

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

The payment landscape in Nepal is gradually changing with the understanding how to capture increased revenue across the several current and emerging payment types. Banks with new product innovations and offerings can win more of the increased retail payments revenues that will be up for grabs over the next decade. The scenario in Nepal in next few years would be marked by the gradual decline in check usage as electronic forms of payment such as ATM, debit and credit cards continue to grow in Nepalese payments market.

The introduction of ATM or debit cards in Nepal was the first testimony how evolution can bring hi-tech electronic banking to the customers. For the first time there was no need to go to the bank with a 'carefully signed check' and stay in long queue to make cash withdrawals. "Have an ATM card and enjoy 24-hr banking" was a famous slogan then.

Today, almost all banks are issuing ATM/debit cards. ATM card use is on rise as more customers are discovering their convenience and more merchants are discovering the potential savings over alternative payment methods. When card issuance was confined to credit cards only, the acquiring infrastructure did not grow in Nepal i.e. the POS terminals at merchant locations were not growing because the issuance rate was limited to a miniscule percentage of population.

The card market is becoming increasingly competitive and as such, it is difficult for competitors to maintain or even grow market share. With new entrants attracted to the potentially lucrative return that the market offers and new innovative products being launched, the competition looks set to intensify. Building and maintaining strong relationships with customers, both at the consumer level and at the merchant level, is paramount to sustaining business and profits in the card business. Success in the card business depends on a thorough understanding of the customer base – that is your cardholders and the competitor's cardholders.

Further, the Nepalese financial sector is characterized by the presence of 31 commercial banks, 79 finance companies, and more than 78 development banks catering to the same market size. This makes it increasingly difficult for the financial institutions to maintain their market share. Moreover, the present political and economic scenario has been discouraging banks to increase their corporate/commercial loan portfolio. The increased banking emphasis has been on consumer lending comprising ATM card, debit cards, credit cards, home loan, auto loan, education loan, etc coming to recent years. But with almost all the banks providing nearly all of these consumer products, the only way these financial institutions can have competitive edge is by differentiating their product feature. Keeping these things in mind, this study tries to find out cardholder's perceived attributes regarding ATM card.

ATM is a machine that dispenses cash on the request of cardholder. Apart from dispensing cash, some ATM machine will accept cash and cheque deposits also. But the cheque deposit facility is provided only by Standard Chartered Bank Limited and Nepal Investment Bank Limited in Nepal. In order to provide with premium and up to date banking card services, SCT in partnership with commercial banks, brings us first shared service network of ATM and Point of Sale terminals.

## **History of ATM**

The world's first ATM, which was developed and built by Luther George Simjian and installed 1939 in New York by the *City Bank of New York*, but deinstalled after 6 months due to the lack of customer acceptance.

Thereafter, the history of ATMs paused for over 25 years, until De La Rue developed the first electronic ATM, which was installed first in Enfield Town in North London on June 27, 1967 by Barclays Bank. This instance of the invention is credited to John Shepherd-Barron, although Luther George Simjian registered patents in New York, USA in the 1930s and Donald Wetzel and two other engineers from Docutel registered a patent on June 4, 1973.

The first ATMs accepted only a single-use token or voucher, which was retained by the machine. These worked on various principles including radiation and low-coercivity magnetism that was wiped by the card reader to make fraud more difficult.

The idea of a personal identification number (PIN) stored on a physical card being compared with the PIN entered when retrieving the money was developed by the British engineer James Goodfellow in 1965, who also holds international patents regarding this technology.

ATMs first came into wide use during the early- to mid-1980s.

On most modern ATMs, the customer identifies him or herself by inserting a plastic card with a magnetic stripe or a plastic smartcard with a chip that contains his or her account number. The customer then verifies his or her identity by entering a passcode, often referred to as a PIN of four or more digits. If the number is entered incorrectly several times in a row (usually three), most ATMs will retain the card as a security precaution to prevent an unauthorized user from discovering the PIN by guesswork (these cards are often destroyed if the ATM owner is not the card issuing bank as non customer's identities cannot be checked). In some cases, the customer's PIN may be changed using the machine. ([www.en.wikipedia.org](http://www.en.wikipedia.org))

## **Uses of ATM**

There are various purposes for which ATM/ debit card can be used. Generally uses of ATM can be categorized into two parts i.e, its primary use and alternative use.

### **1. Primary Uses of ATM Card**

ATM card can be used for deposits, withdrawals, account information, and other types of transactions at ATM machines, often through interbank networks.

At a branch, it can be used as identification for in-person transactions. At merchants, it can be used for EFTPOS ( Electronic Fund Transfer Point of Sale) purchases

Unlike a debit card, an ATM card can strictly be used for in-person transactions, as it requires authentication through a personal identification number. In other words, it cannot be used at merchants that only accept credit cards.

In countries that don't have debit cards proper, such as Canada, an ATM card is also known as a "debit card".

## **2. Alternate Uses of ATM Card**

Although ATMs were originally developed as cash dispensers, they have evolved to include many other bank-related functions. In some countries, especially those which benefit from a fully integrated cross-bank ATM network (e.g.: Multibanco in Portugal) ATMs include many functions which are not directly related to the management of one's own bank account, such as:

- ) Paying routine bills, fees, and taxes (utilities, phone bills, social security, legal fees, taxes, etc.)
- ) Loading monetary value into pre-paid cards (cell phones, tolls, multi purpose stored value cards, etc.)
- ) Ticket purchases (train, concert, etc.)
- ) Many ATMs in the United States also allow users to purchase stamps.

## **Types of ATM**

There are different types of ATM and these can be categorised on the basis of :

- i. Physical characteristics, &
- ii. Installation locations

### **i. Types of ATM by Physical Characteristics**

Under types of ATM by physical characteristics there are two main types that have developed over time:

a. Mono-function devices:

It incorporates only one type of mechanism for financial transactions (such as cash dispensing or statement printing).

b. Multi-function devices:

It incorporates multiple mechanisms to perform multiple services (such as accepting deposits, dispensing cash, printing statements, etc.) all within a single footprint.

Mono-function and multi-function devices are manufactured both regular "interior grade" and weather-resistant "exterior, through-the-wall grade" variants. Some ATMs are also built as fully self-contained exterior units designed to sit alone without the protection of a building and be completely exposed on all sides to the elements.

Reasons for selecting either mono-function or multi-function and "interior" versus "exterior" ATMs include device cost, installation location, customer wait times, desired reliability, and historical preference. ([www.en.wikipedia.org](http://www.en.wikipedia.org))



A mono-function, exterior Siemens Nixdorf ATM in Germany

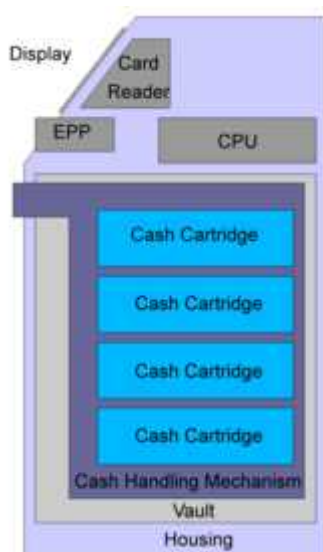
## ii. Types by Installation Locations

ATMs are placed not only near or inside the premises of banks, but also in locations such as shopping centres/malls, grocery stores, education institutions and restaurants. These represent two types of ATM installations, on and off premise.

On premise ATMs are typically more advanced, multi-function machines that complement an actual bank branch's capabilities and thus more expensive. Off premise machines are deployed by financial institutions and also ISO's (or Independent Sales Organizations) where there is usually just a straight need for cash, so they typically are the cheaper mono-function devices.

In Nepal, we have off premise ATM installation to provide customers 24 hour withdrawal service.

## ATM Hardware



A block diagram of an ATM.

An ATM typically is made up of the following devices:

- ) CPU (to control the user interface and transaction devices)
- ) Magnetic and/or Chip card reader (to identify the customer)

- ) PIN Pad (similar in layout to a Touch tone or Calculator keypad), often manufactured as part of a secure enclosure)
- ) Secure cryptoprocessor, generally within a secure enclosure.
- ) Display (used by the customer for performing the transaction)
- ) Function key buttons (usually close to the display) or a Touchscreen (used to select the various aspects of the transaction)
- ) Record Printer (to provide the customer with a record of their transaction)
- ) Vault (to store the parts of the machinery requiring restricted access)
- ) Housing (for aesthetics and to attach signage to)

Recently, due to heavier computing demands and the falling price of computer-like architectures, ATMs have moved away from custom hardware architectures using microcontrollers and/or application-specific integrated circuits to adopting a hardware architecture that is very similar to a personal computer. Many ATMs are now able to use operating systems such as Microsoft Windows and Linux. Although it is undoubtedly cheaper to use commercial off-the-shelf hardware, it does make ATM's vulnerable to the same sort of problems exhibited by conventional computers. ([www.en.wikipedia.org](http://www.en.wikipedia.org))

## **Vaults of ATM**



Interior of a freestanding ATM, during servicing

The vault of an ATM is within the footprint of the device itself and is where items of value are kept. Scrip cash dispensers do not incorporate a vault. Mechanisms found inside the vault may include:

- ) Dispensing mechanism (to provide cash or other items of value)
- ) Deposit mechanism (to take items of value from the customer)
- ) Security sensors (Magnetic, Thermal, Seismic)
- ) Locks (to ensure controlled access to the contents of the vault)

ATM vaults are supplied by manufacturers in several grades. Factors influencing vault grade selection include cost, weight, regulatory requirements, ATM type, operator risk avoidance practices, and internal volume requirements. In Nepelese context, banks load around 40-50 lakh in the money cassettes of ATM vault once in 2 or 3 days.

### **Reliability of ATM**

ATMs are generally reliable, but if they do go wrong customers will be left without cash until the following morning or whenever they can get to the bank during opening hours. Of course, not all errors are to the detriment of customers; there have been cases of machines giving out money without debiting the account, or giving out higher value notes as a result of incorrect denomination of banknote being loaded in the money cassettes. Errors that can occur may be mechanical (such as card transport mechanisms; keypads; hard disk failures); software (such as operating system; device driver; application); communications; or purely down to operator error.

Mostly all ATMs usually print each transaction in a paper journal that is rolled into a roll of paper stored inside the ATMs, which allows both the users of the ATMs and the related financial institutions to settle things based on the records in the journal in case there is a dispute. In some cases, transactions are posted to an electronic journal to reduce the need for paper trails.



## Security

Early ATM security focused on making the ATMs invulnerable to physical attack; they were effectively safe with dispenser mechanisms. A number of attacks on ATMs resulted, with thieves attempting to steal entire ATMs by ram raiding.

Modern ATM physical security, per other modern money-handling security, concentrates on denying the use of the money inside the machine to a thief, by means of techniques such as dye markers and smoke canisters. This change in emphasis has meant that ATMs are now frequently found freestanding in places like shops, rather than mounted into walls.

Another trend in ATM security leverages the existing security of a retail establishment. In this scenario, the fortified cash dispenser is replaced with nothing more than a paper-tape printer. The customer requests a withdrawal from the machine, which dispenses no money, but merely prints a receipt. The customer then takes this receipt to a nearby sales clerk, who then exchanges it for cash from the till.

There have been a number of incidents of fraud in western countries where criminals have used fake machines or have attached fake keypads or card readers to existing machines. These have then been used to record customers' PINs and bank account details in order to gain unauthorized access to their accounts.

A bank is always liable when a customer's money is stolen from an ATM, but there have been complaints that banks have made it difficult to recover money lost in this way. In some cases, bank fraud occurs at ATMs whereby the bank accidentally stocks the ATM with bills in the wrong denomination, therefore giving the customer more money than should be dispensed. Individuals who unknowingly use such ATMs are probably never tried, but those who withdraw a second time are usually prosecuted. In some areas, multiple security cameras and watch guards are a ubiquitous ATM feature.

The issue of customer security appears to have been abandoned by the banking industry; efforts are now more concentrated on deterring legislation than on solving the problem of forced withdrawals. This may be reflective of the industry's greater concern with the

image of safety as opposed to actual safety. At least as far back as July 30 1986, critics of the industry have called for the adoption of an emergency PIN system for ATM users. Legislative efforts to require an emergency PIN system have appeared in Illinois, Kansas and Georgia, but none have succeeded as of yet. ([www.en.wikipedia.org](http://www.en.wikipedia.org))

## **Fraud in ATM**

As with any device containing objects of value, ATMs and the systems they depend on to function are the targets of fraud. Fraud against ATMs and people's attempts to use them takes several forms.

### **i. Fake ATMs**

The first known instance of a fake ATM was installed at a shopping mall in Manchester, Connecticut in 1993. By modifying the inner workings of a Fujitsu model 7020 ATM, a criminal gang known as The Bucklands Boys were able to steal information from cards inserted into the machine by customers.

### **ii. Operational Fraud**

In some cases, bank fraud could occur at ATMs whereby the bank accidentally stocks the ATM with bills in the wrong denomination, therefore giving the customer more money than should be dispensed. The result of receiving too much money may be influenced on the Card Holder Agreement in place between the customer and the Bank.

In a variation of this, WAVY-TV reported an incident in Virginia Beach of September 2006 where a hacker who had an admin password for a gas station's white label ATM caused the unit to assume it was loaded with \$5 USD bills instead of \$20s, enabling himself and many subsequent customers to walk away with four times the money they said they wanted to withdraw.

ATM behaviour can change during what is called "stand-in" time, where the Bank's cash dispensing network is unable to access databases that contain account information (possibly for database maintenance). In order to give customers access to cash, customers

may be allowed to withdraw cash up to a certain amount that may be less than their usual daily withdrawal limit, but may still exceed the amount of available money in their account, which could result in fraud.

### **iii. ATM Card Fraud**

#### **a) Theft**

In an attempt to prevent criminals from shoulder surfing the customer's PINs, some banks draw privacy areas on the floor.

For a low-tech form of fraud, the simplest is to simply steal a customer's card. In this scenario, the user's PIN is observed by someone watching as they use the machine; they are then mugged for their card by a second person, who has taken care to stay out of range of the ATM's surveillance cameras. However, this offers little advantage compared to simply mugging the victim for their money, and carries the same risks to the offender as other violent crimes.

A later variant of this approach is to trap the card inside of the ATM's card reader with a device often referred to as a Lebanese loop. When the customer gets frustrated by not getting the card back and walks away from the machine, the criminal is able to remove the card and withdraw cash from the customer's account.

The Lebanese Loop could also be combined with the Droplet method of stealing the PIN, where small drops of oil are placed on the PIN pad keys. After a customer used the ATM, one can see which keys were pressed, which makes it easier to guess the entered pin. A simple counter measure to this attack is to wipe the PIN pad before or after each use. Another simple form of fraud involves attempting to get the customer's bank to issue a new card and stealing it from their mail. ([www.en.wikipedia.org](http://www.en.wikipedia.org))

#### **b) Cloning**

Some ATMs may put up warning messages to customers to not use them when it detects possible tampering. The concept and various methods of copying the contents of an ATM card's magnetic stripe on to a duplicate card to access other people's financial information was well known in the hacking communities by late 1990.

In 1996 Andrew Stone, a computer security consultant from Hampshire in the UK was convicted of stealing in excess of 1 million UK pounds (at the time that was US\$1.6 million) by pointing high definition video cameras at ATMs from a considerable distance, and by recording the card numbers, expiry dates, etc. from the embossed detail on the ATM cards along with video footage of the PINs being entered. After getting all the information from the videotapes, he was able to produce clone cards which not only allowed him to withdraw the full daily limit for each account, but also allowed him to sidestep withdrawal limits by using multiple copied cards. In court, it was shown that he could withdraw as much as £10,000 per hour by using this method. Stone was sentenced to five years and six months in prison.

By contrast, a newer high-tech *modus operandi* involves the installation of a magnetic card reader over the real ATM's card slot and the use of a wireless surveillance camera or a modified digital camera to observe the user's PIN. Card data is then cloned onto a second card and the criminal attempts a standard cash withdrawal. The availability of low-cost commodity wireless cameras and card readers has made it a relatively simple form of fraud, with comparatively low risk to the fraudsters.

#### c) Combatting Stolen Cards and Information

In an attempt to stop these practices, countermeasures against card cloning have been developed by the banking industry, in particular by the use of smart cards which cannot easily be copied or spoofed by un-authenticated devices, and by attempting to make the outside of their ATMs tamper evident. Older chip-card security systems include the French Carte Bleue, Visa Cash, Mondex, Blue from American Express and EMV '96 or EMV 3.11. The most actively developed form of smart card security in the industry today is known as EMV 2000 or EMV 4.x.

EMV is widely used in the UK (Chip and PIN) and parts of Europe, but when it is not available in a specific area, ATMs must fallback to using the easy to copy magnetic stripe to perform transactions. This fallback behaviour can be exploited. In case of Nepal, we have not yet heard about such type of ATM frauds. ([www.en.wikipedia.org](http://www.en.wikipedia.org))

## **Joint Network**

SCT is a joint Network where by we can go and withdraw cash from any ATM location, make purchase through any merchants POS location that displays the SCT logo for purchases. Debit card act as "pay now" products that quickly debit or subtract money from the purchaser's bank account, as if the purchaser is taking out cash. So, for the Debit card to work, the cardholder must have money in his/her account to cover the transaction. In addition no interest is charged for the purchase made through the card, except when withdrawing cash from ATM.

The International brand cards that are accepted by ATM in Nepal are:

- ) ATM card
- ) Visa
- ) Plus
- ) Visa Electron
- ) Master Card
- ) Maestro
- ) Cirrus

Different banks issue different types of ATM services. For example NABIL, NIBL, KBL issue Visa card where as some 17 member banks issue their own ATM cards using one network called, SCT network. It is the only debit card where there is 17 member banks sharing one network. It is not accepted in international market. Where as Visa card is both debit as well as credit card. We can deposit the money through ATM, for this the cardholder must have his minimum balance plus savings. Thus debit card is just about using one's own money while purchasing or withdrawing cash. On the other hand, Visa credit card is different. Credit card is plastic money provided by the bank to its customer on credit, with this credit card a customer can buy now and pay later. Thus credit card is using bank's money while purchasing or withdrawing cash. Visa credit card is used worldwide; it provides easy access to purchasing goods, avail services or even to withdraw cash from ATM. But it is available in the same ATM terminal provided by NIBL.

## 1.2 Statement of Problems

The cards market in Nepal is characterized by intense competition. Almost every bank has been providing ATM cards to its customers. The innovative financial institutions like NABIL and NIBL has been well advanced in their plans to exploit branded debit cards market, and there remains every chance that the late adopters will find themselves 'playing catch-up' rather than taking bold initiatives. By adopting and adapting too slowly, thus, banks like SCBL risk major losses in ATM or debit card market-share.

ATM or Debit card services are relatively new notion that are adopted by the commercial banks in Nepal. The banks that are providing such services are some of the established and well-known banks which include SCBL, NABIL, NIBL, HBL, etc.

Though the people enjoy using ATM cards there are some people who are still unaware of the benefits from the use of ATM cards. ATM card are generally used by well to do people and its accessibility is limited in urban areas. Its limited accessibility may limit the profit it is able to earn for the banks. ATMs, in Nepal, provide fewer functions in comparison to foreign countries. In foreign countries ATMs dispense cash, transfer funds from one account to another, accept deposits, etc but in Nepal they are generally used for cash withdrawal and making payments for the purchase. ATMs should work as a mini branch of a bank by accepting deposit from the customers and providing withdrawal facility but in case of Nepal it is still unable to do so. Affluent people use plastic money such as ATM, debit card, Credit card and it also shows their status.

Any research is undertaken with some research questions developed on the basis of its theoretical framework. Likewise, this research is also undertaken with some research questions based on its theoretical framework with special reference to commercial banks regarding the ATM cards. The research questions can be summarized as follows:

- ) What is the degree of awareness consumer posses?
- ) Are customers satisfied with their ATM card facility?
- ) Which bank does customer prefers most?
- ) What are the purposes for maintaining bank account?
- ) What are the important factors while selecting a bank?

- ) What are the important factors of ATM card?
- ) What is market potential for ATM cards?
- ) What is market demand for ATM cards?
- ) What are the purposes for which the ATM cards would be demanded?
- ) What is the target market for the ATM cards?
- ) How can the bank gain a competitive edge over other bank?

### **1.3 Objectives of the Study**

This study has been conducted to find out the customer perception towards attributes of ATMs and its marketing implications. However, the main objectives of the study are:

- ) To discover the user profile of ATM card
- ) To find out whether ATM card, Debit Card and Credit card are competing or complementary services
- ) To discover various communities in respect of demographic variables that prefers to use ATM cards
- ) To find out the awareness in people regarding the ATM cards provided by banks
- ) To find out the customers attitude and perception about ATM cards
- ) To develop an understanding of the present market condition of ATM cards and its future prospects
- ) To understand the competitors' position; SCT Network in terms of shared network cards

### **1.4 Importance of the Study**

Many companies are involved in importing different brands of ATM. All the companies are using almost same marketing strategies for selling the product. Due to the cut throat competitions in the market, it is necessary to try new strategies to capture and expand the market. In this ground, it is felt necessary to make research while marketing of the ATM.

## **1.5 Limitations of the Study**

This study has been carried out with certain limitations. The major limitations are as follows:

- ) The study is concerned only with perceived attributes and marketing implications of automated teller machines (ATM).
- ) In this study only selected statistical tools and techniques are used.
- ) Diversification of distribution of questionnaire limited to valley.
- ) The study has conducted by a single researcher for the partial fulfillment of requirements of the Masters of Business Studies (MBS). So, the study has been constrained by the limited time and resources.
- ) This study is conducted only for suggestion not for directing.
- ) This study is based on the latest five years data only.

## **1.6 Organization of the Study**

This report has been divided into five distinct chapters which try to explain the perceived attributes of ATM and its marketing implication in Nepal. The title and the brief contents of each of these chapters can be summarized as follows:

### ***Chapter I: Introduction***

The chapter covers the short background of the study, statement of problem, objectives of the study, significant of the study and limitation of the study. This chapter also includes brief introduction of the ATM and research questions.

### ***Chapter II: Review of Literature***

This chapter includes the conceptual reviews, reviews of previous writings and studies relevant to the problem being explored within the framework of the theory structure.

### ***Chapter III: Research Methodology***

This chapter includes firstly the research design and the population taken. What procedures used for sampling followed by the data collection procedure. Finally which



statistical Analysis tools are used and what data Processing procedure has been used in the research.

#### ***Chapter IV: Presentation and Analysis of Data***

This chapter includes the analysis of data which are been collected by primary and secondary sources. I have used Descriptive Analysis as well as Correlation Analysis using Both MS-Excel and SPSS Software where necessary and draw the major findings.

#### ***Chapter V: Summary, Conclusions and Recommendations***

This chapter includes the summary of all the findings of the research and followed by the conclusions derived in the process of the research. Finally I have suggested recommendations from the consumer's point of view as well as researcher's point of view.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 Conceptual Framework**

The Nepalese financial sector is characterized by the presence of 31 commercial banks, 59 finance companies, and more than 68 development banks catering to the same market size. This makes it increasingly difficult for the financial institutions to maintain their market share. Moreover, the present political and economic scenario has been discouraging banks to increase their corporate/commercial loan portfolio. The increased banking emphasis has been on consumer lending comprising debit cards, credit cards, home loan, auto loan, education loan, etc coming to recent years. But with almost all the banks providing nearly all of these consumer products, the only way these financial institutions can have competitive edge is by differentiating their product feature. Thus the study tries to identify the possible ways that could provide a base for gaining competitive edge over the competitors.

The research is undertaken for the purpose of exploring people's perceived attributes of ATMs in order to target them for the ATM card service offered by the banks. The study also tries to explore the reasons for introducing ATM services by commercial banks. In order to provide with premium and up to date banking card services, SCT in partnership with commercial banks, brings the first shared service network of ATM and Point of Sale (POS) terminals.

The study will endow with the meaning of ATM and the difference between ATM and cheque, ATM and Debit card & ATM and Credit card. The study will also obtain the overview of Nepalese Debit Card Market.

The study will obtain information about general banking habits of the people and their awareness, attitude and perception about ATM card. The research will also try to find, if there are any particular changes that banks should consider in its ATM cards in order to attract new consumers.

### 2.1.1 Definition of Automated Teller Machine (ATM)

Automated Teller Machine (ATM) is a machine that permits customers to gain access to their accounts through the use of a magnetically encoded plastic card and by pushing appropriate buttons on a computer terminal. ATMs dispense cash, transfer funds from one account to another, accept deposits, perform other functions, and are generally available 24 hours a day.

An ATM (also called *cash machine*, *ATM Scrip to Cash machine*, "bank machine" or "ABM", "autoteller" or *guichet*) is an electronic computerized telecommunications device that allows a bank's customers to directly use a secure method of communication to access their bank accounts, order or make cash withdrawals and check their account balances without the need for a human bank teller (or *cashier*).

It is an unattended electronic machine in a public place, connected to a data system and related equipment and activated by a bank customer to obtain cash withdrawals and other banking services. ATM is also called *automatic teller machine*, *cash machine*, and *money machine*. ([www.en.wikipedia.org](http://www.en.wikipedia.org))

It is a device used by bank customers to process account transactions. Typically, a user inserts into the ATM a special plastic card that is encoded with information on a magnetic strip. The strip contains an identification code that is transmitted to the bank's central computer by modem. To prevent unauthorized transactions, a personal identification number (PIN) must also be entered by the user using a keypad. The computer then permits the ATM to complete the transaction; most machines can dispense cash, accept deposits, transfer funds, and provide information on account balances.

**In business terms**, ATM is a computerized terminal providing cash dispensing and deposit acceptance banking transactions. ATM terminals have become very popular in many parts of the world and provide individuals with 24-hour electronic access to their banking accounts without a bank teller.

**Technologically**, ATM machine is a banking terminal that accepts deposits and dispenses cash. ATMs are activated by inserting a cash or credit card that contains the user's account number and PIN on a magnetic stripe. The ATM calls up the bank's computers to verify the balance, dispenses the cash and then transmits a completed transaction notice. The word "machine" in the term "ATM machine" is certainly redundant, but widely used. ATM, a device used by bank customers to process account transactions. Typically, a user inserts into the ATM a special plastic card that is encoded with information on a magnetic strip. The strip contains an identification code that is transmitted to the bank's central computer by modem. To prevent unauthorized transactions, a personal identification number (PIN) must also be entered by the user using a keypad. The computer then permits the ATM to complete the transaction; most machines can dispense cash, accept deposits, transfer funds, and provide information on account balances. Banks have formed cooperative, nationwide networks so that a customer of one bank can use an ATM of another for cash access. Some ATMs will also accept credit cards for cash advances. The first ATM was installed in 1969 by Chemical Bank at its branch in Rockville Center, N.Y. A customer using a coded card was dispensed a package containing a set sum of money.

### **2.1.2 Networking of ATM**

Most ATMs are connected to interbank networks, enabling people to withdraw and deposit money from machines not belonging to the bank where they have their account. This is a convenience, especially for people who are traveling so that it is possible to make withdrawals in places where one's bank has no branches, and even to withdraw local currency in a foreign country, often at a better exchange rate than would be available by changing cash. Some examples of interbank networks include Nepal's SCT network, Hong Kong's JETCO and the Philippines' Expressnet.

ATMs rely on authorization of a transaction by the card issuer or other authorizing institution via the communications network. ([www.en.wikipedia.org](http://www.en.wikipedia.org))

## **Shared Networks**

Smart Choice Technologies Pvt. Limited has deployed a first-of-its-kind initiative in Nepal creating an integrated shared services network (SCT-Network) for Automated Teller machines (ATMs) and Point-of-sale (POS) Terminals, managed through a national switch. The SCT network is a fully integrated network supporting a multiple device types and card acquiring standards.

This network has been made available, on a subscription basis (pay-per-use), to banks and financial institutions across the country. Besides the network, this national switch will also operate and manage domestic & international gateways and settlement systems. For inter-bank settlement, the company has appointed a settlement bank, which is responsible for the daily settlement of all ATM transactions on the network.

The company has also launched a local debit card program (branded as SCT) to enable banks to issue cards to customers at a fraction of the costs typically associated with international card schemes. The local debit card program offers a first-time opportunity for banks to issue and manage a local debit card program, with wide acceptability (due to the ATM & POS Network in Nepal and India and regional countries at a subsequent date).

SCT Cards are now accepted in ATMs all over India. SCT has reached an agreement with FSS, India and has also completed all of its testing for the same. With this in effect, SCT member bank's customers are now able to withdraw cash from their SCT Cards in India. This service will be comparatively cheaper than other networks available in the market and would be beneficial for both the member banks and their customers.

In addition, the company also provides a secure facility for Card and PIN production & management, customized for each bank. This facility is equipped with world standard Hardware Based Encryption (RACAL-HSM) supporting the latest (e.g. 3DES) encryption standards ([www.sct.com.np](http://www.sct.com.np)).

## **Different Products and Services Provided by SCT**

Currently, Smart Choice technology provides the following products & services under its network.

- ) Automated Teller Machine (ATM) supply, installation, integration, acquiring, and maintenance
- ) Point-of-Sale (POS) Terminal supply, installation, integration, acquiring, and maintenance
- ) Racal Host Security Module (HSM) supply, installation, and training
- ) 'Oasis' License software supply, installation, and integration
- ) ATM & POS Networking services

## **SCT Network Members**

Currently, Smart Choice has signed SCT-Network software & subscription agreements with the 19 banks in Nepal. Such as HBL, BOK, LBL, EBL, NCCBL, DCBL, MBL, NICBL, GDBL, LUBL, SBL, NABIL, NBBL, Prabhu Bittiya Sanstha, NDEP, CEFI Global Bank Limited, Citizens International Bank Limited & IME financial Institution limited. Issuance of SCT cards has now reached over 25,00,000 cards by the SCT network members.

## **Portfolio of SCT**

### **a) ATM & POS Network**

The company has deployed fourteen of its own ATMs at different sites within Nepal besides integrating Himalayan Banks eleven ATMs and Everest Bank's three ATMs, Nabil Banks thirteen ATMs, NBBL's two ATMs, LBL's one ATM, BOK's four ATMs and MBL's seven ATMs in the market, thereby making available a total of fifty five (55) ATMs under the SCT-Network.

The company also installed over 150 of its own POS Terminals in Kathmandu and Pokhara Valley. These terminals have been installed at shops, department stores, hotels, restaurants and service outlets that typically attract retail clientele. The company has

maximized the number of POS terminals by integrating the existing POS terminals of Alpine Card Service and Himalayan Bank Limited making it over 800 POS terminals into the SCT-Network.

#### **b) The National Switch**

The company has established a data center and central transaction switching software to manage the network. This switch has been connected to ATMs / POS / Bank Host Systems and International gateways (Visa / MasterCard / Amex). To implement this, the company has bought the 'Oasis software' from Canada.

It is also important to highlight here that, as part of our procurement policy, we have entered, and will continue to enter into appropriate agreements with vendors (SW / HW & Services) on a complete implementation services basis to reduce the risk of non-availability of adequately trained man-power in Nepal. Accordingly, the company has taken the distributorship rights for Racal Host security Modules (HSM) and 'Oasis' License Software for Nepal.

### **2.1.3 Market Overview of ATM/Debit Card**

#### **Market Characteristics**

##### **a) Market Size**

Out of 31 commercial banks in Nepal 31 commercial banks have already started providing debit & ATM card facility to their customers. DCBL is the first development bank in Nepal to provide ATM card. It makes total 17 players in the ATM card market in Nepal competing against one another. With no government owned bank yet providing the ATM card, the major players in the ATM card market are Standard Chartered Bank Nepal Limited (SCBL), Himalayan Bank Ltd. (HBL), Nabil Bank Limited (NABIL) and Nepal Investment Bank Ltd (NIBL) are the first of all private commercial banks.

## **b) Product Profile**

The debit card market in Nepal is characterized by the presence of three different categories of debit cards:

- i. Proprietary Debit Cards
- ii. Branded Debit Cards and
- iii. Network Cards

### **i. Proprietary Debit Cards**

A proprietary debit card has two limiting factors. Firstly, the proprietary debit cards can be used in the ATM's and POS terminals of issuer bank only. For example, if Bank A is providing proprietary debit cards then it can be used only in Bank A's own ATM's and POS terminals i.e. it cannot be used in the foreign ATM's and POS machines. Secondly, it cannot be used in the country other than Nepal.

Currently, SCBNL is the only bank that provides the proprietary debit card in Nepal.

### **ii. Branded/International Debit Cards**

Branded debit cards are those cards that are associated with some international card network for example like VISA, MasterCard, Maestro, etc. There are only four banks providing branded debit cards in Nepal which are NABIL, Nepal Investment Bank Limited, Kumari Bank Limited and Himalayan Bank Limited. Further, there are two categories of branded debit cards which are:

#### **) Cards Valid in Nepal & India both**

These are international debit cards valid in Nepal as well as in India. These are the cards that are issued in against the current or personal savings account maintained in Nepalese currency. If the cardholder of this type makes ATM withdrawals or POS purchases in Nepal the transaction takes place in Nepalese currency only but payments or ATM withdrawals made in India are automatically transacted in Indian currency. The basic motivation of the banks in launching these cards is to provide further flexibility in



payments to their customers. This service has been particularly helpful to those Nepalese visiting India as they no more need to carry loads of cashes when going for business, educational, medicinal purposes or any other purposes.

The basic customer benefit of this type of debit card is that they are accepted at thousands of terminalized merchant locations across Nepal and India for purchase of services, goods and for cash advance. This type of card has got important benefits over the proprietary debit cards, which are as follows:

) Can be used in the foreign ATM's and POS terminals as well i.e. the Bank A's debit card if is of this type, it can be used in bank A's ATM's and POS terminals and ATM's and POS terminals belonging to other banks and networks as well.

) Can be used in India as well.

Nepal Investment Bank Ltd. (NIBL) was the first bank to introduce VISA Electron Debit Card in Nepal. It launched the product in October 2003. The bank has got the primary membership of VISA but has no membership of MasterCard. NIBL in near future has plans to become member of "International MasterCard" or acquire the associate membership of bank that is already member of MasterCard. Kumari Bank Ltd. (KBL) has taken the associate membership of VISA International through NIBL on May 30, 2005 allowing it to issue and acquire both domestic and international VISA cards.

Nabil Bank Ltd. (NABIL) too has been providing the same service to its valued customers. Bank is the principal member of VISA and MasterCard both and has been issuing VISA Electron Debit Card and Local Currency VISA & MasterCard in this category.

### ) **Dollar Debit Card**

These are the international debit cards which are valid in all the countries abroad other than India. These are the debit cards that are issued against the "Basic Travel Quota (BTQ)" provided by Nepal Rastra Bank (NRB). Motivation behind the issuance of such cards too is the bank's drive to provide further flexibility in making payments to its

customers. These cards are accepted at millions of terminalized merchant locations all over the world for purchase of services, goods and for cash advance.

One can incur expenses on dollar debit card mainly for personal spending. One is legally bound not to use this card for expenditure that is not permissible by the NRB. For example, under the existing regulations, one is not permitted to buy lottery tickets abroad. By regulation, all cases of unauthorized utilization are required to be reported to the NRB.

This clearly is the substitute for the Travelers Cheque (TC). Travelers Cheque is widely in practice currently for carrying out such transactions.

#### **iv. Shared Network Debit Cards**

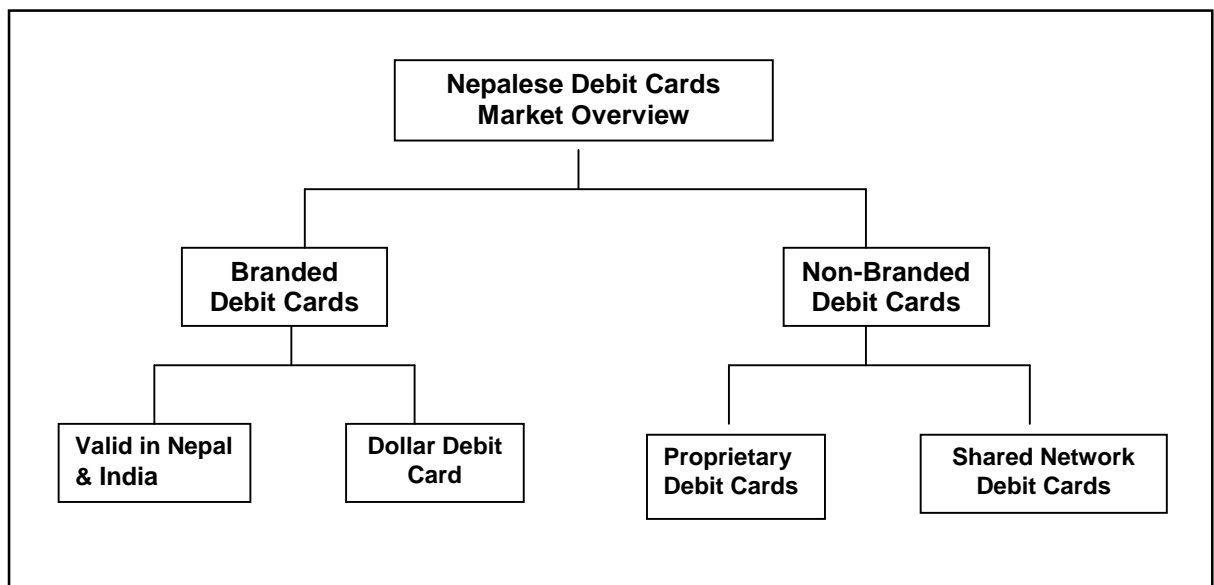
Smart Choice Technologies Pvt. Ltd. (SCT) is the first company in Nepal to provide networked ATMs and POS terminal services for its member banks. It allows the debit cardholders of member banks to have an access to a vast network of ATMs located at various locations inside Kathmandu and other major cities within Nepal displaying the SCT logo on it.

Currently, Smart Choice has SCT-Network software & subscription agreements with the following 17 banks and financial institutions in Nepal.

Among the member banks HBL is the dominant member of the SCT card network because of its sheer size. HBL got the membership of SCT network in order to have access to international gateway through SCT since it has got the further plans to launch additional card based products (non credit-limit nature) of *international brands*.

**Figure 2.1**

**Nepalese Debit Card Market Overview**



**2.1.4 General Comparison**

) **Debit Cards Vs Checks**

When you write a check, your bank deducts the amount from your checking account. It usually takes several days for the transfer of funds to take place, because several parties have to handle the check before the transaction is completely processed.

"When you use a Debit card, however, the amount is electronically deducted from your checking account. While the actual deduction may take place hours later or even the next day, the card places a "hold" on the funds right away, reserving them for that transaction. So you can't "debit" the same money more than once.

) **Debit cards Vs ATM**

ATM cards are issued by banks, essentially to give bank customers flexibility in their banking hours. In most areas, with an ATM card you can withdraw money, make deposits, transfer money between accounts, find out your balance, get a cash advance and even make loan payments at all hours of the day or night.

Debit cards combine the functions of ATM cards and checks. Debit cards are issued by banks but are used at stores, not at the banks themselves. When you pay with a Debit card, the money is automatically deducted from your checking account. Many banks issue a combined Debit and ATM card that looks just like a Credit card and can be used in places where Credit cards are accepted. They are also sometimes called as "Debit cum ATM card". ATM cards can only be used to access cash; where as Debit cards can be used to make purchases at retail shops in the same way Credit cards are used.

### ) **ATM / Debit cards Vs Credit cards**

The basic difference between a ATM card and a Credit card is that the ATM card gives the customer access to their own money where as the Credit card is a form of loan and allows line of credit to customers.

In case of ATM/Debit card, there will be online debit to the customer's account, there are no hassle; of receiving bills, making payments on due dates, making payments of interest on the amount not paid, etc.

"ATM/Debit cards look like Credit cards, but operate like cash or a personal check. ATM/Debit cards are different from Credit cards. While a credit card is a way to "pay later", an ATM/Debit card is a way to "pay now". When you use an ATM/Debit card, your money is quickly deducted from your checking or savings account, they allow you to spent only what is in your bank account. It is a quick transaction between the merchant and your personal bank account.

While the two cards look alike, the level of consumer protection that they provide is different. It is easier to dispute a charge when you use your Credit card.

"ATM/Debit cards don't always offer the same level of conveniences, services and protections as credit cards. For instance, there is no grace period from the time you buy something with a ATM/Debit card to the time you actually pay for it. And some banks even charge you each time you use your Debit card."

Various studies have been conducted in different aspects of credit card facilities. Some studies also have been done on Credit card, ATM / Debit card provided by different banks. The study of previous reports and articles is reviewed in this regard.

## **2.2 Theoretical Review**

### **Competitiveness of the Industry**

With increasing number of commercial banks catering to the same market, the competition has raised in financial services market of Nepal. More than 10 commercial banks opened in the past decade itself. It signifies the competition that the banking sector is facing. Further, there has been rise in the number of other financial intermediaries such as development banks and finance companies as well. In addition, the existence of informal sector has led the market to more unhealthy competition. The main reason behind the increasing competition and the increasing number of commercial banks and other financial intermediaries is the high profitability in the banking and the financial sector. The banking sector has been able to give positive returns even in the downturn of the economy when other sectors are at doldrums. The clear picture of this scenario is reflected in the stock exchange with more than 90 percentage of the stock traded of the financial sector of which majority shares are held by the commercial banks.

The increasing competition in the financial market has led to service proliferation as well. With the increasing number of finance companies, development banks and cooperative; the commercial banks had no option but to enter in the hire purchase loan, short-term loan, which were initially only provided by the finance companies. Moreover, with the Umbrella Act (Financial Institution Act), has increased the capital threshold for the banks and other financial intermediaries and has introduced the provision for promotion as well as demotion of financial institutions categorized into A, B and C class. This may result in increased more mergers and acquisition, making market more competitive. The recent example for such merger is - Laxmi Bank and HISEF finance company.

## **PEST ANALYSIS:**

PEST analysis includes all the major components of the Societal Environments affecting the whole industry.

### **a. Political and Legal Environment**

The increasing insecurity in the nation is leading people to carry lesser cash and similarly other valuables. People prefer to take cash convertibles such as plastic cards, traveler's cheque and drafts so as to feel secure. Further, due to less attractive investment opportunities people are increasing preferring to deposit their money in banks and other financial institutions. This provides the ample opportunity for banks and similarly other financial institutions to promote and market the products like ATM & debit cards.

### **b. Economic Forces**

Per capita income and consumption is one of the demand determinants for the debit cards. Its is so because higher the per capita income, higher will be the per capita consumption and higher will be the prospects for the use of products like ATM & debit cards. The increase in per capita income and consumption basically in the urban place where most of the target market for the cards lies can be one of the influencing factors determining the demand for such cards.

But however, in Nepal no cyber law has been enacted so far. Because of this, ATM, debit and credit cards cannot be used to make online purchases and dealings limiting the use of these cards.

Further, if banks offer higher interest rates, the people will be encouraged to open new accounts bettering the prospects for the products like ATM cards whose demand depends on the total accounts opened in the current and savings category.

### **c. Sociocultural Forces**

The changing attitudes and increasing awareness of the people towards use of financial instruments is a good indicator for the products like ATM cards. People are increasingly finding the benefits of the products like ATM cards and using it. The gradual change in lifestyle of people where they are increasingly preferring and adapting to plastic cards instead of cash is ought to boost the demand for such cards.

### **d. Technological Forces**

The product offerings like ATM cards can be only made once the bank or the financial institution is technologically advanced in terms of IT infrastructure needed for the processing of such cards. ATM and POS machines are the needed infrastructure for the ATM cards, which are too expensive and not all the banks or the financial institutions can afford to own it. Further, costs in telecommunication infrastructure such as lease-line or radio-links has to be incurred to run the ATM machines which again not all the financial institutions can afford to incur. But however, with the internet becoming cheap and the shared networks like Smart Choice Technologies coming into existence, increasing commercial banks and financial institutions have begun issuing such cards and many others soon plan to enter the market.

## **PORTER'S Analysis**

### **a. Threat of New Market Entrant**

The financial ordinance i.e. BAFIO has the provision regarding the issuance of debit cards whereby only 'A' and 'B' class financial institutions are allowed to issue debit/ATM cards. As on April 2007, there were 19 commercial banks and 19 development banks in the 'A' and 'B' class financial institutions category respectively. Out of this, currently 15 commercial banks and 2 development banks are only offering the ATM cards in Nepal. So, in near future it can be expected that other financial institutions will enter into the ATM cards market. With the shared networks coming into the picture it has lowered the costs of issuing cards and made it feasible for more financial institutions to issue the card. Hence, the regulatory provision whereby it allows A and B

class financial institution to offer the ATM cards might result in increasing institutions offering the product to their customers.

### **b. Competitive Rivalry**

The ATM cards market in Nepal is still primitive with only 15 commercial banks out of 19 and 2 development banks out of 19 are offering the product. But however, with the shared network cards coming into the scene more commercial banks and development banks can be expected to enter into the market making it more competitive.

### **c. Bargaining Power of the Suppliers**

The suppliers that can be identified in case of ATM cards issuance are ATM machine, POS machine, and cards machine providers, international branded cards company such as VISA, MasterCard, and Maestro, cards software provider and cards plastic provider. Among these, the companies like VISA, MasterCard and Maestro have high bargaining power relative to banks which have to comply with the certain standards of these cards company if they want to acquire license from them.

### **d. Bargaining Power of the Customers**

At present, the customers can choose from limited number of institutions to have cards from. The individuals usually have ATM cards from the banks where they already hold current or savings account. Whether a bank provides ATM cards or not currently is of secondary consideration to them while opening accounts. But with increasing banks and financial institutions providing these services and increasing awareness of the people towards such kind of products, the customers can be expected to consider the overall package not just the interest rates on deposits while choosing which bank to choose to deposit their money in. And when one speaks of overall package the card offerings, customer service all comes.



#### **e. Relative Power of the Other Stakeholders**

NRB will have strong relative power in this case as it has the sole discretion in determining the Basic Travel Quota (BTQ). The individuals willing to go abroad must take the permission of NRB for taking dollars with them. Commercial banks can give the Dollar Debit Card only to those individuals who have received the consent from the NRB.

#### **f. Threat of Substitute Products**

Threat of substitute products is very high in case of ATM cards. The dollar debit card is the direct substitute for traveler's cheque. Similarly, the indirect substitutes like credit cards too exist in the market. It is obvious that the people availing the credit cards facility would least opt for the debit cards and ATM cards.

### **2.3 Legal and Regulatory Environment**

The legal and regulatory environment in case of debit cards governs two things:

) **Who are eligible to get the cards?**

) **Who may issue the cards?**

#### **2.3.1. Proprietary and Network Debit Cards**

NRB has not issued any specific regulations regarding issuance/operation of proprietary or network debit cards. However, the product being associated with local currency current/savings accounts; all local legal banking regulations pertaining to current/saving accounts are also applicable to this product.

As such, proprietary and network cards are made available to the following **Local Currency Current and Savings Accounts** provided they agree with the given terms and conditions:

- i. Personal Accounts
- ii. Accounts maintained by the sole proprietorship firm
- iii. Joint individual accounts

## **Branded / International Debit Cards**

### **a) Cards Valid in Nepal & India both**

Here too there are no specific regulations issued by NRB. The regulatory environment for this type of debit card is same as that of proprietary and network debit cards. It too is issued only to the individuals and sole proprietorship firms maintaining current and savings accounts in the local currency only.

### **b) Dollar/Travel Debit Cards**

The NRB regulations pertaining to the Foreign Currency are strictly applicable in case of dollar debit cards. The dollar debit cards can be extended to the following set of customers only:

- i. Withdrawal of foreign currency is allowed upon production of valid passport and confirmed air ticket for the purpose of medical treatment, study, travel or some other purposes to countries other than India to the account holder or his/her family. This is the debit card issued against the *Basic Travel Quota (BTQ)* allowed by the NRB to the individual. *Currently, the BTQ is \$ 2,000 maximum.*
- ii. Cash withdrawal in foreign currency is permitted to Diplomatic privileged person for the purpose of self-travel.
- iii. For all eligible persons, foreign currency accounts may be opened on submission of earning certificate.

NRB further has put certain restrictions on usage of dollar debit cards:

- i. Payments to be made in Nepal and India should be made in Nepalese currency only.
- ii. Foreign currency account cannot be operated by third person other than applicant.
- iii. Foreign currency account cannot be overdrawn.

### **Who May Issue the Debit Cards?**

According to BAFIO, all the 'A' and 'B' class financial institutions can issue and accept the debit cards if they want to. According to BAFIO, commercial banks are 'A' class financial institutions and development banks are 'B' class financial institutions. Currently, there are 19 commercial banks and 19 development banks of which 15 commercial banks and 2 development banks are providing the debit card facility to their customers. So there remains chances that other commercial banks and development banks too might enter into the debit card markets if found feasible.

## **2.4 Review from Articles and websites**

### **I. Perceived Attributes of ATMs and Their Marketing Implications**

This article was written by Robert Rugimbana and Philip Iversen which was published in International Journal of Bank Marketing. This article reports the findings of a study examining the performance of ATMs in terms of acceptance and level of usage in two banking institutions; a credit union and a bank, in the Australian retail bank services market. patterns. The overall aim of this study was to determine retail bank consumers' usage patterns of ATMs and whether these are associated with their perceptions of the attributes of ATMs.

According to the article, the overriding perceived benefit of ATMs for users is the attribute of convenience (relative advantage), followed by the perceived benefits of reliability and suitability which in effect also imply a measure of convenience. These three perceptual variables are found to be significant discriminators between ATM users and nonusers which are complemented by the data gathered on general usage patterns and therefore reflect the most important considerations for retail banking service strategies.

The study found that users perceived ATMs to be convenient, reliable and generally risk free where cards are concerned, and felt more suited to ATMs than non-users even though the majority utilized the innovation as a convenient cash dispenser, using ATMs only once or twice a week and ultimately conducting less than 50 per cent of their banking needs by ATMs. Essentially, users responded in a way quite in keeping with findings

from prior research on the relationships of perceptions of innovation attributes and usage (Ostlund, 1974) i.e. positively, to the attributes of convenience (relative advantage), suitability (compatibility), and negatively to the “black box” nature of ATMs (complexity) and unreliability (risk). As expected, non-users generally reacted in quite the opposite manner on these attributes, again very much in keeping with previous findings on the relationships between perceived innovation attributes and usage.

The fact that only four factors overall were required to describe how consumers perceive ATMs in this study and that the fourth “other” factor combined seemingly unrelated attributes of observability and social cost may suggest that the prescribed statements were not adequate in clearly distinguishing and measuring the three hypothesized innovation attributes of social cost, trialability and observability. It is, however, worth noting that ATMs do not lend themselves easily to low risk and low involvement trial or to the observation of their positive effects, hence attempts to measure these attributes may be inappropriate.

The statistical analysis in the study supports the overall expectation that the typical users of ATMs would perceive the attributes of these innovations favourably, while non-users and rejectors perceive them unfavourably enough not to use them. Given the relationship between perceptions and ATM usage, these findings generally support a thumbnail profile of the ATM user as being an individual who is involved in the product/service class and who uses the service innovation because perceived benefits of the attribute of the innovation outweigh the perceived risks (Venkatraman, 1991). Findings also suggest that the profile of the non-user is quite the opposite, and implicitly that of the rejector as an individual who was once involved in the product/service class and who has ceased using the innovation due to product/service-use situations which have made perceived risks much greater than perceived benefits.

This study sought to examine the association between retail bank consumers’ ATM usage patterns and their perceptions of ATM attributes by identifying those variables which distinguish users and non-users. By assessing ATM usage patterns and perceptual variables, the study concludes that a strategy of stressing the most important perceived attribute of relative advantage is crucial to the success of the current efforts by bank marketers aimed at increasing ATM usage.

Findings from this study demonstrate quite clearly that ATMs in Australia are still not performing to their full potential and by and large have not been accepted as innovations which can fully replace human tellers in nominated functions, as is reflected by the perceptions of the majority of users and non-users regarding ATM attributes. Previous studies in the USA have suggested that ATM users who have adopted this form of banking as an integral part of their banking methods should obviously become the prime targets of any new ATM features and other automated banking innovations (Stevens *et al*, 1986). While acknowledging this suggestion, the fact that a significant number of ATM users have been shown as still perceiving and using this innovation as a mere convenient cash dispenser suggests that it is imperative that marketers of banking services in Australia recognize the critical role that perceptions of attributes of this service innovation play in consumer usage patterns of ATMs. The fact that personal banking consumers can be profiled and indeed segmented on the basis of their perceptions of attributes of ATMs, over and above specific situational and personal characteristics, provides important opportunities to bankers for better understanding of their customer needs and expectations. It has been suggested in another USA study (Stanley,1983) that ATM technology has advanced faster than changes in customer habits. Perceptions of ATM attributes would in such circumstances present an important means by which marketers can keep in touch with customer expectations.

There are some possible limitations of the study. This research is of an exploratory character and of limited scope. Further research on the different retail banking institutions should be undertaken because the results reported are limited in sample generalizability and situation generalizability. For instance, the samples, although random, were limited to a two-state area, second, the usual caveats applied to the use of “intercept” technique must be acknowledged (e.g. respondent’s time pressures). Third, a lack of readily available data on ATM studies in Australia did not permit a more in-depth analysis of possible customer similarities to, and differences from, overseas electronic banking markets. Fourth, the differences between the institutions in terms of the services carried by their respective chains of ATMs as well as in their traditional customer profiles meant that combining the data may have left out important consumer differences which affect usage patterns and perceptions. Fifth, this study is in part reliant upon the assumption that findings of overseas ATM studies are generalizable to Australia and vice versa. Despite

these limitations, the findings of this study do provide a platform for future investigation and diagnosis as well as yielding valuable insights into the importance of a number of pertinent variables. Clearly, additional factors would be worth specifying, and sample size could be increased. Further investigation could examine disaggregatedly different types of consumer markets, as well as different types of banking institutions.

A comparative study across different forms of retail banking institutions might be meaningful. It is the authors' belief that different forms of banking institutions by virtue of their different target markets and unique marketing efforts could have an important bearing on their consumers' perceived attributes of ATMs.

A priority for future research should be to examine the degree of fit between the demographic and psychographic profiles of banking customers and predicted perceived attributes of ATMs for different institutions. (International Journal of Bank Marketing, Vol. 12 No. 2, 1994)

## **II. Automated Teller Machine Network Pricing**

This article was written by James J. McAndrews. Automated teller machines (ATMs) have altered the relationship between banks and their depositors, as well as the competitive relationships among banks. So the aim this survey is to describe the ways that ATMs have influenced these aspects of banking markets, and conclude with suggestions for further research. The main objective of this article was to explore the ATM pricing regime and its impact.

Automated teller machines can offer significant benefits to both banks and their depositors. The machines can enable depositors to withdraw cash at more convenient times and places than during banking hours at branches. At the same time, by automating services that were previously completed manually, ATMs can reduce the costs of servicing some depositor demands. These potential benefits are multiplied when banks share their ATMs, allowing depositors of other banks to access their accounts through a bank's ATM. The decision by banks to share their ATMs is partially determined by the terms under which the sharing would occur. In particular, there are several prices that can

be charged to or collected by the three main parties involved in an ATM transaction, the cardholder, the cardholder's bank, and the ATM owner. How, and by whom, these prices are set affects a number of economic decisions, including the number of machines that banks and non-banks choose to deploy, deposit market interest rates, distances traveled by depositors and non-depositors that wish to withdraw cash, profits of banks, and welfare of bank customers.

The study reveals that there are four general areas of effects of ATM pricing regimes that are identified in the literature on ATM pricing. ATM prices regimes can affect the welfare of consumers directly in their searching for and traveling to the most economical ATMs to access to their deposit accounts. ATM pricing regimes can affect the number of ATMs deployed, and the ownership of ATMs by banks or by nonbank organizations. ATMs and their pricing regimes can affect the use and pricing of branch and account facilities of banks. Finally, ATMs and ATM pricing regimes can affect rates paid on deposits, and banking competition generally. Some of these different aspects of ATM pricing are touched on in several of the models reviewed here. Some models cannot address a particular effect, and no model addresses the issues involved in all of the areas identified by the themes.

The introduction of ATMs by banks produced a significant increase in transactions by bank customers, as basic price theory would predict, given the convenience of ATMs. This effect has been attenuated by the increasing propensity of banks to levy both foreign fees and surcharges for ATM use, but several models still suggest that consumer welfare is enhanced by the presence of ATMs.

ATMs themselves can be used to increase the differentiation of a bank's services, and reduce the intensity of deposit-fee competition. ATM fees can subtly affect banking competition in a number of ways. Various models show that a collectively set interchange fee can be an instrument of tacit collusion. Other models show that by setting the interchange fee at marginal cost, and banning surcharges, the non-cooperative setting of on other's fees can achieve the joint profit-maximization outcome.

Other models consider the affect that prices and the pricing regime has on the deployment of ATMs. Salop (1990) suggests that self-regulation of pricing by ATM networks should

be deregulated; allowing banks to charge surcharges and foreign fees with no interchange fees. He claims that deployment of ATMs will increase relative to the no surcharge, interchange fee regime. ATM deployments did appear to increase following the rule changes that allowed banks to charge surcharges, but other authors, such as Massoud and Bernhardt (2001) caution that the deployment of ATMs might be excessive, and that ATM surcharges could exceed joint profit-maximizing levels.

Future research could focus on unifying the somewhat disparate results in different papers in the literature. The spatial competition of banking and how it is modeled is an important building block of pricing models and their equilibria, and it would be useful to examine all the different pricing regimes considered by various authors in a single model of the spatial market. Croft and Spencer (2002) have perhaps the richest model, both in terms of using a well-known model of spatial competition, but also by considering a wide range of pricing regimes that capture the complexity of various institutional arrangements in different countries. Models based on their set-up could be constructed then to focus on depositor affiliation and ATM deployment under specific pricing regimes to determine the outcomes of those additional considerations under various pricing regimes.

The empirical literature could also be enriched. Here the constraint may well be the availability of data. Federally sponsored surveys provided the data for Saloner and Shepard (1992) and Hannan et al. (2003). These surveys provided snapshots of behavior at particular times. More extensive work with individual ATM networks might yield a more complete set of data with which one could test some of the hypotheses the theoretical Review of Network Economics Vol.2, Issue 2 – June 2003 literature has generated. One state in the U.S., for example, resisted surcharging for a considerable time after surcharges became common in other states. Such a case can provide a natural experiment for testing whether surcharges raise prices, increase deployments of ATMs and raise consumer welfare, as long as sufficient data can be collected.

ATM networks have created some of the most challenging pricing problems that have been confronted by industrial organization economists. By employing interchange fees, foreign fees, and surcharges, banks can affect one's own customer's use of one's own branches, ATMs, and other banks ATMS, as well as affects other customer's use of one's own ATMs. In addition a bank can deploy ATMs and set ATM fees, holding fixed the



deposit fees, to attract depositors to the bank. Banks also face fringe competition from nonbank owners of ATMs. Interchange fees are jointly determined; competition takes place spatially, and with network effects in demand. As a result, the literature has not yet fully determined a general model of the effects on competition of various pricing regimes, and different countries utilize alternative models. One would expect a great deal of research to continue to pursue a number of open questions, including whether ATM surcharges lead to an over-deployment of ATMs, whether bank competition for depositors is softened by interchange fees, and whether large banks can use ATMs and surcharges to disadvantage smaller rivals in competition for depositors. (www.google.com)

### **III. Payment Card Industry Survey in India**

It is the first annual industry survey for the payment card industry done by the Venture Infotek Research team in 2001.

The survey reveals that the payment industry in India is still at a nascent stage. In the year 2000, the total personal consumption expenditure in India was USD 225 billion (Rs. 10,00,000 crore), out of which only USD 2.5 billion (Rs. 12,000 crore) happened electronically. Compare this with US economy in which out of USD 6 trillion happened just using credit cards and debit cards. Thus Indians rely for practically all their transaction needs on cash. This increases the amount of currency in the economy. As a matter of fact, the total currency in circulation is around 17% of the total money supply - M3 (source RBI weekly supplement June 2000) and comparing it with other developing economies like Phillipines, Thailand etc that have around 8-9% as their money supply - M3 as currency in circulation.

This high amount of cash in circulation in India leads to the following disadvantages:

- ) The cost of printing & maintaining the currency is very expensive especially in low denomination notes.
- ) A high demand for currency results in shortage of currency

- ) The high incidence of cash transactions has an undesirable effect of (a) inability to track transactions very difficult and (b) leading to loss of revenue in form of taxes like sales tax etc.

All these factors point to the immediate need of promoting electronic payments in Indian market. However, as compared to 25 crore account holders only 55 lakh payment cards are presently in force in the market, leaving a huge untapped market. This has resulted in huge growth of around 30% year after year for the industry. Some of the trends, which highlight the growth, are already visible as the economy matures and the consumer awareness of electronic payment increases. Higher disposable incomes, changes in lifestyle, increasing travel, and a growth in the entertainment sector are all contributing to the felt need of convenient way of spending and carrying money.

The plastic culture is influencing into the daily purchasing habits of Indian consumers, and the payment card business is growing as never before.

As it had happened elsewhere, traditionally the consumer begins with patronizing credit cards. Therefore credit cards comprise the bulk of payment cards in India. However, debit cards and stored value cards have also made an entry into consumer wallet in the last two years. India is offering a potentially explosive growth in payment cards and numbers are estimated to double in the next two years.

Given the immaturity of the market, the focus for retail banks will be on building credit card business, with more sophisticated products such as commercial cards coming on-stream.

In expanding the credit card market, the existing foreign players, SBI and the domestic private sector banks are expected to pursue complementary strategies. Foreign banks with the advantages of technology and industry experience are likely to concentrate on increased cardholder spending and customer loyalty. SBI, on the other hand, is expected to use its superior distribution network to radically expand acceptance in the smaller towns. The private sector banks will capture significant market share by combining the strengths of foreign banks and nationalized ones.

With the card market currently limited to India's most densely populated cities “Ahmedabad, Bangalore, Kolkotta, Chennai, Hyderabad, Mumbai, Delhi, Jaipur and a few others, domestic banks have the ability to penetrate the top 25 cities and bring credit cards to the mass market rather than cannibalize the existing card holder base.

Debit cards will grow up and will act as catalyst in increasing the electronic spend with its extensive use in low value transactions.

Smart card as a technology will prosper and the probability of all electronic payment cards moving on chip card is very distinct. Stored value cards are yet in a preliminary stage and expected to generate a lot more pilot projects.

To sum up, as long as there is goods to be sold and people want a better life, the market for plastic money will continue to survive and grow. With more niche areas throwing up opportunities to banks and corporates to join hands to offer credit facilities to the consumer, the Indian plastic cards market is set for a quantum leap over the next few years. With cards also widening their horizon from merely being valid in India and India as in the recent past, the growing cards market has also spawned a number of global cards which are valid round the world. And, with full convertibility an avowed objective of the country's financial powers that be, even brighter days seem to be ahead for the cards business. ([www.ventureinfotek.com](http://www.ventureinfotek.com))

#### **IV. Travel Debit Card Issuance**

“An ATM/debit card frees one from carrying a lot of cash or a cheque book. In case, one is an international traveler, he/she does not need to stock up on Traveler’s Cheque or cash. One can use his/her Travel Debit Card to withdraw cash from thousands of ATMs around the world in whichever country he/she is in. One can withdraw in the local currency of the country he/she is in, limited only by the money one has back home in his/her account, and his/her Basic Travel Quota (BTQ) limit availability.”

The article clearly states the purposes for which the Travel / Dollar Debit Card can be used and what acts for as a substitute. ([www.google.com](http://www.google.com))

## **V. Number of ATMs worldwide expected to hit 1.5 million in December**

The estimated number of ATMs in the world is set to surpass the 1.5 million mark just before Christmas this year, according to the ATM Industry Association.

Just less than 1.5 million ATMs are now placed globally — an estimated 1,498,487 — with a new ATM being installed about every 5-10 minutes, according to Retail Banking Research Ltd(RBR)., a leading London-based research retail-banking-technology consultancy. RBR reportedly used ATM-shipping data and other sources to calculate the approximate installation base.

RBR also calculates that ATMs are increasing at a rate of 192.32 ATMs per day (equivalent to one ATM every 7.49 minutes, or every 449 seconds).

From 1967, when the very first ATM was installed in London, it took 33 years for the industry to reach the 1 million mark. To reach 1.5 million, it has taken the industry only six years.

"Thirty-three years to install 1 million ATMs, six years to install the next half-million ATMs — that sure puts the phenomenal growth of the ATM industry into perspective," said Lana Harmelink, ATMIA's international director of operations. ([www.atmmarketplace.com](http://www.atmmarketplace.com))

## **VI. SCT Cards in India**

This article says that SCT Cards are accepted in ATMs all over India. SCT has reached an agreement with FSS, India and has also completed all of its testing for the same. With this in effect, our member bank's customers are able to withdraw cash from their SCT Cards in India.

This service is comparatively cheaper than the other networks available in the market and would be beneficial for both the member banks and their customers.

Smart Choice Technology (SCT) has signed up Krishi Premura (KP), a Hong Kong-based money transfer company, as an associate member of SCT Network. KP will ride on Laxmi Bank's affiliation with the network and arrange for ATM cards to be issued to its clients. A tripartite agreement was signed between SCT Laxmi Bank and KP on 6 November. Laxmi Bank has been issuing ATM/Debit cards accepted all across the network of SCT, which provides the technology, business process and services infrastructure to support financial transactions through Automated Teller Machines (ATM) and Point of Sale (POS) terminals. This new service will benefit Nepalese who receive remittances from abroad. KP will be able to provide customers with pre-paid ATM cards, in lieu of the remittances they receive from abroad. KP will have cards automatically 're-charged' when fresh remittances are received. Apart from ease of operation, remittance cards provide greater security to beneficiaries. Introduction of remittance cards is expected to bring about a whole new dimension to the vibrant remittance business and help channel more remittances into Nepal through legal channels. (www.nepalitimes.com)

## **VII. Payment Cards – Future Outlook in India**

The payment card industry is poised for a quantum growth because of the presence of huge untapped market. The infrastructure is being created, the awareness is increasing and it is just a question of time when the demand pull itself will lead to huge penetration of cards.

### **Debit cards are to stay in the market**

Most of the bankers expressed the view that issuance of debit cards would grow at a faster rate:

- ) It is still a new concept combined with the fact that there are only few players right now.
- ) Any person who has a bank account can be issued a debit card. There are few norms to be complied with for issuance of debit cards.
- ) In case of debit cards frauds are hardly possible; hence the banks have no problems in issuing the debit cards.

- ) Debit cards are more looked by banks as an incentive to increase their customer base.
- ) The India psyche is credit averse especially the older generations. The so called "udhari" is something that is avoided.
- ) One of banks also put forth the fact that in credit cards there is always a problem of recoveries which is not there in case of debit cards. The bank felt that there is more scope for the debit card industry to grow if they are launched in a co-branded form.

### **Credit Cards Continue to Grow**

In terms of Card Spend the banks felt that Credit cards would be a leader by a far margin. This was because of the following reasons:

- ) The credit cards are in India for a long time and debit cards being a new concept will take time to pick up.
- ) When people want to spend huge amounts they tend to prefer the free credit available and hence utilize their credit cards
- ) In US debit cards are used for smaller purchases and credit cards for larger purchases. India is supposed to follow suit.
- ) Through the credit card one can make purchases even when he doesn't have money at that moment and pay the money later on by using it as a charge card but for using a debit card one needs to have sufficient balance in his account.
- ) It was also felt by some nationalized bank that to issue debit cards a huge investment in infrastructure is involved for online connectivity for the nationalized banks to enter this market unless they see it to be a revenue earner for them.

Only Citibank felt that credit cards would grow more in terms of issuance because it is more a status symbol and the real spends would be through credit cards.

Hence it is felt that debit cards would be used as a tool to attract new customers and also to provide value addition to the customer, whereas credit cards would be the real revenue earners for the bank.

## **Growth Factors**

The banks interviewed cited the following as the key growth factors driving the growth of the payment card industry in India:

- J **Increasing awareness:** In the recent years the people are getting more and more aware about the various benefits and conveniences that a payment card offers and hence there is more understanding about it amongst them. This has been made possible by the marketing efforts of banks and credit card organizations like VISA & MasterCard.
  
- J **Peer Pressure:** The banks also felt that the cascading effect of carrying cards i.e. his friend or relative carrying one, combined by the so called status symbol syndrome has boosted the sales of this cards.
  
- J **Increasing thrust on Retail banking:** The banks in the recent past have realized that the retail banking segment has huge profit potential. This combined with dried out profits from other divisions have made the banks to focus on this segment. Electronic payments form core of retail banking and are considered to be a great customer acquisition tool. Hence this high focus on e-payments is likely to result in quantum growth.
  
- J **Discount Loyalty and other Promotional schemes:** The various loyalty and discount schemes made available through these cards also have a significant contribution in driving the growth.
  
- J **Safety:** More and more people are getting aware of the safety due to the reduced need of carrying cash and hence prefer to carry a card.
  
- J **Increase in the disposable income:** Improvement in general standard of living in the recent years has also contributed towards the growth of this industry.

J **Innovative marketing:** The banks also feel that now when there is a very high competition in the credit cards industry innovation is the key. Hence most of the banks have at-least 3 different cards in their portfolio and are on the look out to launch more niche cards for each segment of the customer base. A perfect example would be the Citibank “Jet airways cards or for that matter the recently launched "*Sapnay*" cards by Standard Chartered bank. The banks are looking more at co-branded and”affinity,, cards to target segments like women, youth, doctors and others.

The fact that there is a very huge banked population of 25 crore in India and that there are only 54 lakh payment cards including debit and credit cards itself speak about the potential of the industry. The public sector banks with wide branch area network and large number of account holders are in a very good position to issue payment cards as they are in constant touch with the account holder and are aware of his banking practices. However, with traditional conservative mindset they have not been aggressive in this field but with increasing competition and consumer demands they are definitely poised to play a much bigger role in electronic payments in India.

### **Bottlenecks to the Growth of payment cards industry**

As per the payment card industry survey conducted in India following are the bottlenecks to the growth of the payments card industry.

#### **Acceptance Factor**

Limited acceptance of cards was considered as a major bottleneck to the growth of this industry. The fact is that although the industry is growing at an enormous rate, the number of merchant establishments that accept cards are much lower than the established outlets. Adding to this is the fact that most of these establishments are located only in the metros and hence making the usage of these cards minimal when one is traveling outside these metros. Hence for this industry to succeed it is of utmost importance that the acceptance of these cards increases.



### **Infrastructure Costs**

The cost of infrastructure for setting up ATMs electronic infrastructure and even in terms of interconnectivity and networking is very high making it difficult for the public sector banks to invest in this industry. Also, the payment infrastructure products command a very high customs duty which makes them more costly.

### **Frauds/Risk Management**

Frauds are considered as an inherent aspect of the cards industry. Although in India still it has not been seen on a very high scale but it is felt that its high time that India learnt from the experiences of developed plastic money markets, as there are increased possibilities of large-scale frauds

### **Lack of Credit Bureau**

Close to the existence of frauds is the reason that there is no formalized credit bureau in existence. And hence the banks are reluctant to share their negative files. Till the time there is no credit bureau the risk of frauds would be high and banks would be apprehensive about increasing their card numbers.

### **Lack of clarity for regulations**

The fact that there are no clear-cut guidelines for this industry makes matters pretty confusing at times in terms of interpretations for the banks. ([www.ventureinfotek.com](http://www.ventureinfotek.com))

## **VIII. ATM Network Expansion in South Asia**

None of the South Asian countries still can boast of countrywide fully pledged and effective ATM networks. The number of ATMs installed are still not significant and limited to capital cities, though in some countries, the number has increased exponentially within the last few years.

In Bangladesh, ATM is expanding rapidly in major cities. A group of domestic and foreign banks operate shared ATM network, which drastically increase access to this type of electronic banking service. The network will gradually be extended to other parts of the country. (Raihan, 2001)

In India, the situation is fairly better, at least in the metropolitans. ATMs can be termed as the most visible face of Indian customer centric banking. The installed base of ATMs has also grown dramatically in 2003, from 7,500 to 11,000. (Dataquest, 2004) Private sector banks in India have made a prominent success in large scale ATM deployment. On the other hand, that itself has become the key obstacle in the sharing of ATM networks by banks. Today Indian banks find it difficult to share their ATM network with competitors as ATMs are being projected as the key differentiator. The success is visible from the fact that nearly 60% plus of cash transactions are happening from the ATMs. For some banks such as HDFC Bank this percentage is as high as 85%. Given the huge proliferation of credit cards, the transaction cost from an ATM are similar to that of a branch, as people conduct more transactions using a credit card rather than cash. Nevertheless a bigger opportunity awaits the banks in the non-metro areas once they customize the ATM offerings. (Dataquest, 2003)

However, in spite of the urge to stand alone in the heavy competition, several Indian banks have been successful in getting into shared ATM networks. UTI Bank, one of the newest privately-owned banks, has signed an agreement with ABN-Amro Bank to allow the latter's customers to use its network of more than 500 ATMs across the country. UTI earlier forged a similar alliance with BNP Paribas. For the private UTI Bank, HDFC Bank and ICICI Bank, which between them have more than 2,000 ATMs in most major Indian cities, renting out their extensive networks provides additional fee income. Each time one of their ATMs is used by another bank's customer, they stand to gain nearly IRs 50 (just over U.S. \$1) per transaction. Older private banks have also jumped on the bandwagon. South Indian Bank has tied up with Centurion Bank to share its ATM network. Industry watchers say that foreign banks (barring Standard Chartered and Citibank, which have large ATM networks of their own) make logical candidates as alliance-seekers, since they do not have a large retail presence. Confined as they are to a few branches and a handful of ATMs, these banks find it profitable to tie up with the increasingly aggressive private banks such as UTI that are pumping substantial funds into building large ATM networks all over the country. (Nadkarni, 2002)

In Sri Lanka, the number of ATMs has increased from 270 in 1998 to 721 in 2004. It is also interesting to note while the number of individuals served by one bank branch remained almost constant during this time while the number of individuals served by an ATM has increased exponentially. Although few banks have been successful in sharing their ATM networks with each other, all the attempts to promote a common ATM network has so far been failed. This has not directly affected the growth of ATM population or their popularity. The total number of financial transactions carried out using ATMs was 34 million in 2003. The annual aggregate value of transactions rose from SL Rs. 72 billion (US\$ 720 mil) to SL Rs. 120 billion (US\$ 1.2 billion) from 2002 to 2003. (Central Bank of Sri Lanka, 2004)

Another interesting trend seen in the region was the popularity of Electronic Fund Transfers at Point of Sale or EFTPOS. This was introduced to Sri Lanka in 1994, and now has gradually become a substitute for cash and cheques. The total number of EFTPOS machines installed in Sri Lanka was 5,114 at the end of 2003 and the total volume of financial transactions carried using these machines was SL Rs. 8 million (US\$ 80,000) in 2003 (Central Bank of Sri Lanka, 2004). ([www.google.com](http://www.google.com))

## **2.5 Review from Newspapers and Magazines**

### **I. Growing Plastic Card Popularity**

The article states that ATM/debit cards market from a bank's perspective has more potential for growth than the credit cards. This is so because credit card issuance has a number of limiting factors such as credit checks, verifications, minimum income levels, etc. As a result, credit cards do not penetrate or appeal to customers. ATM/Debit cards on the other hand, have lower barriers to issuance as the only requirement being that the applicant must maintain a bank account and have a minimum balance. Consequently ATM cards are being issued to any one, every one with the only prerequisite being that he/she should maintain current or personal savings account in the bank or financial institution. This primarily gives the edge to debit cards over the credit cards.

“Obtaining a ATM/debit card is easy. If one qualifies to open a bank account, he/she usually gets a debit card, if his/her bank offers the service. When one is applying for a ATM/debit card, the bank does not need to look into his/her credit history. All one needs

is the documentation to open a bank account, and money in his/her bank when he/she uses debit card.”

The article explicitly states that the product like ATM/debit card have great market potential in Nepal from the bank’s perspective as they are easy to issue and have no limiting factors as in case of credit cards. (Business Today, March 2003)

## **II. Debit Card & Its Impact on Checking Account**

“The principal factor is the link between ATM/debit cards and the checking account. Since the funds to pay ATM/debit card transactions are drawn from a checking or savings account, any success an institution has in attracting customers via an ATM/debit card will ipso facto boost the number of checking and personal savings accounts. It is noteworthy that ATM/debit cards aren't really a product; they are extensions of the core product, which is the demand deposit account.”

The article points out to the fact that the ATM/debit cards are increasingly being issued by the commercial banks and other financial institutions in order increase the volume of their checking and savings account. Further, the valid point highlighted in the article is that the ATM/debit cards are not really a product in a true sense; they are just the extensions of the core product, which in this case is the demand deposit account. (India Today, May 2003)

### **Concluding Remarks**

Commercial banks have been increasing in number during recent years which causes intense competition among the existing commercial banks.

The banks are gradually expanding the menu of financial services they offer to their customers in order to satisfy their customers and add value, as well as attract more customers and increase their market share. This is the reason why banks have introduced the ATM/ debit card service. ATM is a card issued by banks, ATM cards are issued by banks, essentially to give bank customers flexibility in their banking hours. In most areas, with an ATM card you can withdraw money, make deposits, transfer money between

accounts, find out your balance, get a cash advance and even make loan payments at all hours of the day or night. Smart Choice Technologies Pvt. Ltd. has deployed a first-of-its-kind initiative in Nepal creating an integrated shared services network (SCT-Network) for Automated Teller machines (ATMs) and Point-of-sale (POS) Terminals, managed through a national switch.

ATM/debit card market in Nepal is characterized by the presence of three different categories of ATM/debit cards such as: i) Proprietary Debit Cards, ii) Branded Debit Cards and iii) Network Cards. Branded debit card can further be divided into

- ❖ Cards Valid in Nepal & India both: These are international debit cards valid in Nepal as well as in India. These are the cards that are issued in against the current or personal savings account maintained in Nepalese currency. If the cardholder of this type makes ATM withdrawals or POS purchases in Nepal the transaction takes place in Nepalese currency only but payments or ATM withdrawals made in India are automatically transacted in Indian currency.

- ❖ Dollar Debit Card: These are the international debit cards which are valid in all the countries abroad other than India. These are the debit cards that are issued against the “Basic Travel Quota (BTQ)” provided by Nepal Rastra Bank (NRB).

According to BAFIO, all the ‘A’ and ‘B’ class financial institutions can issue and accept the debit cards if they want to. According to BAFIO, commercial banks are ‘A’ class financial institutions and development banks are ‘B’ class financial institutions. Currently, there are 31 commercial banks and 83 development banks of which all commercial banks and 70 development banks are providing the debit card facility to their customers. So there remains chances that other commercial banks and development banks too might enter into the debit card markets if found feasible.

Environment has a great impact on the operations of the Bank. So it is necessary to make a proper analysis of both the internal and external environment. Internal environment includes strength, weakness, opportunities and threats of a bank or its products where as external environment includes every things that cannot be controlled by the bank.

External environment of any organization can be divided into two parts i.e., remote environment and operating environment. So while analyzing the external environment we have to analyze both remote and operating environment of an organization using PEST Analysis and Porter's Approach.

Literature review section contains various articles collected from internet, newspapers and magazines.

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter deals with research methodology adopted in the research to meet its objectives to gain insights of perceived attributes of ATM card users in Nepal. This research methodology is guided by the research questions which are as follows: What is the level of ATM card uses? What are the factors that influence customers to take ATM cards? Why people are interested to hold ATM cards? Which ATM card features are important to the card holders? Which aspects of ATM are important to the users?

#### **3.1 Research Design**

Kerlinger (1986) rightly described that research design is the plan, structure and strategy of investigation conceived so as to obtain answers to the research questions and control variance. Understanding the implication of research design, this research attempts to explore the awareness and level of uses of ATMs in Nepal. The attempt was made to find out the facts and various opinions of different aspects of ATM services provided by various banks, the responses and views of consumers would clarify the awareness of such services, its influencing factors, Satisfaction of consumers.

After getting equipped with enough background information, the much needed first hand information was gathered, which laid foundation for the study. The study was based on exploratory, descriptive, qualitative and quantitative research.

The preliminary study was conducted on the background of the present ATM card offering made by commercial banks. This study was carried out with the help of a few unstructured in-depth interviews with the Head, Cards Division of HBL and some of the front office staff dealing in ATM cards at HBL. The study gave an understanding of the present state of ATM card offering made by HBL and other major players in the ATM/debit card market. Information collected through this method was qualitative in nature. The exploratory research was conducted to achieve the following:

- ) To understand the overall Nepalese ATM/debit card market.
- ) To get acquainted with the various functional aspects of ATM/debit card processing and issuance.
- ) To get familiar with the new developments in ATM/debit card market in Nepal.

The in-depth interview was held using an unstructured open-ended questionnaire so that more qualitative and wider information could be collected from the bank personnel regarding the ATM/debit cards market in Nepal.

The exploratory research was followed by the descriptive research with a view to further analyze the situation of ATM cards market in Nepal and to give a stronger base to the research. The descriptive research focused on finding out the awareness, acceptance and level of usage of ATM cards in the Nepalese market. In the course of the descriptive research, a questionnaire survey was also done on the present ATM/debit cardholders. This was a structured approach and included the quantitative details about the user status of the ATM cards in Nepal. The research focused on the following topics:

- ) Present ATM card holding status of Nepalese people.
- ) Preferred features in ATM/debit cards.
- ) User status in terms of cash withdrawals through ATM's and purchase transactions at POS locations.
- ) Likelihood of future use.

### **3.2 Population and Sample**

The target population for the study is: “All local currency current & personal savings account holders of banks & financial institutions”

The target population for the study has been determined as such because these are the target segments for the ATM/debit cards. The population was analyzed according to the present as well as potential customers of ATM card industry.



Particular sample sizes were selected in such a manner that it gives most of the information required for the study with maximum accuracy and precision fulfilling the research objectives. However, no calculation could be done to find the appropriate sample size, as the exact population for the study could not be determined in absence of reliable data. The sample size has been chosen in such a manner that it would be enough to provide all necessary information. Questionnaire has been distributed to 100 samples according to the targeted customers focusing different age group, income level, occupation and gender.

### **3.3 Sampling Procedure**

Judgmental sampling method was used to determine the sample in case of selection of the respondents. From the feedback that was received from different banks, population characteristics were summarized as follows:

- ) Students
- ) Service peoples
- ) Self-Employed Peoples
- ) Housewives

Income categorization

- ) Individual having a personal income above Rs.5000.

Thus all those people coming under this categorization are the target segment for ATM card/ debit card. Thus, the populations for the research are all the potential customers and the existing customers coming under the above category who may take up ATM card.

### **3.4 Data Collection Procedure**

Considering the descriptive research design, it was necessary to collect primary and secondary data. Specifically, primary data and secondary data were used to describe the qualitative and quantitative aspects of the research respectively. The following were the data collection procedure:

- i. **Primary Data Collection:** Questionnaires were prepared on the basis of literature review and guidance of various personalities. This questionnaire was distributed according to the sampling taken as described in sampling procedure. Questionnaires for bank employees and respondents were prepared differently according to the requirement of the research. Around 17 questions were asked to the banks and 15 for the respondents to fill up. Total of 100 samples of respondents was taken.
- ii. **Secondary Data Collection:** This data was collected from various sources such as internet and the documents provided by various commercial banks. Apart from these the researcher has visited the websites of various commercial banks for necessary data. Articles and data's form various magazines and newspapers were also taken into consideration.

### **3.5 Data Analysis**

The data collected from the field using both secondary and primary method was in raw form and of little importance without proper presentation and analysis. Proper care was then taken while analyzing and presenting raw data to extract meaningful information. Qualitative information collected through the primary and secondary sources were quantitatively tabulated and analyzed using the related statistical tools like SPSS and MS-Excel. The raw data was entered and coded. The coded data was then entered into the computer and charts were generated for graphical representation of the data. The data were analyzed using SPSS software. SPSS is data analysis software which helps in easy data entry and easy analysis. However, for the purpose of graphs (Bar Chart, Pie Chart, etc), Microsoft Excel has been used.

More specifically in statistical analysis data were presented using classified tables, diagram and analyzed using descriptive statistics, frequencies, percentage and cross tabulations. The brief descriptions of the statistical tools used in the research are as follows:

- i. Charts/ Diagrams
- ii. Frequencies

- iii. Percentage
- iv. Cross tabulation

### 3.6 Data Processing Procedure

After research design, the data collection procedure and the data processing procedure are undertaken with sequential activities. The following activities summarized the data processing procedures:

- i. **Editing:** editing been only of the very vital portion of research it has been done with great care. Spellings, Grammar were checked by two of the English lecturers. The questions were revised by the teacher and the problems were identified, corrected. The completeness of necessary details and consistency along with accuracy were also taken into consideration on the editing portion.
- ii. **Coding:** The researcher has coded by data received from the questionnaire on MS-EXCEL as well as SPSS software.
- iii. **Classification:** Primary and Secondary data were classified into different meaningful categories based on major factors of theoretical framework. Thus data classified into various headings for simplicity of data analysis.
- iv. **Tabulation:** Primary data tabulation by counting the number of responses in specific categories and secondary data on basis of documents, internet etc was done.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

The researcher has done analysis on the basis of primary data collected through questionnaire, personal interview, websites, brochures etc analysis is based totally on questionnaire, interview and recommendations of consumer, and the analysis has been done on sequential manner.

As mentioned in the research methodology section, the analysis of the data collected has been done through the use of SPSS, which is a statistical tool. So the analysis is more or less a form descriptive analysis. It is because the statistics tools has been used to analyze the collected data. As far as the presentation of data is concerned, tables, bar diagrams and pie charts have been used.

#### 4.1 Cardholder Survey Analysis

Analysis of the study is completely based on cardholder survey. Which shows as follows;

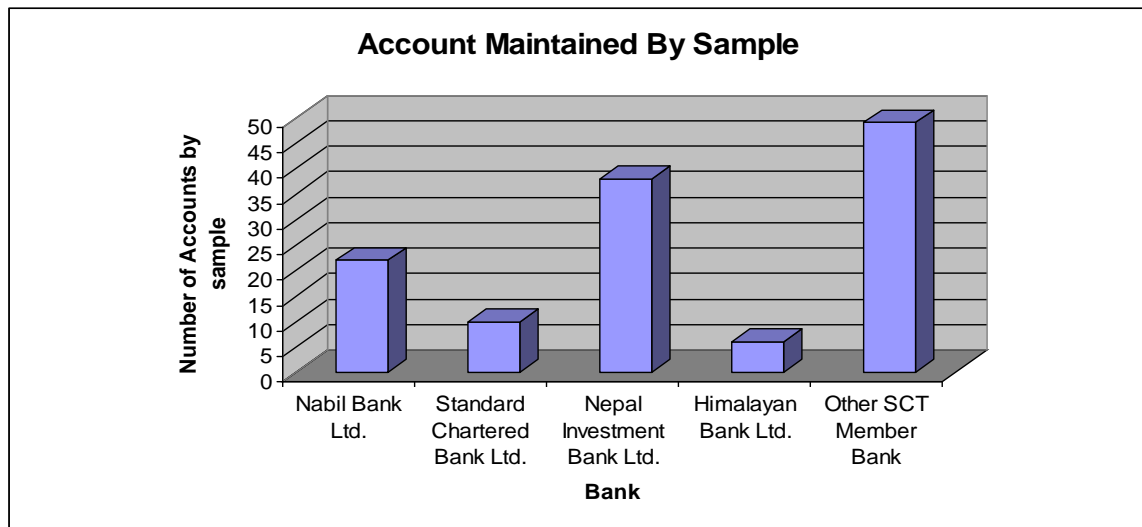
**Table 4.1**

**Cardholders Maintaining Account in Different Banks**

<b>Bank</b>	<b>Account</b>
Nabil Bank Ltd.	22
Standard Chartered Bank Ltd.	10
Nepal Investment Bank Ltd.	38
Himalayan Bank Ltd.	6
Other SCT Member Bank	49

Source: Field Survey, 2013

**Figure 4.1**



From the above bar diagram the study have found out that the account maintained by sample is maximum in SCT member bank other than Nabil Bank Ltd., Standard Chartered Bank Ltd., Nepal Investment Bank Ltd.and Himalayan Bank Ltd.i.e. 49 samples have maintained account in other SCT member bank, mostly in Everest Bank Ltd., Nepal Bangladesh Bank Ltd., Bank of Kathmandu Ltd, and Machhapuchchhre Bank Ltd., followed by Nepal Investment Bank Ltd., Nepal Bank Ltd., Standard Chartered Bank Ltd. and Himalayan Bank Ltd.with 38, 22, 10 and 6 accounts respectively. Here the researcher have surveyed 100 respondents, out of which the researcher have found 25 of them maintaining account in multiple banks.

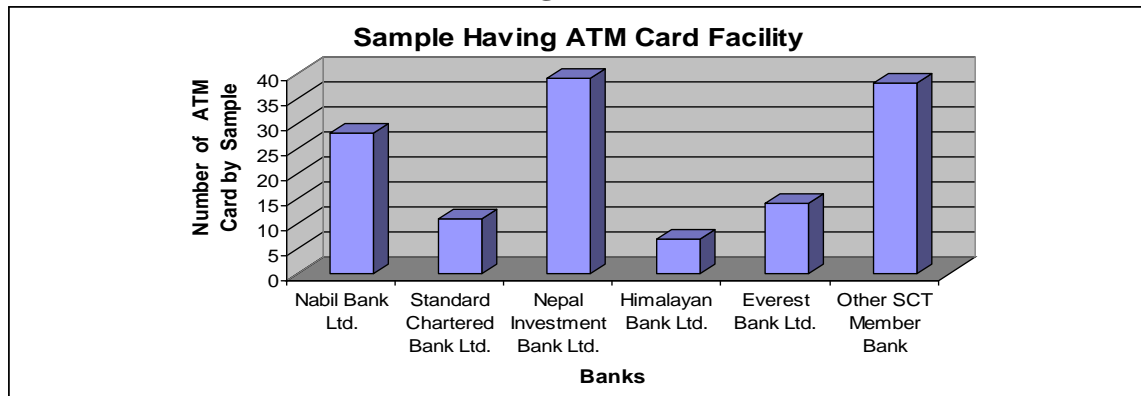
#### **4.1.1 Cardholders Having ATM Card Facility**

**Table 4.2**  
**Sample Having ATM Card Facility**

<b>Bank</b>	<b>Sample Having ATM Card Facility</b>
Nabil Bank Ltd.	28
Standard Chartered Bank Ltd.	11
Nepal Investment Bank Ltd.	39
Himalayan Bank Ltd.	7
Everest Bank Ltd.	14
Other SCT Member Bank	38

Source: Field Survey, 2013

**Figure 4.2**



The above figure shows that out of 100 sample, maximum number of cardholders i.e.39 are using ATM card facility of Nepal Investment Bank followed by other SCT member bank, Nabil bank, Everest bank, Standard Chartered bank and Himalayan bank with 38, 28, 14, 11 and 7 respectively. This shows that ATM card facility of Nepal Investment Bank is highly preferred by the cardholders where as that of Himalayan Bank is least preferred by them. The total number of ATM cardholders are more then account maintained since there possibilities one sample may have both ATM of Everest Bank Ltd and other SCT Bank members. Thus it seems that the ATM trend has been very popular in Nepalese market due to its easy usage and quick transaction qualities.

#### **4.1.2 Reasons Influencing Cardholders to Take ATM Card**

**Table: 4.3**

##### **Reasons Influencing Cardholders to Take ATM Card**

<b>Reasons Influencing Cardholders to Take ATM Card</b>	<b>Minimum Value</b>	<b>Maximum Value</b>	<b>Mean Value</b>
Others Recommendation	1	3	2.36
Reasonable Fees	1	3	1.83
Attractive Debit Card Schemes	1	3	2.39
Had Account There	1	3	1.25
Quick Customer Service	1	3	1.23
Status and Prestige	1	3	1.69
Is Branded	1	3	1.68
Valid in Nepal, India and Abroad	1	3	1.56
Others	1	2	1.50

Source: Field Survey, 2013

Here the Minimum value 1 indicates influenced Very Much, Similarly value 2 indicates Influenced to some extent and maximum value 3 indicates did not influence at all. The above table reveals that mean value of lowest is attractive i.e.1.23 which concludes that Quick Customer Service is the major reasons influencing cardholders to take ATM Card, followed by Had account here, others, valid in Nepal, India and abroad, is branded, Status and Prestige, Reasonable fees, other recommendations and Attractive debit card schemes which had man of 1.25, 1.50, 1.56, 1.68, 1.69, 1.83, 2.36 and 2.39 respectively. This shows that the most influencing factor on debit card decision is the quick customer service provided by the particular bank. Thus, the quality and promptness of the customer service of a particular bank is the most influencing factor in the ATM/debit card decision. Whether or not an individual has an account opened in that particular bank influences the debit card decision. The table also shows that the fees for the card too influences the debit card decision to some extent, the dominant influencing factor being having an account in the bank.

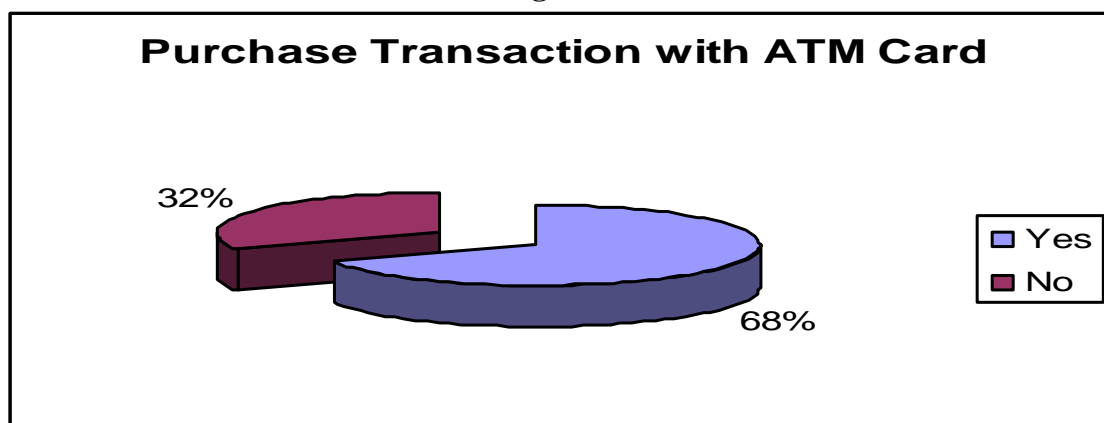
#### 4.1.3 Cardholders Make Purchase Transaction with Their ATM Card

**Table: 4.4**  
**Purchase Transaction with Their ATM Card**

<b>Purchase Transaction with ATM Card</b>	<b>Number of Respondents</b>	<b>Number of Respondents in Percentage</b>
<b>Yes</b>	68	68.0
<b>No</b>	32	32.0
<b>Total</b>	100	100.0

Source: Field Survey, 2013

**Figure 4.3**



Out of 100 samples, the study have found out that maximum number of respondents i.e.68% use their ATM card for making purchase transactions and remaining 32% do not use it for purchase transactions at POS locations. It seems that making payment for their shopping bills is also one of the most important attribute of ATM card for most of the respondents. It clearly shows that the trend of using ATM cards only on ATM machine had been slowly decreasing due to awareness of people that ATM card can also be used for purchase transaction in POS.

#### 4.1.4 Average Usage of ATM Card for Purchase Transaction

**Table 4.5**

**Age and Use of ATM Card for Purchase Transactions**

Use of ATM Card for Purchase Transactions	Age				Total
	18-25	26-39	40-54	55+	
Once in More Than 15 Days	2	18	3		23
Once in 15 Days	5	14			19
Once in a Week	2	15	1	1	19
More Than Once in a Week	2	5			7
Total	11	52	4	1	68

Source: Field Survey, 2013

The above table reveals that out of 100 samples total of 68 respondents use ATM card for purchase transactions. The study have found out that almost 50% of samples from the age group of 18-25 use their card once in 15 days for purchase transactions at POS locations. Similarly from the age group of 26-39 and 40-54 almost 35% and 75% of samples use their ATM card for purchase transactions once in more than 15 days. In case of the age group above 55 total of 100% of samples use their card at POS locations once a week.



#### 4.1.5 Relationship Between Gender and Use of ATM Card for Purchase Transactions

**Table 4.6**

**Tabulation of Gender and Use of ATM Card for Purchase Transaction**

Use of ATM Card for Purchase Transactions	Gender		Total
	Male	Female	
Once in More Than 15 Days	14	9	23
Once in 15 Days	14	5	19
Once in a Week	13	6	19
More Than Once in a Week	5	2	7
Total	46	22	68

Source: Field Survey, 2013

The above table shows that almost 68% of samples are male respondents and 32% are female respondents. Among the male respondents about 30% of samples use ATM card at POS locations at least once a week and among female respondents about 41% of samples use ATM card for purchase transactions once in more than 15 days.

#### 4.1.6 Relationship Between Occupation and Use of ATM Card for Purchase Transactions

**Table 4.7**

**Tabulation of Occupation and Use of ATM Card for Purchase Transactions**

Use of ATM Card for Purchase Transactions	Occupation				Total
	Student	Service	Self-Employed	Housewife	
Once in More Than 15 Days	1	21	1		23
Once in 15 Days		16	3		19
Once in a Week	1	15	2	1	19
More Than Once in a Week		7			7
Total	2	59	6	1	68

Source: Field Survey, 2013

The above shown table reveals the relationship between occupation of respondents and their use of ATM card at POS locations. According to the table shown above maximum percentage of sample i.e. almost 87% are service people and least percentage i.e.1% of samples are housewife using ATM card at POS locations once in a week. The table shows that almost 36% of service people use ATM card for purchase transactions once in more than 15 days and 50% of self employed people use it once in 15 days.

#### 4.1.7 Relationship Between Income Level and Use of ATM Card for Purchase Transactions

**Table 4.8**

**Tabulation of Income Level and Use of ATM Card for Purchase Transactions**

Use of ATM Card for Purchase Transactions	Monthly Income					Total
	>5000	5000-10000	10000-20000	20000-30000	<30000	
Once in More Than 15 Days	1	7	7	3	5	23
Once in 15 Days		6	6	4	2	18
Once in a Week	2	3	3	4	5	17
More Than Once in a Week		1	4	1	1	7
Total	3	17	20	12	13	65

Source: Field Survey, 2013

Here the researcher have categorized monthly income of samples into 5 categories ranging from less than 5000 to above 30000. The above table reveals that almost 31% (out of 65 samples) have monthly income of 10000-20000 and 35% of people with this income level use their ATM card for purchase transactions once in more than 15 days. The table also shows that only about 5% (out of 65 samples) have monthly income of less than 5000 and use their card at POS locations once a week.

#### 4.1.8 Average Amount Per Transaction Spent By Cardholders for Making Purchase

**Table 4.9**

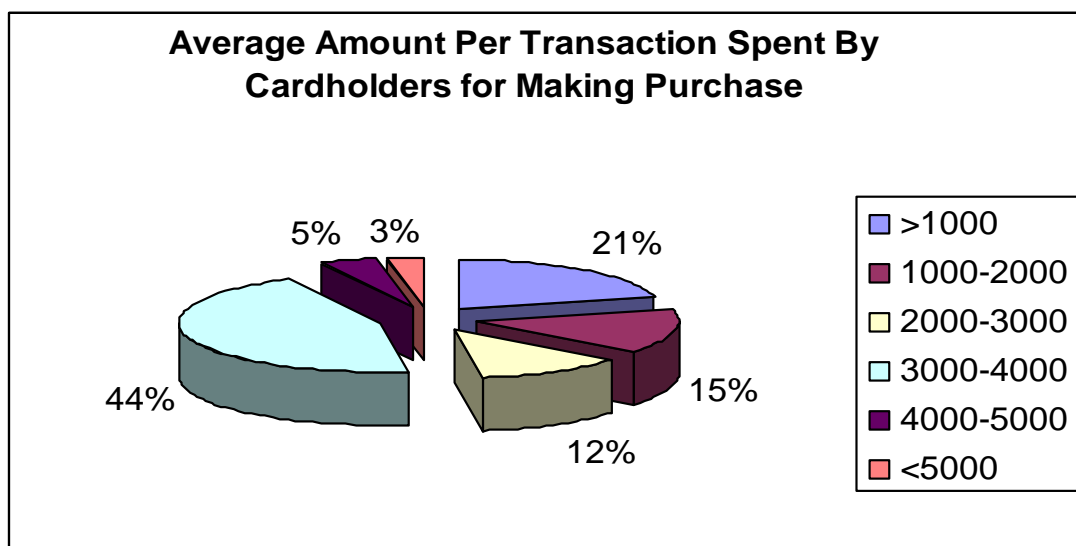
**Average Amount Per Transaction Spent By Cardholders for Making Purchase**

Average Amount Per Transaction Spent By Cardholders for Making Purchase	Number of Respondents	Number of Respondents in Percentage
>1000	14	21.0
1000-2000	10	15.0
2000-3000	8	12.0
3000-4000	30	44.0
4000-5000	3	5.0
<5000	2	3.0
Total	67	100.0

Source: Field Survey, 2013

**Figure 4.4**

**Average Amount Per Transaction Spent By Cardholders for Making Purchase**



Out of 100 samples, 68 respondents used their cards for ATM cash withdrawals as well as for POS transactions. The table above reveals that highest percentage i.e. 44% (out of 68 respondents) average spending per transaction at POS location is 3000-4000 where as only 3% of the respondents spend above 5000 per transaction on an average at POS locations. Most of the people in this category were using the ATM card for POS transactions and this clearly shows its acceptance by sample. This shows that the ATM cards are mostly used for petty expenses in Nepalese market rather than for big purchases. Thus there is yet to bring awareness among the Nepalese citizen that ATM card are not only for easy purchase but also for safety reasons of carrying huge sum of money in the pocket. ATM card can be safe because if your ATM card is lost then as you inform your bank about it your ATM card is immediately void, thus no money can be withdrawn from your ATM card. Finally ATM Card is a good mode of safety payment for cardholders.

#### 4.1.9 Areas in Which Cardholders Mostly Use Their ATM Card

**Table 4.10**  
**Mostly Used Areas of ATM Card**

<b>Areas</b>	<b>Mean Value (1-Highest, 6-Lowest )</b>
Hotels	4.00
Restaurants	2.52
Travel and Tours	4.40
Departmental Stores	1.90
Clothing Stores	2.72
Educational Institutions	5.57

Source: Field Survey, 2013

The table above reveals that the ATM card is mostly used in departmental stores followed by restaurants and then clothing stores. Thus, it would be recommended to the Bank to install more POS machines in these places and launch promotional programs specific to these. Banks are also suggested to be the member of International Debit card such as VISA, MASTER, MAESTRO etc. so that the frequency of usage of ATM card would rise in Educational Institutions, Hotels and Travels and Tours once it is accessible globally.

**4.1.10 Probability of Making Purchase Transactions Through ATM Card of the Customers Who Haven't Yet Made From it**

**Table 4.11**

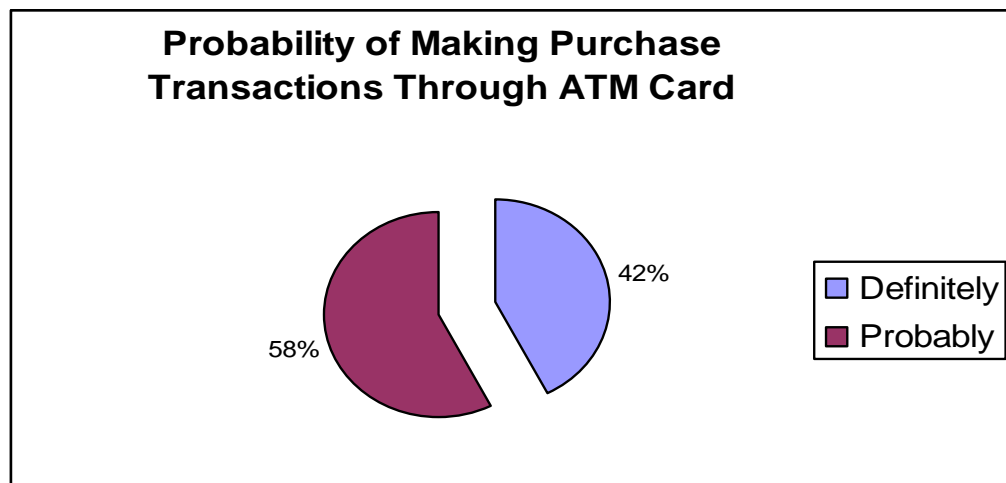
**Probability of Making Purchase Transactions Through ATM Card of the Customers Who Haven't Yet Made From it**

<b>Probability of Making Purchase Transactions Through ATM Card</b>	<b>Number of Respondents</b>	<b>Number of Respondents in Percentage</b>
Definitely	14	42.4
Probably	19	57.6
Total	33	100.0

Source: Field Survey, 2013

**Figure 4.5**

**Probability of Making Purchase Transactions Through ATM Card of the Customers Who Haven't Yet Made From it**



Out of 100 cardholders, 33 respondents used their cards only for ATM cash withdrawals and did not use it for POS transactions. The figure above reveals that the 42% (out of 33 respondents) were to definitely use their card in near future for POS transactions and 58% to probably use their cards for such purchase transactions. Most of the people in this category were mostly not using the ATM card for POS transactions as many of them had misconceptions that they would have to pay extra charges for it whereas others were not simply willing to use card for purchase transactions.

#### 4.1.11 Use of ATM Card to Make Cash Withdrawals

Relationship Between Income Level and Use of ATM Card to Make Cash Withdrawals are as follows;

**Table 4.12**  
**Tabulation of Income Level and Use of ATM Card to Make Cash Withdrawals**

Use of ATM Card to Make Cash Withdrawals	Monthly Income					Total
	>5000	5000-10000	10000-20000	20000-30000	<30000	
Once in More Than 15 Days	2	15	21	8	7	53
Once in a Week	1	9	12	5	6	33
More Than Once in a Week	1	1	5	4		11
Total	4	25	38	17	13	97

Source: Field Survey, 2013

The above table shows the relationship between use of ATM card for cash withdrawals and income level of sample. The study have found out that most of the respondents are service people falling in age group of 26-39 are holding ATM card. Due to the occupation and age group of samples their average income level is 10000-20000. The table shows that almost 55% of service people with average income level of 10000-20000 use ATM card for making cash withdrawal once in more than 15 days.

#### 4.1.12 Willingness to Take Branded ATM Card

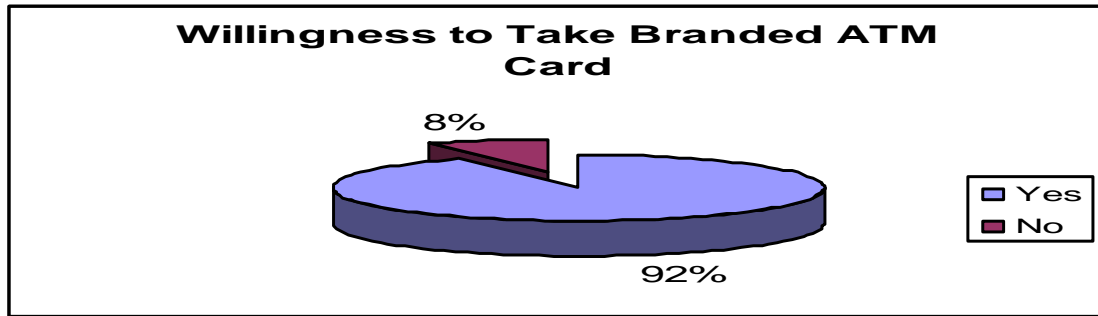
**Table 4.13**  
**Willingness to Take Branded ATM Card**

Willingness to Take Branded ATM Card	Number of Respondents	Number of Respondents in Percent
Yes	92	92.0
No	8	8.0
Total	100	100.0

Source: Field Survey, 2013

**Figure 4.6**

**Willingness to Take Branded ATM Card**



The above figure shows 92% of the respondents are willing to take branded ATM/Debit card and only remaining 8% are reluctant for it. This shows that respondents are aware about the benefits of branded ATM/debit card and also they will use it while traveling to India or abroad.

**4.1.13 Brand Preference by Sample**

**Table 4.14**

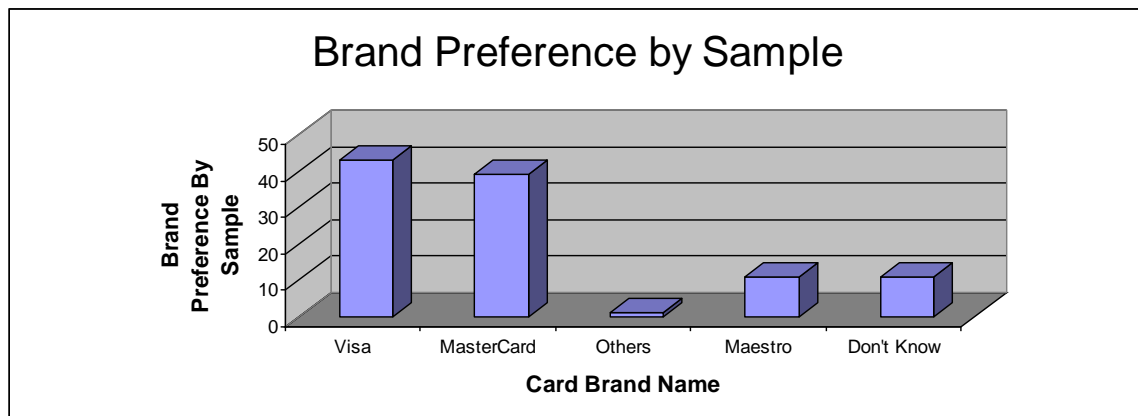
**Brand Preference by Sample**

Card Brand	Visa	MasterCard	Others	Maestro	Don't Know	Total
Brand Preference by Sample	43	39	1	11	11	105
Brand Preference by Sample in Percentage	40.95	37.14	0.95	10.48	10.48	100

Source: Field Survey, 2013

**Figure 4.7**

**Brand Preferences by Sample**



The above graph reveals that maximum number of respondents i.e.40.95% preferred Visa card, 37.14 preferred Master card, 10.48% preferred Maestro, and 0.95% preferred other brand of debit/ATM cards available in the market and remaining 10.48% were not in a position to make specific choices. This shows that VISA Electron Card is admired by the respondents and most probably provides higher revenue to the bank than other brand of Debit/ATM cards.

#### 4.1.14 Factors Influencing Their Choice of ATM Card

**Table 4.15**  
**Factors Influencing the Choice of ATM Card**

<b>Factors Influencing the Choice of ATM Card</b>	<b>Number of Responses</b>	<b>Mean Value(1-Highest, 4-Lowest )</b>
Minimum Balance to be Maintained in the Account	58	1.84
Number of Merchant Locations Where it Can be Used	90	1.48
Amount of Money You Can Withdraw Per Day	61	2.16
Number of Transaction You Can Make Per Day	29	3.00
Card Brand Name	14	3.36
Interest Rate on Deposit	20	3.25
Bank Reputation	48	3.10
Card Issuance Charge	26	3.38
Supplementary Card Issuance	7	3.86
Per Transaction Charge	22	3.55
Personal Recommendation	25	3.48

Source: Field Survey, 2013

As revealed by the table above, the top four factors influencing the debit card decision of an individual are number of merchant locations where it can be used, minimum balance to be maintained in the account, amount of money you can withdraw per day and number of transaction you can make per day. Other factors are of secondary consideration when making a debit card decision as such.



By making a transition from a proprietary debit card to branded debit cards, banks can increase the number of merchant locations where it can be used and encourage more of its local currency current and savings account holders to own a card who might be simply not taking the card for it has limited usage. Further, the due consideration has to be given on which brand of card is issued as that too influences the ATM/debit card decision of an individual.

#### 4.1.15 Reason to Have ATM Card by Sample

**Table 4.16**

**Reason to Have ATM Card by Sample**

<b>Attributes</b>	<b>Mean Value (1-Highest, 8-Lowest)</b>
Status Symbol	6.06
ATMs are More Accurate Than Men	6.35
ATMs are Conveniently Placed	4.92
You Don't Have to Carry Cash Every Where	3.93
It Operates 24 Hour	2.46
It is Easier to Withdraw Money From ATM	4.33
It is Safer Than Carrying Cash	3.00
Using ATM Will Save Time	4.92

Source: Field Survey, 2013

Here the lowest mean indicates the most appropriate reason to have ATM card and the highest mean in the table indicates the least appropriate reason to have ATM card. The above table shows that most of the respondents are interested to have ATM/Debit card because of its various attributes. Among them three most important attributes of ATM card found out by the study is that it operates 24 hours a day, it is safer to carry ATM card than carrying cash and cardholders don't have to carry cash everywhere which has mean of 2.46, 3.00 and 3.93 respectively.

Some of the respondents said that they don't carry much cash with them and that they will withdraw money from conveniently placed ATM machines only when it is required so they can save it from spending in less important activities.

#### 4.1 16 Main Features of ATM Card for the Cardholders

**Table 4.17**

**Main Features of ATM Card for the Cardholders**

<b>Main Features of ATM Card for the Cardholders</b>	<b>Mean value(1-Highest, 6-Lowest )</b>
Cash Withdrawal From ATM	1.54
Making Payment for Shopping Bills	3.90
Print Mini Statements	4.55
Balance Check	3.68
Prompt Service	3.07
Reliability	4.22

Source: Field Survey, 2013

Here the lowest mean indicates the most important features of ATM card and the highest mean in the table indicates the least important features of ATM card. According to the above table most of the respondents perceive ATMs to be no more than convenient cash dispensers. And so most of them use it for making cash withdrawals which has only 1.54 mean. The table shows that some of the respondents perceive other features such as prompt service, balance check and making payment for shopping bills are also main features which has mean of 3.07, 3.68 and 3.9 respectively. It is because they don't have to stand in a long queue for making cash withdrawal, they can pay their bills directly through ATM/debit card and that they need not carry cash everywhere also they can check their balance amount in the account. Whereas the least important features of ATM card are reliability and Print mini statement with maximum mean of 4.22 and 4.55 respectively.

#### 4.1.17 Major Aspects of ATM Card for the Cardholders

**Table 4.18**

**Major Aspects of ATM Card for the Cardholders**

<b>Major Aspects of ATM Card for the Cardholders</b>	<b>Mean Value(1-Highest, 5-Lowest )</b>
Interest Rate on Deposit	2.76
Per Transaction Charge	2.23
Card Issuance Charge	2.98
Brand Name/ Reputation	2.93
Balance Need to be Maintained in the Account	2.35
The Number of Transaction You Can Make Per Day	2.12
The Amount of Money You Can Withdraw Per Transaction	1.85
Number of Merchant Outlets and ATM Where the Card Can be Used	1.23
Others	3.33

Source: Field Survey, 2013

The study have found out that three major aspects of ATM card are number of merchant locations and ATM where the card can be used, the amount of money you can withdraw per transaction and the number of transaction you can make per day with mean value 1.23, 1.85 and 2.12 respectively. It is also clearly seen that some aspects like balance need to be maintained in the account, interest rate on deposit, brand name/ reputation and card issuance charge are not considered to be much of importance while making decision regarding acquiring the ATM card.

#### 4.1.18 Analysis of Age of Sample

Table 4.19

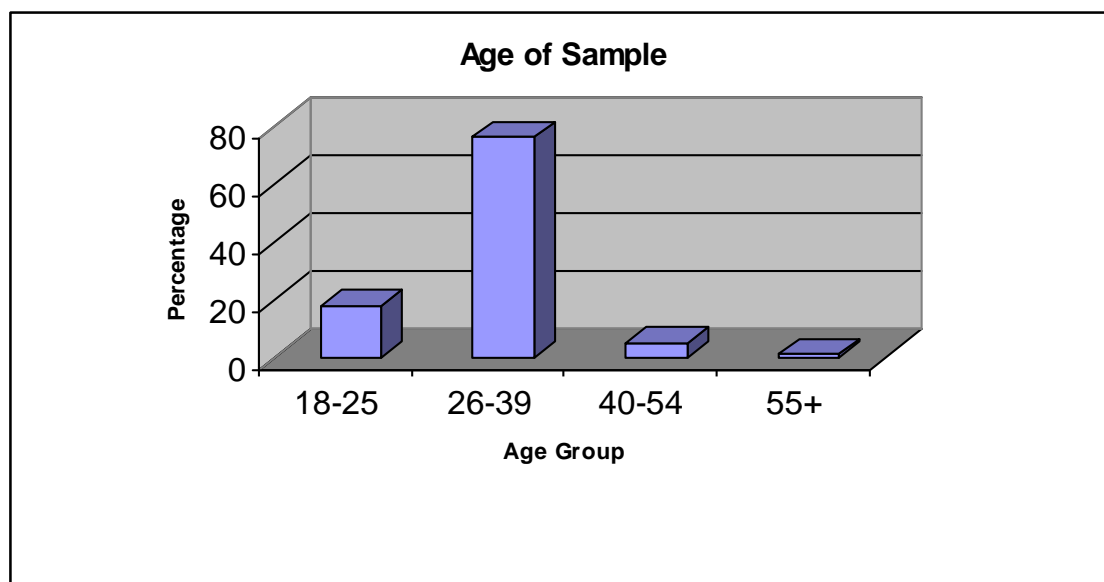
Proportion of Age Sample of ATM Card Holders

Age Group	Number of Respondents	Number of Respondents in Percentage
18-25	18	18.0
26-39	76	76.0
40-54	5	5.0
55+	1	1.0
Total	100	100.0

Source: Field Survey, 2013

Figure 4.8

Proportion of Age Sample of ATM Card Holders



This study includes cardholder of 100 samples among which highest percentage of respondents i.e.76% are between 26-39 years old, 18% are between 18-25 years old, 5% are between 40-54 years old and only 1% of the respondent is above 55 years old. This clearly shows that ATM cards are most popular among the age group of 26-39. The study have found out only one respondent using ATM card with the age above 55 years.

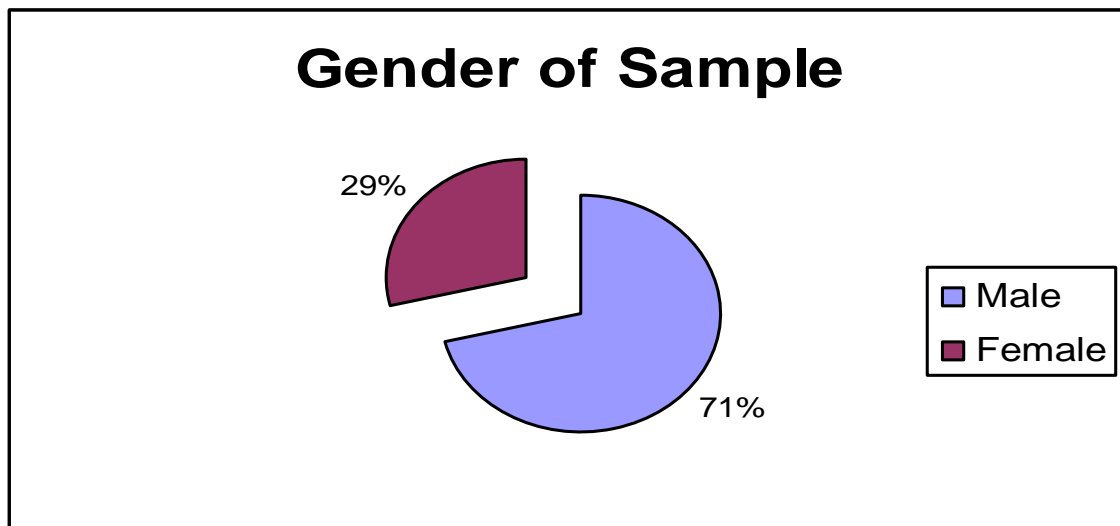
#### 4.1.19 Analysis of Gender of Sample

**Table 4.20**  
**Proportion of Gender Sample of ATM Card Holders**

Gender	Number of Respondents	Number of Respondents in Percentage
Male	71	71.0
Female	29	29.0
Total	100	100.0

Source: Field Survey, 2013

**Figure 4.9**  
**Proportion of Gender Sample of ATM Card Holders**



The sample consists of 71% of male and remaining 29% of female. Although the gender discrimination is vital issue these days but it is seen that male has always dominated female in most of the professional areas in Nepal. So unfortunately the survey also includes only 29% of female. Here the study have analyzed the gender preference and influencing factors for ATM card. It is clearly seen in the above figure that male are highly interested to hold ATM card than female. It may be due to higher awareness of the attributes and features of ATM card and also its convenience to male respondents.

#### 4.1.20 Analysis of Occupation of Sample

Table 4.21

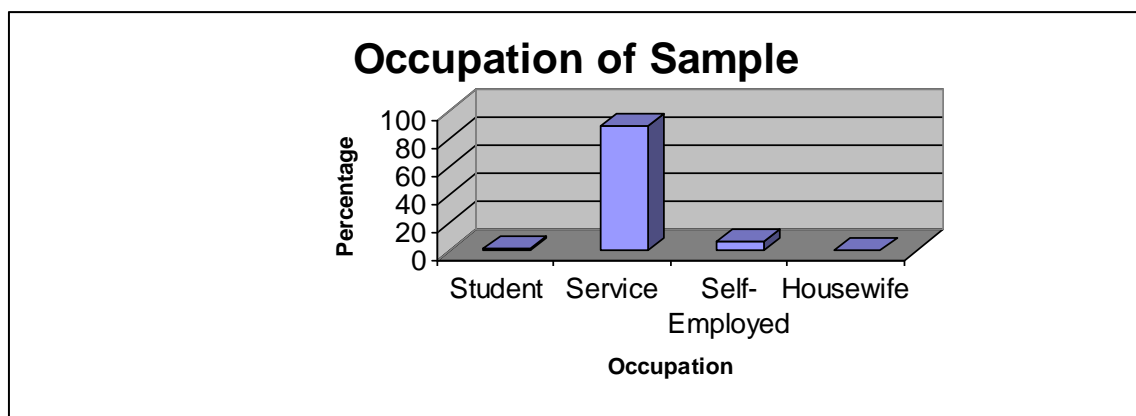
Proportion of Occupation Sample of ATM Card Holders

Occupation	Number of Respondents	Number of Respondents in Percentage
Student	2	2.0
Service	90	90.0
Self- Employed	7	7.0
Housewife	1	1.0
Total	100	100.0

Source: Field Survey, 2013

Figure 4.11

Proportion of Occupation Sample of ATM Card Holders



Here occupation has been categorized into four categories such as student, service, self-employed and housewife. The study have tried to predict the acceptance of ATM card by each of these categories. On analyzing the occupation we can see that 90% of the respondents are service people and remaining 10% includes other occupations i.e. self-employed, student and housewife with 7%, 2% and 1% respectively. This clearly shows that service people are usually busy in their routine work so that they don't get enough time for typical banking activities and require fast, reliable and convenient services.

#### 4.1.21 Analysis of Monthly Income of Sample

Table 4.22

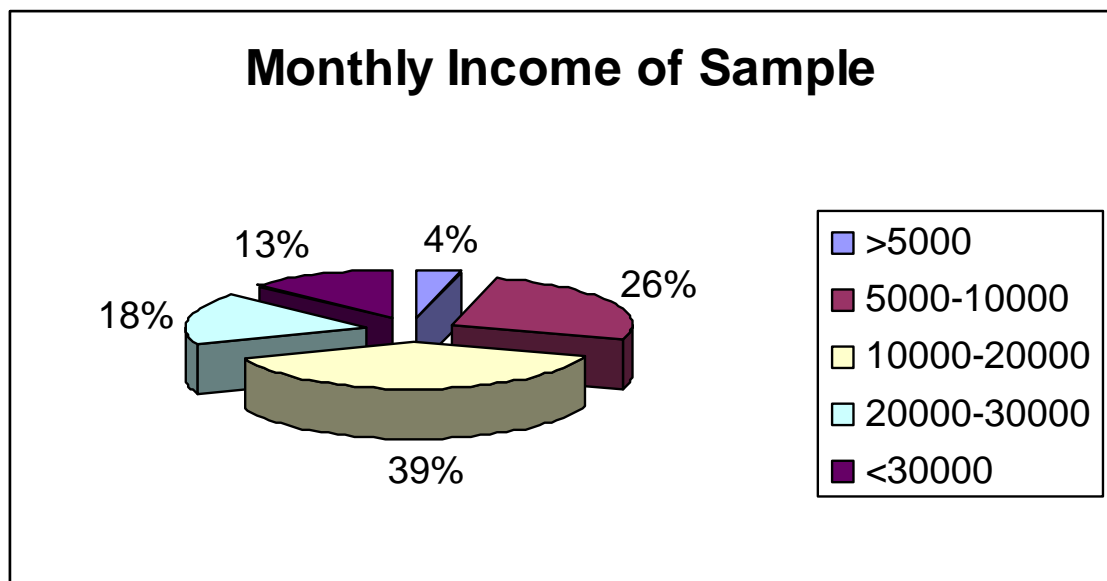
Proportion of Monthly Income Sample of ATM Card Holders

Monthly Income	Number of Respondents	Number of Respondents in Percentage
>5000	4	4.1
5000-10000	25	25.8
10000-20000	38	39.2
20000-30000	17	17.5
<30000	13	13.4
Total	97	100.0

Source: Field Survey, 2013

Figure 4.12

Proportion of Monthly Income Sample of ATM Card Holders



Out of 100 samples, only 97 respondents are employed and earn money for the work done on monthly basis. The figure above reveals that monthly income of 39% (out of 97 respondents) is between 10000-20000 where as only 4% of the respondents comprise less than 5000 income per month.

## 4.2 Major Findings

The questionnaire conducted during the course of the research revealed that Nepal Investment Bank Ltd. (NIBL) acquires larger piece of the sample pie i.e. respondents having ATM card of NIBL is more than any other banks.

Further as per the respondents the quality and promptness of the customer service of a particular bank is the most influencing factor in the ATM/debit card decision. Whether or not an individual has an account opened in that particular bank influences the debit card decision. The cardholder's analysis also shows that the fees for the card too influences the debit card decision to some extent, the dominant influencing factor being having an account in the bank. ATM cards can also be used at POS locations but it is seen that 68% of the respondents are using this facility and still 32% of them have to be influenced to do so.

While analyzing the relationship between frequency or usage of ATM card for purchase transaction and age, gender, occupation and level of income it is found that usage of ATM card for purchase transaction is independent of all other variables such as age, gender, occupation and level of income i.e. none of the variable have any relationship with the use of ATM card at POS locations. The cardholder's analysis shows that ATM cards are mostly used for petty expenses in Nepalese market rather than for big purchases. Thus there is yet to bring awareness among the Nepalese citizen that ATM card are not only for easy purchase but also for safety reasons of carrying huge sum of money in the pocket. ATM card can be safe because if your ATM card is lost then as you inform your bank about it your ATM card is immediately void, thus no money can be withdrawn from your ATM card.

ATM cards can be used in various areas such as departmental stores, clothing stores, hotels, travels and tours, educational institutions, restaurants, etc. But the study reveals that it is mostly used in departmental stores followed by restaurants.

The cardholder's survey reveals that there is no relationship between use of ATM card for cash withdrawals and income level of sample i.e. the income level of the people has no influence on frequency or use of ATM cards for making cash withdrawals. ATM cards



further add a feature of usability in Nepal and abroad which is called Branded ATM card. It is seen that 92% of the respondents are willing to take branded ATM/Debit card and only remaining 8% are reluctant for it. It is also seen that most of the respondents prefer Visa card. This shows that respondents are aware about the benefits of branded ATM/debit card and also they will use it while traveling to India or abroad.

The study concludes that the top four factors influencing the debit card decision of an individual are number of merchant locations where it can be used, minimum balance to be maintained in the account, amount of money you can withdraw per day and number of transaction you can make per day. It also conveys that most of the respondents are interested to have ATM/Debit card because of its various attributes. Among them three most important attributes of ATM card found out by the study is that it operates 24 hours a day, it is safer to carry ATM card than carrying cash and cardholders don't have to carry cash everywhere.

As per the perception of respondents, ATMs are no more than convenient cash dispensers. And so most of them use it for making cash withdrawals. Some of the respondents perceive other features such as prompt service, balance check and making payment for shopping bills are also main features. Whereas the least important features of ATM card are found to be reliability and Print mini statement.

The study have found out three major aspects of ATM card which are number of merchant locations and ATM where the card can be used, the amount of money you can withdraw per transaction and the number of transaction you can make per day.

## CHAPTER V

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary

The account maintained by sample is maximum in SCT member bank other than Nabil Bank Ltd., Standard Chartered Bank Ltd., Nepal Investment Bank Ltd. and Himalayan Bank Ltd. i.e. 49 samples have maintained account in other SCT member bank. Out of 100 sample, maximum number of cardholders i.e. 39 are using ATM card facility of Nepal Investment Bank followed by other SCT member bank, Nabil bank, Everest bank, Standard Chartered bank and Himalayan bank with 38, 28, 14, 11 and 7 respectively. The total number of ATM cardholders are more than account maintained since there possibilities one sample may have both ATM of Everest Bank Ltd and Other SCT Bank members. Thus it seems that the ATM trend has been very popular in Nepalese market due to its easy usage and quick transaction qualities. Quick Customer Service is the major reasons influencing cardholders to take ATM Card, followed by Had account here, others, valid in Nepal, India and abroad, is branded, Status and Prestige, Reasonable fees, other recommendations and Attractive debit card schemes which had man of 1.25, 1.50, 1.56, 1.68, 1.69, 1.83, 2.36 and 2.39 respectively.

Out of 100 samples, the study have found out that maximum number of respondents i.e. 68% use their ATM card for making purchase transactions and remaining 32% do not use it for purchase transactions at POS locations. Out of 100 samples total of 68 respondents use ATM card for purchase transactions. The study have found out that almost 50% of samples from the age group of 18-25 use their card once in 15 days for purchase transactions at POS locations. Similarly from the age group of 26-39 and 40-54 almost 35% and 75% of samples use their ATM card for purchase transactions once in more than 15 days. In case of the age group above 55 total of 100% of samples use their card at POS locations once a week.

Almost 68% of samples are male respondents and 32% are female respondents. Among the male respondents about 30% of samples use ATM card at POS locations at least once a week and among female respondents about 41% of samples use ATM card for purchase transactions once in more than 15 days. We can infer that the age of the people has no

influence on frequency or use of ATM cards for making purchase Transaction. The maximum percentage of sample i.e. almost 87% are service people and least percentage i.e.1% of samples are housewife using ATM card at POS locations once in a week. The survey also shows that almost 36% of service people use ATM card for purchase transactions once in more than 15 days and 50% of self employed people use it once in 15 days.

We can infer that the gender of the people has no influence on frequency or use of ATM cards for making purchase Transaction. Almost 31% (out of 65 samples) have monthly income of 10000-20000 and 35% of people with this income level use their ATM card for purchase transactions once in more than 15 days. The survey also shows that only about 5% (out of 65 samples) have monthly income of less than 5000 and use their card at POS locations once a week. which states that the average uses of ATM card for purchase transaction is independent of occupation of the respondent. Therefore, we can infer that the occupation of the people has no influence on frequency or use of ATM cards for making purchase Transaction.

Out of 100 samples, 68 respondents used their cards for ATM cash withdrawals as well as for POS transactions. The highest percentage i.e. 44% average spending per transaction at POS location is 3000-4000 where as only 3% of the respondents spend above 5000 per transaction on an average at POS locations. Survey has found out that ATM cards are mostly used in departmental stores followed by restaurants and then clothing stores. Out of 100 cardholders, 33 respondents used their cards only for ATM cash withdrawals and did not use it for POS transactions. Survey also have found out that the 42% (out of 33 respondents) were to definitely use their card in near future for POS transactions and 58% to probably use their cards for such purchase transactions. The study have found out that most of the respondents are service people falling in age group of 26-39 are holding ATM card. Due to the occupation and age group of samples their average income level is 10000-20000. The survey also shows that almost 55% of service people with average income level of 10000-20000 use ATM card for making cash withdrawal once in more than 15 days.

Here the average frequency or use of ATM card for making cash withdrawals is independent of income level of the respondent. Therefore, we can infer that the income level of the people has no influence on frequency or use of ATM cards for making cash withdrawals. 92% of the respondents are willing to take branded ATM/Debit card and only remaining 8% are reluctant for it. Maximum number of respondent's i.e.40.95% preferred Visa card, 37.14 preferred Master card, 10.48% preferred Maestro, and 0.95% preferred other brand of debit/ATM cards available in the market and remaining 10.48% were not in a position to make specific choices. The top four factors influencing the debit card decision of an individual are number of merchant locations where it can be used, minimum balance to be maintained in the account, amount of money you can withdraw per day and number of transaction you can make per day. Three most important attributes of ATM card found out by the study is that it operates 24 hours a day, it is safer to carry ATM card than carrying cash and cardholders don't have to carry cash everywhere which has mean of 2.46, 3.00 and 3.93 respectively.

According to the study most of the respondents perceive ATMs to be no more than convenient cash dispensers. And so most of them use it for making cash withdrawals which has only 1.54 mean. The table shows that some of the respondents perceive other features such as prompt service, balance check and making payment for shopping bills are also main features which has mean of 3.07, 3.68 and 3.9 respectively. The least important features of ATM card are reliability and Print mini statement with maximum mean of 4.22 and 4.55 respectively.

The study have found out that three major aspects of ATM card are number of merchant locations and ATM where the card can be used, the amount of money you can withdraw per transaction and the number of transaction you can make per day with mean value 1.23, 1.85 and 2.12 respectively. This study includes cardholder of 100 samples among which highest percentage of respondents i.e.76% are between 26-39 years old, 18% are between 18-25 years old, 5% are between 40-54 years old and only 1% of the respondent is above 55 years old. The sample consists of 71% of male and remaining 29% of female. 90% of the respondents are service people and remaining 10% includes other occupations i.e. self-employed, student and housewife with 7%, 2% and 1% respectively. Out of 100 samples, only 97 respondents are employed and earn money for the work done on monthly basis.

## 5.2 Conclusions

In the world of competitive environment it is very difficult for every sector to survive. The banks are gradually expanding the menu of financial services they offer to their customers in order to satisfy their customers and add value, as well as attract more customers and increase their market share. Similarly Commercial Banks face cut throat competition and especially in country like Nepal with very less opportunities and low investment sector, ATM card facilities has been a big source of investment for Commercial Banks. ATM is a card issued by banks, ATM cards are issued by banks, essentially to give bank customers flexibility in their banking hours. In most areas, with an ATM card you can withdraw money, make deposits, transfer money between accounts, find out your balance, get a cash advance and even make loan payments at all hours of the day or night.

ATM/debit card market in Nepal is characterized by the presence of three different categories of ATM/debit cards such as: i) Proprietary Debit Cards, ii) Branded Debit Cards and iii) Network Cards. Branded debit card can further be divided into:

❖ Cards Valid in Nepal & India both: These are international debit cards valid in Nepal as well as in India. These are the cards that are issued in against the current or personal savings account maintained in Nepalese currency. If the cardholder of this type makes ATM withdrawals or POS purchases in Nepal the transaction takes place in Nepalese currency only but payments or ATM withdrawals made in India are automatically transacted in Indian currency.

❖ Dollar Debit Card: These are the international debit cards which are valid in all the countries abroad other than India. These are the debit cards that are issued against the “Basic Travel Quota (BTQ)” provided by Nepal Rastra Bank (NRB).

According to BAFIO, all the ‘A’ and ‘B’ class financial institutions can issue and accept the debit cards if they want to. According to BAFIO, commercial banks are ‘A’ class financial institutions and development banks are ‘B’ class financial institutions. Currently, there are 31 commercial banks and 88 development banks of which 31

commercial banks and 78 development banks are providing the debit card facility to their customers. So there remains chances that other commercial banks and development banks too might enter into the debit card markets if found feasible.

The researcher has distributed questionnaires to the cardholders taking 100 samples to know the most and least perceived attributes of ATM card by the cardholders. The questionnaire conducted during the course of the research revealed that Nepal Investment Bank Ltd. (NIBL) acquires larger piece of the sample pie i.e. respondents having ATM card of NIBL is more than any other banks While analyzing the relationship between frequency or usage of ATM card for purchase transaction and age, gender, occupation and level of income it is found that usage of ATM card for purchase transaction is independent of all other variables such as age, gender, occupation and level of income i.e. none of the variable have any relationship with the use of ATM card at POS locations. The cardholder's analysis shows that ATM cards are mostly used for petty expenses in Nepalese market rather than for big purchases. Thus there is yet to bring awareness among the Nepalese citizen that ATM card are not only for easy purchase but also for safety reasons of carrying huge sum of money in the pocket. ATM card can be safe because if your ATM card is lost then as you inform your bank about it your ATM card is immediately void, thus no money can be withdrawn from your ATM card.

The questionnaires and the interviews conducted during the course of the research revealed that the top four factors influencing the debit card decision of an individual are number of merchant locations where it can be used, minimum balance to be maintained in the account, amount of money you can withdraw per day and number of transaction you can make per day. It also conveys that most of the respondents are interested to have ATM/Debit card because of its various attributes. Among them three most important attributes of ATM card found out by the study is that it operates 24 hours a day, it is safer to carry ATM card than carrying cash and cardholders don't have to carry cash everywhere. As per the perception of respondents, ATMs are no more than convenient cash dispensers. Some of the respondents perceive other features such as prompt service, balance check and making payment for shopping bills are also main features. Whereas the least important features of ATM card are found to be reliability and Print mini statement.

### 5.3 Recommendations

- Awareness among the Nepalese citizen that ATM card are not only for easy purchase but also for safety reasons of carrying huge sum of money in the pocket.
- ATM card can be safe because if your ATM card is lost then as you inform your bank about it your ATM card is immediately void, thus no money can be withdrawn from your ATM card. Finally ATM Card is a good mode of safety payment for cardholders.
- It would be recommended to the Bank to install more POS machines in these places and launch promotional programs specific to these.
- Banks are also suggested to be the member of International Debit card such as VISA, MASTER, MAESTRO etc. so that the frequency of usage of ATM card would rise in Educational Institutions, Hotels and Travels and Tours once it is accessible globally.
- Banks are suggested to increase the number of merchant locations.
- Banks are recommended to decrease per transaction charge
- Survey recommends decreasing the minimum balance to zero since most of the developing countries don't require minimum balance for ATM cards.
- Survey suggests increasing the amount of money to be withdrawal per day from ATM machine.
- Banks are recommended to increase the number of transactions to be withdrawn per day.
- Banks are suggested to increase the Deposit interest to attract from cardholders.
- Banks should focus on targeted age group of 26-39 years because these groups are the most frequent users of ATM cards.
- Banks should also target female customers by providing special schemes.
- Banks should target service occupation cardholders because service people are usually busy in their routine work so that they don't get enough time for typical banking activities and require fast, reliable and convenient services.
- Banks are suggested to target separate market niches such as students and housewives to gain additional market share. As they are relatively unexplored and untouched segment and by focusing on them, bank can add a lot of customers to its current list.

- Banks should provide swipe more and win offers so that use of ATM/Debit card for withdrawal as well as for purchase transactions will be increased and banks will have higher revenue through ATM cards.
- Number of ATM outlets and merchants should be increased so that they are easily available where ever we go.
- ATM machines should be available in more diversified areas i.e. within different places all over the country.
- Each and every Nepali citizen should be allowed to have ATM/Debit card without issuing charges as the global market is now a days transacted through plastic money.
- Banks should not charge fee when its client withdraws money from other bank's ATM machine.
- Renewal charge bank commission should be reduced.
- There should be international affiliation in ATM cards.
- ATM/Debit card should possess credit card facilities within it.
- Banks should have well maintained ATM machines and customers should not be told that ATM is out of order.
- Surveillance cameras should be installed as a proof when ATM doesn't deliver cash.
- Banks should extend ATM service to different part of state and remove the service charge from other ATM service like Nabil, Standard chartered bank, Himalayan bank, etc.
- ATM machines should not create any problem while dispensing cash from ATM vault. It should be less troublesome.
- Small denomination of cash should be kept at ATM counter.
- Customers should be able to deposit cash in their account through ATM machines itself like in foreign countries rather than going to the bank and depositing cash.
- ATM machines should be more convenient and safe. It should provide effective service that the banks commit to people through media.
- All bank's ATM/Debit card should have international validity.
- Banks should deduct the charge per transaction bought through ATM cards in order to increase the number of purchase transaction using ATM cards.
- ATM machines should provide accurate service by minimizing the occurrence of system errors.



- ATM facility available in our country should collaborate with foreign countries so that we can use any ATM/Debit card in any corner of the world.
- Atm cards should be usable anywhere like in paying electricity bills, water bills, school and college fees,etc. So ATM outlets should open within the premises of these areas too.
- Speed of ATM machines while withdrawal should be increased. So the customers get quick service and queue at ATM outlets also reduces.
- There should not be any charges for SCT member bank's ATM card and the customers should be able to use their card at any of the SCT member bank's ATM outlet without any charges.

## **BIBLIOGRAPHY**

- ATM & Debit News (2001) EFT Data Book 2002 Edition, 1, 44, September, Chicago: Thomson.
- Balto, D. and Mc Andrews, J. (1998) Joint Venture Payment Networks and Public Policy, Electronic Banking Law and Commerce Report.
- Congressional Budget Office (1998) Competition in ATM Markets: Are ATMs Money Machines, CBO Papers.
- Cyrnak, T. and Mc Andrews, J. (1999) Results of a Conference on ATM Network Routing Rules, Mimeo, Federal Reserve Bank of New York.
- Economides, N. and Salop, S. (1992). Competition and Integration among Complements, and Network Market Structure, Journal of Industrial Economics.
- Kutler, J. (1982). Consumers Acceptance of ATMs, Credit January-February.
- Levin, D.M., Krehbiel, T.C. & Berenson, M.L. (2001). Business Statistic: A First Course. Pearson Education Asia.
- Levin, R.I. & Rubin, D.S. (2002). Statistics For Management. New Delhi: Prentice-Hall of India Private Limited.
- Matutes, C. and Padilla, A.J. (1994) Shared ATM Networks and Banking Competition, European Economic Review.
- Mc Andrews, J. (1991) The Evolution of Shared ATM Networks, Federal Reserve Bank of Philadelphia Business Review, (May/June).
- Mc Andrews, J. (2003). Automated Teller Machine Network Pricing – A Review of the Literature. Review of Network Economics, Vol.2, Issue 2.
- Murdock, G.W. and Franz, L. (1983). Habit and Perceived Risk as Factors in the Resistance to Use of ATMs, Journal of Retail Banking.
- Murphy, N.B. (1983). Determinants of ATM Activity: The impact of Card Base, Location, Time in place and System, Journal of Bank Research, Autumn.

Ostlund, L.E. (1974). Perceived Innovation Attributes as Predictors of Innovativeness, Journal of Consumer Research, Vol. 1.

Pearce, J.A. & Robinson, R.B. (2003). Strategic Management. New Delhi: A.I.T.B.S. Publishers & Distributors.

Rugimbana, R. & Iversen, P. (1994). Perceived Attributes of ATMs and Their Marketing Implications. International Journal of Bank Marketing, Vol. 12 No.

Thompson, A.A. & Strickland, A.J. (2004). Strategic Management: Concepts and Cases. New Delhi: Tata McGraw- Hill Publishing Company Limited.

Wolff and Pant (2005). Social Science Research and Thesis Writing. Kathmandu: Buddha Academic Enterprises.

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

[www.en.wikipedia.org](http://www.en.wikipedia.org)

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

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

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

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

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

[www.nibl.com.np](http://www.nibl.com.np)

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

[www.sct.com.np](http://www.sct.com.np)

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

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

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

## CUSTOMER SURVEY QUESTIONNAIRE

### CARDHOLDERS QUESTIONNAIRE

Dear Sir/Madam,

I am undertaking a study on the *“Perceived Attributes of ATM And Marketing implications of ATM”* as a partial fulfillment of the requirements for the Masters Degree in Business Studies (MBS).

Your cooperation in this regard would be highly appreciated. Your response would help me to understand general banking behavior and to know your views about the service of ATM cards in Nepal. All information contained in this questionnaire will be kept confidential and used only for statistical compilations. I would appreciate your cooperation.

Thank You.

1. In which bank or banks do you have your current account or personal savings account?

Please tick (✓) before them.

- |   |  |
|---|--|
| <input type="checkbox"/> Nabil Bank Ltd.            | <input type="checkbox"/> Standard Chartered Bank |
| <input type="checkbox"/> Nepal Investment Bank Ltd. | <input type="checkbox"/> Himalayan Bank Ltd.     |
| <input type="checkbox"/> Other SCT Member Bank      |  |

(Please specify) \_\_\_\_\_

Among the banks you have your account, which banks ATM/debit card facility do you avail?

- |            |           |
|------------|-----------|
| i. _____   | ii. _____ |
| iii. _____ | iv. _____ |

2. What influenced you to take the ATM/debit cards from these banks? (Please tick (✓) in the appropriate box after each reason)

S. No.	Reasons	Influenced Very Much	Influenced to Some Extent	Did Not Influence at All
1	Recommendation from others			
2	Reasonable fees			
3	Attractive debit card schemes			
4	Had account there			
5	Quick customer service			
6	Status and prestige			
7	Is Branded			
8	Validity in Nepal, India & Abroad			
9	If Others (specify) _____			

3. Do you make purchase transactions with ATM/debit cards?

Yes  No

If yes, go to question No. 4 and if no, go to question No. 7.

4. On an average, how much ATM/debit cards use do you make for purchase transactions? (Please ✓ before the appropriate answer)

Once in more than 15 days  Once in 15 days  
 Once in a week  More than once in a week

If more than once in a week please specify: \_\_\_\_\_ times

5. Approximately, what was the average amount (Rs.) per transaction you spent on your ATM/debit card? (Please ✓ before the appropriate answer)

< 1,000  3,000-4,000  
 1,000-2,000  4,000-5,000  
 2,000-3,000  >5000

6. Where do you mostly use your ATM/debit card? (Rank the following in the order of preference from 1- highest, 6- lowest)

- |   |   |
|---|---|
| <input type="checkbox"/> Hotels                   | <input type="checkbox"/> Restaurants              |
| <input type="checkbox"/> Travel & Tours           | <input type="checkbox"/> Departmental stores      |
| <input type="checkbox"/> Clothing stores          | <input type="checkbox"/> Educational Institutions |
| <input type="checkbox"/> If others (specify)_____ |   |

7. How likely are you to make purchase transactions in future through your ATM/debit cards? (Please ✓ before the appropriate answer) (Only for those who haven't yet made from it)

- Definitely                       Probably/Likely                       Not at all

8. Approximately how many times do you use your ATM/debit card to make cash withdrawals? (Please ✓ before the appropriate answer)

- Once in more than 15 days                       Once in a week  
 More than once in a week

If more than once in a week please specify: \_\_\_\_\_ times

9. Will you be willing to take branded ATM/debit card, if provided?

- Yes     No

If yes, which brand of debit cards would you prefer? (Please ✓ before the appropriate answer)

- VISA     MasterCard  
 Others (if specify)\_\_\_\_\_  Maestro  
 Don't Know/Can't Say

10. What are the factors that influenced your choice of ATM/ debit card? (Please ✓ before the top four factors listed below that impacts your choice the most)

- Minimum balance to be maintained in the a/c  
 No. of merchant locations where it can be used  
 Amount of money you can withdraw per day  
 No. of transaction you can make per day.

- Interest rate on deposit
- Card issuance charge
- Per transaction charge
- Bank Reputation
- Supplementary card issuance
- Personal recommendation

11. You are interested to have ATM/debit card because (Please rank the following factors according to their importance from 1- highest to 9- lowest)

- Status symbol
- ATMs are conveniently placed
- It operates 24 hours
- It is safer than carrying cash
- Others (Please Explain and rank)\_\_\_\_\_
- ATMs are more accurate than human
- You don't have to carry cash every where
- It is easier to withdraw money from ATM
- Using ATM will save time

12. Which of the following features of ATM/debit card is important for you? (Please rank 1- highest to 6- lowest)

- Cash withdrawal from ATM
- Print mini statements
- Prompt Service
- Making payment for your shopping bills
- Reliability
- Balance check

13. Please rate the following aspects of ATM/debit card from 1-5 (1- Very Important, 2- Important, 3- Good Enough, 4- Not so Important, to 5- Not important)

- Interest rate on deposit
- Card issuance charge
- Balance needed to maintained in the account
- The number of transaction you can make per day
- The amount of money you can withdraw per transaction
- Number of merchant outlets and ATM where the card can be used
- others (please specify)\_\_\_\_\_
- Per transaction charge
- Brand name/ Reputation

14. Your recommendations for better ATM/debit card service in Nepal.

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Only for Accountholders having Multiple Accounts in many Banks but not taking Cards from any of them:

15. Why haven't you taken ATM/debit card from the other bank or banks' where you have maintained the account?

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**Thank You for Your Valuable Effort**

**RESPONDENTS PROFILE:**

**Age:**     18-25                       26-39                       40-54                       55+

**Gender:**     Male                       Female



## **UNSTRUCTURED INTERVIEW: QUESTIONNAIRE FOR THE HEAD, CARDS**

### **DIVISION**

1. How many customers we have who hold HBL ATM card?
2. What is the total number of SCT card holder?
3. What are its limitations against the ATM/debit cards provided by the other banks?
4. What are the fee charges for the ATM/ debit cards?
5. What are the schemes for such cardholders?
6. What's the criterion for having the debit card facility provided by the bank?
7. What are the annual and renewal fee charges for the cards?
8. What are the other charges associated with the cards?
9. How many ATM machines and POS machines has the bank installed on its own?
10. In the ATM fee charged to the customers for Not-On-Us ATM transactions what is the actual fee received by the bank?
11. How many days it takes to process the card application and deliver it to the customer?
12. What problems are you currently facing in ATM business?
13. What is the Bank's future plan regarding the issuance of improved version of such ATM/debit cards?
14. What are the interchange revenues that we earn from the debit cards?
15. Are there any plans to issue branded debit cards?
16. What will be the costing for enhancement in IT infrastructure to support the branded debit cards?
17. What is the VISA or MasterCard licensing fees?
18. Do you have any plan to further extend the ATM facilities outside the valley?