

CHAPTER - I

INTRODUCTION

1.1 General Background

Nepal is one of the developing countries in the world. The economic growth rate of Nepal is very low and the economic development seems to be much sluggish in comparison to other developing countries. In spite of being rich in natural resources, due to lack of proper management and inadequate capital, such resources have not been utilized properly. Hence the development of Nepalese economy is lagging behind. The economic standard of nation determines the life style of the people. Hence the developing countries like Nepal must pay due attention and make greater effort to uplift economic state of affairs. It is most necessary to carry out the various development steps in various sectors by developing countries.

The development of economy basically depends upon the development of financial sectors. Banking sector is the main element of any financial sectors. So banking sector is also known as backbone of economy, because it helps to formulate capital by collecting scattered amount among people and invest in different infrastructure like transportation, health and other basic needs of development in which private sector does not want to invest. That is why banking sector is a platform through which scattered saving and scares resources can be transferred from the idle sector into productive sectors. This ultimately helps to uplift the economic development of the country. So Nepal needs to emphasize banking among its people in this modern era. Further in this modern century, banking business transaction and personal life have become advanced in Nepal too, so nowadays to make easy business transaction, various types of equipments and new techniques are introduced. As a result of this banking sectors and financial institution provide non banking service beside instructed banking service to move towards modernization

Previously, people used goods for goods to exchange necessary things that they need to survive but it is very difficult to measure and pay through barter system. That is why

money was introduced. Money makes exchange system easy. But at the same time even money is inconvenient because it is uncomfortable to carry huge amount to pay large bills, difficult to protect from theft and pick picketer and some other drawbacks. So that nowadays, different payments systems have evolved, especially after the revolution in information technology. The growth of technology has changed the payment systems world over during the past two decades. More and more innovations are being introduced in both cash payment systems and non-cash payment systems. Cash in the form of notes and coin was the principal method of payment system before the introduction of 'Banking'. Paper instruments such as 'Cheques' and 'Credit Transfer' now have become a part of the payment system with the popularity of banking. With the introduction and implementation of recent technology in banking, electronic devices are making the job of cash payment as well as non-cash payments easy and efficient. The introduction of Automatic Teller Machine (ATMs) and the Plastic Cards have given the banking customers the facility of round the clock (24 hours) banking.

In modern day commerce, Credit cards have acquired a fairly prominent and pervasive role. With the increasing use of the credit cards, the society is moving towards cashless transactions. It is one of the highly used and convenient forms of electromagnetic cards that are nowadays available. It has helped to eliminate drawbacks of cash payment system and made life easy and tension free. Credit card is one of the most popular forms of payment of consumer goods services. Generally a bank enters into an agreement with its customer and issues the customer a credit card. Credit card is a small plastic card around 8.5cm by 5.5 cm having a magnetic stripe, issued by a bank and financial institution which allows the holder to buy goods or services on credit. It has the name and the account number of the holder embossed on it. In addition, the date up to which the card is valid will also be embossed and a specimen signature panel on the reverse. The card issuer should normally get the card holder to sign in the specimen signature panel in his presence before parting with the credit card. The limit up to which the card holder can make purchases in a month is also informed to the card holder; this limit is called the card-limit. Credit card is a very convenient way of making purchase on credit without

carrying cash. The way a normal credit card works is that the cardholder purchase goods by using his /her credit card and the concerned bank pays bill in the behalf of card user to the merchant, which provides the product and services. The bank charges certain percentage from the merchant in return for processing the transaction by paying the purchased amount less banks commission to the merchant's account.

From the customers side he is given a loan for that amount, generally the bank gives monthly statement of cardholder's expenses, but the date of statement issue may be different from one bank to another bank. The cardholder will have to pay that amount within the time period given by the bank. If the cardholder does not want to pay the full amount he can pay minimum (printed on the monthly statement) or 5 percent of total expense whichever is high within 15 days of statement issued. Many card issuers being banks also allow withdrawals of cash for emergency purposes and levy a service fee for such withdrawals. Many banks also have credit cards which double up as ATM cards.

1.1.1 History and Development of Credit Cards in the World

Credit card is a new business evolved 25-30 years ago. As far back as the late 1800s, consumers and merchants exchanged goods through the concept of credit, using credit coins and charge plates as currency. It wasn't until about half a century ago that plastic payments as we know them today became a way of life. In the early 1900s, oil companies and department stores issued their own proprietary cards, according to Stan Sienkiewicz, in a paper for the Philadelphia Federal Reserve entitled "Credit Cards and Payment Efficiency." Such cards were accepted only at the business that issued the card and in limited locations. While modern credit cards are mainly used for convenience, these predecessor cards were developed as a means of creating customer loyalty and improving customer service, Sienkiewicz says.

The first bank card, named "Charg-It," was introduced in 1946 by John Biggins, a banker in Brooklyn, according to MasterCard. When a customer used it for a purchase, the bill was forwarded to Biggins' bank. The bank reimbursed the merchant and obtained

payment from the customer. Purchases could only be made locally, and Charg-It cardholders had to have an account at Biggins' bank. In 1951, the first bank credit card appeared in New York's Franklin National Bank for loan customers. It also could be used only by the bank's account holders.

The Diners Club Card was the next step in credit cards. According to a representative from Diners Club, the story began in 1949 when a man named Frank McNamara had a business dinner in New York's Major's Cabin Grill. When the bill arrived, Frank realized he'd forgotten his wallet. He managed to find his way out of the pickle, but he decided there should be an alternative to cash. McNamara and his partner, Ralph Schneider, returned to Major's Cabin Grill in February of 1950 and paid the bill with a small, cardboard card. Coined the Diners Club Card and used mainly for travel and entertainment purposes, it claims the title of the first credit card in widespread use.

By 1951, there were 20,000 Diners Club cardholders. A decade later, the card was replaced with plastic. Diners Club Card purchases were made on credit, but it was technically a charge card, meaning the bill had to be paid in full at the end of each month. The customers of New York in Franklin National Bank submitted an application for a loan and were screened for credit. Approved customers were given a card they could use to make retail purchases. The merchant copied the customer information from the card into sales slips and called the bank for approval of transactions over a certain amount. Then bank would credit the merchant account for loan minus a fee to cover the costs providing the loan. In 1959, American Express introduced the first card made of plastic (previous cards were made of cardboard or celluloid). American Express soon introduced local currency credit cards in other countries. One million cards were being used at about 85,000 establishments within the first five years, both in and out of the U.S. In the 1990s, the company expanded into an all-purpose card. American Express, or Amex as it often is called, is about to celebrate its 50th credit card anniversary. The Diners Club and American Express cards functioned in what is known as a 'closed-loop' system, made up of the consumer, the merchant and the issuer of the card. In this structure, the issuer both

authorizes and handles all aspects of the transaction and settles directly with both the consumer and the merchant.

In 1959, the option of maintaining a revolving balance was introduced, according to MasterCard. This meant cardholders no longer had to pay off their full bills at the end of each cycle. While this carried the risk of accumulating finance charges, it gave customers greater flexibility in managing their money. The general-purpose credit card was born in 1966, when the Bank of America established the BankAmerica Service Corporation that franchised the BankAmericard brand (later to be known as Visa) to banks nationwide.

In 1966, a national credit card system was formed when a group of credit-issuing banks joined together and created the Inter Bank Card Association, according to MasterCard. The ICA is now known as MasterCard Worldwide, though it was temporarily known as Master Charge. This organization competes directly with a similar Visa program.

The new bank card associations were different from their predecessors in that an 'open-loop' system was now created, requiring interbank cooperation and funds transfers. Visa and MasterCard still maintain "open-loop" systems, whereas American Express, Diners Club and Discover Card remain "closed-loop."

Visa and MasterCard's organizations both issue credit cards through member banks and set and maintain the rules for processing. They are both run by board members who are mostly high-level executives from their member banking organizations. As the bank card industry grew, banks interested in issuing cards became members of either the Visa association or MasterCard association. Their members shared card program costs, making the bank card program available to even small financial institutions. Later, changes to the association bylaws allowed banks to belong to both associations and issue both types of cards to their customers.

As credit card processing became more complicated, outside service companies began to sell processing services to Visa and MasterCard association members. This reduced the cost of programs for banks to issue cards, pay merchants and settle accounts with cardholders, thus allowing greater expansion of the payments industry. Visa and MasterCard developed rules and standardized procedures for handling the bank card paper flow in order to reduce fraud and misuse of cards. The two associations also created international processing systems to handle the exchange of money and information and established an arbitration procedure to settle disputes between members. Although American Express was among the first companies to issue a charge card, it wasn't until 1987 that it issued a credit card allowing customers to pay over time rather than at the end of every month. Its original business model focused on the travel and entertainment charges made by business people, which involved significant revenue from merchants and annual membership fees from customers. While these products are still in its tool chest, the company has developed numerous no-annual fee credit cards offering low introductory rates and reward programs, similar to as traditional bank cards.

Another relatively recent entry into the card business is Discover Card, originally part of the Sears Corporation. According to Discover, its first card was unveiled at the 1986 Super Bowl. Discover Card Services sought to create a new brand with its own merchant network, and the company has been successful at developing merchant acceptance. A 2004 antitrust court ruling against Visa and MasterCard -- initiated by the U.S. government and the Department of Justice -- changed the exclusive relationship that Visa and MasterCard enjoyed with banks. It allows banks and other card issuers to provide customers with American Express or Discover cards, in addition to a Visa or MasterCard.

While the plastic card has been the standard for a half century, recent developments show alternative forms of payment rising to prominence, from online services such as PayPal to credit card key fobs to chips that can be implanted into cell phones or other devices. But with the sheer volume of devices in use around America whose sole purpose is to read a

flat piece of plastic with a magnetic stripe, the "card" in "credit card" is unlikely to pass from the scene any time soon.

1.1.2 Types of Credit Card

There are two types Credit cards: - secured and unsecured. The card that is secured with a saving deposit of cardholders to ensure payment of the outstanding balance if he/she were to default on payment is called secured cards. It is generally used by people who are new to the bank and also who are trying to rebuild their poor credit ratings. The cardholder of a secured credit card is still expected to make regular payments, as he or she would with a regular credit card, but should he or she default on a payment, the card issuer has the option of recovering the cost of the purchases paid to the merchants out of the deposit. The advantage of the secured card for an individual with negative or no credit history is that most companies report regularly to the major credit bureaus. This allows for building of positive credit history. Secured credit cards are an option to allow a person with a poor credit history or no credit history to have a credit card which might not otherwise be available. They are often offered as a means of rebuilding one's credit. Secured credit cards are available with both Visa and Master Card logos on them. Fees and service charges for secured credit cards often exceed those charged for ordinary non-secured credit cards, however, for people in certain situations, (for example, after charging off on other credit cards, or people with a long history of delinquency on various forms of debt), secured cards can often be less expensive in total cost than unsecured credit cards, even including the security deposit.

Where as the card which is not secured by any collateral is called unsecured credit card. Most credit cards are unsecured so there is higher interest rate than other forms of lending, such as mortgages, which utilize property as collateral. All credit cards fit into one of the following three categories:

1) Bank Cards

They are the cards issued by banks. For example: Visa and Master card

2) Travel and entertainment (T&E) cards

Examples of these types of cards are American express, Dinners club and Carte Blanche. Travel, entertainment and national house cards have same terms and conditions wherever you apply.

3) House Cards

House cards are good only in a chain of stores. It is generally a local and national retail card.

1.1.3 Transaction Process

The transaction begins when the cardholder purchases any goods and services from a merchant. The merchant prepares a sales draft using an imprinted /electronic, which contains cards number, cardholder's name, and expiration date of the card, the amount and the full signature of the holder .The merchant, then sends the sales draft to the acquirer and gets the amount on the sales draft reimbursed at less and agreed discount rate by the acquirer. It is called as "Merchant service fee"(MSF). The settlement bank, Master and Visa International then reimburse the acquirer who sends the data either through line or by processing in through floppy and submitting same. The settlement bank charges the issuer and issuer then bills it to its cardholder who ultimately repays the issue.

1.2 Historical Background of Credit Cards in Nepal

Credit card is generally associated with a financial institution or bank. However, the history of credit card business in Nepal is associated with a travel agency named Alpine Travel Services private limited (ATS). ATS first obtained the license from VISA and MasterCard International in 1985 A.D. as the representative of the chase Manhattan Bank, NA Singapore. It was horsed to sign up merchant establishment to the various outlets. Now, Alpine accepts credit card service from more than 2000 merchants all over the country. From its association with the chase Manhattan Bank, Singapore and then in 1993 with the Overseas Union Bank Ltd, Credit Card in Nepal has come a long way.

After ATS, Nepal Grindlays Bank Limited, NGBL, (later named Standard Chartered Bank Limited, SCBL) also entered credit card acquiring market in 1989 with Visa and NABIL acquired Master Card. Later, NGBL acquired Master Card in 1990A.D. and JCB in 1992 A.D. It was the Himalayan Bank Limited and NABIL to start the issue of cards in Nepal for the first time in November 1993 A.D. NABIL issued Master Card whereas HBL entered the credit card issuing business with its typical local proprietary card branding "HBL Regular" which is the Nepal's first ever (domestic) Credit Card. In December 1997, HBL improved its technology to issue HBL Gold Card which was more reliable and safe. These cards become very popular in Nepalese general public, especially in the Katmandu valley. But now HBL Gold is not issuing because of manipulation problem. Himalayan Bank Ltd started to acquire international credit card (Visa) only since 1996. Likewise NGBL started issuing Visa and Master Card in April 1997 A.D. and July 1998 A.D.

This brought about competition in small credit card market of Nepal and of course for the better as it reduced the high commission charges that were enjoyed by the pioneers of credit card introducers and improved the quality of service. In Nepal, however, the use of the credit cards is restricted to small value and mostly personal transactions and in tourism sector. Today Credit card business in Nepal is provided mainly by four banks; Himalayan Bank, Nabil Bank, SCBNL and very recently NIBL. All of these banks are both issuer and acquirer. Credit card is still in initial stage in Nepalese market. So it is facing some problems. The major problem with the card business is that most of the people are not aware of its benefit. They are only familiar with the general services provided by the Bank. They don't know what the credit card is, how its operation is carried out, how the entire system works and what are the advantages if one becomes the card holder. The primary reason behind this may be huge investment to start card business and comparatively very low return due to small market size. Hence this has been one of the problems to tap the foreside business. The main purpose of this study is to analyze, evaluate the card business of Nepal particularly with reference to HBL, NABIL and SCBNL.

Players of Credit Cards in Nepal

Himalayan Bank, Nabil Bank, SCBNL and NIBL are carrying the credit card business in Nepal. All of these banks are both issuer and acquirer. Types of credit cards they are acquiring and issuing are shown in the following table:

Table 1.1
Players of Credit Card in Nepal

Bank	Cards Issued	Cards Acquired
NABIL	Master Cards	Master Cards/ Visa card/Diner's Card
SCBNL	Master card/Visa card	Master card/Visa card/JCB
HBL	Visa Card	Visa Card
NIBL	Visa Card	Visa Card

1.2.1 A Brief Introduction to Banks Involved in Credit Cards Business

In the context of Nepal, credit card business is still in initial phase. Only four banks Nabil bank, SCBNL, HBL & NIBL are involved in this business among the two dozen commercial banks that operate in the country. NIBL has recently entered in this field .So in this research only three banks NABIL, SCBNL and HBL are considered as sample bank but NIBL also will be included wherever appropriate. The detail information about these banks is mentioned as below:

Nabil Bank Limited (NABIL)

The first commercial joint venture bank of Nepal, Nepal Arab Bank Limited, was established on July 12th 1984 under a technical service agreement with Dubai Bank Limited and was renamed as Nabil Bank Limited (NABIL) on 1st January 2002. In the beginning the authorized capital of this bank was Rs.100million and paid up capital was Rs.28 million 400 thousand. The 50% share of NABIL owned by Dubai Bank Limited was transferred to Emirates Bank International Limited, Dubai by virtue of its annexation with the later. Later on, Emirates Bank International Limited sold its entire 50% share to

National Bank Ltd, Bangladesh. Now National Bank Limited is managing the bank in accordance with the Technical Services Agreement signed between it and the bank on June 1995. The bank introduced an Automatic teller machine(ATM) first time in Nepal, in three places in the valley at Kantipath, New road and Lalitpur. The bank has its corporate head office at Kamladi, Kathmandu. Nabil is the pioneer in introducing credit cards in Nepal. The bank is a principal member of Visa and Master Card International since early 1990. It has widest range of services in credit cards which include acquiring of all kinds of cards under Visa and Master Card brands. It also acquires Diners Cards being a sole agent for the country and has arrangement of POS sharing with American Express Cards. The bank issues widest range of credit and debit cards under the brands of visa and master card to accountholders as well as non-accountholders. The bank is largest institution in the country with a wide spread merchants and ATM network throughout the country. By now the number of its outlets and branches has reached 28 and 31 respectively.

Its present shareholding pattern is as follows:

N.B. International Limited, Ireland	50%
Nepal Industrial Development Corporation	10%
Rastriya Beema Sansthan	5%
Security Purchase and Sales Corporation	5%
General Public	30%
Authorized Capital	Rs.500, 000,000.00
Issued Capital	Rs.491, 654,400.00
Paid-Up Capital	Rs.491, 654,400.00

Standard Chartered Bank Limited (SCBNL)

Under the company act of 1964, Nepal Grindlays Bank Limited, renamed as Standard Chartered Bank Nepal Limited (SCBNL) in 16th July 2001, was established as a third commercial joint venture bank of Nepal in 1985. The bank originally started its operation

in 1986. The 50% of the equity share capital was originally owned by ANZ Grindlays Bank, which managed and controlled the overall activities of the bank. Later on, the ownership of 50% share ANZ Grindlays Bank was transferred to Standard Chartered Group. Standard Chartered Group employs almost 60,000 people, representing over 100 nationalities in over 50 countries in the Asia Pacific Region, South Asia, the Middle East, Africa, the United Kingdom and the Americas. Today the Bank is an integral part of Standard Chartered Group who has 75% ownership in the company with 25% shares owned by the Nepalese public. The Bank enjoys the status of the largest international bank currently operating in Nepal. An integral part of the only international banking Group currently operating in Nepal, the Bank enjoys an impeccable reputation of a leading financial institution in the country. With 15 points of representation and 16 ATMs across the Kingdom and with around 350 local staff, Standard Chartered Bank Nepal Ltd. is in a position to serve its customers through a large domestic network. In addition to which the global network of Standard Chartered Group gives the Bank a unique opportunity to provide truly international banking in Nepal.

Share Capital as at 16 July 2007 (32 Ashad 2064)

Authorized Capital	Rs. 1,000,000,000.00
Issued Capital	Rs. 500,000,000.00
Paid-Up Capital	Rs. 374,640,400.00

Share ownership as at 16 July 2007 (32 Ashad 2064)

Standard Chartered Grindlays Ltd Australia	50%
Standard Chartered Bank, UK	25%
General Public	25%

Himalayan Bank Limited

Himalayan Bank Limited was established on 6th of February 1992 by the distinguished business personalities of Nepal in partnership with Employees Fund and Habib Bank Limited, one of the largest commercial banks of Pakistan. But it actually started its business operation from 18th January. Despite the cut-throat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits. Products such as Premium Savings Account, HBL Proprietary Card and Millionaire Deposit Scheme besides services such as ATMs and Tele-banking were first introduced by HBL. HBL started its services with 77 employees. Now its employees are over 300. Like any other commercial bank in Nepal, HBL is also engaged in some industrial banking. The bank has experienced dynamic growth over the last seven years. It has Expanded its services by establishing branches at New Road, Thamel, Maharajgunj, Patan(Pulchowk), Nagarkot, Bhaktapur, Banepa, Birgunj, Bharatpur, Tandi, Hetauda, Narayangarh, Siddharthanagar, Biratnagar, Pokhara, Dharan. The bank is also operating counter in the premises of the Royal Palace in addition. The bank currently has 13 ATM locations and plans to add further 8 locations.

The presented shareholding structure of HBL is as follows:

Habib Bank of Pakistan	20%
Nepalese Founders	51%
Employees Provident Fund	14%
General Public	15%
Authorized Capital	Rs. 1,000,000,000.00
Issued Capital	Rs. 810,810,000.00
Paid-Up-Capital	Rs. 810,810,000.00

1.3 Focus of the Study

In the context of Nepal, credit card is newly entered area in financial and business sector. That is why credit card concept is quite new for both sector; business and general public.

Hence, its business is growing slowly. So the general information and current situation of card business are the subject matter of this study.

1.4 Statement of the Problem

In 1951, the first bank credit card appeared in New York's Franklin National Bank for loan customers. It could be used only by the bank's account holders. Within the several years nearly 100 other banks across the country were also issuing card. But in case of Nepal only from 1985 that is after 34 years of inception of card business, credit card business started through the initiative of Alpine Travel Service. In 1993 Himalayan Bank Limited and NABIL bank Ltd both started card business at once by issuing different cards domestic credit card and master card respectively.

Today credit card has become a synonym for currency notes in foreign countries. In other countries there are cash free zones with all the financial needs being handled by bank cards. But in the context of Nepal it is quite difficult to do so. Card business is fluctuating till now from beginning. Acquiring volume mostly depends upon arrival of tourists but tourism sector in Nepal is very sensitive to the quickly changing political situations of the country to fully rely upon it. So the concerned banks are forced to find domestic internal user. So the study will focus on the following problems related to the subject chosen:

- ❖ What are the positions of different banks involved in card business?
- ❖ What is the growth situation of the banks in the card business?
- ❖ What are the trends of credit card users in Nepalese market?
- ❖ Whether the aggregate market is increasing or decreasing over the period?
- ❖ What are the problems related to various transaction of credit cards?

1.5 Objectives of Study

The primary objective of the undertaken research is fulfillment of a course of requirement of the M.B.S programme at Tribhuvan University during the thesis year. As known to us Credit card business is quite new in Nepalese business market. And our objective is to help increase awareness on credit card to general public through the medium of business students and also present the banks with a picture of current market scenario of card

business in Nepal, the underlying issues in it and the challenges, and subsequently offer them with some suggestions that will help their business and help them come up with appropriate plans and actions. Though the essence of card is being familiar to people, the credit card business has not been as satisfactory as it should be due to unfavorable situation of Nepal.

This analysis has been done in order to understand the various aspects of credit card. The study first aims to trace how the credit card operation evolved over the years and tries to examine the existing structure and operation of credit card systems. It also tries to analyze the major problems related to credit card and tries to find some measures to improve it. Taking into consideration all these aspects, the specific objectives of the study are as follows;

- ❖ To get the overview of the credit card business in Nepal.
- ❖ To analyze the problems related to various transactions of credit card.
- ❖ To identify and assess different untapped segments.
- ❖ To examine the aggregate market trend for credit cards.
- ❖ To recommend and suggest measures to improve card business in Nepal based on the analysis.

1.6 Importance of the Study

Economic condition of a nation depends upon the development of financial sector. Banking sector is one of the essential components of any nation. The growth of financial and banking sector depends upon reliable services provided by them. Previously banks provided only banking service but nowadays it provides non-banking services also due to the need and demand of customers. Due to this reason credit card system was introduced. But in Nepal, credit card concept has recently entered in banking sector and general public. Card business is still in the growing stage. The usage of credit and debit cards among the bank account holders of Nepal does not portray an encouraging figure. One of the main reasons in such a slow growth was the huge deposit – of up to Rs 50.000 – the bank used to demand to issue such cards.

But a paradigm shift in the banks' strategy to issue credit cards to non-account holders without requirement of any cash deposits is expected to attract more people, especially the middle class families. With the increase of awareness and understanding of the advantages of having a credit card coupled with issuance of proprietary debit card by most of the banks, the prospect of plastic money is growing in Nepal and is very good for future too. Hence, the in-depth research on the potentiality of card business is the subject matter of thorough research in the present context. Therefore credit card is chosen as the subject matter for this research which is very likely to help different parties like business students who want to know about credit card, lecturer, the bank involved in card business to modify their card service and in formulating strategy for smooth operation of card and the government who has to make different policies for regulating the business

1.8 Limitation of the Study

The study will be limited to the study of performance of Nabil Bank Limited, Himalayan Bank Limited, and Standard Chartered bank limited towards credit card business in Nepal. Since, credit card is new concept for Nepalese business and personal life, an in-depth study and research has yet to be done. Probably such studies have not been made previously. Hence it is difficult to find the references and required information. However, the attempt will be made to be limited within the boundary of available information. Also efforts will be made to present the possibly collected data and information.

- ❖ The study is confined to only three commercial banks Nabil Bank Ltd., Himalayan Bank Lt. and Standard Chartered Bank Limited.
- ❖ The study covered only a period of 5 years since 2003 – 2007
- ❖ Data for 2006-2007 were not available from card forum so the data on card user trend and merchant trend were gathered from concerned staffs of the bank.
- ❖ Non availability of financial and other data due to privacy so a thorough analysis can not be conducted.
- ❖ No account has been taken for inactive card users or lapse cards.

- ❖ Research is confined only to analysis of credit card business.

1.9 Organization of the Study

The whole study is divided into five different chapters. Each chapter includes following subject.

Chapter – I: Introduction

The introduction chapter will include background, a brief introduction to banks involved in credit card business, history of credit card in the world, historical background of credit card in Nepal, focus of the study, statement of problem, objective of the study, importance of the study, and limitation of the study and organization of the study.

Chapter- II: Review of Literature

The review of literature chapter will include conceptual reviews, review of related study and previous thesis.

Chapter – III: Research Methodology

The research methodology chapter will include research design, population and sample, sampling procedure, sources of data, data collection techniques, data presentation and analysis and statistical tools.

Chapter – IV: Data Presentation and Analysis

In data presentation and analysis chapter statistical analysis will be included.

Chapter- V: Summary, Conclusion and Recommendation

Summary, conclusion and recommendation will be presented in the last chapter after data presentation and analysis.

CHAPTER – II

REVIEW OF LITERATURE

Review of literature refers to the reviewing of the past studies in the concerned field. Many researchers have conducted their research in the field of card operation. Besides this, there are some books, articles, dissertation and other relevant study concerned with credit card operation. Some of relevant studies, their objective findings and conclusions and other literature relating to the topics have been reviewed in this chapter. In other words review of literature helps to find what already has been discovered by previous researchers, their findings, research gaps that this study will try to find and foretells the very worthiness of the study being undertaken. The topic credit card in fact is quite a new topic for researcher due to this reason very few reviews are found.

This part of study is divided into following sections:

- ❖ Conceptual Reviews
- ❖ Review of related studies
- ❖ Research Gap

2.1 Conceptual Reviews

This part of literature review focuses on the conceptual review of credit card.

2.1.1 Payment Card

A payment card is small plastic card, which allows its holder to pay for goods purchased or services available at different outlets or on-line through site. It also allows the holder to withdraw money from the automatic teller machine (A.T.M.) or from the bank. Before proceeding further deep into the intricacies of credit card business, it will be worth nothing that credit card is just a line of product of the card payment business. Different banks and credit card companies issue different brands of payment card by forming membership such as:-

Members of Visa International headquartered at Yokohama, Japan issue Visa Branded payment cards. Till date it is a non-profitable organization run solely by its thousands of members located globally.

Members of Master card international, head quartered at St. Louis, USA issue Master card branded payment cards. It is also a non-profitable organization till date run by the members.

American Express Corporation Ltd being a big banking giant itself and head quartered at New York, USA issues American Express(here in after referred as AMEX cards) branded cards. It is a profitable organization.

Now all these globally operating institutions, member banks and credit card companies' issues are distinguished from each other by the different features they carry.

2.1.2 Credit Card

It is an instrument of payment used for making payment of services and goods in place of cash or cash items, while repayment can be made after fixed time or over a period of time. It has the option of revolving credit. The cardholders can have the option of partial payment, and on the remaining dues, one has to pay interest. Banks and finance companies issue credit cards carrying the brand of any international payment association such as Visa Card or Master Card. The bank issuing card pays on behalf of card user to the merchant (store) from where the card is used for purchase. A certain percentage is charged from the merchant in return for processing the transaction, crediting the purchased amount less bank's commission to the merchant's account.

The amount that the cardholder uses is treated as a loan, if cardholder doesn't pay the amount within the period given by the bank (grace period), usually within 45 days of statement issued, interest is charged.

A credit card's grace period is the time the customer has to pay the balance before interest is charged to the balance. Grace periods vary, but usually range from 20 to 30 days depending on the type of credit card and the issuing bank. Some policies allow for reinstatement after certain conditions are met. Usually, if a customer is late paying the balance, finance charges will be calculated and the grace period does not apply. Finance charge(s) incurred depends on the grace period and balance, with most credit cards there is no grace period if there's any outstanding balance from the previous billing cycle or statement (i.e. interest is applied on both the previous balance and new transactions). However, there are some credit cards that will only apply finance charge on the previous or old balance, excluding new transactions.

Foreign currency credit card can be availed against the passport facility for travelling abroad. Foreign currency account holders also can obtain credit card for hotel and travel expenses. All Credit card or Charge card users have a credit limit up to which one can use the fund to purchase goods or services. Visa or Master card (depending upon the type of card) is responsible for processing and settling the transactions and the card issuing bank is responsible to collect fund from its customers.

2.1.3 Debit Card

Debit card is also a plastic card, an instrument used to pay the price of services and goods in lieu of cash or cash items, where payment is made only against the deposits available in the customer's depository account and payment is effected immediately. It exactly looks like a credit card but the features are completely different. A debit cardholder must have an account with the bank and the moment he makes any purchase, his account gets immediately debited at the point of purchase and hence is called a debit card. The ATM cards that banks issue are the example of debit cards. It can be used in POS (point of sale) machines to make payment on purchase or services.. Debit card users can have direct access to their account but the debit cards issued for a rupee account cannot be used worldwide because of the non-convertibility of Nepalese currency. Member banks and companies of Visa and Master card international issue debit cards.

2.1.4 Charge Cards

Charge card is also a payment card with a pre-set limit. The cardholder does not have the option of revolving credit. The cardholder must pay the entire dues at the end of each month or the billing period.

2.1.5 Chip /Smart cards

A Chip/Smart card is also a payment card and looks like any other plastic card or an ATM with an integrated circuit(IC Chip) installed. The IC contains memory, may contain a processor, and communicates with the external world through contacts on the surface of the card. The size, position and utility of the contacts are specified by an international standard (ISO7816), so that cards can interact with a variety of equipment. There are two main types of smart cards: Intelligent Memory Chip and Microprocessor cards. Payments are made either on-line by connecting to the customers account or off-line through credit card concept and through funds (limit) loaded in the chip. A memory chip has a data storage capability that enables the card to collect every time it is used .The microprocessor chip has additional features such as it can add, delete and manipulate information in its memory. Memory smart cards have been around for several years, being used in pay phones, identification, access control, voting and other applications. Processor smart cards are the most advanced, and are ideally suited for banking and financial applications where use of the card is allowed.

2.1.6. Premium Cards

These cards possess added features such as travel insurance, cardholder assistance and emergency cash advances along with the normal features of conventional credit cards and charge cards.

2.1.7 What is VISA?

Visa international is a membership corporation that is owned by its members. Visa operates the world's largest retail electronic payments network and is one of the most recognized global financial services brands. Visa facilitates global commerce through the

transfer of value and information among financial institutions, merchants, consumers, businesses and government entities.

Visa offers a range of branded payment product platforms, which its financial institution clients use to develop and offer credit, charge, deferred debit, prepaid and cash access programs to cardholders.

Visa's card platforms provide consumers, businesses, merchants and government entities with a secure, convenient and reliable way to pay and be paid in 170 countries and territories.

Visa's global transaction and information processing network, Visa Net, supports these payment platforms and delivers value-added services, including fraud and risk management, dispute resolution, rewards and other business-enhancing applications.

Visa's family of global payment brands, including Visa, Visa Electron, Plus and Interlink, enjoy unsurpassed acceptance at 27 million merchant outlets and 1 million ATMs across the world. It is the world's largest payment system owned by more than 22000 financial institutions worldwide. Visa provides its member with

- ❖ Payment products
- ❖ A global communication network
- ❖ Risk control and authorization services
- ❖ Clearing and settlement facilities

Visa is also a registered trademark .The blue white and gold band form one of the world's largest recognized brands. Visa assures a high profile for the brand through a number of activities, such as advertising, sponsorship of the Olympics and other promotional events. The trade mark is licensed to members for their use to ensure increasing acceptance of Visa payment cards and services worldwide.

Visa international's mission is to enhance member's profitability and pre-eminence by:

- ❖ Enhancing current product (especially deposit access) expanding product offering (commercial & chip cards).
- ❖ Strengthening geographic coverage.
- ❖ Improving acceptance of the card.
- ❖ Increasing brand preference.
- ❖ Supporting and enhancing Visa Net systems.
- ❖ Continuous improvement of the supporting infrastructure. (For example, in the areas of risk management, standards, corporate governance).

(www.visa.com)

2.1.8 What is Master Card?

The MasterCard story begins in 1966 when a group of banks created a member-owned association that later became MasterCard. In 1968 the company extended its presence to Mexico, Japan and Europe, marking the start of its commitment to becoming the leading global payments network.

Through the 1980s, MasterCard continued to build on this promise, bringing the advantages of electronic payments to new regions and markets around the globe. MasterCard became the first payment card issued in the People's Republic of China, and the company also launched Maestro®, the world's first truly global online debit program, in partnership with Europay International.

The next decade saw electronic payments become even more closely integrated into peoples' lives, a behavioral shift MasterCard capitalized on by developing new technologies that improved convenience, speed and efficiency. MasterCard also launched the "Priceless" ad campaign, elevating its consumer brand and differentiating the company's connection to consumers.

Uncovering new ways to provide value to its customers, MasterCard launched MasterCard Advisors in 2001, bringing innovative consulting services to customers and others within the industry. That same year, MasterCard completed a major upgrade of its state-of-the-art network, enhancing its ability to process transactions safely, securely and instantly the world over.

MasterCard also implemented structural changes that reflected a new outlook for the company. MasterCard integrated with Europay International in 2002, establishing a unified global corporate structure and also becoming a private share corporation.

By 2005, MasterCard had committed itself to a new, customer-focused strategy that aligned its advisory and processing capabilities with its long-standing role as a franchisor. This three-tiered business model crystallized the company's positioning as a franchisor, processor and advisor, laid the groundwork for its transition to a more transparent governance model and initial public offering in 2006.

Today and beyond, MasterCard Worldwide continues to provide a unique combination of expertise, industry-leading insight, and globally-integrated resources that the company leverages to deliver value to constituents. MasterCard is committed to innovating and growing the range of products and services the company brings to market through its strong partnerships with its customers. MasterCard Worldwide is a driving force at the heart of commerce, enabling global transactions and bringing insight into the payments process to make commerce faster, more secure, and more valuable to everyone involved. As a critical link among financial institutions and millions of businesses, cardholders and merchants worldwide, MasterCard provides services in more than 210 countries and territories. MasterCard advances commerce worldwide by developing more secure, convenient and rewarding payment solutions, processing billions of payments seamlessly across the globe, and building economic connections that accelerate business.

(www.mastercard.com)

2.1.9 Advantages and Disadvantages of Credit cards

Advantages of Credit Card to the cardholders

Credit Cards have numerous advantages, some of them are mentioned below:

- ❖ Safe and secure in comparison to traditional modes of payment like cash, cheques etc.
- ❖ Very convenient to carry it instead of bulky cash.
- ❖ Wide acceptance.
- ❖ Unlike cash it is easy to get replacement.
- ❖ A credit card can be used not only for purchases, but also to make cash advances. Hence, it is helpful during shortage of cash and in emergencies.
- ❖ In built credit instruments with the privilege of interest free credit period of 45 days maximum to 15 days minimum.
- ❖ Facility of revolving credit i.e. option of minimum stated payment on regular.

Advantages to the Merchants

- ❖ Merchants need not worry about the payment as the bank is liable for payment and not the cardholder.
- ❖ Volume of sales increases as the card encourages consumers for purchases, as they do not have to pay in cash immediately.
- ❖ Payment received through credit card is more safe and secure than any other forms of payment.

Disadvantages of Credit Card

In spite of being a most extensively used financial tool, credit card has some inconvenience too. They are:

- ❖ Sometimes card holders complain their goods are not delivered due to amount altered and transactions not authorized. There exist system errors.
- ❖ Sometime merchant can make multiple imprints of the card and sometimes transaction may happen on lost card or counterfeit card etc.

- ❖ Processing errors or violation of the rules set out in the Visa / Master card rules like late submission, transaction on expired card, transaction without code, wrong transaction etc.

2.1.10 Parties Involved in Credit Card Business

There are five parties involved in credit card business that is mentioned below.

1. Issuer

Any financial or non financial institution, which is authorized to issue cards under the granted license of Visa and Master card international, are called issuer. Examples of such issuers in Nepal are Nabil Bank Ltd., Himalayan Bank Ltd, Standard Chartered Bank, and Nepal Investment Bank Limited. The issuing bank bills the consumer for repayment and bears the risk that the card is used fraudulently. American Express and Discover were previously the only card-issuing banks for their respective brands, but as of 2007, this is no longer the case.

2. Cardholder

Prospective person or organization (card users), whose cards are issued by the issuer are called cardholder.

3. Merchant

All those outlets which accept these cards as a mode of payment are called merchants. Examples of such merchant are departmental stores, travel agencies, grocery stores, shopping centers, restaurants, hotels, car rental agencies etc. Now days there are many online merchants who have allowed doing transaction on line without the cardholder being present like muncha house, thamel.com.

4. Acquirer

Whenever a card holder makes a transaction the only thing he / she does is sign a sales slip. This sales voucher is then presented to the financial institution, usually a bank which

makes the payment to the merchant normally on the same day or the next working day. It further processes it to get the payment from the issuer.

Such institution that accept these transacted sales slips from the merchants are called acquirer. A bank can be both acquirer as well as issuer. For example Nabil Bank issues credit card as well as processes the transactions for its various merchants.

5. Clearing and Settlement

Since a credit card is not a cash purchase and the merchant is paid by its acquirer, it involves a fifth and the most important party called the clearing and settlement bank. Once the acquirer makes the payment to the merchant, it itself needs to get the payment from the bank which has issued the card and it is not possible and feasible to make direct claim as there are hundred or even thousands of such transactions taking places everyday. Hence these claims from all these member institutions are forwarded to the clearing and settlement banks for payment and in the settlement process the actual payments are made. In case of master card this process is conducted by master card international and in case of visa card by visa international.

6. Independent sales organization

Resellers (to merchants) of the services of the acquiring bank.

7. Merchant account

This could refer to the acquiring bank or the independent sales organization, but in general is the organization that the merchant deals with.

8. Credit card association

An association of card-issuing banks such as Visa, MasterCard, Discover, American Express, etc. that set transaction terms for merchants, card-issuing banks, and acquiring banks.

9. Transaction network

The system that implements the mechanics of the electronic transaction may be operated by an independent company, and one company may operate multiple networks. Transaction processing networks include: Cardnet, Nabanco, Omaha, Paymentech, NDC Atlanta, Nova, Vital, Concord EFS Net, and Visa Net.

10. Affinity partner

Some institutions lend their name to an issuer to attract customers that have a strong relationship with that institution, and get paid a fee or a percentage of the balance for each card issued using their name. Examples of typical affinity partners are sports teams, universities and charities.

2.1.11 Components of Credit Card

The component of credit card is as follows:

1) Unique card number

It is the credit card number embossed on the credit card by embossing machine. Card number will be different for different card account. The numbers found on credit cards have a certain amount of internal structure, and share a common numbering scheme.

The card number's prefix, called the Bank Identification Number, is the sequence of digits at the beginning of the number that determine the bank to which a credit card number belongs. This is the first six digits for MasterCard and Visa cards. The next nine digits are the individual account number, and the final digit is a validity check code. The beginning card number differs depending upon the settlement banks. For example MasterCard number begins with the number 5 and Visa with the number 4.

2) Name of cardholder

Name of cardholder is also embossed on the credit card with the embossing machine. Cardholder may be the account holder as well as any third party.

3) Validity Date

Validity date is also embossed on credit card by embossing machine. It is the date after which the card expires. The expiry month associated with specific year is mentioned on the credit card. Besides, the card may also carry extra codes such as issue numbers and security codes. Not all credit cards have the same sets of extra codes nor do they use the same number of digits.

4) Issuing Bank

The name of credit issuing bank is printed on the card such as Nabil Bank Ltd, Himalayan Bank Ltd etc.

5) Brand Name

The brand name of the credit card associated with certain settlement bank is also printed on the credit card. For example Master card, JCB card etc.

6) Magnetic Stripes

Magnetic stripes will be on the backside of credit card. It is the main part of the credit card. All the data associated with the credit card is mentioned on it. The data can be read with help of specific machine.

7) Photo of the holder

A photo of credit card holder may be attested on the backside of credit card. It depends upon the credit card issuing bank. For example a photo is attested in the Visa card issued by Himalayan Bank Limited but it is not attested in the master card issued by Nabil bank ltd.

2.1.12 Basic Eligibility Criteria for Being a Card Holder

The following criteria must be fulfilled to be a card holder in context of Nepal.

- ❖ Age 18 Years above

- ❖ Have a regular income sources with annual income more than Rs. 120000/-
- ❖ Maintain accounts with any branch of concern bank
- ❖ As prescribed under Nepal Rastra Bank regulation(For International Dollar card)

2.1.13 Documents Required

When once applying for a credit card following documents must be submitted with credit card application form.

Required documents for applying personal card

- ❖ Salary certificate/ documentation to prove income source.
- ❖ Identification paper (copy of citizenship certificate / passport)
- ❖ Two passport size color photograph.

Required documents for applying a corporate card

- ❖ Company/Firm registration certificate
 - ❖ Income tax registration and tax clearance certificate
 - ❖ Board resolution authorizing availing of credit card and debiting company account for all charge.
 - ❖ Letter by authorized management personnel for issuing individual credit card.
 - ❖ A copy of latest audited balance sheet and statement of profit & loss of the firm along with proof of any other income sources.
 - ❖ Identification paper (copy of citizenship certificate /passport)
 - ❖ Two passport size color photograph
- (Source: Brochure Himalayan bank ltd.)

2.1.14 Application Processing

Before issuing the card and assigning a number to merchant, the issuing bank analyzes the data and information provided by applicant to minimize the risk in the business. It is called application processing.

Merchant Application

When a potential merchant submits the merchant application form, the bank asks for all the incorporation documents as mandatory during account opening. An analysis is executed by the representative officer who makes the actual visit at the merchant's location and makes a study on the merchant. On the basis of analysis conducted and history of the merchant, a merchant membership number is assigned called merchant number. The merchant is then either given an imprinter machine or an electronic terminal depending upon the volume and frequency of transaction.

Card Application

Similarly, when a potential card holder submits the card application form, first a careful study of the form is made in order to have all the relevant and required information. Thereafter, documents to justify the application request are sought after. After analyzing the concerned documents by related officer, card is issued to those who prove to have genuine intention to pay back and have the affordability to avail the card. As every new cardholder account brings new levels of risk to the organization along with benefit, the application provides the issuer with financial profile of the potential cardholder including income level, length of time at present job or business, guarantee letter from employer, home ownership, financial institutions accounts information and credit history.

Besides a person or an institution willing to have credit card need to open an account in the bank. After all the necessary analysis, card is issued but it is the right of issuer to issue the card or not and creditworthiness of applicant is the basic requirement for the issuer to decide upon it.

2.1.15 Transaction Process of Credit Cards

First of all customer apply for credit card and customer will be given a credit card if the issuer found that a customer is a match for card member. The transaction process starts when the cardholder uses the card to buy goods/ services or cash advance from merchant. The merchant prepares a sales draft using an imprinted/ electronic which contains card

number, cardholders name, and expiration date of the card, the amount of the card, the amount and the full signature of the holder.

The merchant submits the draft to the acquiring bank and gets reimbursed with the amount on the sales draft deducting agreed discount rate. The discount rate is called Merchant Service Fee (MSF). Then the acquirer sends the data to the settlement bank by technical line or by processing it through floppy and the settlement bank, Master card and Visa card international reimburse the acquirer who sends the data. The settlement bank charges the issuer and issuer bills to its cardholders who ultimately repays the issuer.

Normally in credit card business there are four parties involved (cardholders, merchant, issuer & acquirer) but some cases only three parties involved when acquirer and issuer are same.

In case of cash advance (withdraw) for foreigner, the transaction process starts when card holder goes to the merchant or acquirer or issuer (bank) for cash advance. They act as money provider for the cardholder. In this case first of all money providers have to know that whether the card is genuine or not. For this, money provider takes an authorization number.

In this process firstly money provider has to call to the credit card center, and give details (i.e. card no., expiry date, amount to be advanced etc) and the concerned officer will send telex to the Visa International. He then instantly gets a six- digit authorization no. and that will be provided to the money provider. Then money provider fills up the charge slip along with authorization no. and gets the card holder's signature along with one photocopy of passport. The provider calls his bank of the authorization and imprints the card in the imprinter to print the embossed details of the card on the charge slip and writes down the authorization number given by bank along with sales detail and amount. The provider has to submit the charge slip to the bank within three days of the sales. Then he fills the summary sheet (2copies, one for the bank and one for the merchant), attach

the respective charge slip to them and submit it to the bank. The bank charges certain percentage to the merchant (provider) depending upon their nature of business and the charge rate vary among the banks.

2.1.16 Risk and Fraud in Card Business

Besides high profitability in credit card business, there occur risks as well in the business such as fraud. Besides high profitability in the card business, there occur risks such as fraud as well. Profitability of card business may seriously undermine if losses occur due to fraud. Therefore, minimizing losses due to fraud forms an important responsibility of issuer and acquirer. The largest fraud losses may result from unauthorized use of lost and stolen cards. So, when a card is discovered to be lost or stolen, the cardholder should lodge an FIR with nearest police station as soon as he finds out the card is lost or stolen and immediately inform the concerned bank and send it a copy of the FIR. The issuer should act and quickly and record the lost or stolen card in the authorization file. Any authorization shall be declined and the card will be listed "Pick Up".

The cardholder a/c should be closed and open new a/c in order to segregate genuine transaction and unauthorized transaction. The cardholder a/c should be monitored carefully and the merchant should carefully check warning bulletins before processing a transaction under the merchant floor limit.

a) Magnetic Stripe Fraud

Magnetic stripe fraud (skimming) is recent and sophisticated fraud technology where the information in the magnetic stripe is re-encoded to the counterfeit or altered cards. The cards look genuine when used in magnetic stripe reading terminals. It is typically an "inside job" by a dishonest employee of a legitimate merchant, and can be as simple as photocopying of receipts. Many instances of skimming have been reported where the perpetrator has put a device over the card slot of a public cash machine (Automated teller machine), which reads the magnetic strip as the user unknowingly passes their card through it. These devices are often used in conjunction with a pinhole camera to read the

user's PIN at the same time. Nepali card business also witnessed such fraud very recently particularly with the ATM/Debit cards where few foreign gangs were found involved.

b) Card holder's fraud

Card holder's fraud is very difficult to uncover for the issuer. Sometimes, the cardholder may claim about losing his card and meanwhile uses them for services after reporting lost. There is also a Soft fraud which is fraud committed by the customer himself, getting a card and using it with no intention ever to repay the balance. Such customers are called "diabolicals" by the credit card companies; they try to avoid them at all cost.

c) Lost/Stolen cards

The major and the foremost risk associated with card business are with stolen/lost card. If a card is stolen and the cardholder fails to inform the bank on time, then the transactions made before the information is passed to the bank is liable to the cardholder. The bank does fight for their client but if the case is not won, then the liability has to be burdened by the cardholder himself. Carding is a term used for a process to verify the validity of stolen card data. The thief presents the card information on a website that has real-time transaction processing. If the card is processed successfully, the thief knows that the card is still good. The specific item purchased is immaterial, and the thief does not need to purchase an actual product; a Web site subscription or charitable donation would be sufficient. The purchase is usually for a small monetary amount, both to avoid using the card's credit limit, and also to avoid attracting the bank's attention. A website known to be susceptible to carding is known as a cardable website. Nowadays, carding is more typically used to verify credit card data obtained directly from the victims by Skimming or Phishing. A set of credit card details that has been verified in this way is known in fraud circles as a phish.

d) Splitting of charge by merchant

Sometimes the merchants split one single transaction into number of small transaction and present them without taking the authorization code from the acquirer. In such case

also there is immense risk associated in case the cardholder denies the merchant's transactions or the transaction gets declined.

e) Alteration of Amount

In many cases, the merchants with fraudulent intention alter the actual amount of the sales draft and present them to the acquirer. In such cases the cardholder denies the charges and presents his copy of the true amount which makes the merchant at fault and hence, is penalized.

f) Signature forgery

Such type of fraud transaction usually happens in case of lost or stolen cards where the culprit forges the signature at back of the card on the signature panel and presents to the acquirer. Such cases can be won by cardholder or by the merchants also depending upon the availability of the supporting from both ends.

g) Identified counterfeit Transaction

There are several criminal syndicates all around the globe who are engaged in the fraudulent transactions of credit cards. In the identified Counterfeit transaction these syndicates uses the BIN (Bank Identification Number) and manufacture fabricated counterfeit cards and circulates them in the market, which resemble the original cards in every aspects.

h) Unidentified counterfeit transaction

This is similar to the aforesaid in that the syndicates do not use any BIN to manufacture the counterfeit cards. The BIN used is not a valid one and cannot be traced in the interchange directory.

i) Transaction of expired card

Suppose if a merchant is making transaction, which is within his floor limit and does negligence on his part to verify the expiry date on the card and makes the transaction. In

such case the acquirer denies to process the transaction and the merchant is at loss. In some cases the draft is sent to the issuer for collection on good faith basis which is fully depended upon the description of the cardholder.

Nepal is just a toddler in the field of card business. The credit card business arena has seen numerous kinds of forgeries and frauds in card businesses which perhaps do not seem to happen in Nepal at the moment. Theft through compromised accounts, mail/internet order fraud, account take over, skimming, phishing and many other frauds are prevalent in the card market worldwide. Several strategies and solutions have been devised by card related people and organization to overcome and prevent such frauds. The description of all those frauds and measures to overcome them seems to be beyond the scope of this study, hence are not included in this thesis but the common frauds and preventive measures we can take while transacting with cards are here dealt in.

2.1.17 Risk Minimize Mechanism

In order to minimize the risk and losses in fraud cards transaction, the parties involved should keep proper monitoring of sudden high charge transaction. In case of potentially loss cards immediate use of warning bulletins and electronic negative file can be crucial for early detection and to the minimize fraud losses .The card holder should immediately notify the issuer if cards are lost or stolen. Most credit card companies have toll-free numbers and 24-hour service to deal with these emergencies -- they are eager to avoid credit card fraud. The banks in credit card business should adopt following risk management steps.

- a. Cardholder application must be carefully screened
- b. Proper monitoring of card use.
- c. Judicious collection practices.
- d. Educating the cardholder
- e. Responsiveness to risk situation in order to minimize fraud losses.
- f. The bank should keep proper monitoring for high charge transaction.
- g. Cardholder in case of lost or stolen should immediately inform the bank

- h. Credit card customers may find following tips from internet put forth by Audri and Jim Lanford (Issue #79 June 9,2004) useful in combating credit card frauds.

Internet Scam Busters' 21 Credit Card Fraud Prevention Tips:

1. Keep an eye on your credit card every time you use it, and make sure you get it back as quickly as possible. Try not to let your credit card out of your sight whenever possible.
2. Be very careful to whom you give your credit card. Don't give out your account number over the phone unless you initiate the call and you know the company is reputable. Never give your credit card info out when you receive a phone call. (For example, if you're told there has been a 'computer problem' and the caller needs you to verify information.) Legitimate companies don't call you to ask for a credit card number over the phone.
3. Never respond to emails that request you provide your credit card info via email -- and don't ever respond to emails that ask you to go to a website to verify personal (and credit card) information. These are called 'phishing' scams.
4. Never provide your credit card information on a website that is not a secure site.
5. Sign your credit cards as soon as you receive them.
6. Shred all credit card applications you receive.
7. Don't write your PIN number on your credit card -- or have it anywhere near your credit card (in the event that your wallet gets stolen).
8. Never leave your credit cards or receipts lying around.
9. Shield your credit card number so that others around you can't copy it or capture it on a cell phone or other camera.
10. Keep a list in a secure place with all of your account numbers and expiration dates, as well as the phone number and address of each bank that has issued you a credit card. Keep this list updated each time you get a new credit card.
11. Only carry around credit cards that you absolutely need. Don't carry around extra credit cards that you rarely use.

12. Open credit card bills promptly and make sure there are no bogus charges. Treat your credit card bill like your checking account -- reconcile it monthly. Save your receipts so you can compare them with your monthly bills.
13. If you find any charges that you don't have a receipt for -- or that you don't recognize -- report these charges promptly (and in writing) to the credit card issuer.
14. Always void and destroy incorrect receipts.
15. Shred anything with your credit card number written on it.
16. Never sign a blank credit card receipt. Carefully draw a line through blank portions of the receipt where additional charges could be fraudulently added.
17. Carbon paper is rarely used these days, but if there is a carbon that is used in a credit card transaction, destroy it immediately.
18. Never write your credit card account number in a public place (such as on a postcard or so that it shows through the envelope payment window).
19. Ideally, it's a good idea to carry your credit cards separately from your wallet -- perhaps in a zippered compartment or a small pouch.
20. Never lend a credit card to anyone else.
21. If you move, notify your credit card issuers in advance of your change of address

2.1.18 Procedures following Disputes

The following procedure will be followed if dispute arises:

- ❖ Chargeback cycle
- ❖ Arbitration
- ❖ Compliance
- ❖ T & E Resolution

(A). Chargeback cycle

In the event of a chargeback (when there's an error in processing the transaction or the cardholder disputes the transaction), the issuer returns the transaction to the acquirer for resolution. The acquirer then forwards the chargeback to the merchant, who must either

accept the chargeback or contest it. A charge back is an electronic message that the issuer sends the acquirer through the system which shifts the financial responsibility of transaction from an issuer to the acquirer. Basically there are four areas under which a charge back is initiated.

They are:

- ❖ Merchant Error
- ❖ Acquirer processing error
- ❖ Suspect fraud
- ❖ Acquirer did not respond to a retrieval request.

The entire process of chargeback cycle begins with retrieval request and proceeds as follows:

❖ **Retrieval Request**

The issuer on request of their cardholder may seek copies of transactions slips from the acquirer via Master card/Visa International .The purpose is to verify the transaction which is either being confused or disputed by the cardholder.

❖ **Fulfillment**

The acquirer needs to send the copy of the charge slips to the issuer after receiving retrieval request .The function of sending such slips is called fulfillment .Such fulfillment is made through Master Card (Master Card hub site to receive from acquirer and forward to issuer)via fax transfer in case of Master Card and in case of Visa, the image of sales slip is captured through scanners and sent to Visa System through Visa Online (Internet web site of Visa international),then Visa international forwards it to concerned issuers. The acquirer receives fees ranging from USD 1-8 depending on the submission.

❖ **First Charge Back**

When the cardholder or the issuer feels that the transaction is not up to their satisfaction, they have right to get back the transaction amount from the acquirer with valid reason and the process of the same is called **chargeback**. While initiating chargeback, the issuer

must mention the reason for such chargeback within the parameter set by Visa/Master Card international along with reason code. Possible chargeback reason could be; late presentation, unauthorized transaction, expire card, credit not processed, listed in warning bulletin etc.

❖ **Representation**

If the acquirer feels that the transaction was correct and as per the rules of Visa and Master Card International, it can represent the case with supporting logic and document and get back the transaction amount.

❖ **Second Chargeback**

If the issuer is still not convinced with the logic and supporting documents forwarded by the acquirer, they can initiate second chargeback and again the money .After second chargeback the acquirer will have no right to represent the case.

(B). Pre-arbitration and Arbitration

If the acquirer still feels the transaction was valid, it can file case with Master/Visa international for their ruling .Before filing arbitration case, acquirer needs to send pre arbitration to the issuer for their final consideration .If the issuer declines to the pre arbitration request or fails to respond to acquirer within the stipulated period, it submits the arbitration.

Upon receiving the arbitration case, Visa/Master Card makes the final verdict based on the documents submitted by both the parties concerned. The party, which loses the case, needs to pay filing and application fee of USD 500 along with the chargeback amount.

(C). Compliance

A merchant (issuer or acquirer) may file a dispute resolution procedure known as compliance when following conditions occur:

- ❖ A Visa operating regulation has been broken.

- ❖ The filing member has suffered or will suffer a financial loss because the rule has been broken
- ❖ No chargeback right exists

The filing member must be able to quote the exact rule from the operating regulation which they believe has been broken or clearly show the financial loss they have or will incur. The arbitration and compliance committee will then decide which party in the dispute should be held liable for the transaction, as well as bear the compliance filing and review fees. Note that a compliance case will be rejected if a chargeback right or any other dispute resolution right exists.

(D). T & E Resolution

This dispute resolution procedure can only be filed when the transaction in dispute occurred at a Hotel, or involves a US-based car rental merchant with “Specialized Vehicle Reservation Service” agreement .The dispute concerns a “No Show” transaction.

“No-show” transaction occurs when a cardholder makes a guaranteed reservation for a hotel and then fails to arrive for the booking .Under Visa’s Guaranteed Reservation Services, cardholders must cancel their booking within the merchant’s specified time frame ,failing which they will be charged for one night’s stay at hotel.

When a cardholder cancels booking within the specified time frame, the merchant must give the cardholder a cancellation code, with instruction to retain this code in case of dispute.

Dispute may arise between merchants and cardholders over cancellations and cancellation codes. Cardholders may claim that he cancelled their reservation within time frame but was not given a cancellation code. The merchant on the other hand, may insist that the cardholder did not cancel in time and must therefore pay the quoted sum.

In such cases, the issuer or acquirer may file for T&E Resolution. Visa will then decide who is at fault –the cardholder or the merchant, however, due to the difficulty of determining which member should be liable for such transaction, Visa Asia-Pacific often funds such disputed transaction on the condition that the issuer educates the cardholder and the acquirer educates the merchant on the correct procedures for canceling guaranteed reservations. There is no filing fee and no review fee for T& E resolutions .Member should note that T&E Resolution case would be rejected if a chargeback or compliance right is or was available (Thapa 2002:20-30).

2.2 Review of Related Studies

The following work papers and abstracts about credit cards are drawn from websites:

Kinley (2002), states Visa’s regional head stating that East Asia is and will be in years to come Visa’s fastest growing market. In the same work it is also stated that credit card usually generates returns on assets above 5%.

Visa International (2000), states in 1998 over 185 million bankcards were issued in Asia Pacific region alone which accounted for transaction worth over US \$330 billion. When compared to other regions such as European Union, North America, etc the volume is quite low but a consistent growth of 30% has been maintained by the payment cards sector in the payment industry .Merchant locations outlets that accepts these cards as a means of payment is over 5.4million. The growth of electronic terminals (device which executes transaction electronically) is growing at an annual rate of 40% whereas the numbers of ATMs (Automatic Teller Machines) has grown at the rate of 25%.

With demoFigureics of about two third of the worlds populations and 25% of the worlds gross domestic products- Asia pacific Region has more than 500 million bank customers. With the above stated growth rate and the emergence of middle class consumers, this fertile market displays tremendous potential to become a cash free zone with all the financial needs being handled by bankcards.

Kinley (2002), credit card spending in Korea is increasing at a rate of 90% per year. According to Visa, the volume for Visa brand only in the Asia Pacific region during 12 months ending December 31, 2000 reached US\$ 332 billion .For the same period card sales volume growth in constant dollar terms was headed by Korea-up to 102.5% at US \$ 128.4 billion .Australia -29.1% at US \$45.6 billion .and Japan –up 14% at US\$ 81.0billion .These figures only account for one single brand and when combined with the other players such Master Cards, Dinner Club. Americans express card, Japanese Bureau Card (JCB), Discovery Card etc may result in huge digits.

The most advanced and latest development in the payment in the payment card sector is the issuance of Smart Card. A Smart card is a plastic card, which has an embedded computer chip in it fostering and processing sensitive data. The application landscape includes public telephone, e-commerce, Electronic Wallets; Cable TV refreshes details, Health /Medical applications and other authentications such as Net stock brokerage, petroleum retail, and car parking. Although payment card sector is credited for the genesis of such highly sophisticated product, today many other organizations such as telecommunication companies, mass transit companies, government departments are issuing such cards. For example, Gujarat Government, a state of India, issues driving licenses based on smart cards.

Sujit Chakravorti (2003), Credit cards provide benefits to consumers and merchants not provided by other payment instruments as evidenced by their explosive growth in the number and value of transactions over the last 20 years. Recently, credit card networks have come under scrutiny from regulators and antitrust authorities around the world. The costs and benefits of credit cards to network participants are discussed. Focusing on interrelated bilateral transactions, several theoretical models have been constructed to study the implications of several business practices of credit card networks. The results and implications of these economic models along with future research topics are discussed...

In the international market credit card has become synonyms for cash .They are going to declare some places as cash free zone. Talking about our two giant neighbors, China and India, they are also rapidly moving in the credit card business fueled by their fast growing economy and increasing GDP. China is one of the fastest growing economies in the world. As per Visa International there is enormous growth potential in China. The nation has more than 30,000 international cards with the increasing numbers of foreign travel by Chinese citizens. In terms of local consumption about 70% hold debit cards for online debit purposes and the rest 30% holds deferred debit cards. China is enthusiastic about e-commerce and chip card technology, but significant infrastructure development is still to occur.

On the other hand, Visa international state India has sustained average annual growth of around 6.0% since 1990 which only seems to rise following economic liberalization after 1990.In case of payment cards, the foreign banks share is estimated at 70-75% .Citibank is the largest credit card issuer with close to 52% of the market while Standard Chartered Bank is second with about 13% of the market .In 2000 only there were about 2.5million local Visa and Master Card issued. After the government made the Indian rupee convertible the usage of international cards has increased manifolds.

The prediction for the number of payment card on issue by mid 2000 was around 10million, which have exceeded way ahead .India has some promising long-term prospects due to the rise of middle –class consumers and changing lifestyles. But in case of Nepalese card business, the number of cards and the outlets are very low in comparison to other countries.

Last year, there were 12,100 credit card users in Nepal out of which 90% were Kathmandu based. The number of credit card users is estimated to increase by 30,000-35,000 this year. According to Industry sources Nepal at present have 4,000 establishments that range from hotels, travels agencies, trekking and mountaineering

agencies, supermarkets, retail outlets etc which accepts Mater Card, Visa Card, American Express and Diners Club cards. Nepal Investment Bank alone has issued around 4,000 debit cards to this date. The debit card was launched last September and the bank soon plans to launch their credit card soon. Nepal Investment bank has facilitated first Visa electron Debit card in Nepal (Shrestha 2004:8).

“If the statistics provided by four leading banks is any indication, the microchip embedded 'plastic money' is gradually increasing its hold among the urban Nepali populace. Although it is deemed take it will several more years for Nepal to reach anywhere near India and other Asian countries where credit card and debit card spending is increasing rapidly, the indications show that Nepal is moving upwards in a positive direction.

Information provided by four major contenders of the credit and debit card sector, namely Standard Chartered Bank Nepal, Himalayan Bank, NABIL Bank and Nepal Investment Bank reveal that increasing number of urban Nepali middle class families have started resorting to the plastic cards instead of cash.

The first use of credit card in Nepal dates back to early 90s. However, even after all these years the number of credit and debit cardholders does not even account to one percent of the total population” (Source: Kathmandu Post - 'Plastic Money' increasing its foothold).

The usage of credit and debit cards among the bank account holders of Nepal also does not portray an encouraging figure. According to estimates, of the total account holders' population of around six million, only about 1.4 percent holds such cards. One of the main reasons in such a slow growth was the huge deposit – of up to Rs 50,000 – the bank used to demand to issue such cards.

But a paradigm shift in the banks' strategy to issue credit cards to non-accountholders without requirement of any cash deposits is expected to attract more people, especially the middle class families.

The scheme, which is applicable to anyone whose minimum constant monthly income is Rs 10,000, allows the cardholder to acquire credit of up to 1.5 times of monthly salary depending on one's profession, dependents, experience, among others.

"We introduced the scheme two months ago and we have already issued around 60 cards within this period," say Bijaya Nakarmi, Card Center Manager of Himalayan Bank Limited which has already issued more than 4,000 credit cards and 15,000 debit cards.

The figures provided by NABIL Bank also reveal that consumers' response towards the credit and debit cards has been overwhelming in the recent years.

According to Prabin Raj Pokharel, Cards Marketing Section Manager of NABIL Bank, of the total 5,000 credit cards issued till date since 1993, around 52 percent were issued between the last 16 months, while the bank has already issued more than 10,000 debit cards.

At present, almost all of the four banks issue credit cards, charge cards, debit cards and ATM cards with card types varying from VISA Classic and Gold to VISA Electron, Master Card and Master Card Gold. Experts think that the convenience and security of card transactions have driven the shift towards plastic money.

"Moreover, a customer can have every record of expenses made and the 'buy now pay later' policy of the credit cards allows the cardholder to make any transaction without having cash in hand," says Nakarmi of Himalayan Bank.

Experts, however, warn that people who have a history of getting into debt and buying beyond their limits should stick to using cash. “Using plastic cards is convenient and secure as one does not need to carry the cash. But this does not apply to the less disciplined ones” they say.

Bankers agree that despite the expensive interest rates, which hover between 27 to 30 percent per annum, the prospect of ‘plastic money’ in Nepal is bright.

“ With the increase of awareness and understanding of the advantages of having a credit card coupled with issuance of proprietary debit card by most of the banks, the prospect of plastic money is growing in Nepal and is very good for future too” says Bina Rana of Standard Chartered Bank Nepal (Source: Kathmandu Post - January 22, 2005).

“... Going through the figures for the past three years number of card users has grown exponentially and today it is estimated at around 3,20,000 (debit and credit cards). There are about 120 ATMs and 2,000 plus point of sales (POS) terminals across the country..... “The growth in card business has been found to be over 100 percent in the last three years,” says Rabindra B Malla, managing director of Smart Choice Technology (SCT), adding that its growth prospects are still very high. According to him there are more than 1.25 million account holders in the financial system, whereas the card users are still below 25 percent of the total account holders. “More than 75 percent market is still untapped,” he adds..... The beauty of plastic money is its wider acceptance, security, easy to carry and anytime usage for the customers, while it has helped the banks to reduce their cost of operation, feels Malla.” It has also helped the central bank (issuer of currency note) with less use of cash, as the transactions are carried out electronically,” he adds.

Malla suggests the government to take initiative for making cash-free transactions and should encourage public to use plastic money, especially for utility payments. Although at present card market is mainly limited to Kathmandu valley and other relatively bigger cities and tourist locations only, there is also a vast potential in smaller cities. Domestic banks, owing to their vast network and reach to smaller cities, can easily tap this

potential. They would be better off ,penetrating into smaller cities and bringing cards to the masses rather than sharing a small urban pie that is day to day shrinking (Source: The Himalayan Times, Thursday, September 27,2007).

Credit card is a kind of facility provided by financial or commercial bank. It is very popular in international business and their personal life but in our country it is new concept .Due to lack of necessary infrastructure for using credit card its business position is still in unsatisfactory level. However, only few researchers have done research on this credit card market. So only few working paper and previous thesis were reviewed in this thesis.

Thapa, Chandra Bahadur (2002), had conducted research on “Prospect and Challenge of credit card Business in the banking sector of Nepal” .The main objective of the research was to find out the prospects and challenges of credit card business in the banking sector of Nepal. Researcher has taken Nabil bank Ltd and Standard Chartered Bank as a sample bank.

The researcher found that the main problem of credit card business is acceptance infrastructure which takes huge amount of investment to commence. The credit card business in Nepal depends mainly upon the arrival of tourist and high fixed cost associated with card operation was portrayed as a barrier.

But the study does not give the complete answer to the research problem. The study mainly focuses on Nabil Bank Ld and only Nabil Bank does not represent the total card market .From researcher study, it can be concluded that the Thapa’s study is descriptive rather that analytical. Nevertheless, in the absence of any work paper on credit cards, his initiation to present the card market scenario of Nepal is highly commendable and is worth noting for further more studies on it. Hence, the necessity of research does not finish.

Hada, Sunila (2004), had conducted “Credit card Practices in Nepal”. In this research, researcher had tried to find out the situation of credit card in Nepal at that period considering three banks and the leader bank that led the card business and viability of card business in Nepal. In this research too the researcher had failed to present the exact business of credit card and the research is only based on secondary data. Hence the necessity of research is still not finished.

Shrestha, Rajina (2007), had conducted research on “Credit card business in Nepal with reference to Himalayan Bank Limited”. Her work is highly commendable and she had drawn significant conclusions and remarkable recommendations for Himalayan Bank. Her study is more analytical and also attempts to give a slight picture of credit card market in Nepal. But the study only deals with one bank and is only directed to identify problems of that particular bank only.

2.3. Research Gap

Credit card business is most popular form of payment among the types of payment due to its special features. But in Nepal the popularity of credit card is quite low due to ignorance about this card business. There are not many researches conducted on this topic and the study which is related to this topic is also unable to brief on the detail meaning and importance of credit card in modern life. The above two research is only based on the secondary data. Hence this research is distinct in the sense of presenting secondary data as well as primary data which shows the concise figure of credit card business in Nepalese market and how it affects modern life. An approach toward finding market scenario, card players, customer behavior, attitude toward card services, attracting future customers and retaining present customers, marketing need for credit cards, possible improvements and role to be played by different parties involved in the business has been taken in this thesis.

CHAPTER – III

RESEARCH METHODOLOGY

3.1 Introduction

Stated simply, research means to search again. We study the social problems again and again to find out something more about the phenomena. The first look may not always be adequate. It may be prone to error. Therefore, we look into the phenomenon again and again and study the problem differently and thoroughly each time. This process of searching again and again is known as research. Research is a knowledge building process. It generates new knowledge, which can be used for different purpose. Research is undertaken not only to solve a problem existing in the work setting, but also to add or contribute to the general body of knowledge in a particular area of interest to the researcher. Thus research is an organized, systematic, data based, critical, scientific inquiry or investigation into a specific problem, undertaken with the objective of finding answers or solutions to it (Wolff and pant 2005:5).

Methodology is the research method used for investigation. Research Methodology is the way of doing and completing research work. It is the way to solve the research problem systematically. The systematic and well organized way of solving the research problem can be referred to as research methodology. The research methodology methods and techniques are convenient and appropriate for analyzing the data and information collected. This includes personal observation, questionnaire distribution, secondary data collection, annual report, previous study, websites of commercials banks etc. Research methodology depends on the various aspects of research projects. The size of project, the objective of project, impact of project in various aspects of human life etc are the variables that determine the research methodology of the particular projects.

Preparation of the report (i.e. stating or writing down the result)

The topic of the problem has been selected as credit card operation. A study on credit card operation of Nabil bank, Standard Figureered bank and Himalayan bank with

tentative objectives of pointing out the problem, as well as to determine ways of retaining present customers while attracting future customers has been conducted.

3.2 Research Design

A research design is a plan or blue print of investigation for the collection and analysis of data .It helps the researcher in the right direction in order to achieve the goal.

This is a descriptive, diagnostic and development research. Descriptive research is essentially a fact finding approach relative largely to present and abstracting generalizations by cross sectional study of the current situation and diagnostic research design relates to problem and to find out that solution. The research can also be taken as a development approach as it takes the developmental approach in finding out the solution. The research can also be taken as a development trend of credit card business in Nepal. This research shows trend of credit card business in Nepal.

3.3 Population size and sample Unit

There are twenty-three commercial banks operating in Nepal at present. Population refers to the target group on whom we have conducted our research. Currently there are four banks providing credit card facility and they are HBL, SCBNL, NIBL and NABIL banks.

3.4 Sampling Procedure

Sampling is the process of selecting the sample from the given population. The method of selecting a sample usually depends upon the nature of the investigation. Under different techniques of sampling, judgmental sampling technique has been used in this study. The sample banks for this study are HBL, SCBNL and NABIL bank.

3.5 Sources of Data

Each field work has its own data needs and data sources. Data for this study has been collected from basic two sources namely primary data and secondary data.

3.5.1 Primary data

They are first hand data. They are obtained directly from the source. For primary data collection interview was taken with staffs in the concerned department. Interaction and interviews with card users and merchants were also carried out. Direct interview with the staffs, officers and departmental heads involved in the credit card center was also made. The officer clarified all the data and gave all the required information in relation to the study. Regular unstructured and structured interviews were conducted with the said groups during the research period.

3.5.2 Secondary Data

Secondary data are those data that has already been generated by others. Sources of secondary data for this study includes sales information, accounting data, internally generated reports which are found within the company and web site of the company and sources refers to books, websites, publication periodicals, data service and computer data banks, reports and statistics gathered and compiled by other prior to study.

Sources for this study have been listed below:

- ❖ Data and information relating to Credit card collected from HBL, NABIL, and SCBNL and provided by department head at Kumari Bank Limited.
- ❖ Consolidated report of Nepal card Member forum.
- ❖ Publication of HBL, NABIL, SCBNL.
- ❖ Annual reports of different years.
- ❖ By monthly newsletter of HBL, NABIL, SCBNL.
- ❖ Internet articles and previous thesis and project works

3.6 Data Collection Procedure

Both primary and secondary data were used in preparing these reports. And data was obtained directly from concerned staffs in the credit card centre of the concerned banks. Previous theses were also consulted for the consolidated data record from Nepal card member forum. As mentioned above few data were also taken from the card department head of Kumari Bank Limited.

3.6.1 Structured Questionnaire

Structured questionnaires were prepared for three different sample groups; Customers (card users), Merchants and Departmental stores. Few banking staffs and friends working at Alpine Travel Service and various banks with acquaintance of credit card were also consulted.

Customers

This questionnaire was targeted to people regardless of sex, age, education or any other such demographic criteria, the only requirement was that the respondent had to have a credit card of any bank of Kathmandu. This questionnaire was designed so as to focus on specific reason for acquiring credit card and choosing particular banks for doing so. For the credit card holders, the question mainly focused on the types of credit card acquired, means of gathering information about credit card, reasons for acquirement and problems encountered with usage of card, frequency of usage, places of usage, reasons for usage, future plans of termination and reasons for doing so.

Merchants

The merchant's questionnaire was targeted to merchants of different establishment such as departmental stores, restaurants, hotels, travel agents and others such as retail outlets concentrated in Lalitpur, Bhaktapur and Kathmandu. The questionnaire was divided into two portions; one focused on Merchants having credit cards facilities and the other merchants not having the facilities. The first section consists of questions focused on the acquiring bank, reasons for selection of bank, reasons for acquirement of facilities, frequency of usage of credit card and problems encountered with usage of card. The second section comprises of questions regarding reasons for not acquiring credit card facilities, reaction of customers to absence of credit card facility and whether there is planning for installing credit card facility and reasons for doing so or if not then why.

Departmental Stores

Departmental stores questionnaire was targeted to departmental stores providing credit cards facilities to their customers. This questionnaire was designed so as to find out the reasons for selection of different banks cards. The questionnaire included most of the questions in 'Merchant' questionnaire. Furthermore, apart from general information, acquiring bank, reasons for selection of bank, reason for acquirement of facilities, frequency of usage of credit cards and problems encountered with usages of cards were asked.

Besides questions were also made to staffs of Alpine Travel Service and few banks for their say on credit cards, the credit cards of their particular bank, problems in marketing frauds and the general awareness and perception on credit card from their side as well as their view on general people thinking on credit cards.

3.7 Methods of Data Presentation and Analysis

As stated earlier, the basic structure of this study is descriptive and analytical as well. In order to make the study more precise, the data are presented in tabular form. Figures and diagrams are used to clarify and verify the data presented.

Various statistical tools are used to evaluate the performance of credit card business. Card business comparison among Nabil Bank Ltd, Himalyan Bank Ltd, Standard Chartered Bank Ltd and Nepal investment Bank Ltd is also made.

3.8 Statistical Tools Used

The following statistical tools are used to evaluate the working performance of credit card business in credit card market in Nepal.

Standard deviation

The standard deviation measures the absolute dispersion. The chief characteristics of standard deviation are that it is based on mean, which gives uniform and dependable

results. A standard deviation is the positive square root of average sum of squares of deviations of observations from the arithmetic mean of the distribution. Karl Pearson introduced the concept of standard deviation in 1823 and denoted it by small Greek letter ‘ σ ’ called sigma.

Coefficient of Variation (C.V.)

The standard deviation in the formula gives an absolute measure of dispersion. The C.V. is used for comparing the homogeneity, uniformity, and variability of two or more distributions. Here, where the mean value of the variable is not equal, it is not appropriate to compare two pairs of variables based on standard deviation only. The coefficient of variation measures the relative measures of dispersion, hence capable to compare two variables independently in terms of their variability. Coefficient of variation can be expressed mathematically as,

$$\text{Coefficient of variation (C.V)} = \frac{\sigma}{\bar{x}}$$

Correlation of Coefficient

Correlation coefficient may be defined as the degree of linear relationship existing between two or more variables. Two variables are said to be correlated when the change in the value of one variable is accompanied by the change of another variable. It is denoted by small r and is expressed as,

$$\text{Correlation coefficient (r)} = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2 (Y - \bar{Y})^2}}$$

Trend Analysis/Time Series

Economists and business experts have often to deal with variates (quantities) which change in value with time. Variation of such quantities with time can be systematically studied and analyzed by presenting on the Figures. For obtaining knowledge about the nature of variation of a quantity along with time, time series can be used. Hence the time

series is used to measure the change of the economical and commercial data like population, sales, productions, exports, and imports over a period of time.

When a series of data pertaining to a series of continuing periods should be studied, its characteristics and its future direction is best estimated by the time series. This analysis is a series of data keeping in mind the various short term and long term fluctuations.

The data of last five years from 2003 to 2007 has been used in measuring the trend analysis. The least square method to trend analysis has been adopted to measure the trend behavior of sampled bank. The straight line trend of series of data is represented by the following formula:

$$Y = a + b x$$

Here 'Y' is used to designate the trend values to distinguish them from the actual 'y' value; 'a' is the 'y' intercept of the computed trend figure of the y variables. It is the minimum value of Y when x=0, and b represents the slope of the trend line. It is the regression coefficient of Y on x or rate of change in Y for the unit change in x.

CHAPTER – IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter deals with the analysis and interpretation of the data collected from various sources and research methodology. In the course of analysis, data gathered from the various sources have been presented in tabular form. Various tables prepared for the analysis purpose have been shown in the appendix. Data has been analyzed by using financial and statistical tools.

4.2 User Trend of Credit Card Business

The credit card business is in an initial phase in Nepalese market. Hence the users of credit card are subsequently low. The following table shows the number of credit card users of the sample banks: NABIL, HBL and SCBNL for the past 5 years.

Table 4.1
User Trend of Credit Card Business

Year	NABIL	HBL	SCBNL	Industry
2002-2003	4910	4088	6777	15775
2003-2004	5450	5683	7454	18587
2004-2005	5940	7388	8200	21528
2005-2006	7200	8852	9020	25072
2006-2007	7500	10249	9364	27113
Average	6200	7252	8163	21615
Growth	11.34%	26.15%	8.45%	14.56%
Standard Deviation	998.42	2192.40	1151.14	4134.27
Coefficient of variance	16.10%	30.23%	14.10%	19.13%

Figure 4.1
User Trend of Credit Card Business of Nepal

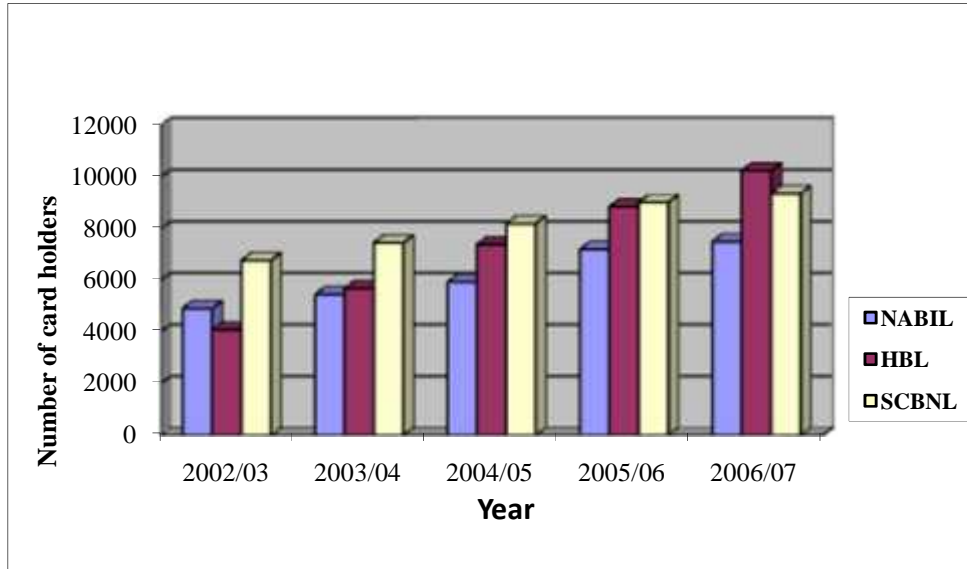
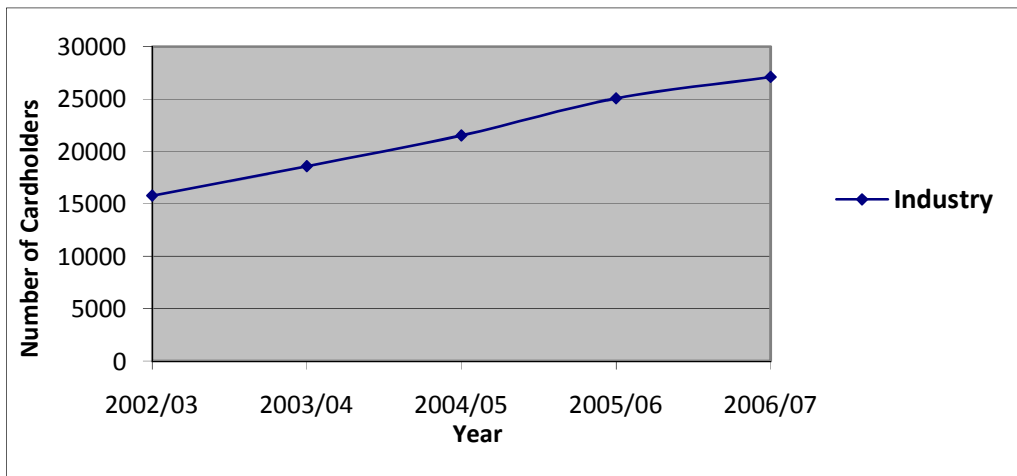


Figure 4.2
User Trend of Industry



The above table shows the trend of cards users of NABIL, HBL, SCBNL and Industry. The average users of different banks: - NABIL, HBL, SCBNL and Industry are 6200, 7252, 8163, and 21615 respectively. In comparison among the three banks HBL has the highest number of card users while it was SCBNL previous year. Similarly annual growth

rate of sample banks NABIL, HBL, SCBNL and Industry are 11.34%, 26.15%, 8.45% and 14.56% percent respectively. HBL has the highest growth rate among the three sample banks and SCBNL has the lowest growth rate which is not different from the previous year.

Standard deviation shows the volatility of the user trend. From above data, the standard deviation of NABIL, HBL, SCBNL and Industry are 998.42, 2192.40, 1151.14, and 4134.27 respectively. While analyzing the volatility of user trend, HBL has the highest volatility among three sample banks but all banks have less volatility than the industry.

The coefficient of variance measures the risk of business, higher the C.V. higher the risk, lower the C.V. lower the risk of business. From above data, the coefficient of variance of sample banks NABIL, HBL, SCBNL and Industry are 16.10 percent, 30.23 percent, 14.10 percent and 19.13 percent respectively. HBL has the highest C.V. It shows that HBL has higher risk than other banks. Similarly SCBNL has lowest C.V. and it shows that it has lower risk.

In spite of having the highest number of cardholders and growth rate, HBL has the greatest volatility and risk. SCBNL has lowest growth rate but relatively lower risk.

4.3 Merchant Trend of Credit Cards Business

The acceptance infrastructure plays vital role in boosting the card business. It encourages people to use the card and facilitates payments without immediate cash. The following table shows the merchant trend of credit card business.

Table 4.2
Merchant Trend of Credit Card Business

Year	NABIL	HBL	SCBNL	Industry
2002-2003	750	619	693	2062
2003-2004	900	708	762	2370
2004-2005	1050	750	838	2638
2005-2006	1200	777	922	2899
2006-2007	1250	926	1005	3181
Average	1030	756	844	2630
Growth	13.78%	10.77%	9.74%	11.47%
SD	186.01	100.45	110.96	391.47
Coefficient of variance	18.05%	13.28%	13.14%	14.88%

Figure 4.3
Merchant Trend of Credit Card Business

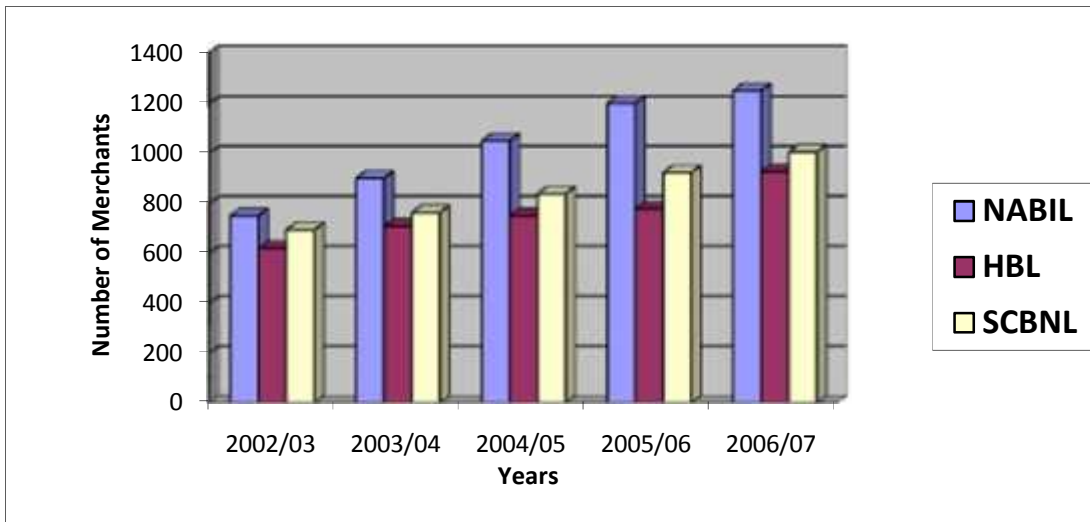
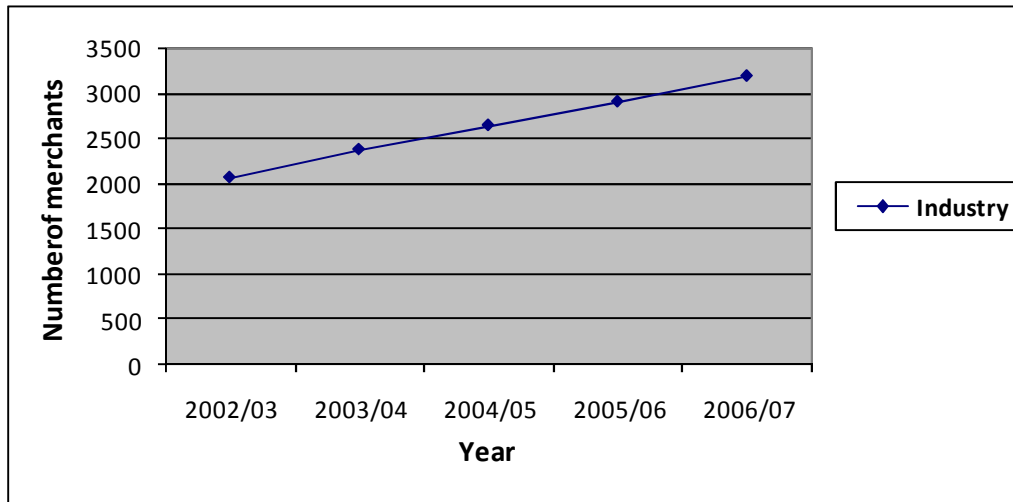


Figure 4.4
Merchant Trend of Industry



Above table and figure show the merchant trend in card business. Among the sampled banks NABIL, HBL, SCBNL and Industry have average number of merchant 1030, 756, 844 and 2630 respectively. NABIL has the highest and HBL has lowest average number of merchant among the sample banks.

Similarly annual growth rate of sample banks NABIL, HBL, SCBNL and Industry are 13.78 percent, 10.77 percent, 9.74 percent, and 11.47 percent respectively. NABIL bank has the higher growth rate than HBL and SCBNL. SCBNL has the lowest growth rate of merchant while it was HBL previous year.

Standard deviation of NABIL, HBL, SCBNL and Industry are 186.01, 100.45, 110.96 and 391.47 respectively. It shows that volatility of merchant of NABIL is highest. All banks have less volatility compared to Industry.

The coefficient of variance of sampled bank NABIL, HBL, SCBNL and Industry are 18.05 percent, 13.28 percent, 13.14 percent, and 14.88 percent respectively. Analyzing these figures, NABIL has the highest risk and SCBNL has lowest risk.

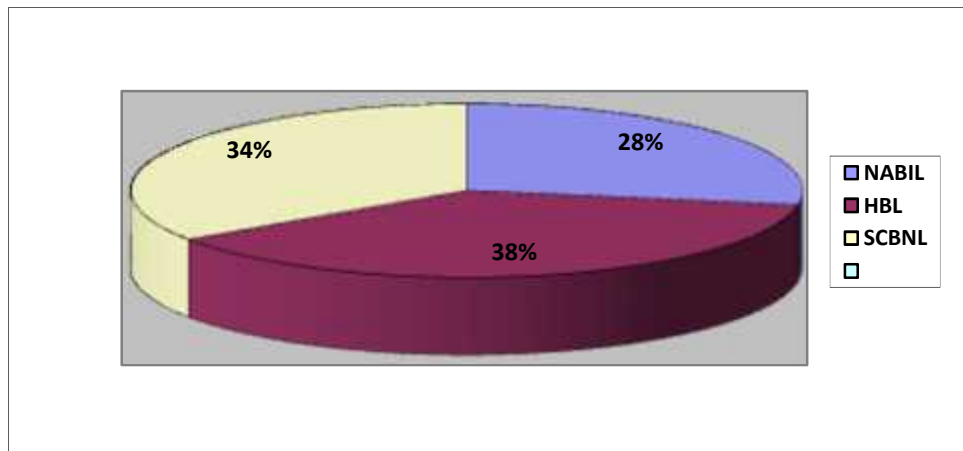
Though NABIL has the highest number of merchant and growth rate it has greater volatility and risk among the three banks.

4.4 Present Market Share Hold by Different Banks

In context of Nepalese credit cards business NABIL, HBL, SCBNL, and NIBL as well are involved. Since, we are considering only three banks NABIL, HBL, and SCBNL, in the following Figure, market share of sampled banks are presented in case of number of cardholders and merchant.

Figure 4.5

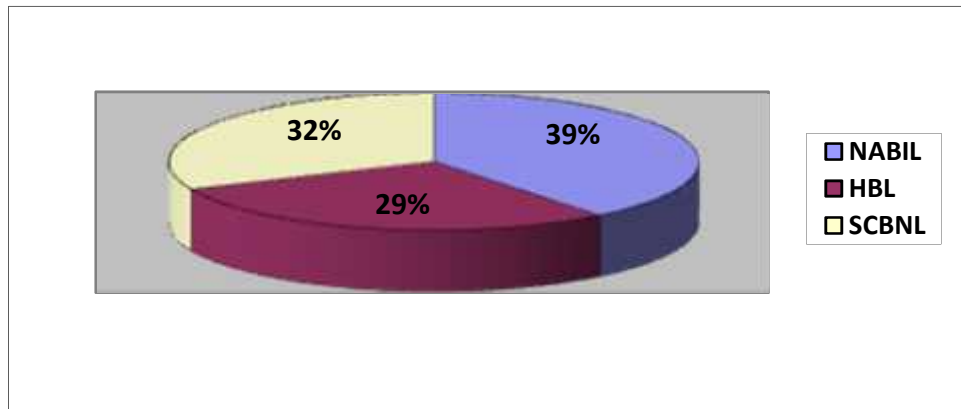
Market share of banks in terms of number of cardholders for the Year 2006/07



Above Figure shows the market share of different banks involved in credit cards business. In case of number of card holders or issuance market HBL, SCBNL and NABIL hold 37 percent, 35 percent and 28 percent respectively. HBL has the highest percentage and NABIL has the lowest percentage among three banks regarding card issues.

Figure 4.6

Market share of banks in terms of merchant hold for the Year 2006/07



Above figure shows the market share of number of merchant hold by banks in credit card business. NABIL, HBL and SCBNL hold 39 percent, 29 percent and 32 percent respectively. The figure indicates the highest and lowest share of NABIL and HBL respectively.

Though in terms of issuance HBL has the highest market share, in case of merchant it occupies the lowest market share. Similarly in terms of issuance NABIL has the lowest market share but with merchant hold it almost has the largest market share.

Measuring Correlation (r)

Correlation coefficient helps to find the relationship between variables and how they move together. In this study relationship between different banks in case of cardholder and merchant is calculated and found as follows.

Table 4.3

Correlation Analysis of NABIL Bank

Tools	NABIL with HBL	NABIL with SCBNL	NABIL with Industry
Correlation (No. of cardholders)	0.67	0.96	0.89
Correlation (No. of merchants)	0.91	0.98	0.99

According to the above table the correlation between the number of cardholders of NABIL Bank with HBL, SCBNL and Industry are 0.67, 0.96 and 0.89 respectively and number of merchant are 0.91, 0.98 and 0.99 respectively, which indicate NABIL has positive correlation with HBL and higher and positive degree of correlation with SCBNL and Industry. This means NABIL, SCBNL and HBL move in the same direction. In case of number of merchants also NABIL has positive and high degree of correlation with other sampled banks and industry.

Table 4.4
Correlation Analysis of HBL

Tools	HBL with NABIL	HBL with SCBNL	HBL with Industry
Correlation (No. of Cardholders)	0.67	0.98	0.99
Correlation (No. of Merchant)	0.91	0.96	0.96

Above table shows the relationship of cardholders of HBL with NABIL, HBL with SCBNL and HBL with Industry. HBL has positive correlation with NABIL and a high degree of positive correlation with SCBNL and Industry. In case of number of merchant also HBL has positive and high degree of correlation with NABIL, SCBNL and Industry.

Table 4.5
Correlation Analysis of SCBNL

Tools	SCBNL with NABIL	SCBNL with HBL	SCBNL with Industry
Correlation (No. of Cardholders)	0.96	0.98	0.98
Correlation (No. of Merchant)	0.98	0.96	0.99

According to above table, the correlation between the number of cardholders of SCBNL with NABIL, SCBNL with HBL, and with Industry are 0.96, 0.98 and 0.98 respectively

and number of merchants are 0.98, 0.96 and 0.99 respectively. SCBNL has positive and high degree of correlation with all other banks and industry in terms of both card issuance and merchant hold which indicates that SCBNL is moving in positive direction with other banks and industry.

4.5 Trend Analysis

For obtaining knowledge about the nature of variation of a quantity along with time, time series is used. When a series of data pertaining to a series of continuing periods should be studied, its characteristics and its future direction is best estimated by the time series. The most commonly used method to describe the trend is the method of least square which helps us know the movement of variables and by using this tool the future value can be predicted. In this analysis for predicting the future value of new number of cardholder and number of merchant for present year 2007/2008, least square method is used and the summarized values are as follows:

Table 4.6
Projected Values of Different Banks for the Year 2007/2008

Tools	NABIL	HBL	SCBNL	Industry
No. of cardholder	8279	11899	10185	30363
No. of merchant	1420	961	1079	3460

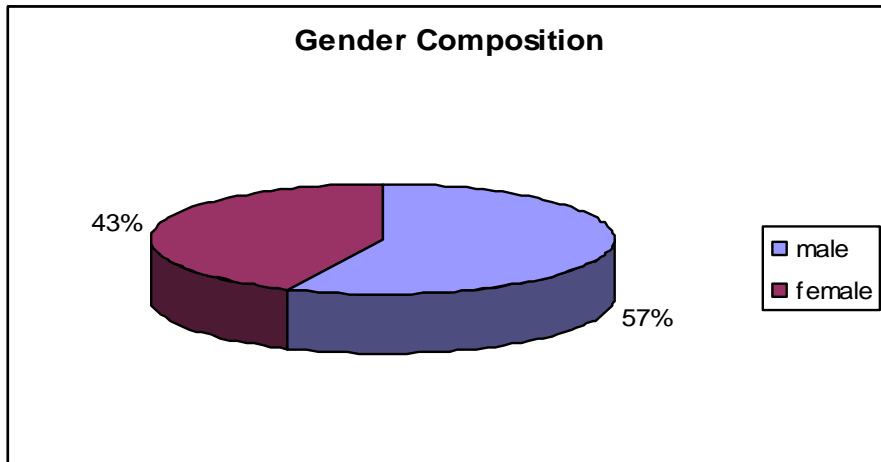
Above figures show the data for year 2007/2008 according to table, the number of card holder and number of merchants of NABIL in 2008 is 8279 and 1420 respectively. Similarly number of cardholder of HBL in 2008 is 11899 and merchant is 961 and SCBNL's number of cardholder and merchant for 2008 is 10185 and 1079. Similarly, number of cardholders and merchants of Industry in 2008 is 30363 and 3460 respectively.

4.6 Result Section of Questionnaire

Credit Card Customers

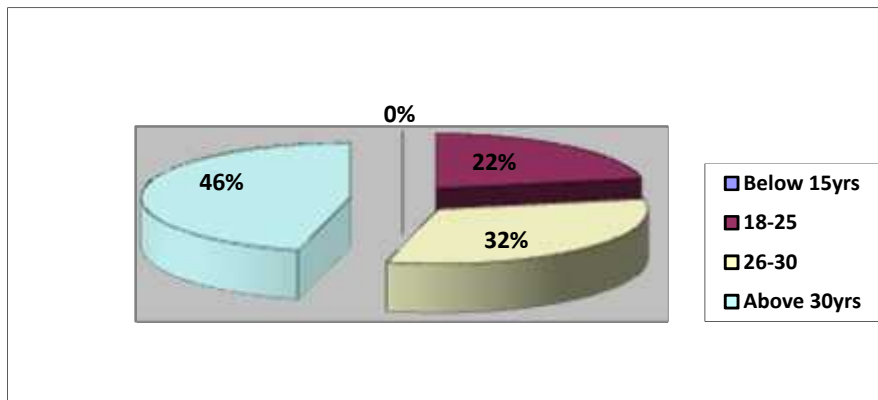
As per Figure 4.7, out of 50 respondents (cardholding customers), 57% were male and 43% female.

Figure 4.7
Gender Distribution of Customers



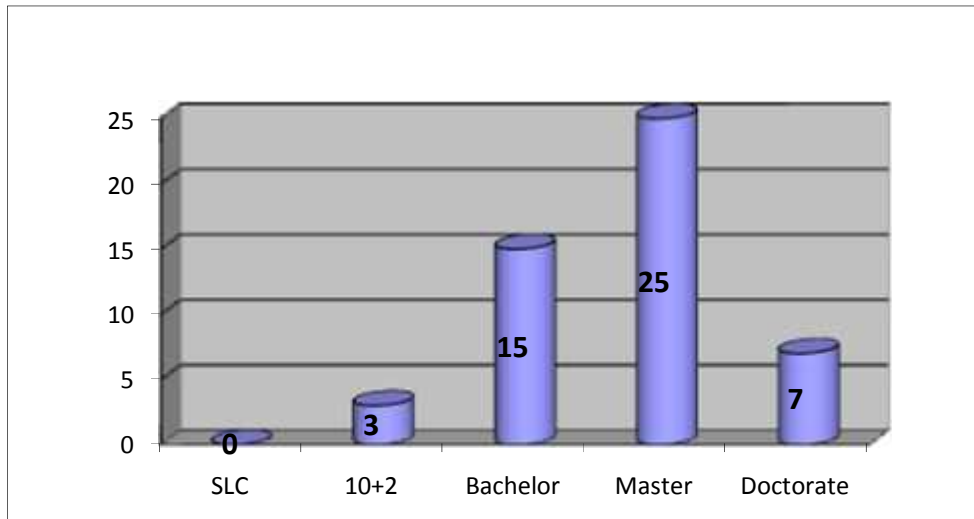
As per figure 4.8, out of 50 customers on the basis of age group, 46% were above 30, 22% were between age 18-25 and 32% were between 26-30 years.

Figure 4.8
Age Distribution of Customers



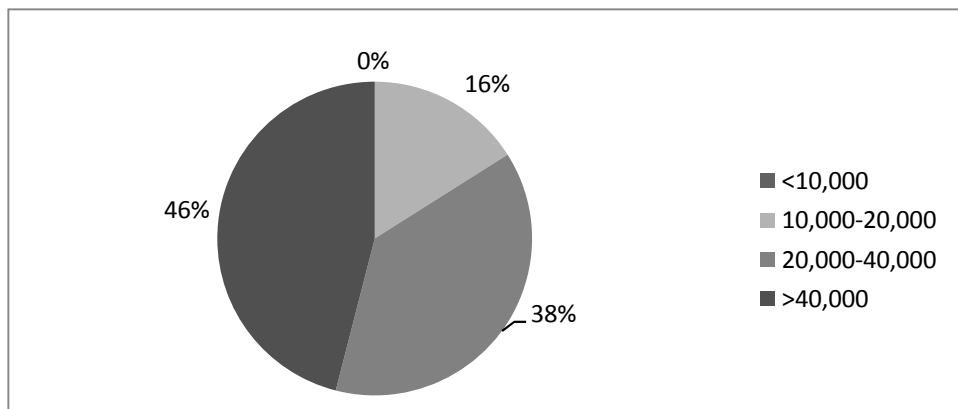
As per figure 4.9, out of 50 respondents on the basis of educational background, 6 % were of 10+2 level, 30% had Bachelor degree, 50% had master degree and the remaining 14 % had doctorate degree.

Figure 4.9
Education Level of Customers



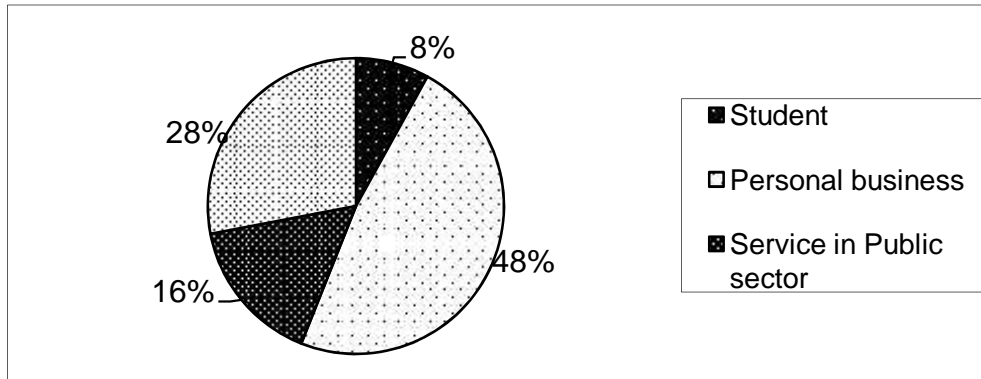
As per Figure 4.10, of the 50 respondents possessing credit card, 46 % (23) cardholders had monthly income above Rs.40, 000, 38 % (19) earned between 20,000-40,000 and 16% (8) earned monthly income between 10,000-20,000.

Figure 4.10
Income Level of Cardholders



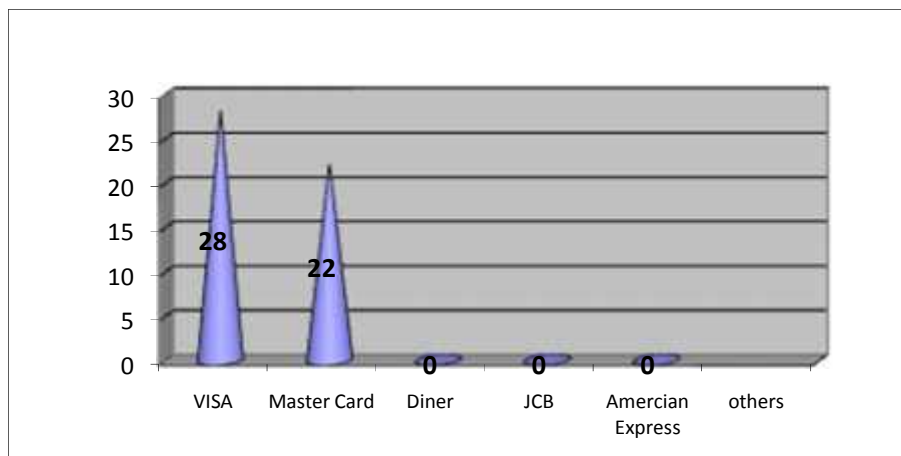
As per figure 4.11, majority of the respondents surveyed own their own personal business. In fact 48% (24) had business of their own 28 % (14) worked in private sector and this was followed by student at 8% (4) and public sector employee 16% (8).

Figure 4.11
Profession of Cardholders



As per figure 4.12, out of 50 respondents, 56% respondents have had VISA card and 44% had master card. Hence we have found that customers are simultaneously using VISA card and Master Card. None of my respondents possessed JCB, Diners, American Express and other cards. These cards are mostly held by tourists and foreigners and the acceptance infrastructure for these cards is slowly growing. These cards are accepted in few departmental stores, merchants (travel agency and hotels only).

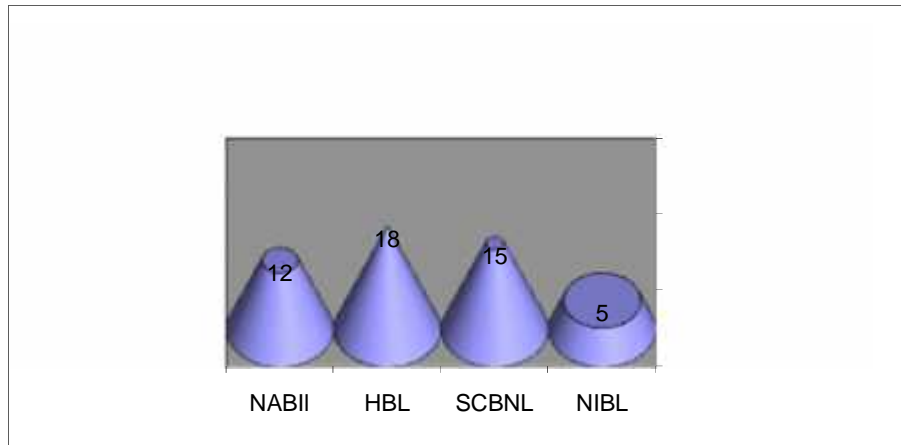
Figure 4.12
Types of Cards



As per figure 4.13, among the sample banks, it is seen that most of the customers have acquired credit card of Himalayan Bank Limited. 36% cardholders acquired card of

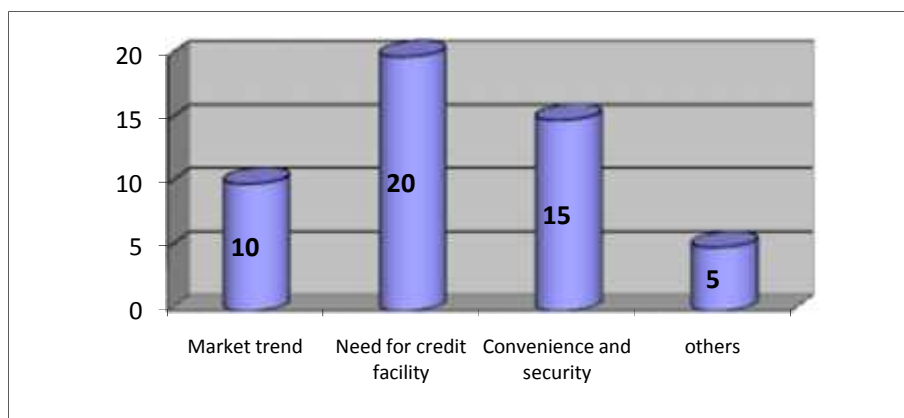
Himalayan bank, 30% acquired card of SCBNL, 24% acquired card of NABIL Bank Limited and 10 % acquired card of NIBL.

Figure 4.13
Cards Acquired of Different Banks



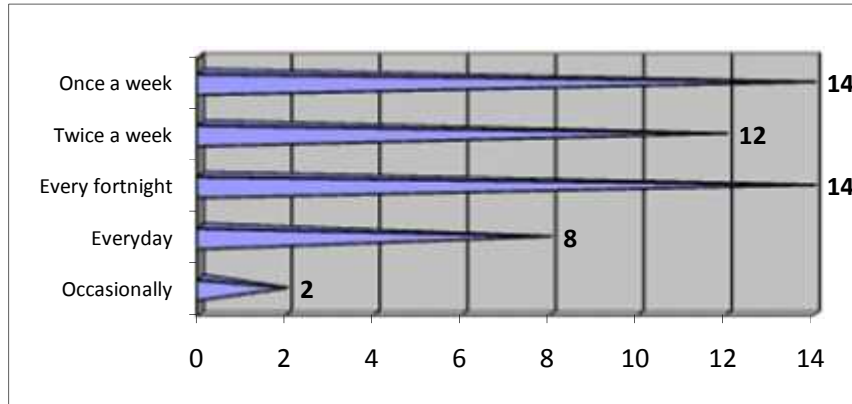
As per figure 4.14, out of 50 respondents, 20% decided to acquire credit card because of increasing market trend, 40% decided to acquire card because they needed credit facilities, 30% decided to acquire card because of convenience and security and 10% acquired card for various other reasons. Hence we can see that majority of customers acquired card for credit facility as well as to keep up with market trend, convenience and security.

Figure 4.14
Reasons for Acquiring Credit Card



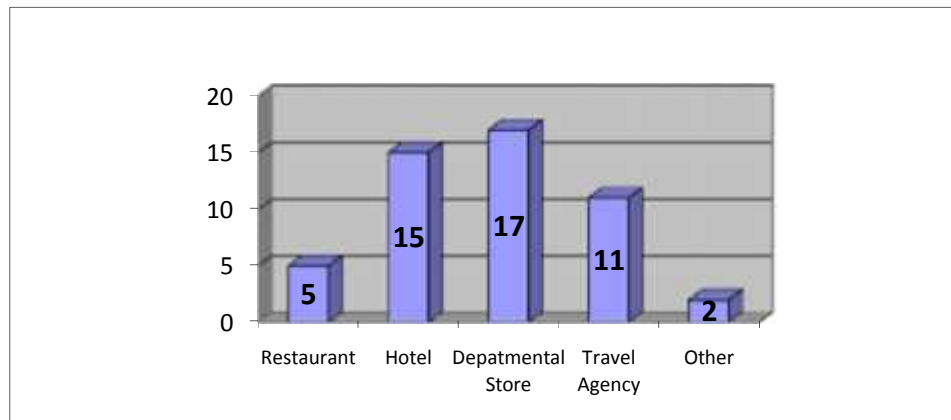
As per figure 4.15, of the 50 respondents, it was found that 28 % of them purchase through credit card once a week, 24% of them use it twice a week ,28 % of them use it every fortnight, 16 % of them use it every day and 4% of them use it only occasionally.

Figure 4.15
Purchase through Credit Card



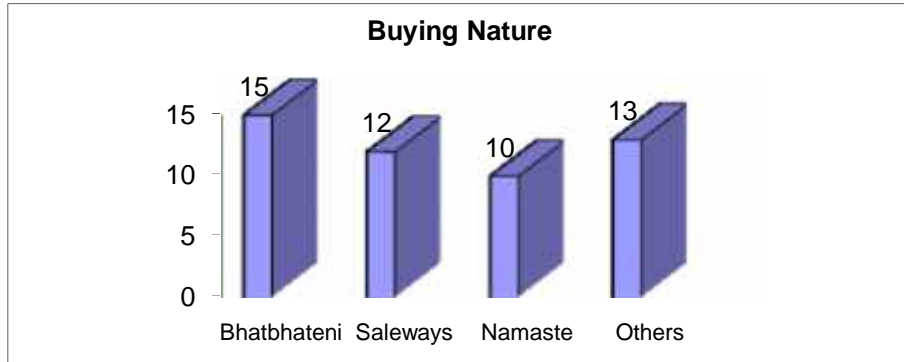
As per figure 4.16, out of 50 customers, 10 % use credit card in restaurant, 30 % of them use at the hotel and 34 % of them use at departmental stores. Likewise, 22 % of them use credit card at travel agency.

Figure 4.16
Places of Usage of Credit Card



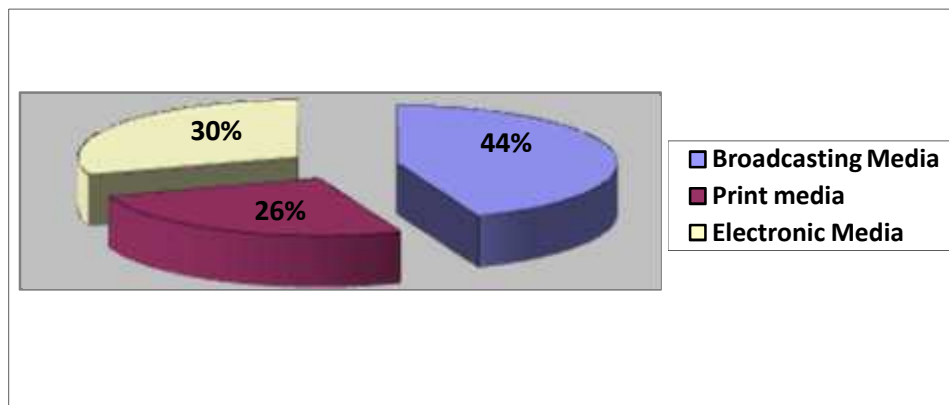
As per figure 4.17, out of 50 customers having credit card, 30 % of them use their card at Bhatbhateni Supermarket, 24% of them use card in Saleways Supermarket, 20 % at Namaste Supermarket, 26 % of them use their credit card at other supermarkets and stores.

Figure 4.17
Buying Nature of Customers



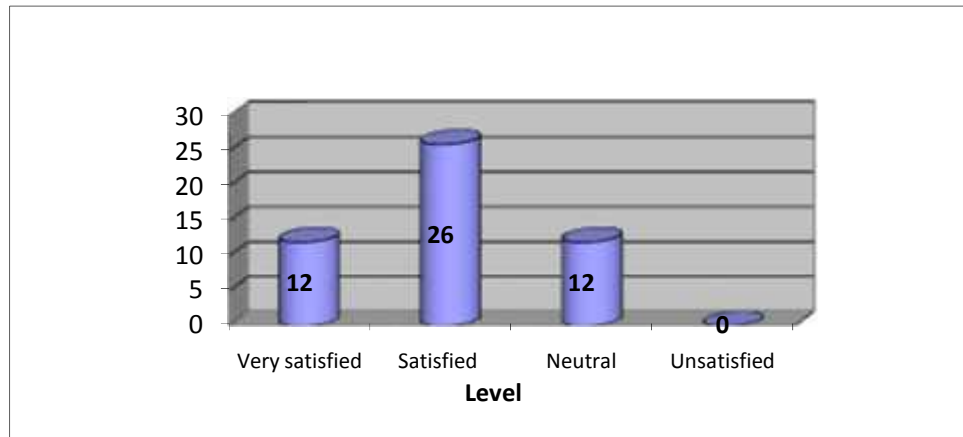
As per figure 4.18, from the sample size of 50, it was seen that most of the customers,44%,were acquainted with credit card through broadcasting media like, TV, radio and the next effective media from which they came to know about the credit card were electronic media and print media, which comprised of 30 % and 26% respectively.

Figure 4.18
Appropriate Media



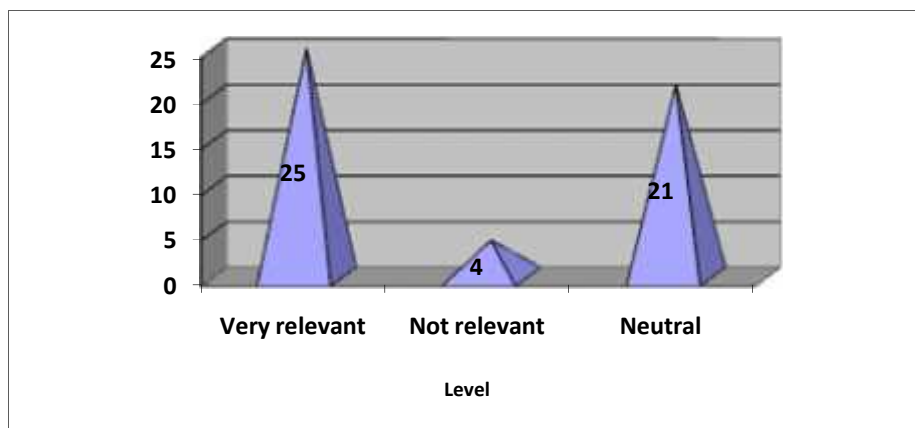
As per figure 4.19, out of 50 customers, 24 % of them possessing card were very satisfied, where as 52 % of them said they were satisfied and 24 % of them were neutral while no one felt they were unsatisfied by the credit card they availed.

Figure 4.19
Level of Satisfaction



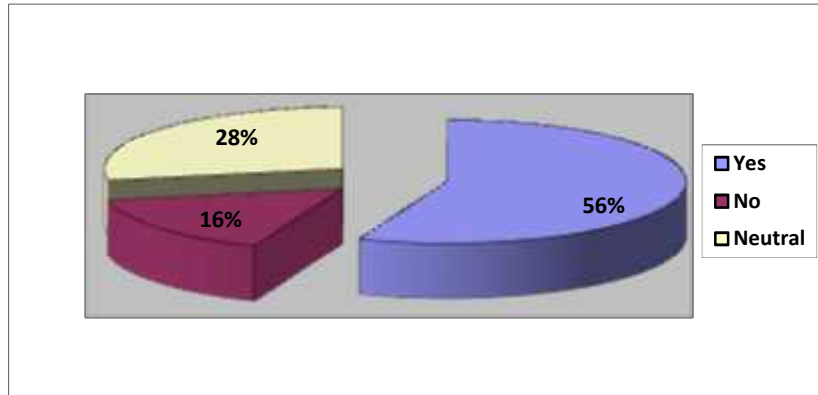
As per figure 4.20, out of 50 customers, 50 % felt that the facility of credit card being adopted by the bank is very relevant in commercial banking, 8% felt it was not so relevant and 42% of them had no opinion and were neutral about the facility of credit card being adopted by the different bank.

Figure 4.20
Relevancy of Credit Card Facility by Bank



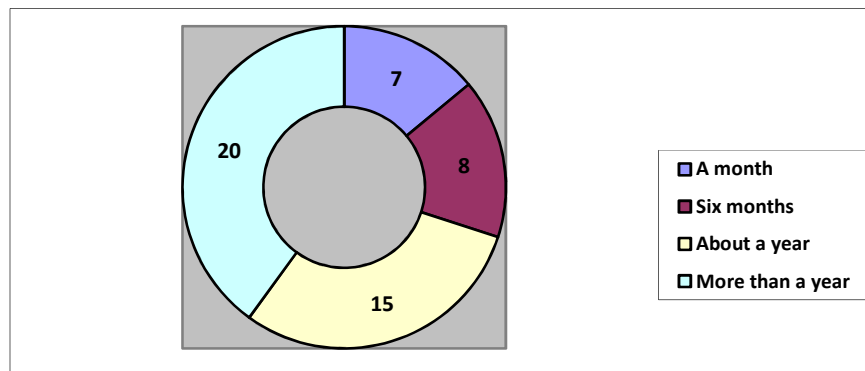
As per figure 4.21, out of 50 customers, 56% (28) were satisfied with the limit made by the bank where as 16 % (8) were not satisfied with the limit and similarly 28% (14) of them were neutral about the limit made by the bank.

Figure 4.21
Satisfaction in Limit made by Bank



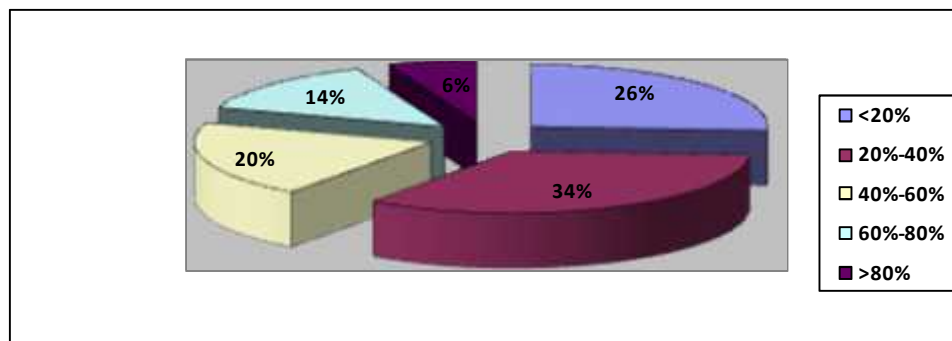
As per figure 4.22, out of 50 respondents, 40% (20) were found using their credit card for more than a year, 30% (15) of them had almost used their credit card for a year and 16% (8) were using for about six months. Likewise, only 14 % (7) had recently acquired their credit card, about a month.

Figure 4.22
Time elapsed since Card Acquired



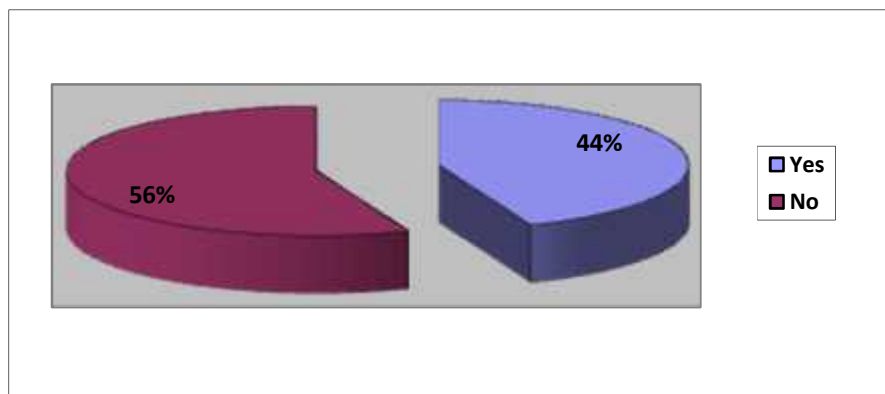
As per figure 4.23, out of the 50 card holders, it was found that 26 % of the card holders make less than 20% of their purchases through credit card, 34 % of them make 20% - 40 % of their purchases through credit card. Similarly, another 20% make 40% - 60% of their purchases through credit card and likewise 14% of the card holders make 60%-80% of their purchase with it and the customers who make more than 80% of their purchase only comprised 6 % which is pretty low.

Figure 4.23
Expenses through Credit Card



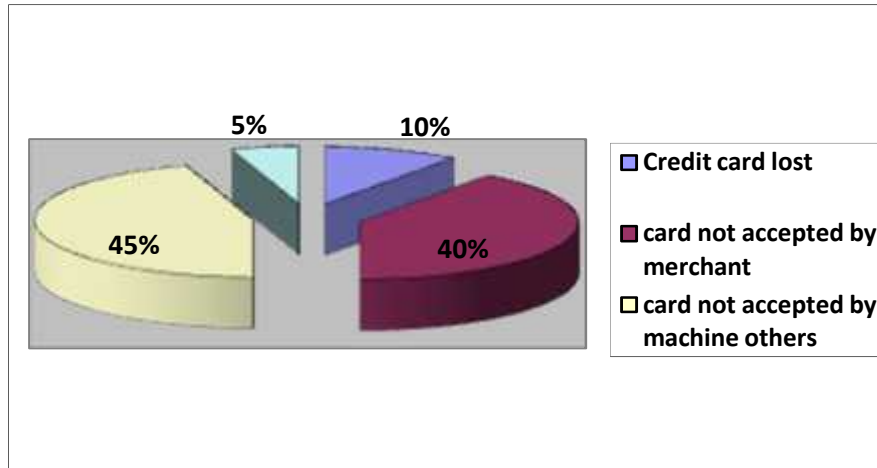
As per figure 4.24, out of 50 card holders, 44 % had encountered different types of problems and rest of 56 % of card holder had not yet faced any sort problem.

Figure 4.24
Problems Encountered



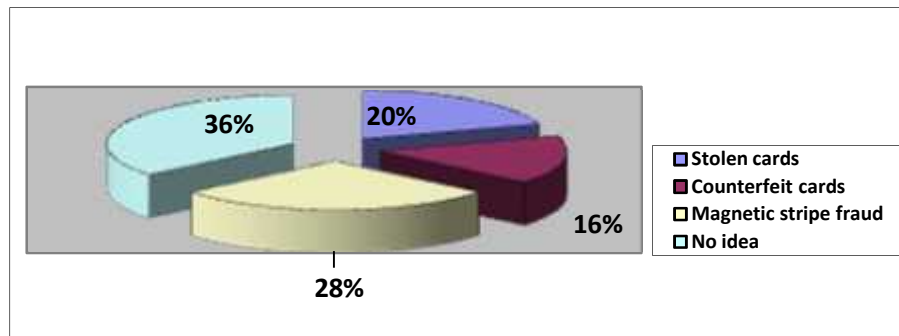
As per figure 4.25, among those who encountered problems with their credit card, 45% faced problem of non acceptance of card by machine and 40% faced problem of non acceptance by merchant.

Figure 4.25
Types of Problems Encountered



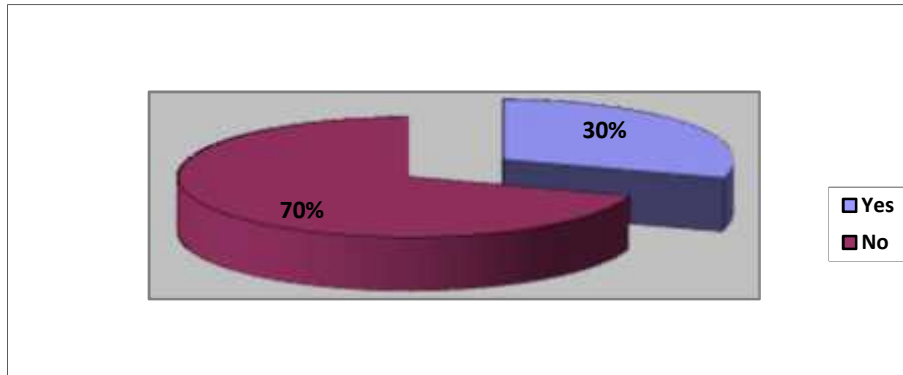
As per figure 4.26, out of 50 respondents, almost 36% had no idea on credit card frauds, 20% were aware on risk of cards stolen, 16% knew about counterfeit card frauds and 28% knew about magnetic stripe fraud due to recent happening of such frauds in ATMs and POS machines.

Figure 4.26
Knowledge on Card Frauds



As per figure 4.27, out of 50 respondents, only 30% turned out to know about disputes in credit card and the settlement process due to their experience with it and by learning from internet. However 70% showed no familiarity with the process.

Figure 4.27
Knowledge on Credit Card Disputes



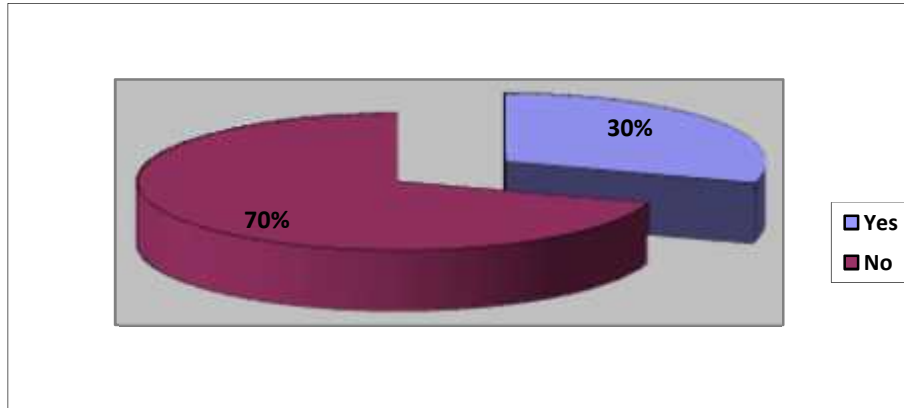
As per figure 4.28, out of 50 respondents, 34% would give up their current card for a new card if the card has wider acceptance while 26% were also ready to change cards or acquire a new one if they receive tangible promotions from banks. Also 24% would change cards if the service fees are low and 16 % cited goodwill as an incentive for change.

Figure 4.28
Incentive to Change Cards



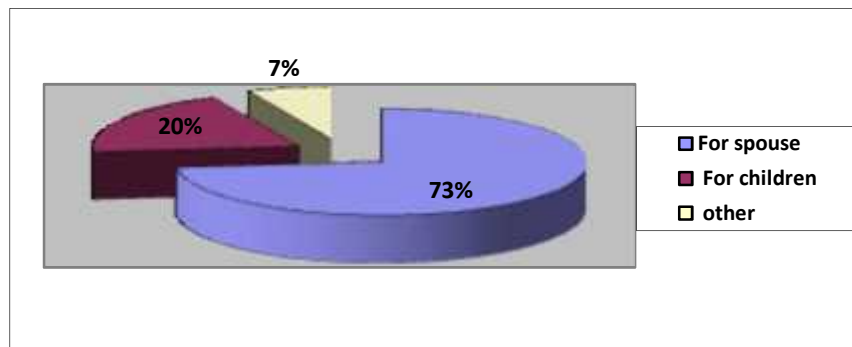
As per figure 4.29, out of the 50 respondents asked, 30% have acquired supplementary cards with the main card for their spouse or children while 70% have not acquired supplementary cards.

Figure 4.29
Supplementary Cards Possessed



As per figure 4.30, out of the 30% who also acquired supplementary cards with the main card, 73% acquired it for their spouse and 20% acquired them for their children of eligible age.

Figure 4.30
Supplementary Card Users

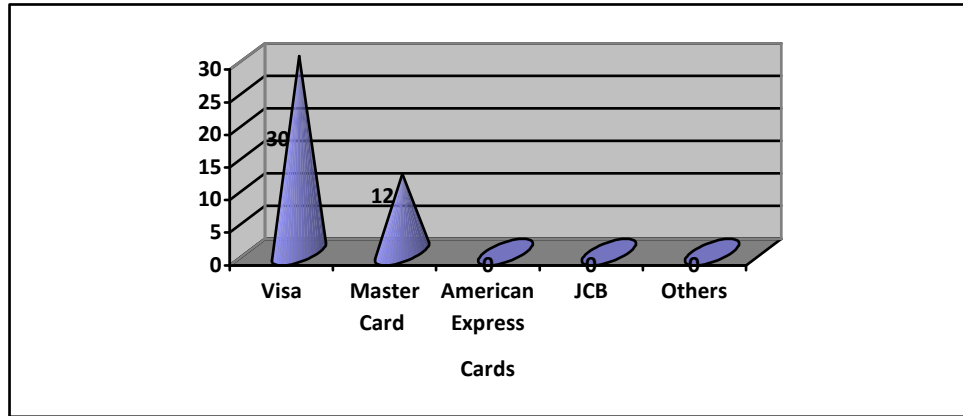


Departmental Stores

As per figure 4.31, out of the 30 departmental stores visited for questionnaire, their entire (100%) customer had credit card of VISA, while 40% customer had both VISA and

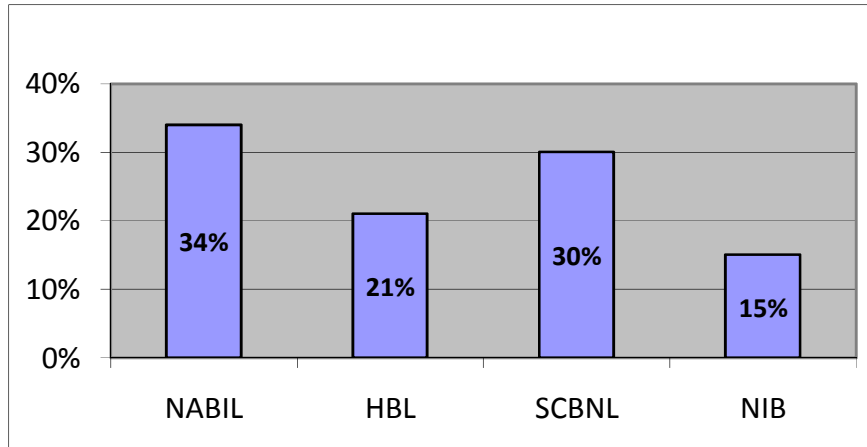
Master card. Many times customers with other cards also drop in and enquire whether their cards are accepted by the stores on purchasing.

Figure 4.31
Types of Cards Used by Customers



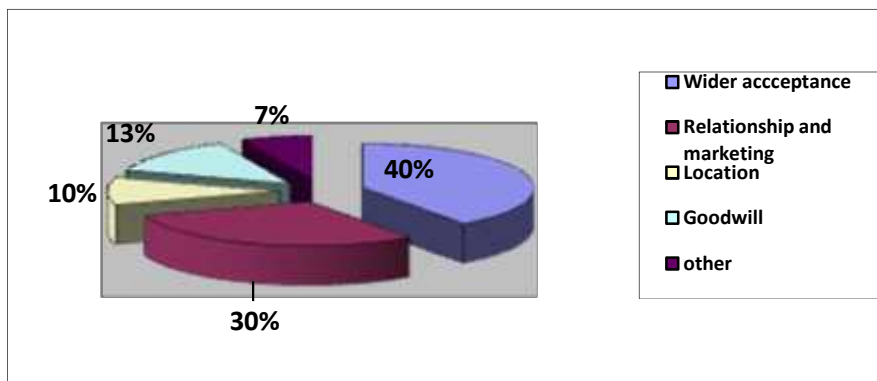
As per figure 4.32, from the questionnaires collected, 34% replies were in favor of POS machine of NABIL bank, 30% possessed POS of SCBNL and 21% possessed POS of HBL. The remaining 15% had chosen NIBL for their POS machine. However, big departmental stores like bhatbhateni were found with POS machines of more than one bank. Few departmental stores were also found accepting cards like American Express and JCB. The POS of NIBL is also gaining fast popularity because of the large number of debit cards they have managed to float in the market. Although NIBL entered only about two years before in the credit card market, it has already installed more than 500 POS network with over 300 terminals between Kathmandu and Pokhara.

Figure 4.32
POS Machines



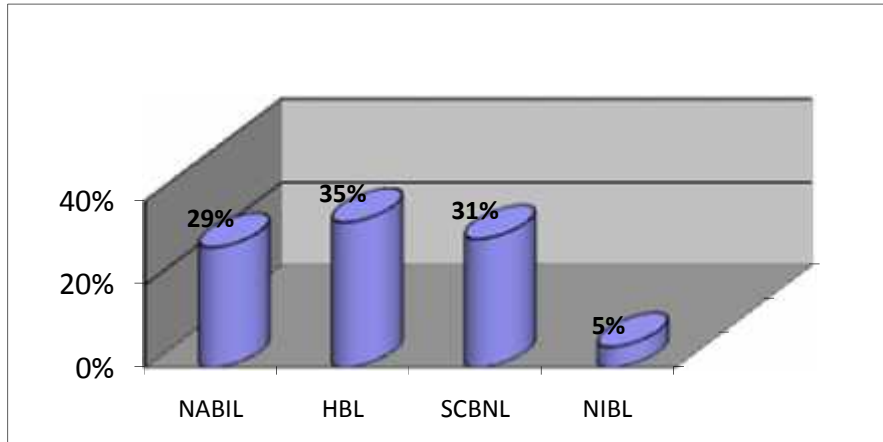
As per figure 4.33, among various reasons for choosing particular issuing bank, wider acceptance of card and relationship with bank seemed to be the most dominating. 40 % acquired a card from a particular bank due to the wider acceptance of the type of credit card issued, 30% did so because of their relationship and existing transaction, 13% percent did so because of good will of bank, 10 % did so due to appropriate location of the bank, and 7% chose a particular issuer for other reasons such as low charges or commission.

Figure 4.33
Reasons for Selecting Banks



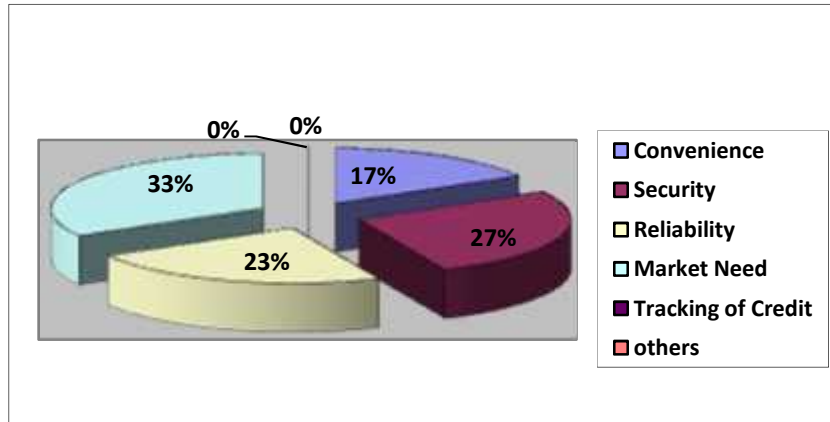
As per figure 4.34, 35% had possessed card of HBL, 31% of their customers had selected Standard Chartered Bank for their credit card, 29% of the customers had chosen NABIL and remaining 5% possessed cards of NIBL. However when it comes to debit card many were found with debit cards of NIBL and NABIL.

Figure 4.34
Bank of Card Holders



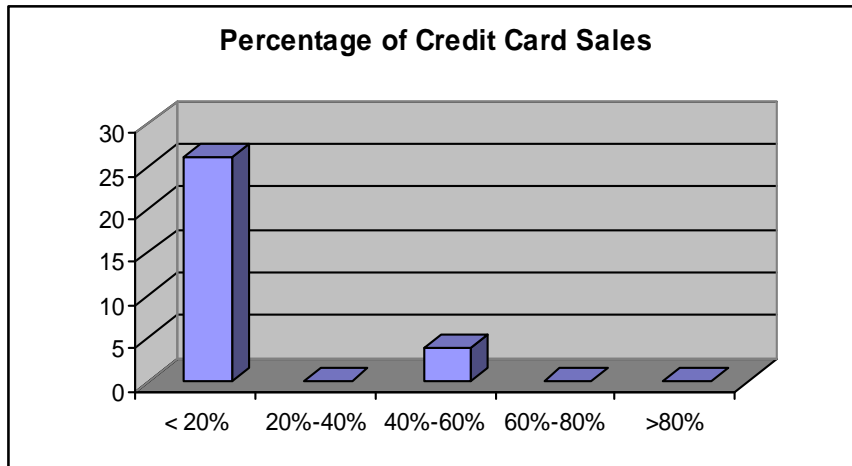
As per figure 4.35, majority of departmental stores, i.e. 33% have acquired credit card machine due to market need and to cater to the needs of their customers, 27% said they acquired credit card facility for security, 23% cited for reliability, 17% for convenience. However several stores gave mixed answers and several reasons for which they chose to provide the facility. Most of the answers were for current trend, security, convenience and round the clock service from their acquiring banks.

Figure 4.35
Benefits Received



As per figure 4.36, the percentage of sales through credit card was not much varied from the previous answers received from card holders. Out of 30 respondents, below 20 percent of sales were made through credit card in 80 percent departmental stores. And the remaining 20 percent departmental stores had sales in between 40 percent – 60 percent.

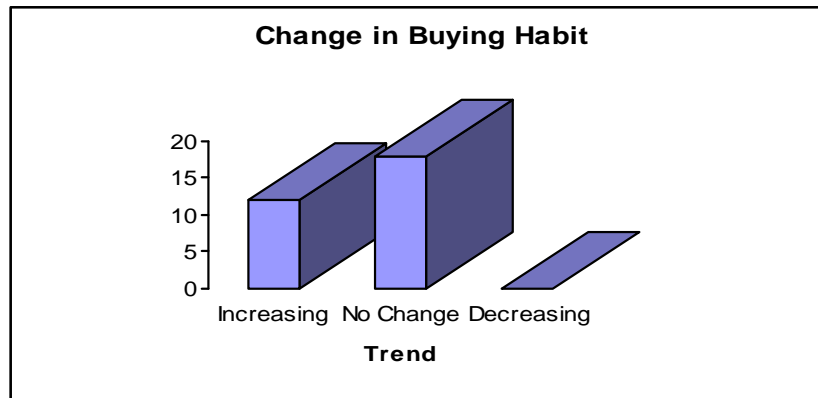
Figure 4.36
Percentage of Credit Card Sales



As per figure 4.37, 40 percent agreed that consumers started to buy more after accepting credit cards, while other 60 percent said that there was no change in buying habit of

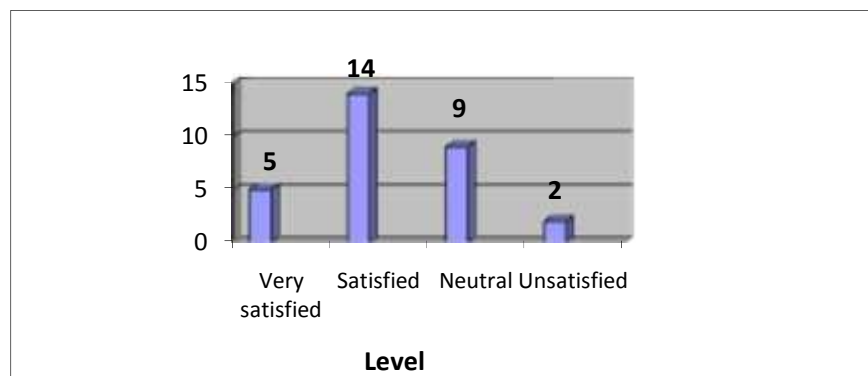
consumers after they started accepting credit cards. We can see that no one was in favor of decreasing trend of buying habit of customer after accepting credit cards.

Figure 4.37
Change in Buying Habit



As per figure 4.38, 17% of the departmental stores received high level of satisfaction with the services of their respective banks, 47% reported a moderate level of satisfaction, 30 % were neutral, and 7% experienced a moderate level of dissatisfaction.

Figure 4.38
Level of Satisfaction

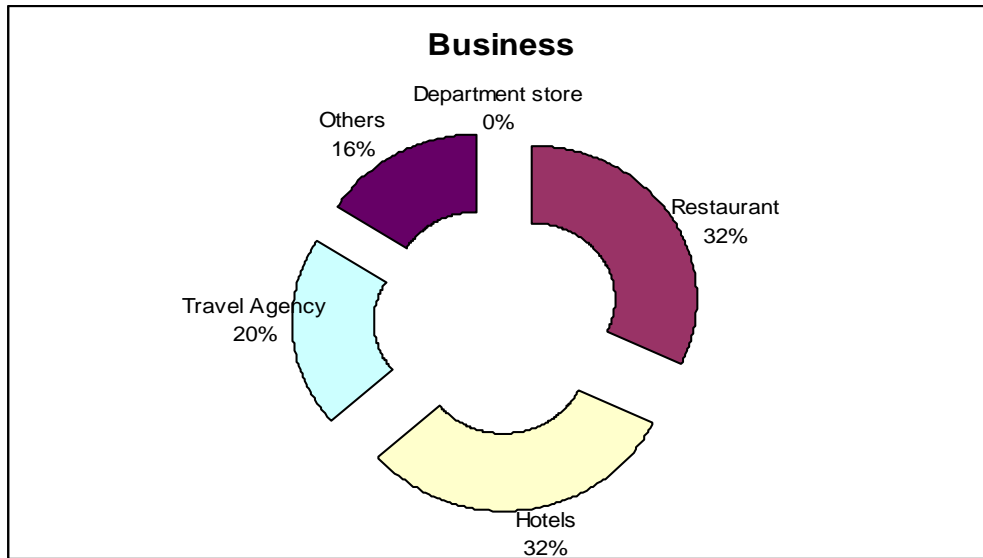


Of the credit card frauds known to stores, most of them were acquainted with the general credit card frauds from banks while taking the service and from internet. Besides they were also aware of the magnetic stripe fraud that recently occurred in the country. Of the problems faced by stores, no serious problems except few cases were found.

Merchant

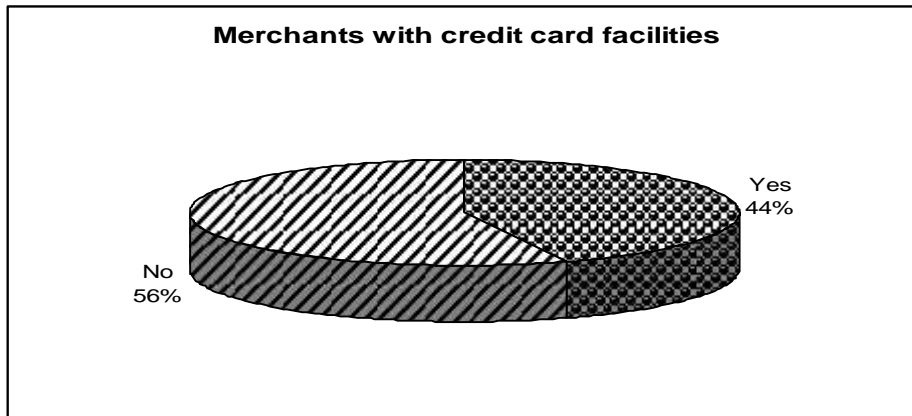
Out of 25 respondents, 0% were departmental stores, restaurant and hotels both constituted 32% (8), the remaining 20% (5) were travel agents 16% (4) were retail outlets and other business.

Figure 4.39
Sample Size Composition



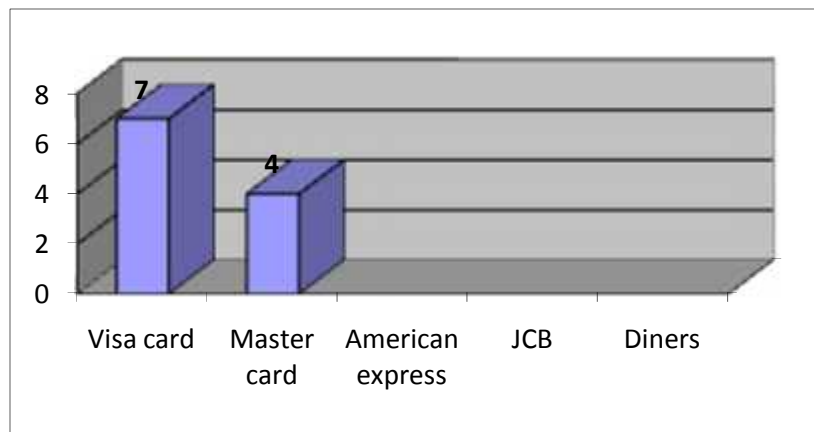
As per figure 4.40, out of the sample size of 25 respondents, 44% (11) had installed credit card facility, while 56% (14) had rather decided not having it.

Figure 4.40
Merchants using Credit Cards



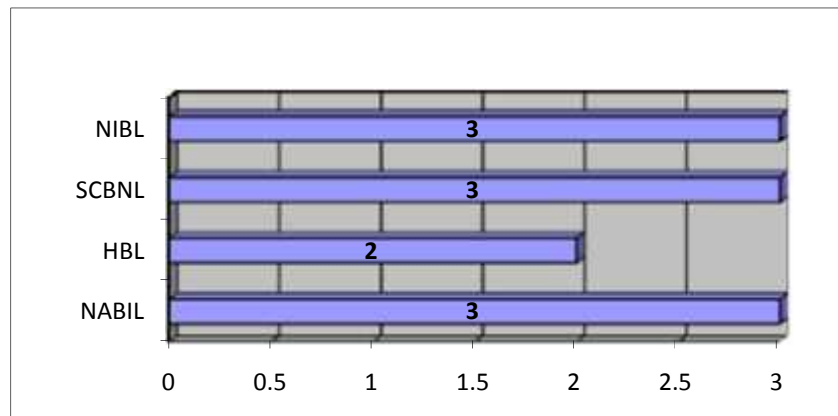
As per figure 4.41, out of 11 respondents obtained from 25 merchants (who installed credit card facility) 64% accept Visa card, while 36% accept master card. Among them were also those who accept both card types (Visa and Master card) and few merchants, particularly the travel agents accept other cards as well like American express and JCB cards.

Figure 4.41
Types of Card Accepted



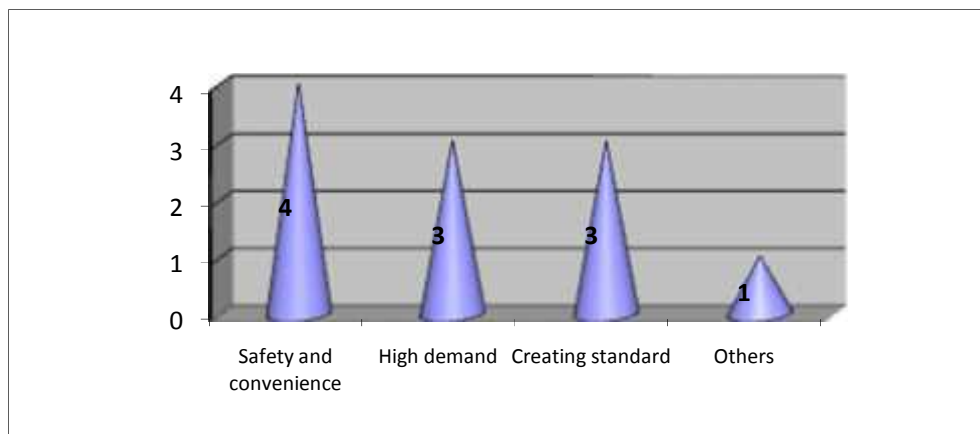
As per figure 4.42, out of 11 respondents, who had installed credit card facility 27.27% had acquired the service from SCBNL and the same percentage acquired it from NIBL and NABIL banks while 18.18% also acquired it from HBL.

Figure 4.42
Acquiring Bank



As per figure 4.43, out of 11 respondents having credit card facility, a majority 36.36% cited safety (from bad debts as well as social evils) and convenience as a crucial reason for installing it, while 27.27% to high demand for credit and the same percentage also for creating standards. Similarly 9.09% had other reasons for the same, for example, competition, customer satisfaction, prestige and status issue etc.

Figure 4.43
Reasons for Acquiring



As per figure 4.44, out of 11 respondents having credit card facility 36.36% had selected particular bank for wider acceptance of the bank's service, 27.27% for their existing

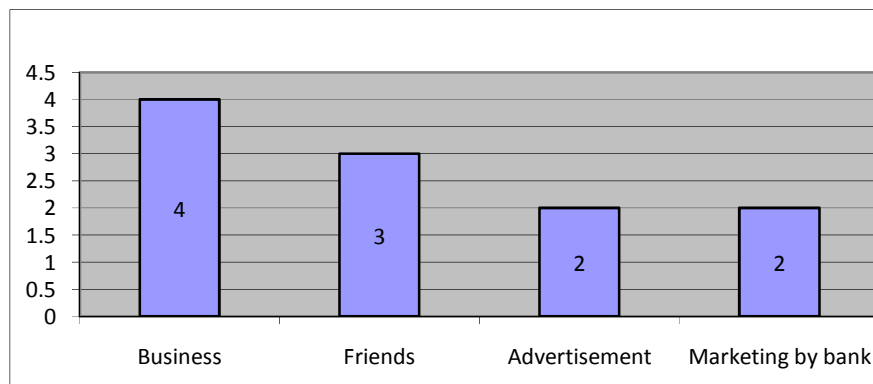
transaction and relationship with banks, the same percentage of the merchants for goodwill of banks and 9.09% for other reasons.

Figure 4.44
Reasons for Selection



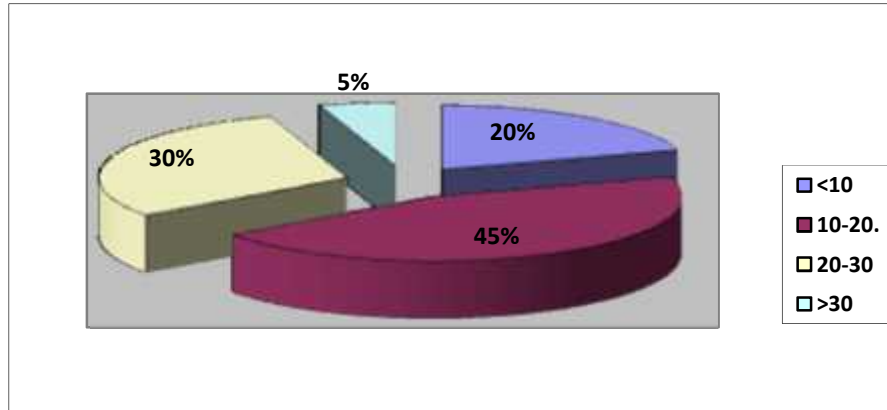
As per figure 4.45, out of 11 respondents having credit card facility, 36.36% were influenced by other business providing credit card facility, while 27.27% had installed it through friends, relatives and neighbors. Similarly 18.18% were influenced from advertisement and the same percentages also were influenced by the marketing effort from bank staffs.

Figure 4.45
Influence to Use Card



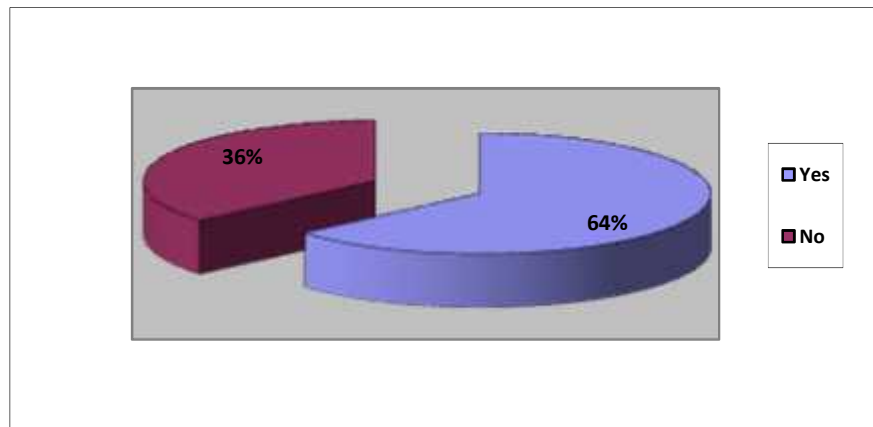
As per figure 4.46, regarding the frequency of credit card users, 20% replies were for less than 10 customers, 45% for between 10-20 customers, 30% for between 20-30 customers and only 5% for above 30 customers.

Figure 4.46
Frequency of Credit Card Users



As per figure 4.47, out of 11 respondents having credit card facility, 64% reported significant growth in their business volume while 36% did not notice any remarkable changes.

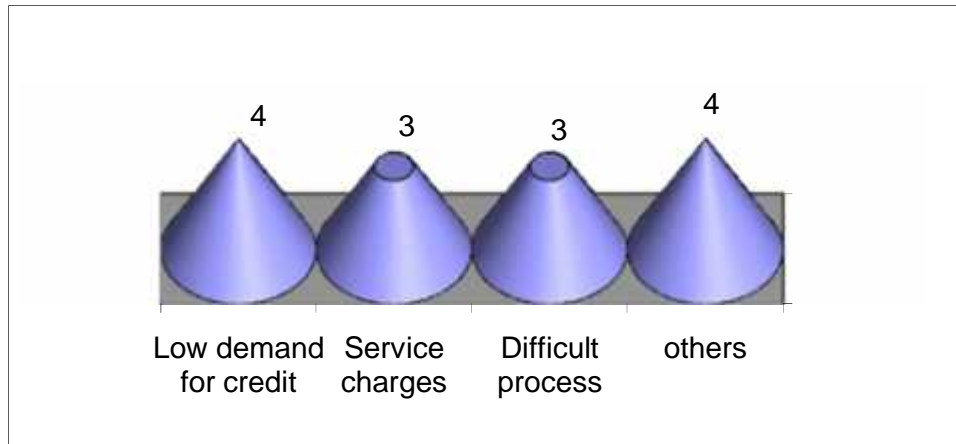
Figure 4.47
Growth of Business after Using Card



As per figure 4.48, out of 14 respondents not having credit card facility, 28.57% cited low demand for credit as reason for not installing credit facility, 21.42% cited the higher service costs (including higher limit, fees and commissions) as a crucial reason for not

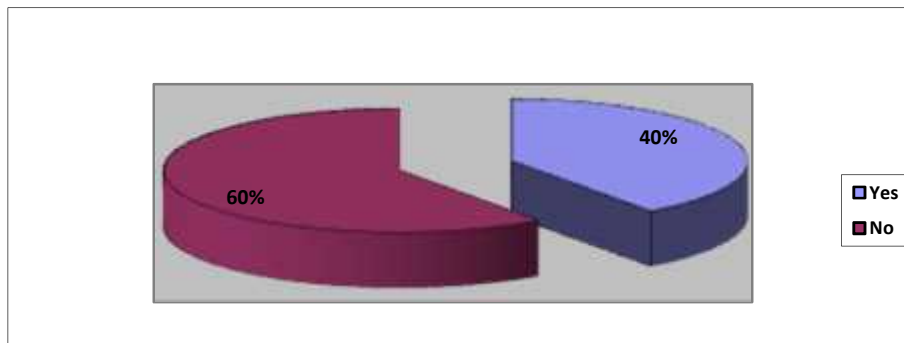
installing credit card, the same percentage claimed tedious process as reason for not installing and again 28.57% cited other reasons like lack of information, very few credit card users coming in their shops, their nature of business, difficulty in bargaining and no fixed price etc for not installing credit card facility.

Figure 4.48
Reasons for Not Providing Card Facility



As per figure 4.49, out of 25 respondents only 40% merchants provided credit facilities to their customer while 60% merchants didn't give those facilities to their customers.

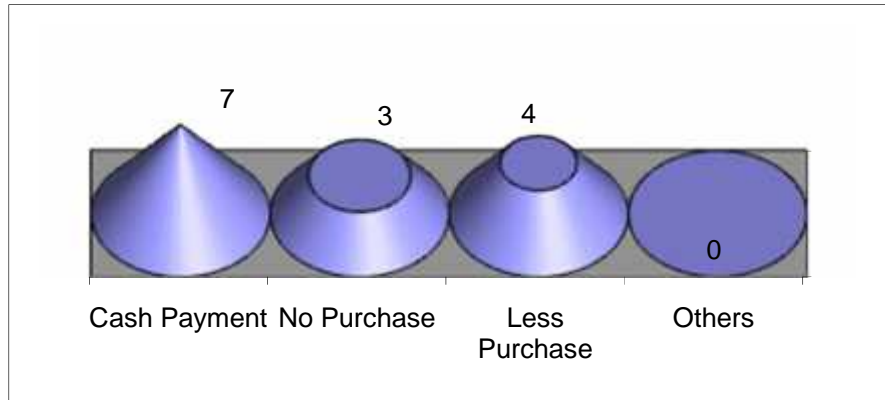
Figure 4.49
Credit Facilities



As per figure 4.50, out of 14 respondents not having credit card facility, 50% would make cash payment even if they did not receive credit facility, while 21.43% customers would

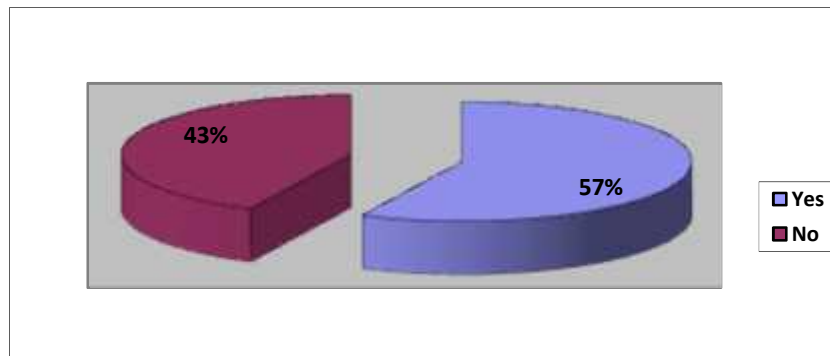
also react negatively by going to other merchants and 28.57% customers would make less amount of purchase than that of required.

Figure 4.50
Response of Customer



As per figure 4.51, out of 14 merchants not having credit card facilities, 57% still have no plans of installing credit card while 43% were interested in installing credit card facility in their shops in near future.

Figure 4.51
Plan to Acquire Credit Card Facility



Of those planning to extend credit card facility, several factors were motivating them like increasing card users and enquiry from customers, increasing trend, expansion plans, creating standards ,marketing effort from banks and other factors.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Many developed countries today have entered into a kind of cashless transactions. Credit cards have almost become a synonym for cash. As well as convenient, accessible credit, credit cards offer consumers an easy way to track expenses, which is necessary for both monitoring personal expenditures and the tracking of work-related expenses for taxation and reimbursement purposes. Credit cards are accepted worldwide, and are available with a large variety of credit limits, repayment arrangement, and other perks (such as rewards schemes in which points earned by purchasing goods with the card can be redeemed for further goods and services or credit card cash back).

Hence most of the frequent travelers who visit abroad must have encountered much bitter experience without a card. In most of the big hotels and restaurants of the developed nations, credit card holders are materialistically valued more than those who produce hard cash. In many cases hotels even hesitate to check-in those without payment cards. Renting a car in North America without a card is almost impossible. Credit cards are not only used to make purchase but a gamut of other services are also available, to a name a few are cash advances, making a utility payments ,securing all the security data , privilege award etc, and most importantly, above all, it is very helpful to cope with emergency situations. Credit card is one of most vigorously sought after and growing business in the world. Credit card is a plastic card which allows the holder to purchase goods and services on credit and is mostly issued by banks or financial institutions. It is such a service where cardholder can enjoy credit facility even though he doesn't have sufficient balance in his account. It is the concept of buy now and pay later. Each month, the credit card user is sent a statement indicating the purchases undertaken with the card, any outstanding fees, and the total amount owed. After receiving the statement, the cardholder may dispute any charges that he or she thinks are incorrect otherwise, the cardholder must pay a defined minimum proportion of the bill by a due date, or may

choose to pay a higher amount up to the entire amount owed. The credit provider charges interest on the amount owed (typically at a much higher rate than most other forms of debt).

Credit cards also minimize the risk associated with carrying money like loss of money, pick pocketing etc and also offers many discount and award schemes. From a merchant's points of view, it will increase the sales of the merchant as the trend today is of plastic money and also he gets rid from taking collected money to banks for deposits. Everything happens electronically and the merchants account gets credited very shortly after every purchases. Also it provides him safety from thefts by its own employee as well as looters.

Even though Credit card has so many advantages, the card business in Nepal has not gained its momentum as it has in other nations. Credit card business prospers in a volume driven nation where consumer financing plays a vital role to boost the economy of the nation. As stated earlier Nepalese populace have not yet developed their banking habit, they are mostly happy with hard cash and in most of the cases, even our highly educated ones, do not at all have the sagacity regarding credit cards. Another important factor which has constrained card business in Nepal is the acceptance infrastructure. Most of the merchants are departmental stores, travel agencies, big hotels etc; most which cater the needs of tourist and higher /upper middle class people. Nepalese people are still not used to visiting sophisticated departmental stores, travel agencies, and big restaurants though the trend is slowly increasing. Cards are not accepted at those places where most of the fixed income earners go for shopping such as Ason, Fancy Stores, our local grocery store (kirana pasal) etc. Again unlike other nations, cards in Nepal cannot be used for making payments for regular expenses such as utility fees, school fees, membership fees etc though bank has started online banking and acting as agents for utility payment collections in money. Hence, acceptance structure is an important factor and in Nepal's case, lack of adequate acceptance is one of key factor which has hindered the growth of card business.

Another key factor in Nepal is that the acquiring business is very much dependent on the quality and quantity of tourist arrival in Nepal in the absence of adequate local market, which for the past few years have significantly slumped owing to happenings of many detrimental events such as the Royal massacre, the Hrithik Roshan riot, the ever prolonged Maoist insurgency, madhesi strikes, dwindling law and other situation, regular band has, manpower riot and most importantly political instability and economic insecurity. Our economy is not being to able generate enough business due to these. Banking and financial sector seems saturated at the moment, insurance sector is also struggling though the future looks promising. Hotels are on slump due to low tourist arrivals and no new and sustainable projects seem to appear at this point of time. And to add to all these, people are keeping their money idle at banks and investing on real estates, shares and conspicuous consumption and not spending much at the outset of such doldrums and hence, the card industry is not being able to generate enough income for themselves to boost their bottom line figure.

Since the usage of credit card is still considered as a novel concept in Nepal its usage is primarily limited to a selected people, so an in-depth study and research has to be made on this sector. This research has been undertaken in that sense and it attempts to determine ways of retaining present customers while attracting future customers as well. The banks which are involved in credit card business, NABIL, HBL, SCBNL, their present condition in terms of card issuance and merchant hold are analyzed in this research. Nepal Investment Bank has not been included in the analysis which is new in the credit card market though it is the market leader in the debit card market. For the analysis of data standard deviation, correlation, and trend analysis are used as statistical tools but due to unavailability of financial and other data due to confidentiality maintained by banks, a complete picture could not be drawn. However, direct interviews and questionnaires were also held and the outcomes are displayed which reveals the current situation and future prospects of card business in Nepal as well as the problems facing credit card market are also analyzed.

Risk is the major element of any kind of business. Card business is also a risky business. Though profitability is very high, the default chances from cardholder is also very high because cards are issued merely on the basis of salary sheet and few identification documents unlike in foreign countries where people can be easily traced by their Identification Number or Tax Code. Among the three banks, HBL has the highest risk in case of issuance but in case of merchant NABIL has highest risk in comparison to other banks.

Correlation shows the relationship between two or more variables. In this study, whether the card users, merchant and the industry are correlated or not is studied. Analyzing the result it shows the all concerned banks are positively and in fact highly correlated in case of both card users and merchants. This shows all the card issuing banks are moving in similar direction and competition is high.

Growth rate or movement of card business is different from each other and from previous year as well. HBL has highest growth and SCBNL has the lowest growth in case of issuance or users but in case of merchant NABIL has the highest growth rate and SCBNL has the lowest growth rate. The position of HBL looks quite satisfactory. It has been able to maintain its high growth rate in card issuance. It may be attributed to issuance of Master card as well as the cheapest domestic credit card it offers in the market in terms of annual and subscription fees, the various upcoming products and the offers and various marketing strategies the bank has adopted. Similarly on merchant side as well, it has managed to increase its hold compared to previous year. HBL has signed special tie-up agreements with various dealers in Nepal to make the recently introduced scheme of consumer financing through credit card successful for the ease and comfort of the Customers. Under this scheme, HBL credit card holders can avail financing for various products from the Bank's merchants. SCBNL seems to issue credit cards on a much secured basis to selected individuals particularly by eyeing on big corporate houses. So no significant change in the card issue and merchant hold, just a steady growth rate similar to previous year seem to apply with the bank. Besides, the bank has good

reputation being a multinational bank of global standard. But in totality all three banks seem to have a fair share in the credit card market. Competition is not that fierce but still competition exists in terms of low fees and penal, cash advance fees, wider acceptance and different prize offers and schemes like travel and medical insurance, loyalty programs, discounts etc.

Will the card market keep up to current growth rate in terms of card users and merchant or not is predicted through time series analysis by using least square method and the result shows optimistic results. All the banks show increased number of card users and merchants than previous year and the conditions could be better provided the country takes economic pace with the aftermath of currently held Constituent Assembly polls.

Although the credit card business started in Nepal more than a decade now, the industry has not been able to fully penetrate the market. Credit card still remains the niche area in banking which only few banks have managed to take up. The acquiring side has been badly hurt by the on going slump in the tourism sector and particularly the instable political front. Besides these obvious reasons, one critical factor which negatively governs the credit card business is the societal factors. But the recent market growth of banks in terms of VISA debit cards and increased banking practice, we can only look for the brighter side in the credit card market to come in the future. The recent influx of commercial banks in the country and increased competition to provide excellence in banking and extra banking facilities only point out toward higher prospect of this credit card business in the days to come.

5.2 Conclusion

By and large, proper marketing plan, a better strategy and a smooth implementation are the basic ingredients of any successful business. So to operate any profitable business, lots of homework should be done. Various studies revealed that credit card business is very profitable and is carried out in very monitored and controllable manner. Though it has been many years since credit card business started in Nepal, it has not been able to take much pace but nevertheless the growth rate has been satisfactory considering the

various situations in the country. The profitability of card business in Nepal can not be undermined. Banking habit among people is increasing and debit card market is also expanding. This may be due to banks and organizations focusing on cultivating the banking habits for their employees by making salary payments through bank account opening which is a rather win-win situation for all. With it the infrastructure is also building and POS machines are also increasing. From the statistical analysis and outcomes of questionnaire also, it is obvious that credit card business is in optimistic track. In spite of the high profitability in credit card business only four banks are involved in this business among lots of commercial banks running in the country. The trend of credit card is increasing which becomes evident with the steady and positive growth rate that the banks involved in card business have been able to maintain amidst all the happenings in the country. All banks are increasing the number of their cardholders and merchants so there is high prospect and growing market for credit card business especially acquiring business nowadays. People are being aware on the advantages of holding a credit card which is gradually progressing in industrialization process and increasing income level among the higher and middle class society. So the possibilities of other banks or financial institutions entering in this field can not be underlined. So, in conclusion, Nepalese credit card industry is moving ahead and in increasing trend. We can only hope for the situation of country to improve to fuel this business of credit card in Nepal.

5.3 Recommendations

Nepal too needs to develop the banking habits of its people. We just cannot make any more unsubstantial and detrimentally indigenous excuses. We do not want to be humiliated in the global arena and put ourselves in a very awkward plight by saying 'No' when asked "Sir Do you have a credit card?" Nepal just cannot isolate itself with the fast moving world, where everything is changing day by day. The world is heating towards e-business and Nepal too is moving in the same direction. Without payment cards e-commerce is almost handicapped.

Although the business is heavily dependent on the external factors, which are not under the control of the card players itself, every step should be taken to boost the immature local market. It has been seen that the issuance business is more profitable than the acquiring business and since the acquiring business is mostly dependent on the performance of tourism industry which itself is facing the toughest time, possible efforts should be initiated by banks to get local customers in the card business by luring them by the associated core benefits of credit cards and introducing more and more attractive scheme and packages.

In the present context of globalization and technological age, credit card plays a vital role in financial sectors as well as in personal life. On the basis of study following recommendations are suggested.

- ❖ Our questionnaire to card users revealed that 44% of them were acquainted with credit card through broadcasting media like, TV, radio and the next effective media from which they came to know about the credit card were electronic media and print media, which comprised of 30 % and 26% respectively. However those media were mainly the international broadcasting channels. On the domestic side, banks have not really made any effort on advertisement. The credit card business seems to have prospered only through bank marketing and through mouth to mouth which of course are the right way to market technical products but the effect of advertisement in this modern era can not be understated. So it is high time that bank take up to aggressive advertising as the awareness level on credit card is very low. People still do not have confidence in cashless transactions.

- ❖ The trend of going to supermarkets and departmental stores for family shopping is increasing in the country. The study revealed that though the frequency of credit card usage is increasing majority of customers make less than 20% payment through credit cards. People are still neutral about the relevance of credit card business taken up by the bank and feel credit card as luxury. There was a general

acceptance that through the acceptance of credit card the business of merchants and stores has only increased so bank can also emphasize on this in their marketing with merchants.

- ❖ From the study 10 % cardholders enquired use credit card in restaurant, 30 % of them use at the hotel and 34 % of them use at departmental stores. Likewise, 22 % of them use credit card at travel agency. This shows that acceptance infrastructure is growing and banks can come up with attractive schemes and offers in these places to increase the frequency of card payment as well as to take that only 20% payment through card figure up and cultivate credit card payment habit. For this bank can go for credit card financing scheme like the one launched by HBL.
- ❖ Frequent flier points, gift certificates, or cash back as an incentive can be launched for using the card. Rewards are generally tied to purchasing an item or service on the card, which may or may not include balance transfers, cash advances, or other special uses. Depending on the type of card, rewards will generally cost the issuer between 0.25% and 2.0% of the spend. Networks like Visa or MasterCard have increased their fees to allow issuers to fund their rewards system. However, most rewards points are accrued as a liability on a company's balance sheet and expensed at the time of reward redemption. Discounts for using cards at merchant will also help merchants with their bargaining.
- ❖ From the study carried out many of the credit card holders have decided to hold a credit card due to increasing trend, convenience and security be it customer or merchant. But credit card is not a safe business. Many frauds have taken place in the foreign country and we can not say it is safe in Nepal. Cyber crimes are taking place in Nepal also and the recent fraud of magnetic stripe at ATMs and POS by international group at least do not suggest that the credit card business in Nepal is very safe. Banks have a number of countermeasures at the network level, including sophisticated real-time analysis that can estimate the probability of fraud based on a

number of factors. For example, a large transaction occurring a great distance from the card holder's home might be flagged as suspicious. The merchant may be instructed to call the bank for verification, to decline the transaction, or even to hold the card and refuse to return it to the customer. But cardholders and merchants look quite susceptible to card frauds. Many of them have no idea on card frauds or have a general idea of few types of card frauds and merchants are always the big loser on card frauds. From the study carried out, 39% of the respondent card holders had no idea on credit card frauds and only 30% turned out to know about the dispute settlement process. So all these forgeries should be understood and bank should educate cardholders and merchant about the card frauds and the preventive measures that can be taken. Similarly the banks also must keep abreast of all sorts of forgeries happening in credit cards around the world and their remedies and solutions. Regular trainings for the staff is a must which is often given by the card associations like Visa and Master cards. Besides everyone should know the rules and regulations laid out by the card associations.

- ❖ Convenience was also cited as a major reason for holding credit card. But from the study it was seen that 44% respondents (card holder) encountered several problems with credit card. Among those who encountered problems with their credit card 45% faced problem of non acceptance of card by machine and 40% faced problem of non acceptance by merchant. Many times, cards are not accepted by machine due to technical problems. Similarly the merchants also do not accept more than one card. Though Visa and Master cards are accepted by many merchants these days, JCB, Diners are accepted by few merchants only. So banks need to focus on improving their acceptance infrastructure and provide immediate support in case of problems. After all, these things add to the goodwill of bank which was also the major reason for cardholders and merchants to acquire credit cards of particular banks.

- ❖ Banks should also focus on expanding their merchant network as wider acceptance of card was cited as a major reason for acquiring the credit card of particular bank. From the study 34% respondents holding credit card were ready to give up their current card for a new card if the card has wider acceptance while 26% were also ready to change cards or acquire a new one if they receive tangible promotions from banks. Also 24% would change cards if the service fees are low and 16 % cited goodwill as an incentive for change. Banks need to seriously plan to install POS machine to be widely accepted, though POS system requires heavy investment. Although NIBL entered only about two years before in the credit card market, it has already installed more than 500 POS network with over 300 terminals between Kathmandu and Pokhara. Hotels restaurants and travel agencies are also growing business in Nepal, so it is advisable to do immense promotion for the acceptance of credit card and put machine there. As far as cash advance is concerned, each bank needs to install ATM machines that are compatible to accept the globally branded cards. Cash advance facility is a plus to the credit card users and banks are able to take fees for this as well.

- ❖ From the study it was found that almost 56% respondents were satisfied with the limit made by the bank on their credit card where as 16 % were not satisfied. Banks have to introduce more flexible limit cards to reach to larger populace. Banks need to maintain a healthy competition regarding service fees, commissions etc. In credit card business fees can be levied for almost anything but in doing this the incentive to change cards from the cardholder should not be ignored. Card holders are very sensitive to the various fees, interest rates and promotions from the findings of this study.

- ❖ Out of the 50 respondents asked 30% have acquired supplementary cards. 73% of them acquired it for their spouse and 20% acquired them for their children of eligible age. So banks should also emphasize on supplementary cards by offering them at flexible limit and low interest rate. Now a day the trend of studying in

India and foreign country is increasing after SLC so parents would be interested in acquiring supplementary cards for their children so this segment should be considered by banks. If the bank wants to cater to younger generation (those in the lower education and income stratum), it can offer discounts and surprise gifts at pubs, discos, hotels, restaurants, travel agency and departmental stores.

- ❖ Banks should study the feasibility of credit card usage in new areas and segments. Innovations and researches needs to be carried out. The strategy and planning department should be the one working more on credit card promotions and business development in Nepal. Banks should take a step ahead in promoting card business in Nepal. For instance, national delegates on official tours, say for instance on regional or international sports events, conferences etc. can be provided with credit cards for the length of stay abroad. Such arrangements will have to be made on an official basis and the same needs to be communicated to the general public thus aiding in gaining goodwill and publicity for the bank.
- ❖ Out of 14 respondents (merchants) not having credit card facility, 28.57% cited low demand for credit as reason for not installing credit facility, 21.42% cited the higher service costs (including higher limit, fees and commissions) as a crucial reason for not installing credit card, the same percentage claimed tedious process as reason for not installing and again 28.57% cited other reasons like lack of information, very few credit card users coming in their shops, their nature of business, difficulty in bargaining and no fixed price etc for not installing credit card facility. So what can be done to tap these merchants is a question to banks. Banks can emphasize on increasing trend of credit card usage and the increase in volume of sales of merchants after credit card acceptance as a motivating theme to convince these group. Merchants still do believe that the credit card process is tedious which in fact is not. Rather it helps merchants save their time, effort and gives them peace of mind as well because credit card processing is safe and their security concerns are also protected. They don't need to hold cash in their locker (tijori) and be worried about it. Lack of information should not be the factor for

not having credit card facility. Banks can expand their marketing effort on the side of merchant to acquaint them on credit card uses, its benefits and the disbeliefs hold by merchant and offer them customized services and tailored solutions. Few merchants in our study were dissatisfied with the credit card facility they acquired. Banks should immediately focus attention to them and identify the problems with them. Since merchants have to pay commissions ranging from 1.5 to 3.5% commissions to banks on their transaction amount, merchants often have to compromise their profit margin or else loose their customer and goodwill. This is often the case in merchants where there is no fixed price system and customers have no idea on the cost to merchants so the bargaining becomes little difficult.

- ❖ Small business owners particularly the kirana pasales need small credit for short time to acquire goods etc. So they can also afford credit card. Banks can issue them a low interest card with flexible limits also. Recently in India Bank of Rajasthan has launched Kisan Credit Cards for farmers (Kisan) which is a form of micro credit programme. Hence Nepalese card business has a plenty to learn from Indian credit card market. The feasibility and viability of such projects should be studied by banks.

- ❖ Majority of the respondent surveyed, own their own personal business. In fact 48% had business of their own, 28 % worked in private sector and this was followed by student at 8% and public sector employee at 16%. Since the percentage of credit card acquired by the professionals seem to be low, banks should focus on this group which is increasing in numbers and their income level is also increasing. Banks need to apply direct and cross marketing to capture this segment. Nowadays most organizations open a bank account for their staff to facilitate salary payments. From the study, the existing relationship with the bank and marketing effort from bank staffs were also seen as strong reason for acquiring credit card of particular bank.

- ❖ SCBNL has started issuing credit cards to non accountholders as well outside the valley. So banks may have to relax few of their requirements without compromising on the information needed to be on safe side and prevent defaults and frauds. Hence it can be concluded that the future of credit card in Nepal is promising and in future many other bank might take up this business. However, very much depends upon the effort from banks and the way they promote this business to the general mass.

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APPENDIX-1

Calculation of Standard Deviation and C.V. of NABIL Bank

Year	No. of Cardholder(X)	$X - \bar{X}$	$(X - \bar{X})^2$
2002-2003	4910	-1290	1664100
2003-2004	5450	-750	562500
2004-2005	5940	-260	67600
2005-2006	7200	1000	1000000
2006-2007	7500	1300	1690000
	$\Sigma X = 6200$		$\Sigma (X - \bar{X})^2 = 4984200$

$$\bar{X} = \frac{\sum X}{n}$$

$$= \frac{31000}{5} = 6200$$

$$\text{Standard Deviation } (\dagger) = \sqrt{\frac{\sum (X - \bar{X})^2}{n}} = \sqrt{\frac{4984200}{5}} = 998.42$$

$$\dagger = 998.42$$

$$\text{Coefficient variance (CV)} = \frac{\dagger}{\bar{X}} = \frac{998.42}{6200} = 0.1610 = 16.10\%$$

Calculation of Standard Deviation and C.V. of HBL Bank

Year	No. of Cardholder(X)	$x - \bar{X}$	$(X - \bar{X})^2$
2002-2003	4088	-3164	10010896
2003-2004	5683	-1569	2461761
2004-2005	7388	136	18496
2005-2006	8852	1600	2560000
2006-2007	10249	2997	8982009
	$\Sigma X=36260$		$\Sigma (X - \bar{X})^2=24033162$

$$\bar{X} = \frac{\sum X}{n} = \frac{36260}{5} = 7252$$

$$\text{Standard Deviation } (\uparrow) = \sqrt{\frac{\sum (X - \bar{X})^2}{n}} = \sqrt{\frac{24033162}{5}} = 2192.40$$

$$\text{Coefficient variance(CV)} = \frac{\text{Standard Deviation}}{\bar{X}} = \frac{2192.40}{7252} = 0.3023 = 30.23\%$$

Calculation of Standard Deviation and C.V. of SCBNL Bank

Year	No. of Cardholder(X)	$x - \bar{X}$	$(X - \bar{X})^2$
2002-2003	6777	-1986	3944196
2003-2004	7454	-709	502681
2004-2005	8200	43	1849
2005-2006	9020	857	734449
2006-2007	9364	1201	1442401
	$\Sigma X=40815$		$\Sigma (X - \bar{X})^2=6625576$

$$\bar{X} = \frac{\sum X}{n} = \frac{40815}{5} = 8163$$

$$\text{Standard Déviation (} \sigma \text{)} = \sqrt{\frac{\sum (X - \bar{X})^2}{n}} = \sqrt{\frac{6625576}{5}} = 1151.14$$

$$\text{Coefficient variance(CV)} = \frac{\sigma}{\bar{X}} = \frac{1151.14}{8163} = 0.1410 = 14.10 \%$$

Calculation of Standard Deviation and C.V. of Industry (Card Users)

Year	No. of Cardholder(X)	$x - \bar{X}$	$(X - \bar{X})^2$
2002-2003	15775	-5840	34105600
2003-2004	18587	-3028	9168784

2004-2005	21528	-87	7569
2005-2006	25072	3457	11950849
2006-2007	27113	5498	30228004
	$\Sigma X=108075$		$\Sigma (X - \bar{X})^2=85460806$

$$\bar{X} = \frac{\sum X}{n} = \frac{108075}{5} = 21615$$

$$\text{Standard Deviation (} \dagger \text{) } = \sqrt{\frac{\sum (X - \bar{X})^2}{n}} = \sqrt{\frac{85460806}{5}} = 4134.27$$

$$\text{Coefficient variance(CV)} = \frac{\dagger}{\bar{X}} = \frac{4134.27}{21615} = 0.1913 = 19.13 \%$$

Calculation of Standard Deviation and C.V. of Merchant of NABIL Bank

Year	No. of Merchant(X)	$x - \bar{X}$	$(X - \bar{X})^2$
2002-2003	750	-280	78400
2003-2004	900	-130	16900
2004-2005	1050	20	400
2005-2006	1200	170	28900
2006-2007	1250	220	48400

	$\sum X=5150$		$\sum (X - \bar{X})^2=173000$
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$$\bar{X} = \frac{\sum X}{n} = \frac{5150}{5} = 1030$$

$$\text{Standard Deviation (} \dagger \text{)} = \sqrt{\frac{\sum (X - \bar{X})^2}{n}} = \sqrt{\frac{173000}{5}} = 186.01$$

$$\text{Coefficient variance(CV)} = \frac{\dagger}{\bar{X}} = \frac{186.01}{1030} = 0.1805 = 18.05\%$$

Calculation of Standard Deviation and C.V. of Merchant of HBL Bank

Year	No. of Merchant(X)	$x - \bar{X}$	$(X - \bar{X})^2$
2002-2003	619	-137	18769
2003-2004	708	-48	2304
2004-2005	750	-6	36
2005-2006	777	21	441
2006-2007	926	170	28900
	$\sum X=3780$		$\sum (X - \bar{X})^2=50450$

$$\bar{X} = \frac{\sum X}{n} = \frac{3780}{5} = 756$$

$$\text{Standard Deviation (} \dagger \text{)} = \sqrt{\frac{\sum (X - \bar{X})^2}{n}} = \sqrt{\frac{50450}{5}} = 100.45$$

$$\text{Coefficient variance (CV)} = \frac{\dagger}{\bar{X}} = \frac{100.45}{756} = 0.1328 = 13.28\%$$

Calculation of Standard Deviation and C.V. of Merchant of SCNBL Bank

$x - \bar{X}$	Year	No. of Merchant(X)	$(X - \bar{X})^2$
-151	2002-2003	693	22801
-82	2003-2004	762	6724
-6	2004-2005	838	36
78	2005-2006	922	6084
161	2006-2007	1005	25921
		$\Sigma X = 4220$	$\Sigma (X - \bar{X})^2 = 61566$

$$\bar{X} = \frac{\sum X}{n} = \frac{4220}{5} = 844$$

$$\text{Standard Deviation } (\dagger) = \sqrt{\frac{\sum (X - \bar{X})^2}{n}} = \sqrt{\frac{61566}{5}} = 110.96$$

$$\text{Coefficient variance (CV)} = \frac{\dagger}{\bar{X}} = \frac{110.96}{844} = 0.1314 = 13.14\%$$

Calculation of Standard Deviation and C.V. of Industry (Merchant)

Year	No. of Merchant(X)	$x - \bar{X}$	$(X - \bar{X})^2$
2002-2003	2062	-568	322624
2003-2004	2370	-260	67600
2004-2005	2638	8	64
2005-2006	2899	269	72361
2006-2007	3181	551	303601
	$\Sigma X=13150$		$\Sigma (X - \bar{X})^2=766250$

$$\bar{X} = \frac{\sum X}{n} = \frac{13150}{5} = 2630$$

$$\text{Standard Deviation } (\dagger) = \sqrt{\frac{\sum (X - \bar{X})^2}{n}} = \sqrt{\frac{766250}{5}} = 391.47$$

$$\text{Coefficient variance(CV)} = \frac{\dagger}{\bar{X}} = \frac{391.47}{2630} = 0.1488 = 14.88\%$$

Calculation of correlation between NABIL and HBL (Cardholder)

Year	NABIL (x)	HBL (y)	$(x - \bar{x})$	$(y - \bar{y})$	$(x - \bar{x})^2$	$(y - \bar{y})^2$	$(x - \bar{x})$ $(y - \bar{y})$
2002-2003	4910	4088	-1290	-3164	1664100	10010896	1220096
2003-2004	5450	5683	-750	-1569	562500	2461761	1067753
2004-2005	5940	7388	-260	136	67600	18496	10528
2005-2006	7200	8852	1000	1600	1000000	2560000	65083
2006-2007	7500	10249	1300	2997	1690000	8982009	5015335
					$\sum (x - \bar{x})^2$ =4984200	$\sum (y - \bar{y})^2$ =24033162	$\sum (x - \bar{x})(y - \bar{y})$ =7378795

$$\text{Correlation coefficient}(r) = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}} = \frac{7378795}{\sqrt{4984200 \times 24033162}} = \frac{7378795}{10678841.15} =$$

0.67

Calculation of correlation between NABIL and SCBNL (Cardholder)

Year	NABIL (x)	SCBNL (y)	$(x - \bar{x})$	$(y - \bar{y})$	$(x - \bar{x})^2$	$(y - \bar{y})^2$	$(x - \bar{x})$ $(y - \bar{y})$
2002-	4910	6777	-1290	-1986	1664100	3944196	2561940

2003							
2003-2004	5450	7454	-750	-709	562500	502681	531750
2004-2005	5940	8200	-260	43	67600	1849	11180
2005-2006	7200	9020	1000	857	1000000	734449	857000
2006-2007	7500	9364	1300	1201	1690000	1442401	1561300
					$\sum(x-\bar{x})^2$ =4984200	$\sum(y-\bar{y})^2$ =6625576	$\sum(x-\bar{x})(y-\bar{y})$ =5523170

$$\text{Correlation coefficient}(r) = \frac{\sum(x-\bar{x})(y-\bar{y})}{\sqrt{\sum(x-\bar{x})^2 \sum(y-\bar{y})^2}} = \frac{5523170}{\sqrt{4984200 \times 6625576}} = 0.96$$

Calculation of correlation between HBL and SCBNL (Cardholder)

Year	HBL (x)	SCBNL (y)	$(x - \bar{x})$	$(y - \bar{y})$	$(x - \bar{x})^2$	$(y - \bar{y})^2$	$(x - \bar{x})(y - \bar{y})$
2002-2003	4088	6777	-3164	-1986	10010896	3944196	6283704
2003-2004	5683	7454	-1569	-709	2461761	502681	1112421
2004-2005	7388	8200	136	43	18496	1849	5848
2005-2006	8852	9020	1600	857	2560000	734449	1371200
2006-2007	10249	9364	2997	1201	8982009	1442401	3599397
					$\sum (x - \bar{x})^2$ =24033162	$\sum (y - \bar{y})^2$ =6625576	$\sum (x - \bar{x})(y - \bar{y})$ =12372570

$$\text{Correlation coefficient}(r) = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}} = \frac{12372570}{\sqrt{24033162 \times 6625576}} = 0.98$$

Calculation of correlation coefficient of NABIL with Industry (Cardholder)

Year	No. of cardholder NABIL (x)	No. of cardholder Industry (A)	$(x - \bar{x})$	$(A - \bar{A})$	$(x - \bar{x})^2$	$(A - \bar{A})^2$	$(x - \bar{x})(A - \bar{A})$
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2002-2003	4910	15775	-1290	-5840	1664100	34105600	7533600
2003-2004	5450	18587	-750	-3028	562500	9168784	227100
2004-2005	5940	21528	-260	-87	67600	7569	22620
2005-2006	7200	25072	1000	3457	1000000	11950849	3457000
2006-2007	7500	27113	1300	5498	1690000	30228004	7147400
					$\sum(x - \bar{x})^2$ =4984200	$\sum(A - \bar{A})^2$ =85460806	$\sum(x - \bar{x})(A - \bar{A})$ =18387720

$$\text{Correlation coefficient}(r) = \frac{\sum(x - \bar{x})(A - \bar{A})}{\sqrt{\sum(x - \bar{x})^2 \sum(A - \bar{A})^2}} = \frac{18387720}{\sqrt{4984200 \times 85460806}} = 0.89$$

Calculation of correlation coefficient of HBL with Industry (Cardholder)

Year	No. of cardholder HBL (x)	No. of cardholder Industry (A)	$(x - \bar{x})$	$(A - \bar{A})$	$(x - \bar{x})^2$	$(A - \bar{A})^2$	$(x - \bar{x})(A - \bar{A})$
2002-2003	4088	15775	-3164	-5840	10010896	34105600	18477760
2003-2004	5683	18587	-1569	-3028	2461761	9168784	4750932
2004-2005	7388	21528	136	-87	18496	7569	-11832
2005-	8852	25072	1600	3457	2560000	11950849	5531200

2006							
2006-2007	10249	27113	2997	5498	8982009	30228004	16477506
					$\sum(x - \bar{x})^2$ =24033162	$\sum(A - \bar{A})^2$ =85460806	$\sum(x - \bar{x})(A - \bar{A})$ =45225566

$$\text{Correlation coefficient}(r) = \frac{\sum(x - \bar{x})(A - \bar{A})}{\sqrt{\sum(x - \bar{x})^2 \sum(A - \bar{A})^2}} = \frac{45225566}{\sqrt{24033162 \times 85460806}} = 0.99$$

Calculation of correlation coefficient of SCBNL with Industry (Cardholder)

Year	No. of cardholder SCBNL (x)	No. of cardholder Industry (A)	$(x - \bar{x})$	$(A - \bar{A})$	$(x - \bar{x})^2$	$(A - \bar{A})^2$	$(x - \bar{x})(A - \bar{A})$
2002-2003	6777	15775	-1986	-5840	3944196	34105600	11598240
2003-2004	7454	18587	-709	-3028	502681	9168784	2146852
2004-2005	8200	21528	43	-87	1849	7569	3741
2005-2006	9020	25072	857	3457	734449	11950849	2962649
2006-2007	9364	27113	1201	5498	1442401	30228004	6603098
					$\sum(x - \bar{x})^2$ =6625576	$\sum(A - \bar{A})^2$ =85460806	$\sum(x - \bar{x})(A - \bar{A})$ =23314580

$$\text{Correlation coefficient}(r) = \frac{\sum(x-\bar{x})(A-\bar{A})}{\sqrt{\sum(x-\bar{x})^2(A-\bar{A})^2}} = \frac{23314580}{\sqrt{6625576 \times 85460806}} = 0.98$$

Calculation of correlation coefficient of NABIL with HBL (Merchant)

Year	NABIL (x)	HBL (y)	$(x-\bar{x})$	$(y-\bar{y})$	$(x-\bar{x})^2$	$(y-\bar{y})^2$	$(x-\bar{x})(y-\bar{y})$
2002-2003	750	619	-280	-137	78400	18769	38360
2003-2004	900	708	-130	-48	16900	2304	6240
2004-2005	1050	750	20	-6	400	36	-120
2005-2006	1200	777	170	21	28900	441	3570
2006-2007	1250	926	220	170	48400	28900	37400
					$\sum(x-\bar{x})^2=1$ 73000	$\sum(y-\bar{y})^2=5$ 0450	$\sum(x-\bar{x})(y-\bar{y})$ =85450

$$\text{Correlation coefficient}(r) = \frac{\sum(x-\bar{x})(y-\bar{y})}{\sqrt{\sum(x-\bar{x})^2(y-\bar{y})^2}} = \frac{85450}{\sqrt{173000 \times 50450}} = 0.91$$

Calculation of correlation of NABIL with SCBNL (Merchant)

Year	NABIL	SCBNL	$(x-\bar{x})$	$(y-\bar{y})$	$(x-\bar{x})^2$	$(y-\bar{y})^2$	$(x-\bar{x})(y-\bar{y})$
------	-------	-------	---------------	---------------	-----------------	-----------------	--------------------------

	(x)	(y)					$(y - \bar{y})$
2002-2003	750	693	-280	-151	78400	22801	42280
2003-2004	900	762	-130	-82	16900	6724	10660
2004-2005	1050	838	20	-6	400	36	-120
2005-2006	1200	922	170	78	28900	6084	13260
2006-2007	1250	1005	220	161	48400	25921	35420
					$\sum(x - \bar{x})^2$ =173000	$\sum(y - \bar{y})^2 =$ 61566	$\sum(x - \bar{x})(y - \bar{y})$ =101500

$$\text{Correlation coefficient}(r) = \frac{\sum(x - \bar{x})(y - \bar{y})}{\sqrt{\sum(x - \bar{x})^2 \sum(y - \bar{y})^2}} = \frac{101500}{\sqrt{173000 \times 61566}} = 0.98$$

Calculation of correlation of HBL with SCBNL (Merchant)

Year	HBL (x)	SCBNL (y)	$(x - \bar{x})$	$(y - \bar{y})$	$(x - \bar{x})^2$	$(y - \bar{y})^2$	$(x - \bar{x})(y - \bar{y})$
2002-2003	619	693	-137	-151	18769	22801	20687
2003-2004	708	762	-48	-82	2304	6724	3936
2004-2005	750	838	-6	-6	36	36	36
2005-2006	777	922	21	78	441	6084	1638
2006-2007	926	1005	170	161	28900	25921	27370
					$\sum(x - \bar{x})^2$ =50450	$\sum(y - \bar{y})^2$ =61566	$\sum(x - \bar{x})(y - \bar{y})$ =53667

$$\text{Correlation coefficient}(r) = \frac{\sum(x - \bar{x})(y - \bar{y})}{\sqrt{\sum(x - \bar{x})^2 \sum(y - \bar{y})^2}} = \frac{53667}{\sqrt{50450 \times 61566}} = 0.96$$

Calculation of correlation coefficient of NABIL with Industry (Merchant)

Year	No. of merchant NABIL (x)	No. of merchant Industry (A)	$(x - \bar{x})$	$(A - \bar{A})$	$(x - \bar{x})^2$	$(A - \bar{A})^2$	$(x - \bar{x})(A - \bar{A})$
2002-2003	750	2062	-280	-568	78400	322624	159040

2003-2004	900	2370	-130	-260	16900	67600	33800
2004-2005	1050	2638	20	8	400	64	160
2005-2006	1200	2899	170	269	28900	72361	45730
2006-2007	1250	3181	220	551	48400	303601	121220
					$\sum (x - \bar{x})^2$ =173000	$\sum (A - \bar{A})^2$ =766250	$\sum (x - \bar{x})(A - \bar{A})$ =359950

$$\text{Correlation coefficient}(r) = \frac{\sum (x - \bar{x})(A - \bar{A})}{\sqrt{\sum (x - \bar{x})^2 \sum (A - \bar{A})^2}} = \frac{359950}{\sqrt{173000 \times 766250}} = 0.99$$

Calculation of correlation coefficient of HBL with Industry (Merchant)

Year	No. of merchant HBL (x)	No. of merchant Industry (A)	$(x - \bar{x})$	$(A - \bar{A})$	$(x - \bar{x})^2$	$(A - \bar{A})^2$	$(x - \bar{x})(A - \bar{A})$
2002-2003	619	2062	-137	-568	18769	322624	77816
2003-2004	708	2370	-48	-260	2304	67600	12480
2004-2005	750	2638	-6	8	36	64	-48
2005-2006	777	2899	21	269	441	72361	5649
2006-2007	926	3181	170	551	28900	303601	93670
					$\Sigma(x - \bar{x})^2$ =50450	$\Sigma(A - \bar{A})^2$ =766250	$\Sigma(x - \bar{x})(A - \bar{A})$ =189567

$$\text{Correlation coefficient}(r) = \frac{\Sigma(x - \bar{x})(A - \bar{A})}{\sqrt{\Sigma(x - \bar{x})^2 \Sigma(A - \bar{A})^2}} = \frac{189567}{\sqrt{50450 \times 766250}} = 0.96$$

Calculation of correlation coefficient of SCBNL with Industry (Merchant)

Year	No. of merchant SCBNL	No. of merchant Industry	$(x - \bar{x})$	$(A - \bar{A})$	$(x - \bar{x})^2$	$(A - \bar{A})^2$	$(x - \bar{x})(A - \bar{A})$
------	--------------------------	-----------------------------	-----------------	-----------------	-------------------	-------------------	------------------------------

	(x)	(y)					
2002-2003	693	2062	-151	-568	22801	322624	85768
2003-2004	762	2370	-82	-260	6724	67600	21320
2004-2005	838	2638	-6	8	36	64	-48
2005-2006	922	2899	78	269	6084	72361	20982
2006-2007	1005	3181	161	551	25921	303601	88711
					$\sum(x-\bar{x})^2$ =61566	$\sum(A-\bar{A})^2$ =766250	$\sum(x-\bar{x})(A-\bar{A})$ =216733

$$\text{Correlation coefficient}(r) = \frac{\sum(x-\bar{x})(A-\bar{A})}{\sqrt{\sum(x-\bar{x})^2 \sum(A-\bar{A})^2}} = \frac{216733}{\sqrt{61566 \times 766250}} = 0.99$$

Calculation of Projected values of the Cardholders and Merchants for the different banks involved in card business.

Calculation of projected value of cardholders for NABIL

Year (X)	No. of Cardholder(y)	x = X-2005	x ²	xy
2003	4910	-2	4	-9820

2004	5450	-1	1	-5450
2005	5940	0	0	0
2006	7200	1	1	7200
2007	7500	2	4	15000
	$\sum y = 31000$	$\sum x = 0$	$\sum x^2 = 10$	$\sum xy = 6930$

Since $\sum x = 0$, now $a = \frac{\sum y}{n} = \frac{31000}{5} = 6200$

And $b = \frac{\sum xy}{\sum x^2} = \frac{6930}{10} = 693$

Substituting the value of a and b in the required line then the equation is

$$Y = a + bx = 6200 + 693x$$

When $X = 2008$, then $x = X - 2005 = 3$

$$Y \text{ for } 2008 = 6200 + 693 \times 3 = 8279$$

Hence the projected value for 2008 of NABIL is 8279

Calculation of projected value of cardholders for HBL

Year (X)	No. of Cardholder(y)	$x = X - 2005$	x^2	Xy
2003	4088	-2	4	-8176

2004	5683	-1	1	-5683
2005	7388	0	0	0
2006	8852	1	1	8852
2007	10249	2	4	20498
	$\sum y = 36260$	$\sum x = 0$	$\sum x^2 = 10$	$\sum xy = 15491$

Since $\sum x = 0$, now $a = \frac{\sum y}{n} = \frac{36260}{5} = 7252$

And $b = \frac{\sum xy}{\sum x^2} = \frac{15491}{10} = 1549.1$

Substituting the value of a and b in the required line then the equation is

$$Y = a + bx = 7252 + 1549.1x$$

When $X = 2008$, then $x = X - 2005 = 3$

Y for 2008 = $7252 + 1549.1 \times 3 = 11899.3$ or 11899

Hence the projected value for 2008 of HBL is 11899

Calculation of Projected value of cardholders for SCBNL

Year (X)	No. of Cardholder(y)	$x = X - 2005$	x^2	xy
2003	6777	-2	4	-13554

2004	7454	-1	1	-7454
2005	8200	0	0	0
2006	9020	1	1	9020
2007	9364	2	4	18728
	$\sum y = 40815$	$\sum x = 0$	$\sum x^2 = 10$	$\sum xy = 6740$

Since $\sum x = 0$, now $a = \frac{\sum y}{n} = \frac{40815}{5} = 8163$

And $b = \frac{\sum xy}{\sum x^2} = \frac{6740}{10} = 674$

Substituting the value of a and b in the required line then the equation is

$$Y = a + bx = 8163 + 674x$$

When $X = 2008$, then $x = X - 2005 = 3$

$$Y \text{ for } 2008 = 8163 + 674 \times 3 = 10185$$

Hence the projected value for 2008 of SCBNL is 10185

Calculation of projected value of Industry (Cardholders)

Year (X)	No. of Cardholder(y)	x = X-2004	x ²	xy
2003	15775	-2	4	-31550
2004	18587	-1	1	-18587
2005	21528	0	0	0
2006	25072	1	1	25072
2007	27113	2	4	54226
	$\sum y = 108075$	$\sum x = 0$	$\sum x^2 = 10$	$\sum xy = 29161$

Since $\sum x = 0$, now $a = \frac{\sum y}{n} = \frac{108075}{5} = 21615$

And $b = \frac{\sum xy}{\sum x^2} = \frac{29161}{10} = 2916.1$

Substituting the value of a and b in the required line then the equation is

$$Y = a + bx = 21615 + 2916.1x$$

When X=2008, then $x = X - 2005 = 3$

Y for 2008 = $21615 + 2916.1 \times 3 = 30363.3$ or 30363

Hence the projected value for 2008 of Credit Card Industry is 30363

Calculation of Projected value of Merchants of NABIL

Year (X)	No. of Merchant(y)	x = X-2005	x ²	xy
2003	750	-2	4	-1500
2004	900	-1	1	-900
2005	1050	0	0	0
2006	1200	1	1	1200
2007	1250	2	4	2500
	$\sum y = 5150$	$\sum x = 0$	$\sum x^2 = 10$	$\sum xy = 1300$

Since $\sum x = 0$, now $a = \frac{\sum y}{n} = \frac{5150}{5} = 1030$

And $b = \frac{\sum xy}{\sum x^2} = \frac{1300}{10} = 130$

Substituting the value of a and b in the required line then the equation is

$$Y = a + bx = 1030 + 130x$$

When $X = 2008$, then $x = X - 2005 = 3$

$$Y \text{ for } 2008 = 1030 + 130 \times 3 = 1420$$

Hence the projected value for 2008 of NABIL is 1420

Calculation of Projected value of Merchants of HBL

Year (X)	No. of Merchant(y)	$x = X - 2005$	x^2	xy
2003	619	-2	4	-1238
2004	708	-1	1	-708
2005	750	0	0	0
2006	777	1	1	777
2007	926	2	4	1852
	$\Sigma y = 3780$	$\Sigma x = 0$	$\Sigma x^2 = 10$	$\Sigma xy = 683$

Since $\Sigma x = 0$, now $a = \frac{\Sigma y}{n} = \frac{3780}{5} = 756$

And $b = \frac{\Sigma xy}{\Sigma x^2} = \frac{683}{10} = 68.3$

Substituting the value of a and b in the required line then the equation is

$$Y = a + bx = 756 + 68.3x$$

When $X = 2008$, then $x = X - 2005 = 3$

$$Y \text{ for } 2008 = 756 + 68.3 \times 3 = 960.9 \text{ or } 961$$

Hence the projected value for 2008 of HBL is 961

Calculation of Projected value of Merchants of SCBNL

Year (X)	No. of Merchant(y)	x = X-2005	x ²	xy
2003	693	-2	4	-1386
2004	762	-1	1	-762
2005	838	0	0	0
2006	922	1	1	922
2007	1005	2	4	2010
	$\Sigma y=4220$	$\Sigma x=0$	$\Sigma x^2 =10$	$\Sigma xy =784$

Since $\sum x=0$, now $a = \frac{\sum y}{n} = \frac{4220}{5} = 844$

And $b = \frac{\sum xy}{\sum x^2} = \frac{784}{10} = 78.4$

Substituting the value of a and b in the required line then the equation is

$$Y = a + bx = 844 + 78.4x$$

When X=2008, then $x = X - 2005 = 3$

$$Y \text{ for } 2008 = 844 + 78.4 \times 3 = 1079.2 \text{ or } 1079$$

Hence the projected value for 2008 of SCBNL is 1079

Calculation of projected value of Industry (Merchant)

Year (X)	No. of Merchant (y)	x = X-2005	x ²	xy
2003	2062	-2	4	-4124
2004	2370	-1	1	-2370
2005	2638	0	0	0
2006	2899	1	1	2899
2007	3181	2	4	6362
	$\sum y=13150$	$\sum x=0$	$\sum x^2=10$	$\sum xy=2767$

Since $\sum x=0$, now $a = \frac{\sum y}{n} = \frac{13150}{5} = 2630$

And $b = \frac{\sum xy}{\sum x^2} = \frac{2767}{10} = 276.7$

Substituting the value of a and b in the required line then the equation is

$$Y = a + bx = 2630 + 276.7x$$

When X=2008, then $x = X - 2005 = 3$

$$Y \text{ for } 2008 = 2630 + 276.7 \times 3 = 3460.1 \text{ or } 3460$$

Hence the projected value for 2008 of Merchant (Industry) is 3460.

APPENDIX -II

Questionnaire No.1

For the Card Members

Please tick mark on the following question answers

Q.1 Gender:

Male Female

Q.2 Age:

below 18 18-25 26-30 above 30

Q.3 Level of Education:

SLC 10+2 Bachelor Master Doctorate

Q.4 Personal Monthly Income:

< 10,000 10,000-20,000

20,000-40,000 >40,000

Q.5 Occupation:

- Students Personal Business Service in Public Sector
 Service in private sector Any other (*Please Specify*) _____

Q.6 What kind of credit card do you possess?

- VISA Master Card Dinners
 JCB Others (*Please specify*) _____

Q.7 Of which Banks do you possess credit card?

Standard Chartered Bank Himalayan Bank Limited

Nabil Bank Limited Nepal Investment Banks

Q.8 Why did you choose to acquire a credit Card?

Market trend Need for credit facility

Convenience and safety Others (*Please Specify*) _____

Q.9 How often do use credit card to purchase?

Once a week Twice a week Every Fortnight

Every day occasionally

Q.10 Where do you usually use your Credit Card?

Restaurant Hotel Departmental Store

Travel Agency Others

Q.11 Which of the following Departmental stores do you usually transact at?

(With your credit card)

Bhatbhateni

Saleways

Namaste Supermarket Others

Q.12 How do you come to know about credit card?

Print Media Electronic Media Broad casting Media

Q.13 How satisfied are you with the credit card you possess?

Very satisfied Satisfied

Neutral Unsatisfied

Q.14 How did you find the facility of credit card adopted by banks?

Very relevant Not so relevant Neutral

Q.15 Are you satisfied with the limit provided by bank on your credit card?

Yes No Neutral

Q.16 How long have you been using your credit card?

from about a month less than six month

for about a year more than a year

Q.17 Of your expenses what percentage is done through credit card?

- < 20% 20%-40% 40%-60%
- 60%-80% > 80%

Q18 Have you ever encountered problems during the usage of your credit card?

- Yes No

Q.19 If 'yes' Please check the type of problems encountered. (You can check more than one option).

- credit card was lost card was not accepted by Merchants
- card was not accepted by machine
- Others (*Please specify*) _____

Q.20 Do you have any idea about fraud in credit card? If yes please tick mark on the types of fraud known to you?

- Stolen cards Counterfeit cards
- Magnetic Stripe fraud others

Q.21 Do you know about the dispute settlement process in credit cards and the process following disputes?

Yes

No

Q.22 What would prompt you to change your credit card and acquire a new card?

Wider Acceptance

Promotion on part of the banks

Goodwill of the banks

Low service fees

Thank You

Questionnaire No. 2

For The Merchants

Please tick mark on the following question answers:

Q.1. Type of business:

- Department store Restaurant Hotel
 Travel Agents Others (Please Specify) _____

Q.2. Do you have credit card facility?

- Yes No

(If yes go to question no. 3 to 9 and if no please go to question no. 10 to 14)

Q.3. What kind of credit card do you possess?

- VISA Master card
 Dinners JCB

Q.4. What is the acquiring bank?

Standard Chartered Bank Himalayan Bank Limited

Nabil Bank Nepal Investment Bank

Q.5. Why have you chosen to acquire credit card facilities? (You can check more than one option)

Wider usage of credit cards Increasing demands for credit

Protection from bad credit Others (specify) _____

Q.6. What were the reasons for selecting the particular bank? (You can check more than one option)

Goodwill or the good market position of the bank

Broad acceptance of card associated acquiring bank

More existing transactions with the bank

Others (Please Specify) _____

Q.7 Who influenced you to provide credit card facility?

Family

Friends/Neighbors

Other Business

Celebrity

Advertisement

Q.8 What is the daily frequency of usage of credit cards?

< 10 Customers 10-12 Customers

20-30 Customers > 30 Customers

Q.9 Has the business grown after installing credit card facilities?

Yes No

Q.10 If you do not provide credit card facility, what are the reasons for not choosing? *(You can check more than one option)*

No or low demand for credit

High service charge (fees, limit and commissions)

Long and difficult process of settlement

Others (Please Specify) _____

Q.11 Does your business provide credit facility?

Yes No

Q.12 What is the usual response of the customer?

Cash payment No purchase and go to another merchant

Purchase in less amount Others (Please Specify) _____

Q.13. Do you have plans of providing credit card facilities?

Yes

No

Q.14. If "Yes" what are the factors that motivate you to plan on doing so? (You can check more than one option)

Increasing demand for credit

Broad usage of credit cards

Protection from bad debts

Security

Others (please specify) _____

Thank You

Questionnaire No. 3
For Departmental Stores

Please tick mark on the following question answers:

Q.1. Which of the following credit cards do you accept? Please tick mark on the ones you accept.

VISA Master Card Dinners JCB

Q.2. Which of the following Credit Cards do your customers generally possess?
Please tick mark on the ones you accept.

VISA Master Card Dinners JCB

Q.3 You possess POS machine of...

Standard Chartered Bank Himalayan Bank Limited
 NABIL Bank Nepal Investment Bank

Q.4 What were the reasons for selecting the particular bank? (You can check more than one option)

Goodwill of bank.

- Broad acceptance of card associated with acquiring bank.
- More existing transactions with the bank
- Location of the bank
- Good personal relationship with the bank
- Others (Please Specify) _____

Q.5 Credit Cards of which bank do your customer generally possess?

- Standard Chartered Bank Himalayan Bank Limited
- Nabil Bank Nepal Investment bank

Q.6 Please put a tick mark on the benefits that you have been receiving by using the credit.

- Convenience Security Reliability
- Market need Tracking of Credit others

Q.7. Of your sales what percentage is done through credit card?

- < 20% 20%-40% 40%-60%
- 60%-80% >80%

Q.8. How long have you been using Credit Cards?

- From about a month Less than six months

From about a year More than a year

Q.9. How has the buying habit of consumers changed after you started accepting credit card?

Increase Decreased No change

Q.10. How satisfied are you with the credit card facility?

Very satisfied Satisfied Neutral Unsatisfied

Q.11. Do you have any idea about the fraud in credit card? If yes then please tick mark the types of fraud known to you

Stolen Cards Counterfeit Cards
 Magnetic stripe fraud others (*Please Specify*) _____

Q.12. What are the problems generally being encountered by you regarding operations related to credit card?

Thank You