure 13:Marital Status wise distribution of respondents**

This figure shows the respondents profile based on their marital status. Out of 80 respondents 65 were married ones and 15 were unmarried i.e. 81% were married and 19% were unmarried. It indicates that many of the e-banking users are the married.

### 4.3.3 Age Group wise distribution of respondents

| Age Group | No of Respondent | In Percentage |
|---|---|---|
| 15-25 years | 10 | 12% |
| 25-35 years | 20 | 25% |
| 35-45 years | 35 | 44% |
| Above 45 years | 15 | 19% |
| **Total** | **80** | **100%** |

*Source: Annex 6*

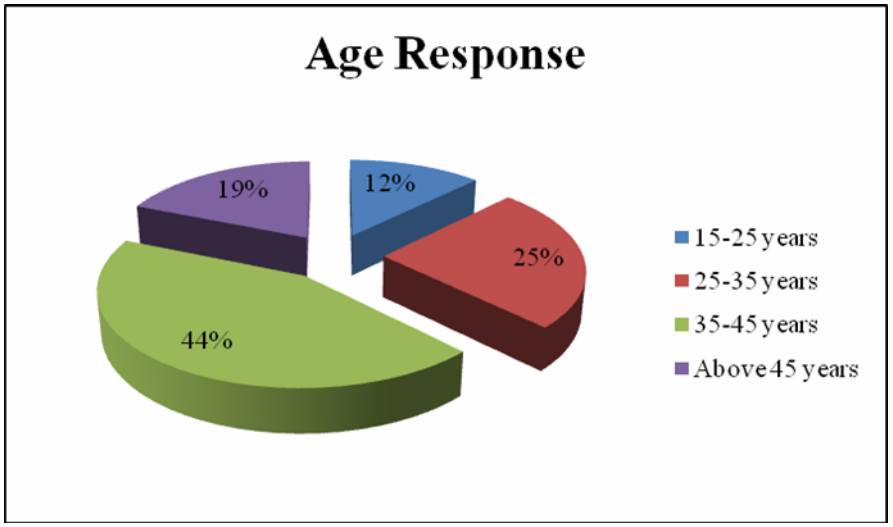


**Figure 14: Age Group wise distribution of respondents**

This figure shows the respondents profile based on their age group. Out of 80 respondents 12% were from the age group 15-25 years, 25% were from the age group 25 -35 years, 44% were from the age group 35-45 years and 19% were above 45 years. Thus, the age group 35-45years was found in using the e-banking facilities most..

### 4.3.4 Income Level wise distribution of respondents

| Income level | No of Respondent | In Percentage |
|---|---|---|
| Up to 15,000 | 6 | 7% |
| 15,000 – 30,000 | 42 | 52% |
| 30,000 – 60,000 | 22 | 28% |
| 60,000 – 90,000 | 8 | 10% |
| Above 90,000 | 2 | 3% |
| **Total** | **80** | **100%** |

*Source: Annex 6*

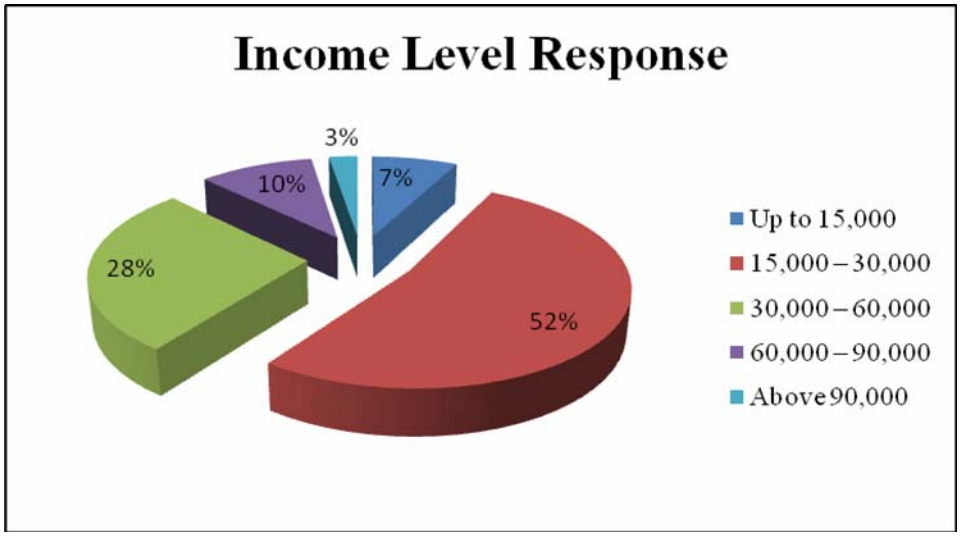


**Figure 15: Income Level wise distribution of respondents**

This figure shows the respondents profile based on their income level. Out of 80 respondents 7% respondents monthly income was up to Rs. 15,000 , 52% had the income level from Rs.15,000-30,000, 28% had the income level from Rs.30,000-60,000, 10% had the income level from Rs.60,000-90,000 and 3% respondents income was above Rs. 90,000 per month. Very few of respondents have income of  90,000, majority of the respondent have income on 15000- 30000.

### 4.3.5 Educational Level wise distribution of respondents

| Educational Level | No of Respondent | In Percentage |
|---|---|---|
| PCL | - | - |
| Bachelor | 45 | 56% |
| Master | 30 | 38% |
| M Phil / PhD | 5 | 6% |
| **Total** | **80** | **100%** |

*Source: Annex 6*

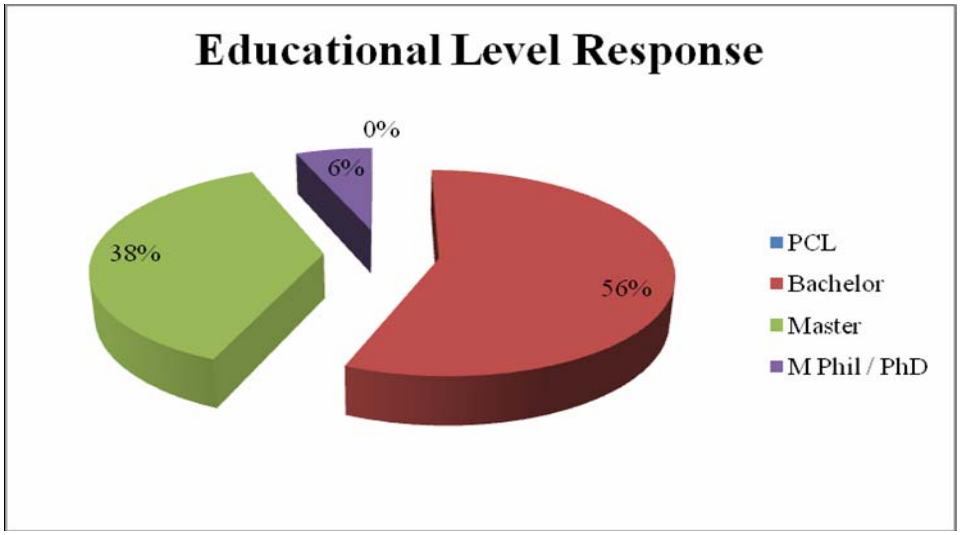


**Figure 16: Educational Level wise distribution of respondents**

This figure shows the respondents profile based on their educational level. Out of 80 respondents 56% respondents had cleared Bachelor level and 38% Master level and 6% M Phil / PhD where as there is no one who doing PCL. It clearly indicates that the users of e banking facilities are educated many of them have done Bachelor.

### 4.3.6 Occupation wise distribution of respondents

| Occupation | No of Respondent | In Percentage |
|---|---|---|
| Government Organization | 15 | 19% |
| Private Organization | 25 | 31% |
| NGOs / INGOs | 5 | 6% |
| Own Self Business | 35 | 44% |
| **Total** | **80** | **100%** |

*Source: Annex 6*

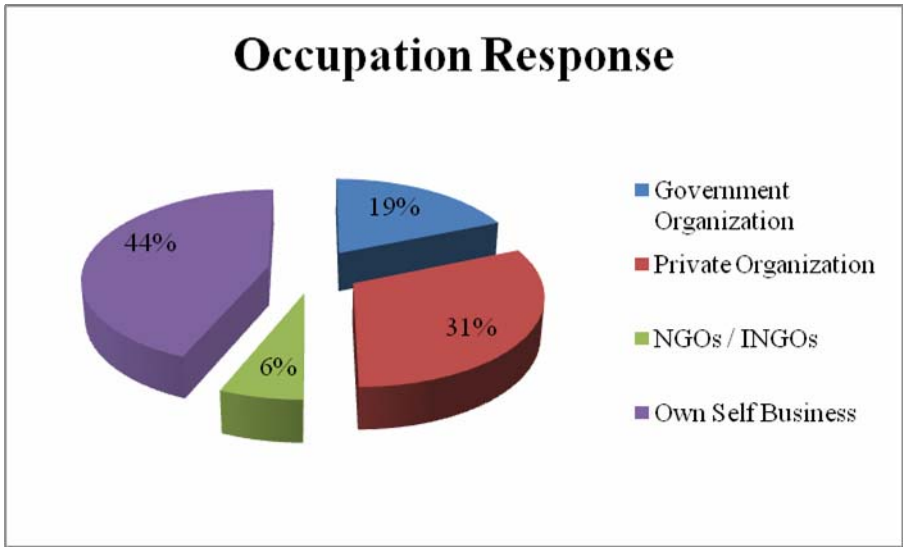


**Figure 17: Occupation wise distribution of respondents**

This figure shows the respondents profile based on their occupation. Out of 80 respondents 19% respondents were from Government Organization, 31% Private Organization, 6% were from NGOs / INGOs and 44% had their own self Business. It is shown that many of e-banking users have their own business.

### 4.3.7 Facilities wise distribution of respondents

| Facilities | No of Respondent | In Percentage |
|---|---|---|
| ATM | 45 | 56% |
| Tele Banking | 0 | 0% |
| SMS Banking | 12 | 15% |
| Internet Banking | 13 | 16% |
| Credit Card | 10 | 13% |
| **Total** | **80** | |

*Source: Annex 6*

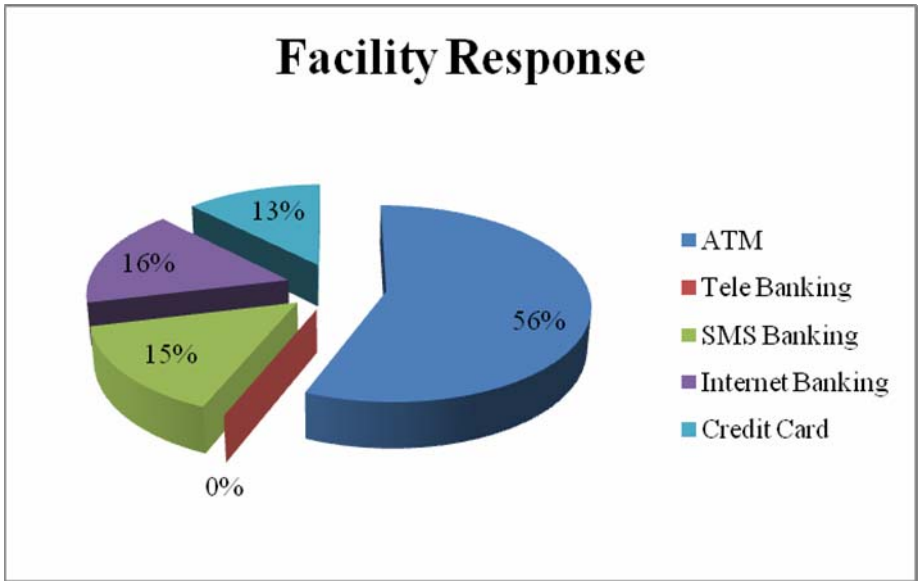


**Figure 18: Facilities wise distribution of respondents**

On the part of ranking e-banking facilities used by respondents, 56% of the respondents prefer ATM facility as they can withdraw at any time and from anywhere where the ATM machines are located and they don't have to go to banks and stand in a queue for the withdrawal. Likewise, 16% respondents' use internet banking, 13% uses credit card and 15% are SMS Banking users as informed by them they immediately get the SMS on their mobile phones when any withdrawal or deposit is made in their accounts. Mostly used facility by the e-banking users is ATM.

### 4.3.8 Commodity trading wise distribution of respondents

| Commodity Trading | No of Respondent | In Percentage |
|---|---|---|
| Traders | 20 | 25.00% |
| Non Traders | 60 | 75.00% |
| **Total** | **80** | **100.00%** |

*Source: Annex 6*

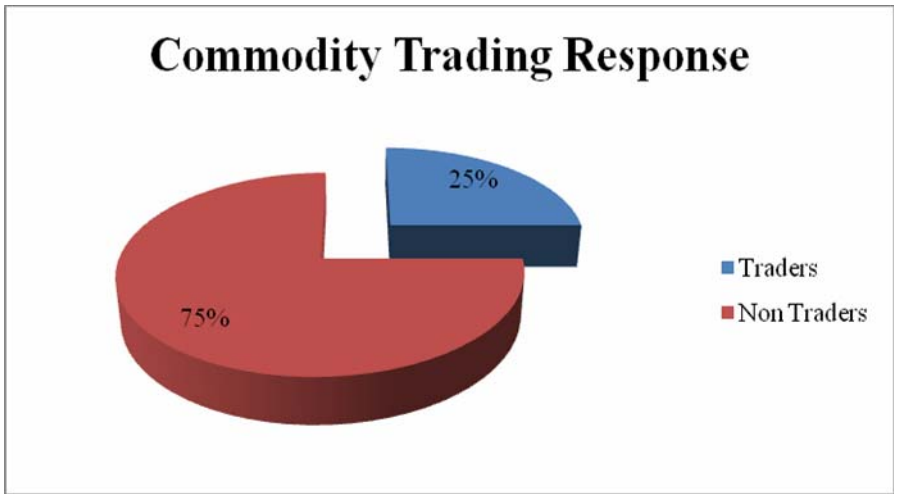


**Figure 19: Commodity trading wise distribution of respondents**

This figure shows the respondents profile based on their trading in commodity market. Out of 80 respondents 25% were traders and 75% were non traders and according to them they find trading very complex and risky. Only few of e-banking users are doing trade in commodity.

### 4.3.9 Facility of e-banking used by commodity traders.

| Facility of e-banking | No of Respondent | In Percentage |
|---|---|---|
| Fund Transfer from a/c To a/c | 12 | 60.00% |
| Withdrawals | 5 | 25.00% |
| Fund transfer to TWS | 3 | 15.00% |
| **Total** | **20** | **100.00%** |

*Source: Annex 6*

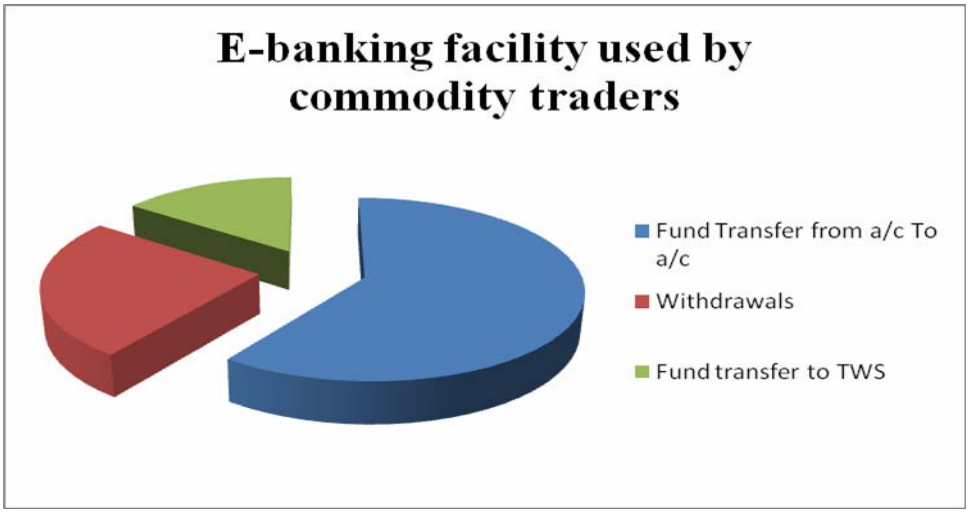


**Figure 20: Facilities for commodity customer wise distribution of respondents**

This figure shows the commodity traders profile based on their trading in commodity market and using the e-banking facilities. Out of 20 respondents trading in commodity market 60% uses the facility of fund transfer from account to account, 25% uses the facility of withdrawal and 15% use the facility of fund transfer to TWS. Most of the commodity traders use E-banking facility to transfer their fund and few of them use it for fund transfer.

### 4.3.10 Period of use of e-banking facility by the respondents

| Periods | No of Respondent | In Percentage |
|---|---|---|
| 6 months - 1 years | 16 | 20.00% |
| 1 year - 2 years | 46 | 57.50% |
| 2 years - 3 years | 10 | 12.50% |
| 3 years - 4 years | 4 | 5.00% |
| Above 4 years | 4 | 5.00% |
| **Total** | **80** | **100.00%** |

*Source: Annex 6*

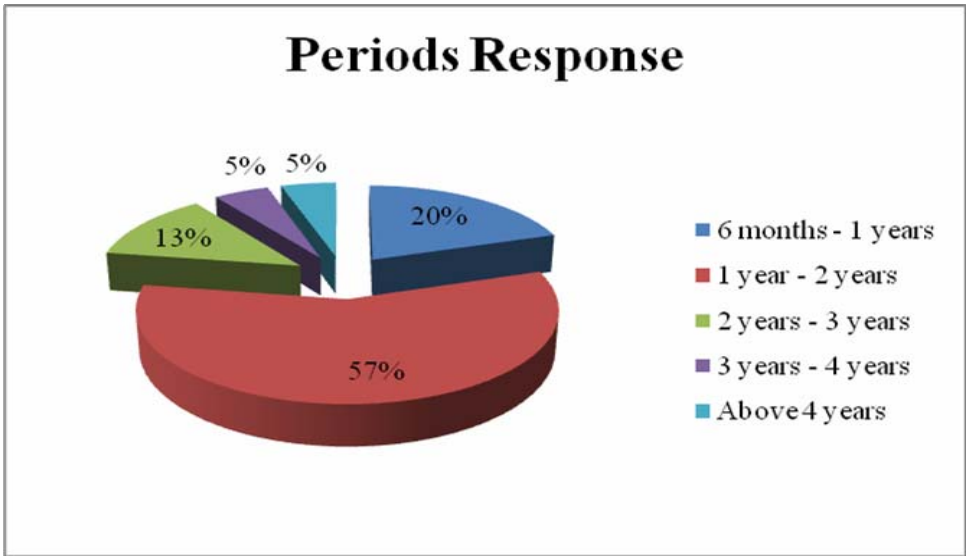


**Figure 21: Period of use of e-banking facility wise distribution of respondents**

This figure shows the respondents profile based on the period of using e-banking facility. Out of 80 respondents 20% respondents have been using e-banking facility from 6 months to 1 year, 57% from 1-2 years, 13% from 2-3 years, 5% from 3-4 years and 5% have been using since 4 years. Many of respondents have been using e-banking facility from 1 -2 yrs and very few of them have been using it from above 4 yrs. It indicates that e-banking facility users have been increased in recent years.

### 4.3.11 E-BANKING FACILITY FREQUENTLY USED BY THE CUSTOMERS.

| E-banking facility frequently used | No of Respondent | In Percentage |
|---|---|---|
| Balance & other inquiry | 30 | 37% |
| Fund Transfer | 15 | 19% |
| Pay Bill online | 8 | 10% |
| Statement Download | 0 | 0% |
| Loan Information | 1 | 1% |
| Cheques Book replenishment Request | 20 | 25% |
| Online Purchasing | 6 | 8% |
| **Total** | **80** | **100%** |

*Source: Annex 6*

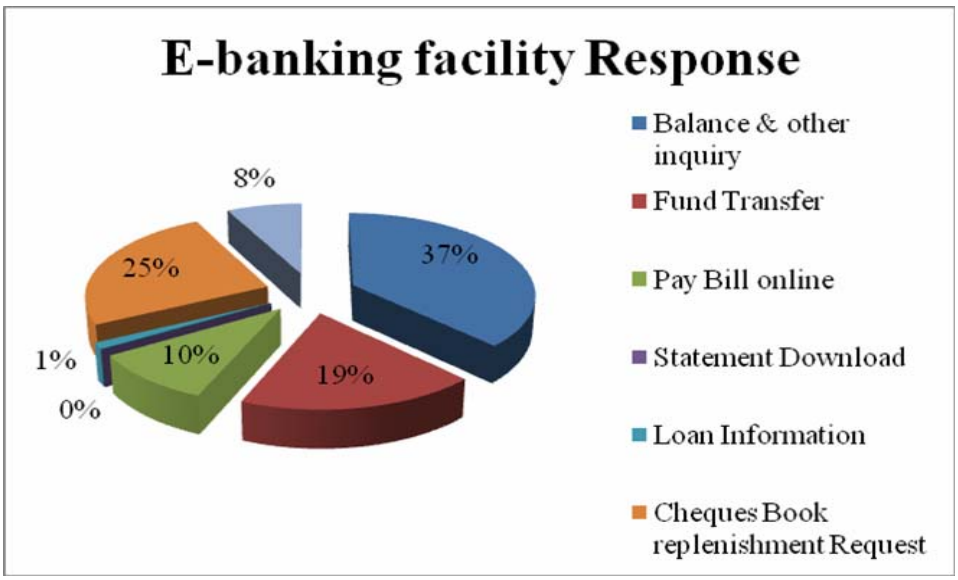


**Figure 22: E-banking facility frequently used wise distribution of respondents**

This figure shows the respondents profile based on the e-banking facility frequently used by the respondents. Out of 80 respondents 37% uses the balance & other enquiry services, 19% uses the fund transfer, 10% uses for the pay bill online, 8% for statement download, 25% for the cheque book replenishment request and only 1% uses for loan information. Many of the e-banking facility users have used it for balance inquiry and for cheque request.

### 4.3.12 PREFERENCE OF QUALITY DIMENSION IN E-BANKING SERVICES.

| Preference of Quality dimensions | No of Respondent | In Percentage |
|---|---|---|
| Correct and Prompt Service | 18 | 22% |
| Good reputation of bank | 10 | 13% |
| Availability of status of transaction | 0 | 0% |
| Security | 35 | 44% |
| Attractiveness of website | 1 | 1% |
| Easy to Use | 12 | 15% |
| Personnel Attention | 4 | 5% |
| **Total** | **80** | **100%** |

*Source: Annex 6*

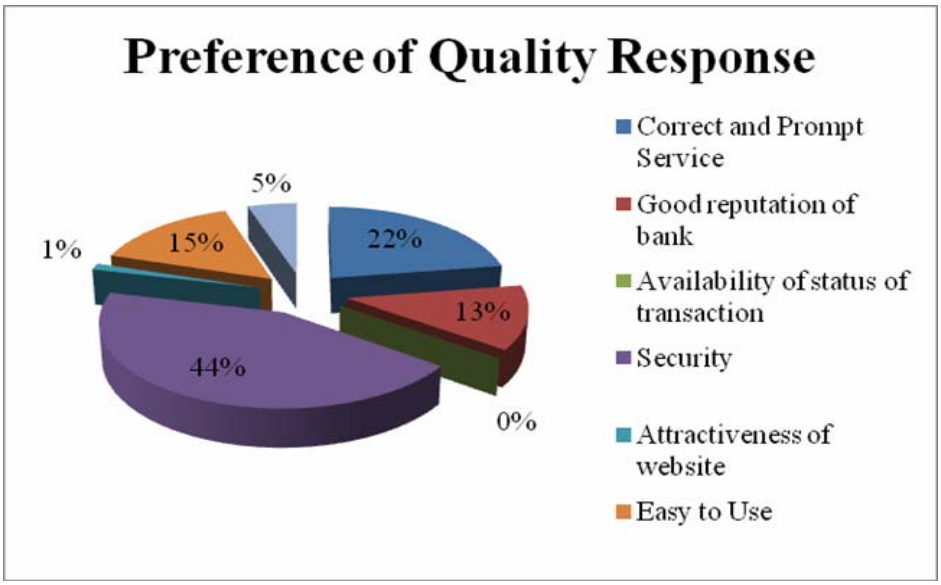


**Figure 23: Preference of Quality dimensions wise distribution of respondents**

This figure shows the respondents profile based on their preference of quality dimensions in e-banking which satisfies them most. Out of 80 respondents 22% attract to correct and prompt service, 13% are attracted towards good reputation of banks, 44% towards security, 15% easy to use and 1% attractiveness of website. While talking about the quality dimension 44% of respondent said they are satisfied with it's security.

### 4.3.13 FREQUENCY OF USAGE OF E-BANKING

| Frequency of usage | No of Respondent | In Percentage |
|---|---|---|
| Frequently | 35 | 43.75% |
| Occasionally | 40 | 50.00% |
| Seldom | 5 | 6.25% |
| **Total** | **80** | **100.00%** |

*Source: Annex 6*

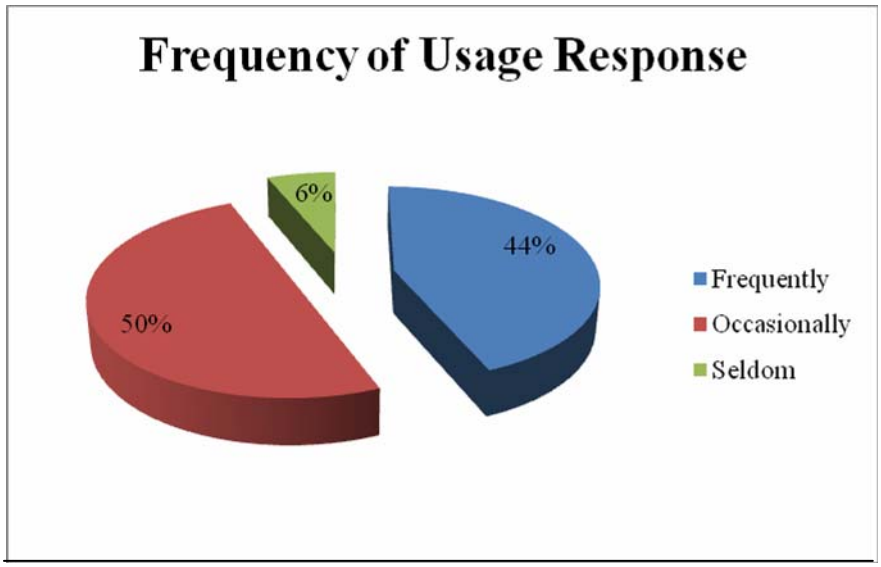


**Figure 24: Frequency of usage wise distribution of respondents**

This figure shows the respondents profile based on their frequency of using e-banking facilities. Out of 80 respondents 44% uses frequently, 50% uses occasionally and 6% were seldom users. Half of the respondent use e-banking facility occasionally where as 44% use it frequently. It indicates that users of e-banking facility are quite satisfactory.

### 4.3.14 PROBLEMS FACED IN E-BANKING

| Problems | No of Respondent | In Percentage |
|---|---|---|
| Slow Transaction | 10 | 12% |
| Re-login Problem | 20 | 25% |
| Link Problem | 40 | 50% |
| Difficult instruction | 10 | 13% |
| No any so far | 0 | 0% |
| **Total** | **80** | **100%** |

*Source: Annex 6*

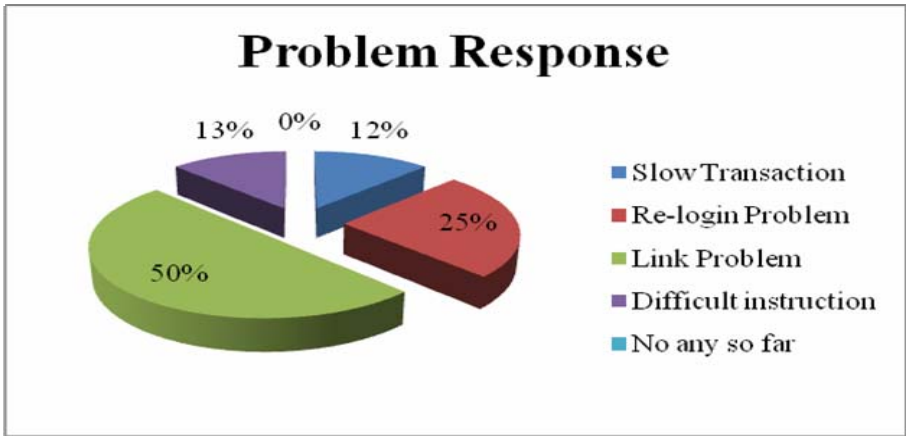


**Figure 25: Problem faced wise distribution of respondents**

This figure shows the respondents facing problems while using the e-banking facilities. Out of 80 respondents 12% faced the problem of slow transaction, 25% had the re-login problem, 50% faced the link problem, 13% found the problem of difficult instruction. Half of the e-banking user faced the problem of link and quarter of user faced the problem of re login.

### 4.5.15 E-BANKING SERVICE PROVIDED BY THE SEVERAL BANKS

| Services provided | NSBL | LBL | NIBL | MBL | BOK |
|---|---|---|---|---|---|
| Balance Inquiry | √ | √ | √ | √ | √ |
| Transaction Search | √ | √ | √ | √ | √ |
| Cheques Book replenishment Request | √ | √ | √ | √ | √ |
| Transfer of funds | √ | √ | √ | | √ |
| Statement Download | √ | √ | √ | √ | √ |
| Loan Information | | √ | | √ | |
| Insurance over internet | | | | | |
| Bill Payment | | | √ | | √ |

*Source: Annex 6*

This table shows the e-banking facilities provided by the several sampled banks such as Kumari Bank, Laxmi Bank, Nepal Investment Bank, Machhapuchhre Bank and Everest Bank. Balance Inquiry, Transaction Search, Cheques Book replenishment Request, and Statement Download facilities have been provided by all the five banks under study. NSBL, NIBL, LBL and BOK also provide the facility of transfer of funds. NIBL and MBL provide loan information as well. NIBL and BOK have provided the bill payment facility to their customers. Among these banks no one provides the facility of insurance over internet.

## 4.4. OPPORTUNITIES FOR E-BANKING:

Banking has come a long way from the time of ledger cards and other manual filing systems. Most banks today have Electronic systems to handle their daily voluminous tasks of information retrieval, storage and processing. Irrespective of whether they are automated or not, banks by their nature are continually involved in all forms of information management on a continuous basis. The Computer is of course an established tool for achieving a competitive edge and optimal resource allocation.

The most obvious banking application of Computers is customer service. Computerized banks respond immediately to requests from customers for Statement of Accounts, Balance and Account activity enquiries. With Signature and Image verification systems, the time taken to offer typical cashier services like receiving and paying out of cash, is minimized.

### Better Service

With advent of Automatic Teller Machines (ATM), banks are able to serve customers outside the banking hall. Furthermore, computers help banks to reduce the cost of doing business. Although, the effectiveness of the Information Technology deployment in banks is another matter, the fact remains that IT usage is now a reality. This is to be expected in view of the huge amount of information being handled by banks on a daily basis. On the customer's side, cash is withdrawn or deposited, cheques are deposited or cleared, statement of accounts are produced, etc. At the same time, banks need up-to-date information on accounts, credit facilities, interest, deposits, charges, income, profitability indices and other financial control information. It helps to attract the customer in huge number and increase in banking business.

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**The e-bank**

E-banking refers to the effective deployment of IT by banks. But hold on, the fact that a bank uses computers is not enough to qualify it as an E-Bank. How Information Technology is used by the bank to drive the business of banking - for immediate and future goals? It is a fact that today a good number of banks cannot use their IT infrastructure to adequately deal with their immediate information requirements. Do such banks qualify to be called E-banks?

E-banking is about using the infrastructure of the digital age to create opportunities -both local and global. E-banking enables the dramatic lowering of transaction costs, and the creation of new types of banking opportunities that address the barriers of time and distance. Banking opportunities are local, global and immediate in E-banking.

The benefits of Electronic banking compass a broad range of functions and include:
Electronic mail (email) improves communication between individuals and the bank, within the bank, with the bank and external parties and between banks.
The availability of online information provides bankers and customers with a powerful vehicle for research.

Banks can provide information and services online, which customers can pay for, and receive.
Banking processes are made more efficient and cost effective by integrating other aspects of banking operations such as treasury management and financial control.
If a banking function does not require physical interaction, it may derive the benefits of electronic banking.

**Provide Real E-banking Facility**

First of all the bank must fully understand and appreciate the fact that the banking industry now exists in a global village. It must therefore strive to provide local and global banking services using the infrastructure of the Global village. Most current E-banking applications use the Internet. The advantages of online banking are in providing convenience and flexibility for customers. Let's take a look at some.

Online banking allows customers to get current account balances at any time. Customers don't need to wonder whether a check has cleared or a deposit has been posted. At the click of a button, customers can easily check the status of their current, savings, and money-market

accounts. Through online banking, banks can provide immediate account enquiries/statements online for customers. Customers don't have to wait till month end for historical, snail-mail statements.

Online banking gives the ability to pay bills electronically. Electronic payments can be credited the same day or the next. Customers can also download account transactions online. It should be easy to import the transactions directly into typical PC programs at home or office. The transfer of money between accounts is another powerful application of online banking. Online banking provides flexibility, by allowing the customer to access his finances from any part of the globe.

**The Internet**

Most of the applications mentioned involve the use of the internet. This is to be expected: the Internet is the infrastructure for the current age. But hold it! E-banking is more than just Internet banking. In the still-evolving e-climate, in the E-conomy, it involves using the Net to exploit new opportunities by transforming products and markets, and business processes.

E-banking also means developing new relationships with customers, regulatory authorities, suppliers, and banking partners with digital age tools. For example, it requires an understanding that customer/bank relationships will be more personalized, resulting in novel modes of transaction processing and service delivery. Today, banking executives and managers who still view e-banking as a passing craze risk being left behind. E-banking is essentially about banks using new age methods and tools to expand into new banking markets and grow.

Creating a corporate online presence for your bank should be more than just building a web site; it should be about building a web business for your bank. To do this effectively, the people in charge, i.e. the CEOs, not just the IT Directors and managers, must have a deep knowledge of what E-banking culture demands. Banks can only apply IT effectively if management appreciation exists. Unfortunately, many managers who claim to appreciate IT cannot use IT. Can you give what you don't have?

**E-business**

IT today, E-business, E-commerce is not about routine information management or automation. It is about using these unique tools to create opportunities, create new markets, new processes and growth - the creation of e-wealth.

This will entail creative ideas and solutions, not simply the transplanting of block-and-mortar concepts onto the Internet. The E-Bank must monitor the environment - local and global, with the aim of understanding and mastering its environment. For E-banks, this involves collaboration (local and international) on payments systems, cashless transactions, digital cash and other electronic based projects.

It can be seen that the other immense potentials can only be realized if bank management and staff, not just the systems staff, are sufficiently literate and aware. Presently, the banking industry still has a lot to do in terms of training staff. The speed of change, together with the need for proper orientation for the e-world makes training even more of a necessity.

## 4.5. THRETS FOR E BANKING:

**Handset operability**

There are a large number of different mobile phone devices and it is a big challenge for banks to offer mobile banking solution on any type of device. Some of these devices support Java ME and others support SIM Application Toolkit, a WAP browser, or only SMS.

The desire for interoperability is largely dependent on the banks themselves, where installed applications (Java based or native) provide better security, are easier to use and allow development of more complex capabilities similar to those of internet banking while SMS can provide the basics but becomes difficult to operate with more complex transactions.

There is a myth that there is a challenge of interoperability between mobile banking applications due to perceived lack of common technology standards for mobile banking. In practice it is too early in the service lifecycle for interoperability to be addressed within an individual country, as very few countries have more than one mobile banking service provider. In practice, banking

interfaces are well defined and money movements between banks follow the IS0-8583 standard. As mobile banking matures, money movements between service providers will naturally adopt the same standards as in the banking world.

**Security**

Security is main concern for e-banking internet security encryption alone is not a complete solution. Any one who improperly obtains a customer's log on identification and password will be able to fool a bank's internet security software and internal safeguards into belonging that the customer is legitimately conduction of a transaction.

For E-banking to be effective, an area that must be addressed is security. For any IT based service, the convenience associated with E-banking increases the need for security.

In E-banking, the core security areas must be addressed: Confidentiality, Integrity and Availability. A key concern is that of privacy. You cannot expect to do business on the net without addressing the privacy concerns of people you do business with. Do you have a privacy policy? No customer wants to click away to a negative balance. Security in online banking is typically provided through the use of a user ID and password. These and other security measures must be installed and must be effective to prevent not only the breach of privacy, but other security concerns like the alteration of data, IT fraud, etc.

But it is in ensuring system availability that banks still have a lot of work to do. When you are an E-bank, your banking services are totally dependent on IT. Of what use are powerful and functional programs, which are lacking in recovery procedures in an environment where telecommunications services are still at best epileptic. Fault tolerance and robustness of the IT setup in a bank must never be underestimated. Contingency plans should be put in place to handle this persistent problem of availability.

As an E-Bank offering worldwide services, the fault-tolerance of its IT infrastructure cannot be compromised. Availability planning must address power supply, telecommunications, Internet service, quality of technical support, backup facilities, robustness of IT setup (Hardware, banking software, Networking).

**Risk involve in E-banking**

Though, the time demands for every finance institution to go for E-Banking but it is risky for customer and banks too.

1. Most popular frauds in e-Banking (worldwide) are Card duplication. In this, the information in the cards is copied to another card.

2. Password leakage through e-mails those are pretending to be from the bank asking to input the username and password to update the information. After submitting the information, the information passes to the false site where the information is captured.

3. Cyber Criminals are cooperating with one another and improving their techniques. like hacking kits which are difficult to counter since each is different.

4. Emails sent with a bank's valid URL in a link. The email goes through, the link is used, the site is valid and the customer has no idea this was a test. A second email is then sent. Since the first went through any user-enabled filters and scrutiny processes, the second should also, as it is now a trusted source. The second has a phony URL and when clicked, the customer fall victim to the fraud and provides confidential information.

5. the most common methods of infection were through (1) email and instant messaging, (2) malicious web sites (3) affiliate programs i.e. sites like adult and gambling.

**Effective IT deployed**

IT investment by banks include IT infrastructure such as Hardware, Software, Networking (local, Wide Area and the Internet). For E-banking to be effective these areas must be well managed. Banking software can be described as the heart and soul of a bank's IT infrastructure.

But having good banking software may be of little value if your hardware is inadequate to meet your needs. Likewise in today's E-banking, Networking cannot be ignored. Banking today is much more than routine storage and retrieval of information. Computers give banks the ability to quickly respond to market trends, changes in the business environment or new directives from regulatory bodies such as the Central Bank and Ministry of Finance. In a highly competitive banking industry speed is a clear-cut advantage

Those above are the threats for e-banking security is the burning issued for it.

**Regulation and Supervision**

E-banking is a generic term for delivery of banking services and products through electronic channels, such as the telephone, the internet, the cell phone, etc. The concept and scope of E-

banking is still evolving. It facilitates an effective payment and accounting system thereby enhancing the speed of delivery of banking services considerably. While E-banking has improved efficiency and convenience, it has also posed several challenges to the regulators and supervisors. Several initiatives have to take by the government as well as the Nepal Rastra Bank (NRB), have to facilitate the development of E-banking in country. The government has to formulate the policies which provide legal recognition to electronic transactions and other means of electronic commerce. The NRB has to prepare to upgrade itself as a regulator and supervisor of the technologically dominated financial system. It has to issue guidelines on risks and control in computer and telecommunication system to all banks, advising them to evaluate the risks inherent in the systems and put in place adequate control mechanisms to address these risks. The existing regulatory framework over banks has to extend to E-banking. It covers various issues that fall within the framework of technology, security standards, and legal and regulatory issues.

## 4.6 MAJOR FINDINGS OF THE STUDY

- The study found that the respondents profile based on gender. Out of 80 respondents 60 were male and 20 were female i.e. 75% were male and 25% were female. This indicates that more male used internet facility then female.
- In the study the respondents profile based on their marital status found that Out of 80 respondents 65 were married ones and 15 were unmarried i.e. 81% were married and 19% were unmarried. Married used more internet banking in comparison to unmarried.
- It is found that Out of 80 respondents 12% were from the age group 15-25 years, 25% were from the age group 25 -35 years, 44% were from the age group 35-45 years and 19% were above 45 years. Thus, the age group 35-45years was found in using the e-banking facilities most. Middle age customer use e-banking facility more then the youths.
- The study found that majority of e-banking facility user have the income of middle range .Out of 80 respondents 7% respondents monthly income was up to Rs. 15,000 , 52% had the income level from Rs.15,000-30,000, 28% had the income level from Rs.30,000-60,000, 10% had the income level from Rs.60,000-90,000 and 3% respondents income was above Rs. 90,000 per month. Very few people have income above 90,000 mostly hade income of 15-30 thousand.

- The study found that the educated people used the e-banking facility more Out of 80 respondents 56% respondents had cleared Bachelor level and 38% Master level and 6% M Phil / PhD.
- The study found that mostly customer having their own business use the e-banking facility to mange their funds. Out of 80 respondents 19% respondents were from Government Organization, 31% Private Organization, 6% were from NGOs / INGOs and 44% had their own self Business.
- On the part of ranking e-banking facilities used by respondents, it is found that 56% of the respondents prefer ATM facility as they can withdraw at any time and from anywhere where the ATM machines are located and they don't have to go to banks and stand in a queue for the withdrawal. Likewise, 16% respondents' use internet banking, 13% uses credit card and 15% are SMS Banking users as informed by them they immediately get the SMS on their mobile phones when any withdrawal or deposit is made in their accounts.
- Though e-banking facilities have been provided by the several sampled banks such as Kumari Bank, Laxmi Bank, Nepal Investment Bank, Machhapuchhre Bank and Everest Bank. Among these banks no one provides the facility of insurance over internet.

# CHAPTER V

# SUMMARY, CONCLUSIONS & RECOMMENDATIONS

## 5.1 SUMMARY

Today's world is known as the world of information technology. It is obvious that banks cannot survive without the support of information technology. This is not a time to think whether to computerize or not, but to think how soon we are going to be connected to online service. Banks should be prepared to exploit the opportunities that globalization and financial liberalization provides.

Economic development is not possible without the proper developing of banking sector in a county as bank are the real facilitator for mobilizing resources. Banks are the institutions, which collects the scattered small amount of savings from the general public and invest them into a productive sector. Many developed countries today have entered into a kind of cashless transactions. Every transaction has been done by just clicking one button through the e-banking facility. E-banking can be considered as the revolution in the banking system. But still very few people are using such facility in out country it is because of the traditional banking habit of the customers. Facilities like credit card, ATM, mobile banking, internet banking, SMS banking help customer to do transaction without carrying cash in hand.

Hence most of the frequent travelers who visit abroad must have encountered the bitter experience because of their traditional banking habit. In most big hotels, restaurants, shopping malls of the developed nations, credit cared holders are materialistically valued more then those who produce hard cash. And it is easy for the travelers to carry a card rather then bundle of cash. Card has minimize the risk associated with carrying money like loss of money, pick pocketing etc. and also offers many discount and award schemes.

The advent of the internet and the popularity of personal computers presented both an opportunity and challenges for the banking industry. Now customers are connected to the internet via personal computer, laptop, mobile and bank envision similar economic advantage by adopting the electronic process in the banking system through the E-Banking facility to its

customers. With the help of internet banking service customer can check their account details, transfer funds and pay their bills within a small span of time.

Now in our country commodity market offers the new dimension for the investors to invest their money and to gain profit. It offers the online trading platform for the customer's form which they can take position by clicking the button. Bank account with the assign bank is mandatory for the customer to inter in trade. E-banking facility helps this customer to transfer funds to take new position and to transfer profit back to their own account. They need to transfer funds some time in the late evening or in early in the morning in such situation E-banking is essential. It reduced the processing time as well as help traders to grab opportunity to invest. Those banks which have been tied up with the commodity exchange have provide the extra facility for the traders such as separate counter and extended service in the holidays.

There is intense competition between banks and banks are introducing new services to attract the maximum number customers. E-Banking is one of these and many banks are now providing this facility to their customer. Now people do not have sufficient time to visit bank physically to withdraw or transfer fund and E-banking helps them to do financial transaction by sitting in a chair and in one click. In other word E-banking is the necessity for the today's world. This provides customer hassle free banking service by reducing the processing time. As internet destroyed a notion of time and space because of 24-hours computer driven system, business companies provide fast services to the clients, who can enjoy the convenience doing any thing any where in the world.

As Nepal has entered in to the global market by getting WTO membership it opened the door for foreign investment to come. Because of that the transactions will be more voluminous. The trade and commerce sector is growing up with this banking transactions increased every year, the needs of the automated banking system also increases which force to provide more facilities to the business, customers in a reliable and timely manner.

## 5.2 CONCLUSION

- The main business drivers for banks adoption of e-banking were – additional transaction revenue, savings from reduced transaction costs, opportunities for acquiring new customers and improve ability to retain existing customers.
- Among e-banking delivery channels like automated teller machine (ATM), mobile banking, internet banking etc. ATMs were the most widely accepted and highly utilized delivery channel. It is the most popular electronic banking delivery channel in Nepal and its usage is found much higher than the internet banking usage.
- In Nepal no e-banking fraud has been found yet. Lack of understanding of internet technology may be the reason. E-banking is at its infancy right now, it means the system is not perfectly secure and precaution must be taken.
- Most of the banks have basic tool like firewall, lightening/power surge protection. Regular update of public website is also in practice. But it seems that some of the banks are in lack of having regular back up of website information and clear E-banking policy, user ID and Password Verification, Digital Certification, Encrypted Data Transfer.
- As informed by the banks, risk management, infrastructure development and policy formulation are the three major challenges of e-banking in Nepal. Technological problems like connect break in service while withdrawing cash from ATM, poor mobile services are creating obstacles in development of e-banking in Nepal.
- Telecommunications industry and financial services sector are crucial components for e-banking. Nepal Telecom and Ncell are two telecommunication industries which are operating their business throughout the country. But the services are limited, and the problems are more. Likewise, the cyber law should made more comprehensive in order to make it able to govern the Internet Banking transactions and resolve likely Internet banking related disputes more effectively by providing a means to trace online transactions, punishing the cyber criminals and providing justice to the victims.

In conclusion, to be a true E-bank, each bank must identify its own unique targets, focus and style. Banks need to realize that E-banking is more than simply banking on the Internet. E-banking is more than having a web site. E-banking is about building a web business for your bank.

## 5.3 RECOMMENDATION

Cashless Transaction

- Can transact via non-cash elements; like credit cards, internet-banking.
- Convenient way to transact if distance matters.

Target Areas – Remote places

- People of remote areas where transportation is not reached can transact on other parts of the country.
- Will be one of the means of communication between two regions
  More choices, more use of e-Banking
- Market of SMS and Internet Banking will make tele-banking extinct within few years.
- Via internet banking, one can transfer amount from one bank to another not only within the same bank
- More the internet users, more the number of e-banking customers
- Enhanced security - attract people to join e-Banking
- Around 40 ATMs are going to be added within this year.
- The number of PoS will increase up to 3000.

Connecting World

- People can transact from anyplace to anywhere
- Stay connected even they don't know each other
- Mobilization of money – Global Market - economic and social development
- Innovative Global Market – Innovative Global Village
- . If the banks wants to give the better service to their customer than banks most be able to provide hassle free e-banking service by improving quality of e-banking through the quick link.

There is one threat in E-banking that many faced and rarely mentioned openly, namely the fear of hacking and tampering of data. Secrecy is the essence of banking transactions. The security products both hardware base and application software based, should address the twin issues of taking care of customers interest and also ensure secure funds transfer. Banks should be able to provide hassle free e-banking service through the latest information technology.

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# ANNEXES

# ANNEX 1

**द्रष्टव्य :**

यो संक्षिप्त वार्षिक आर्थिक विवरण बैंकको १७ औँ वार्षिक प्रतिवेदनको पूर्ण विवरण नभई आ.व. २०६६/२०६७ को वार्षिक आर्थिक विवरणका प्रमुख कुराहरूलाई मात्र समेटिएर तयार गरिएको संक्षिप्त पुस्तिका हो ।

शेयरधनी महानुभावहरूले बैंकको १७ औँ वार्षिक प्रतिवेदनको पूर्ण विवरण बैंकको हात्तिसार, काठमाडौँ स्थित प्रधान कार्यालयमा कार्यालयसमयभित्र सम्पर्क राखी वा बैंकको वेवसाइट www.nepalsbi.com.np मार्फत प्राप्त गर्न सक्नुहुनेछ ।

प्रस्तुत संक्षिप्त वार्षिक आर्थिक विवरण, संचालकको प्रतिवेदन, आ.व. २०६६/०६७ को वार्षिक आर्थिक विवरण र कम्पनी ऐन, २०६३ को दफा ८४ अनुरूप रहेको भनी स्वतन्त्र लेखापरीक्षक पि.एल. श्रेष्ठ एण्ड कं. चार्टर्ड एकाउण्टेण्टसबाट राय प्राप्त भएको छ ।

## नेपाल एसबिआई बैंक लि. को सत्रौं वार्षिक साधारणसभामा प्रस्तावित नेपाल एसबिआई बैंक लि. को प्रबन्धपत्रमा संशोधनको तीन महले

**कम्पनी ऐन, २०६३ अन्तर्गत संस्थापित**
**(शेयरहरूमा सीमित दायित्व भएको)**
**नेपाल एसबिआई बैंक लि. को प्रबन्धपत्रमा संशोधनको तीन महले**
**(सत्रौँ वार्षिक साधारणसभामा प्रस्तावित)**

| हालको व्यवस्था | संशोधित व्यवस्था | संशोधनको कारण |
|---|---|---|
| दफा/ उपदफा | दफा/ उपदफा | |
| ५.१ बैंकको पूँजीको संरचना देहायबमोजिम हुनेछः | ५.१ बैंकको पूँजीको संरचना देहायबमोजिम हुनेछः | |
| (ख) बैंकको जारी पूँजी रू. १,६६,१६,०२,८९६।– (एक अर्ब छैसट्ठी करोड सोह्र लाख दुई हजार आठ सय छयान्नब्बे) हुनेछ । | (ख) बैंकको जारी पूँजी रू. १,८६,९३,०३,२५८।– (एक अर्ब छयासी करोड त्रियान्नब्बे लाख तीन हजार दुई सय अन्ठाउन्न) हुनेछ । | नेपाल राष्ट्र बैंकबाट जारी गरिएको निर्देशनअनुरूप बैंकको व्यवसायको लागि आवश्यक पूँजी वृद्धि गर्न । |
| (ग) बैंकको चुक्ता पूँजी रू. १,२२,४३,३८,९७६।– (एक अर्ब बाइस करोड त्रिचालिस लाख अड्तिस हजार नौ सय छयत्तर रूपैयाँ) हुनेछ । | (ग) बैंकको चुक्ता पूँजी रू. १,८६,९३,०३,२५८।– ( एक अर्ब छयासी करोड त्रियान्नब्बे लाख तीन हजार दुई सय अन्ठाउन्न) हुनेछ । | नेपाल राष्ट्र बैंकबाट जारी गरिएको निर्देशनअनुरूप बैंकको व्यवसायको लागि आवश्यक पूँजी वृद्धि गर्न । |

**ANNEX 2**

लक्ष्मी बैंक लिमिटेड
Laxmi Bank Limited

# शेयर पुँजी तथा स्वामित्व

अनुसूची ४.१

३२ आषाढ २०६७ (१६ जुलाई २०१०)

रुपैयाँमा

| विवरण | यस वर्ष | गत वर्ष |
|---|---|---|
| १. **शेयर पुँजी** | | |
| १.१ **अधिकृत पुँजी** | **२,००,००,००,०००** | **१,६०,००,००,०००** |
| क) २,००,००,००० साधारण शेयर प्रति शेयर रु. १०० का दरले | २,००,००,००,००० | १,६०,००,००,००० |
| ख) ..... ननरिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू. ..... ले | – | – |
| ग) ..... रिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू. ..... ले | – | – |
| १.२ **जारी पुँजी** | **१,६१,३५,२०,५००** | **१,०९,८०,८६,१००** |
| क) १,६१,३५,२०५ साधारण शेयर प्रति शेयर रु. १०० का दरले | १,६१,३५,२०,५०० | १,०९,८०,८६,१०० |
| ख) ..... ननरिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू. ..... ले | – | – |
| ग) ..... रिडिमेवल प्रिफिरेन्स शेयर प्रति शेयर रू. ..... ले | – | – |
| १.३ **चुक्ता पुँजी** | **१,६१,३५,२०,५००** | **१,०९,८०,८६,१००** |
| क) १,६१,३५,२०५ साधारण शेयर प्रति शेयर रु. १०० का दरले | १,६१,३५,२०,५०० | १,०९,८०,८६,१०० |
| ख) ..... ननरिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू. .....ले | – | – |
| ग) ..... रिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू. ..... ले | – | – |

# शेयर स्वामित्व

३२ आषाढ २०६७ (१६ जुलाई २०१०)

| विवरण | यस वर्ष | | गत वर्ष | |
|---|---|---|---|---|
| | % | रु. | % | रु. |
| (क) **स्वदेशी स्वामित्व** | – | – | – | – |
| १. नेपाल सरकार | – | – | – | – |
| ३. "क" वर्गका इजाजतपत्रप्राप्त संस्थाहरु | – | – | – | – |
| ४. अन्य इजाजतपत्रप्राप्त संस्थाहरु | – | – | – | – |
| ५. अन्य संस्थाहरु (संस्थापक) | ३५.२८ | ५६,११,९९,९०० | ३७.३३ | ४०,९९,६८,००० |
| ६. व्यक्तिगत | ३५.५४ | ५७,३३,७८,१०० | ३५.५६ | ३९,०५,०६,००० |
| ७. अन्य (संस्थापक) | २९.१९ | ४,७०९,४२,५०० | २७.१० | २९,७६,१२,१०० |
| (ख) **विदेशी स्वामित्व** | – | – | – | – |
| **जम्मा** | १००.०० | १,६१,३५,२०,५०० | १००.०० | १,०९,८०,८६,१०० |

# ANNEX 3



## शेयर, पूँजी तथा स्वामित्व

२०६७ साल आषाढमासान्त

अनुसूची १

| गत वर्ष रु. | विवरण | यस वर्ष रु. |
|---|---|---|
| | १. शेयर पूँजी | |
| ४,००,००,००,००० | १.१. अधिकृत पूँजी<br>क) ४,००,००,००० साधारण शेयर प्रतिशेयर रु. १०० ले | ४,००,००,००,००० |
| | १.२ जारी पूँजी | |
| २,४०,९०,९७,७०० | क) २,४०,९०,९७७ साधारण शेयर प्रतिशेयर रु. १०० ले<br>जसमध्ये १,३५,६२,६८४ हकप्रद शेयर र ९९,२८,२९३ बोनस शेयर) | २,४०,९०,९७,७०० |
| | १.३ चुक्ता पूँजी | |
| २,४०,७०,६८,९०० | क) २,४०,९०,९७७ साधारण शेयर प्रतिशेयर रु. १०० ले<br>(जसमध्ये १,३५,६२,६८४ हकप्रद शेयर र ९९,२८,२९३ बोनस शेयर) | २,४०,९०,९७,७०० |
| – | १.४ प्रस्तावित बोनस शेयर | – |
| – | १.५ कल्स् इन एडभान्स | – |
| २,४०,७०,६८,९०० | जम्मा | २,४०,९०,९७,७०० |

## शेयर स्वामित्व

| शेयर पूँजी | % | विवरण | % | शेयर पूँजी |
|---|---|---|---|---|
| १,९२,७२,७८,३०० | ८०% | क. संस्थापक | ८०% | १,९२,७२,७८,३०० |
| | | १.१ नेपाल सरकार | | |
| | | १.२ वैदेशिक संस्था | | |
| ३६,१३,६४,६०० | १५% | १.३ "क" वर्गका इजाजतप्राप्त संस्थाहरू | १५% | ३६,१३,६४,६०० |
| ३६,१३,६४,६०० | १५% | १.४ बीमा संस्था | १५% | ३६,१३,६४,६०० |
| १,२०,४५,४९,१०० | ५०% | १.५ अन्य संस्थाहरू | ५०% | १,२०,४५,४९,१०० |
| | | १.६ व्यक्तिगत | | – |
| | | १.७ अन्य | | – |
| ४७,९७,९०,६०० | २०% | ख. सर्वसाधारण | २०% | ४८,१८,१९,४०० |
| २,४०,७०,६८,९०० | १०० | जम्मा | १०० | २,४०,९०,९७,७०० |

०.५ प्रतिशत वा सोभन्दा बढी स्वामित्व भएका शेयरहोल्डरहरुको नाम, प्रतिशत र रकम निम्नअनुसार रहेको छः

| संस्थाहरू (स्वदेशी स्वामित्व समूह 'क') | % | रकम (रु. '०००) |
|---|---|---|
| महालक्ष्मी इन्भेष्टमेण्ट प्रा.लि. | ८.८३% | २,१२,६७८ |
| छायाँ इन्भेष्टमेण्ट प्रा. लि. | ८.२०% | १,९७,६२२ |
| के.यू.पि. इन्भेष्टमेण्ट प्रा.लि. | ७.८१% | १,८८,२०९ |
| सोफिया इन्भेष्टमेन्ट प्रा. लि. | ७.४२% | १,७८,८०० |
| अन्नपूर्ण इन्भेष्टमेण्ट प्रा.लि. | १.५६% | ३७,६४३ |
| कमला इन्भेष्टमेण्ट प्रा.लि. | १.५६% | ३७,६४३ |
| नोवल इन्भेष्टमेण्ट प्रा.लि. | १.५६% | ३७,६४३ |
| प्रेस्टाईन इन्भेष्टमेण्ट प्रा.लि. | १.५६% | ३७,६४३ |
| सूर्य इन्फोसिस प्रा.लि. | १.५६% | ३७,६४३ |
| स्टार होल्डिङ्स लिमिटेड | १.१७% | २८,२३१ |
| पि. संघई इन्भेष्टमेण्ट प्रा.लि. | ०.७८% | १८,८२१ |
| एपोलो इन्भेष्टमेण्ट प्रा.लि. | ०.७८% | १८,८२१ |
| लोटस इन्भेष्टमेण्ट प्रा.लि. | ०.७८% | १८,८२१ |

| संस्थाहरू (स्वदेशी स्वामित्व समूह 'क') | % | रकम (रु. '०००) |
|---|---|---|
| पञ्चकन्या इन्भेष्टमेण्ट प्रा.लि. | ०.७८% | १८,८२१ |
| आर. संघई इन्भेष्टमेण्ट प्रा.लि. | ०.७८% | १८,८२१ |
| सिंगे कार्पेट प्रा.लि. | ०.७८% | १८,८२१ |
| श्रेष्ठ बदर्स इन्भेष्टमेण्ट प्रा.लि. | ०.७८% | १८,८२१ |
| मर्कन्टायल इन्भेष्टमेण्ट प्रा.लि. | ०.६३% | १५,०५८ |
| शाक्य इन्भेष्टमेण्ट प्रा.लि. | ०.६३% | १५,०५८ |
| एस.शाक्य इन्भेष्टमेण्ट प्रा.लि. | ०.५५% | १३,१७५ |
| एस.आर इन्भेष्टमेण्ट प्रा.लि. | ०.५५% | १३,१७५ |
| 'क' वर्गका इजाजतप्राप्त संस्था (समूह 'ख') | | |
| राष्ट्रिय वाणिज्य बैंक | १५% | ३,६१,३६५ |
| बीमा कम्पनी (समूह 'ग') | | |
| राष्ट्रिय बीमा संस्थान | १५% | ३,६१,३६५ |

**ANNEX 4**

Machhapuchchhre Bank Limited
माछापुच्छ्रे बैंक लिमिटेड

अनुसूची ४.१

## शेयर पूँजी तथा स्वामित्व

२०६७ आषाढ मसान्त

| विवरण | यस वर्ष रू. | यस वर्ष रू. |
|---|---|---|
| १. शेयर पूँजी | | |
| १.१ अधिकृत पूँजी | २,०००,०००,००० | २,०००,०००,००० |
| क) २०,०००,००० साधारण शेयर प्रति शेयर रू १०० ले | २,०००,०००,००० | २,०००,०००,००० |
| ख) ____ नन्‌रिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू ____ ले | - | - |
| ग) ____ रिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू ____ले | - | - |
| १.२ जारी पूँजी | १,४७९,२६९,६०० | १,४७९,२६९,६०० |
| क) १४,७९२,६९६ साधारण शेयर प्रति शेयर रू १०० ले | १,४७९,२६९,६०० | १,४७९,२६९,६०० |
| ख) ____ नन्‌रिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू ____ ले | - | - |
| ग) ____ रिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू____ले | - | - |
| १.३ चुक्ता पूँजी | १,४७९,२६९,६०० | १,४७९,२६९,६०० |
| क) १४,७९२,६९६ साधारण शेयर प्रति शेयर रू १०० ले | १,४७९,२६९,६०० | १,४७९,२६९,६०० |
| ख) ____ नन्‌रिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू____ ले | - | - |
| ग) ____रिडिमेवल प्रिफरेन्स शेयर प्रति शेयर रू ____ले | - | - |
| १.४ प्रस्तावित बोनस शेयर | १४७,९२६,९६० | - |
| १.५ कल्स इन एडभान्स | - | - |

## शेयर स्वामित्व

२०६७ आषाढ मसान्त

| शेयर स्वामित्व विवरण | यस वर्ष रू. | | गत वर्ष रू. | |
|---|---|---|---|---|
| | % | शेयर पूँजी | शेयर पूँजी | % |
| १. स्वदेशी स्वामित्व | १०० | १,४७९,२६९,६०० | १,४७९,२६९,६०० | १०० |
| १.१ नेपाल सरकार | - | - | - | - |
| १.२ "क" वर्गका इजातपत्र प्राप्त सस्थाहरू | - | - | - | - |
| १.३ अन्य इजाजतपत्रप्राप्त संस्थाहरू | - | - | - | - |
| १.४ अन्य संस्थाहरू | २२ | ३२०,८१७,४०० | ३१८,२६१,००० | २२ |
| १.५ सर्वसाधारण | ७८ | १,१५८,४५२,२०० | १,१६१,०००,६०० | ७८ |
| १.६ अन्य | - | - | - | - |
| २. बैदेशिक स्वामित्व | - | - | - | - |
| जम्मा | १०० | १,४७९,२६९,६०० | १,४७९,२६९,६०० | १०० |

# ANNEX 5

बैंक अफ काठमाण्डू लिमिटेड
BANK OF KATHMANDU LTD.

अनुसूची १

## बैंक अफ काठमाण्डू लिमिटेड

### शेयर पूँजी तथा स्वामित्व

२०६७ साल आषाढ ३२ गते (जुलाई १६, २०१०)

| विवरण | यस वर्ष रू. | गत वर्ष रू. |
|---|---|---|
| १. शेयर पूँजी | | |
| १.१ अधिकृत पूँजी | २,००,००,००,००० | १,००,००,००,००० |
| क) २,००,००,००० साधारण शेयर प्रति शेयर रू.१०० ले | २,००,००,००,००० | १,००,००,००,००० |
| ख) ननरिडिमेवल प्रिफरेन्स शेयर | - | - |
| ग) रिडिमेवल प्रिफरेन्स शेयर | - | - |
| १.२ जारी पूँजी | १,१८,२१,५७,१०० | ८४,४३,९७,९०० |
| क) १,१८,२१,५७१ साधारण शेयर प्रति शेयर रू.१०० ले | १,१८,२१,५७,१०० | ८४,४३,९७,९०० |
| ख) ननरिडिमेवल प्रिफरेन्स शेयर | - | - |
| ग) रिडिमेवल प्रिफरेन्स शेयर | - | - |
| १.३ चुक्ता पूँजी | १,१८,२१,५७,१०० | ८४,४३,९७,९०० |
| क) १,१८,२१,५७१ साधारण शेयर प्रति शेयर रू.१०० ले | १,१८,२१,५७,१०० | ८४,४३,९७,९०० |
| ख) ननरिडिमेवल प्रिफरेन्स शेयर | - | - |
| ग) रिडिमेवल प्रिफरेन्स शेयर | - | - |
| १.४ प्रस्तावित बोनस शेयर | १७,७३,२३,६०० | ३३,७७,५९,२०० |
| १.५ कल्स इन एडभान्स | - | - |

नोट : जफत गरी पुनः निष्काशन नगरिएको शेयर संख्या : ४,५०५

### शेयर स्वामित्व

| शेयर स्वामित्व विवरण | | यस वर्ष रु. | | गत वर्ष रु. | |
|---|---|---|---|---|---|
| | | % | शेयर पूंजी | शेयर पूंजी | % |
| १. | स्वदेशी स्वामित्व | १००.००% | १,१८,२१,५७,१०० | ८४,४३,९७,९०० | १००.००% |
| १.१ | नेपाल सरकार | - | - | - | - |
| १.२ | "क" वर्गका इजाजतपत्रप्राप्त संस्थाहरु | - | - | - | - |
| १.३ | अन्य इजाजतपत्रप्राप्त संस्थाहरु | ०.०३% | ३,४६,६०० | ३,८३,१०० | ०.०४% |
| १.४ | अन्य संस्थाहरु | ८.२९% | ९,८०,४०,१०० | ५,९२,६०,३०० | ७.०२% |
| १.५ | सर्वसाधारण | ९१.६८% | १,०८,३७,७०,४०० | ७८,४७,५४,५०० | ९२.९४% |
| १.६ | अन्य | - | - | - | - |
| २. | वैदेशिक स्वामित्व | - | - | - | - |
| | जम्मा | १००.००% | १,१८,२१,५७,१०० | ८४,४३,९७,९०० | १००.००% |

### ०.५ प्रतिशत भन्दा बढी शेयर स्वामित्व हुने शेयरधनीहरु

| सि.नं. | नाम | चुक्ता रकम | प्रतिशत | किसिम |
|---|---|---|---|---|
| १ | रण बहादुर शाह | ५,५४,६४,८०० | ४.६९% | संस्थापक |
| २ | शारदा सिंह | ४,६५,२६,००० | ३.९४% | संस्थापक |
| ३ | नेपाल मेन्था प्रोडक्टस् प्रा.लि. | ४,३४,३२,६०० | ३.६७% | संस्थापक |
| ४ | डम्वर बहादुर मल्ल | ४,३०,०७,६०० | ३.६४% | संस्थापक |
| ५ | रमा देवी पन्त | ३,४८,८४,६०० | २.९५% | संस्थापक |
| ६ | रिता मल्ल | ३,०४,४५,६०० | २.५८% | संस्थापक |
| ७ | प्रेम बहादुर श्रेष्ठ | २,३०,१८,५०० | १.९५% | संस्थापक |
| ८ | भुवनेश्वरी श्रेष्ठ | २,२०,९५,२०० | १.८७% | संस्थापक |
| ९ | आलोक सिंह | २,०२,६८,९०० | १.७१% | संस्थापक |
| १० | बिजय कृष्ण श्रेष्ठ | १,९४,९१,७०० | १.६५% | संस्थापक |
| ११ | अम्बिका शाह | १,५८,९९,५०० | १.३४% | संस्थापक |
| १२ | नम्रता शर्मा | १,५३,३८,९०० | १.३०% | संस्थापक |
| १३ | सत्य नारायण मानन्धर | ९१,४२,२०० | ०.७७% | संस्थापक |
| १४ | गणेश कुमार अग्रवाल | ८९,१८,००० | ०.७५% | संस्थापक |
| १५ | निर्मल कुमार अग्रवाल | ८९,१८,००० | ०.७५% | संस्थापक |
| १६ | गौरी श्रेष्ठ | ८१,८३,००० | ०.६९% | संस्थापक |
| १७ | परमेश्वर प्रसाद रौनियार | ७६,२५,१०० | ०.६५% | संस्थापक |
| १८ | सज्जन वरसिंह थापा | ६५,५८,१०० | ०.५५% | संस्थापक |
| १९ | प्रताप वरसिंह थापा | ६५,१८,९०० | ०.५५% | संस्थापक |
| २० | सन्त वरसिंह थापा | ६४,७९,४०० | ०.५५% | संस्थापक |
| २१ | श्री भण्डारी | ६३,७०,००० | ०.५४% | संस्थापक |
| २२ | रमेश नाथ ढुङ्गेल | ५९,६२,३०० | ०.५०% | संस्थापक |
| २३ | नेपाल मेन्था प्रोडक्टस् प्रा.लि. | १,२८,७०,४०० | १.०९% | सर्वसाधारण |
| २४ | गौरी श्रेष्ठ | १,१९,६१,५०० | १.०१% | सर्वसाधारण |
| २५ | कृषि प्रमूरा प्रोपर्टिज प्रा.लि. | १,०३,५७,६०० | ०.८८% | सर्वसाधारण |
| २६ | चाप नारायण श्रेष्ठ | १,०३,२५,८०० | ०.८७% | सर्वसाधारण |
| २७ | ड्रिम्स् क्यापिटल लिमिटेड | ९१,२०,८०० | ०.७७% | सर्वसाधारण |
| २८ | डम्वर बहादुर मल्ल | ६६,२४,८०० | ०.५६% | सर्वसाधारण |
| २९ | रिता मल्ल | ६६,२४,८०० | ०.५६% | सर्वसाधारण |

# ANNEX 6

## SURVEY QUESTIONNAIRE

Dear respondent, I am from Shanker Dev Campus. On the partial fulfillment of our course of Masters in Business Studies I am writing dissertation on "E-banking in commodity market – Opportunity and Threats". The main focus of this dissertation is concern with the major players in the banking sectors providing e-banking service. So, for the purpose of collecting primary data, this questionnaire is distributed to you. Your valuable contribution will help to improve the significance of the study.

The information provided will be used for the purpose of the study only and you shall not resemble any liability on the part of any person or institution concerned.

**1. Age**

- □ 15 - 25
- □ 25 – 35
- □ 35 – 45
- □ Above 45

**2. Marital Status**

- □ Single
- □ Married with no Children
- □ Married with Children

**3. Income level (Monthly)**

- □ Up to 15,000
- □ 15,000 – 30,000
- □ 30,000 – 60,000
- □ 60,000 – 90,000
- □ Above 90,000

**4. Educational Level**

- □ PCL
- □ Bachelor
- □ Master
- □ M Phil / Ph D

**5. Occupation**

- □ Government Organization
- □ Private Organization
- □ NGOs / INGOs
- □ Own Self Business

**6. Presently you are banking with ……**

- □ Kumari Bank Limited
- □ Laxmi Bank Limited
- □ Nepal Investment Bank Limited
- □ Machhapuchchhre Bank Limited
- □ Everest Bank Limited
- □ Other

**7. Are you doing any trade in commodity market now …….**

- □ Yes
- □ No

***If yes, Are you using e-banking, if yes…….***

**Types of e-banking facilities for trade**

- □ Fund Transfer to TWS
- □ Fund Transfer from one account to other
- □ Withdrawals

***If not then, what is the main reason behind it?***

- □ Transaction unsafe
- □ Lack of knowledge and awareness
- □ Cost for the transaction
- □ Time involved
- □ Error occurrence

**8. Are you using any e-banking facilities, if yes which …….**

- □ ATM
- □ Tele Banking
- □ SMS Banking
- □ Internet Banking
- □ Credit Card

***If not then, what is the main reason behind it?***

- □ Transaction unsafe
- □ Lack of knowledge and awareness
- □ Cost for the transaction
- □ Time involved
- □ Happy with present arrangement

**9. How long have you been using the above facility?**

- □ 6 months – 1 year
- □ 1 year – 2 years
- □ 2 years – 3 years
- □ 3 years – 4 years
- □ Above 4 years

**10. Your frequency of e-banking use**

- □ Frequently
- □ Occasionally
- □ Seldom

**11. Which service you often use?**

- □ Balance & other inquiry
- □ Fund Transfer
- □ Pay Bill online
- □ Statement Download
- □ Loan Information
- □ Cheques Book replenishment Request
- □ Online Purchasing

**12. The quality dimension that you prefer while using e-banking.**

- □ Correct and Prompt Service
- □ Good reputation of bank
- □ Availability of status of transaction
- □ Statement Download
- □ Security
- □ Attractiveness of website
- □ Easy to Use
- □ Personnel Attention

**13. Main problem you faced so far.**

- □ Slow Transaction
- □ Re-login Problem
- □ Link Problem
- □ Difficult instruction
- □ No any so far

**14. Could you give your suggestions as how the procedure of e-banking system in Nepalese Market could be made more efficient and ease to use.**

_____

_____

_____

_____

_____

**Thank You**