



# **St. Mary's University School of Graduate Studies**

**ASSESSMENT OF AUTOMETED TELLER MACHINE (ATM) SERVICE ON  
CUSTOMER SATISFACTION: THE CASE OF NIB INTERANATIONAL BANK S.C**

**BY:  
YARED ABEBE**

**JUNE, 2016  
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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE  
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**ST. MARY'S UNIVERSITY  
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## **ACRONYMS AND ABBREVIATIONS**

ATM	Automated Teller Machine
E-BANKING	Electronic Banking
EFT	Electronic Fund Transfer
ICT	Information and Communication Technology
NBE	National Bank of Ethiopia
NIB	Nib International Bank
PIN	Personal Identification Number
POS	Point of Sale
PC	Personal Computer



## **ABSTRACT**

*Today's business organizations, especially the banking industry operates in a complex and competitive environment characterized by changing conditions and highly unpredictable economic Climate. Now a day's e-banking has become popular because of its convenience, flexibility, and also transaction related benefits like speed, efficiency, accessibility, etc. This study aims to measure satisfaction level of ATM card holders of Nib International Bank S.C with respect to various aspects of ATM service quality measurements; figure out the challenges that impact their satisfaction; and provide possible solutions to get rid of those challenges in the future for better service quality. The research employed case study approach and used both qualitative and quantitative method for data collation purpose. Purposive sampling techniques were used in selecting sample units. Primary data was successfully collected from 190 respondents through a structured questionnaire.. Data analysis was made through the use of SPSS and the association between core variables. As a result, the study presented some possible recommendations so as to alleviate the problems. These includes customers preferred placing ATM machine around business halls, hospitals, than near or around the branches of the bank and also unavailability of Network, user guideline, poor card delivery system, not settling errors quickly are those attributes that create high customer dissatisfaction. Therefore, the results designate that for Nib International Bank to remain competitive through ATM service, efforts should be exerted to maximize customer satisfaction.*

**Keywords:** *ICT, E-Banking, ATM and Customer Satisfaction.*

# CHAPTER ONE

## 1. INTRODUCTION

### 1.1 Background of the Study

Business organizations, especially the banking industry of the 21<sup>st</sup> century operates in a complex and competitive environment characterized by changing conditions and unpredictable economic climate, (Laudon & Laudon, 1991).

Information and Communication Technology (ICT) is a technology that facilitate the automation of process, controls and information production using computers, telecommunication, software and ancillary equipments (Woherem, 2000).

Laudon and Laudon (2001) assert that, Information and Communication Technology deals with the physical devices and software that link various computer hardware components and transfer data from one physical location to another. Harold and Jeff (1995) also contend that financial service providers should modify their traditional operating practices to remain viable in the 1990's and decades that follow.

ICT products in use in the banking industry include Automated Teller Machine, Smart Cards, Telephone Banking, Electronic Funds Transfer, Electronic Data Interchange, Electronic Home and Office Banking. In relation to ATM service quality researches' realized that, the Automated Teller Machine (ATM) is one type of innovation that can mechanically accept deposits, issue withdrawals, transfer funds between accounts, and collect bills. It has altered the relationship between banks and their depositors, as well as the level of service quality of banking services (Davies et al., 1996); Mcandrews, 2003; Komal& Singh, 2009).

Researchers identified secure and convenient location, adequate number of ATM, user-friendly system, and functionality of ATM plays important role in customers' satisfaction. Other extant literature ( for example by Joseph and Stone (2003); Mobarek (2007) and Dilijonas et al., (2009) indicated that, convenient and secure location and user-friendly system, speed, minimum errors, high uptime, cash backup, cost, and service coverage are essential service quality aspects of ATM service.

It's a general fact that, the trend in banking has evolved from cash economy and transformed to cheque economy which has further been converted to plastic card economy. Banks gain competitive advantage over their rivals by providing electronic banking services as technology induced services reduce cost of operations, removes geographical barriers, provides 24 hours banking, extended hours of business and efficiency in daily banking processes without even interacting with the bankers; customers can transact banking activity from any corner of the world (Rajasekhar&Vijaya, 2013).

The modern e-banking methods like ATMs, Debit cards, Credit cards, Tele banking, Internet banking, Mobile banking and others are new to the Ethiopian banking sector. In Ethiopia, the first bank which introduces ATM service was commercial bank of Ethiopia. Currently out of the total 19 commercial banks 13 of them provides ATM service.

Parrot (2008) defined Customer's satisfaction as the company's ability to fulfill the business, emotional, and psychological needs of its customers. However, customers have different levels of satisfaction as they have different attitudes and experiences as perceived from the company. Customer's satisfaction is affected by the importance placed by the customers on each of the attitudes of the product/ service. He also clarifies that, Customer satisfaction measurement allows an organization to understand the key drivers that create satisfaction or dissatisfaction; and what is really driving their satisfaction during a service experience.

It's obvious that, the banking sector in Ethiopia has gone through significant changes following the emerging of a number of private banks that give opportunities for the customers as well as for the development of the financial sector. As their contribution to the financial sector is enormous, banks obliged to use new technologies to differentiate themselves from their competitors. This may necessitate the adoption of service like ATM to make the money transaction easier to customers. But, it's under question mark whether the desired result achieved or not. Therefore, as many of the bank's working here have giving the ATM services; assessing the level of satisfaction is essential.

### **1.3 Statement of the Problem**

Daniel (1999) and Mols (1998) described that compared to ordinary banking system; electronic banking is providing the competitive advantage by lowering the cost and providing best satisfaction of customer needs.

Harold and Jeff (1995) also contend that financial service providers should modify their traditional operating practices to remain viable in the 1990s and decades that follow. They claimed that most significant shortcomings in the banking industry today is a wide spread failure on the part of senior management in banks to grasp the improvement of technology and incorporate it into their strategic plans. Woherem (2000) claims that, only banks that overhaul the whole of their payment and delivery systems and apply modern banking system to their operations are likely to survive and prosper. He advises that, banks should re-examine their service and delivery systems in order to properly position themselves within the framework of new technology.

It's known that, recognizing its massive importance, financial institutions in Ethiopia have continued to install ATMs across the country so that their customers can access the services in a more reliable and efficient way. Worku (2010), despite the efforts by commercial banks to automate their banking systems, they have not yet fully achieved their intended objective of offering a high satisfactory service to their customers. Therefore, assessing customer satisfaction has become very important, especially for high tech products and services. As the use of ATM services is exponentially growing from time to time, it is important to know the customers perceptions about its various features and their problems while using ATM services.

Second quarter report of Nib International bank S. C. on December 31, 2015 revealed that, some problems facing the bank regarding the ATM services are; frequent power interruption, ATM machine running out of money, irregular deduction from customer account without dispensing the money to the user are mostly facing problems cited on the report but, the report doesn't include location problems customers are facing, awareness of the customers on how to handle the transaction are not address and will be incorporated in the study.

Jun & Cai (2001) identified 17 service quality dimensions of Internet banking service quality. These are reliability, responsiveness, competence, courtesy, credibility, access, communication, understanding the customer, collaboration, continuous improvement, content, accuracy, ease of use, timeliness, aesthetics, security and divers features. They also suggested that some dimensions such as responsiveness s, reliability and access are critical for both traditional and internet banks.

In addition, the study undertaken by Million (2013) focused on Impact of E-banking on customers satisfaction in Ethiopian banking Industry. He came up with E-banking service as highly reduced the visits of bank hall, waiting time for service, and also enlighten customers who don't know what E-banking means and the banks except providing the card, they have to give the necessary awareness training on how to use ATM machine.

A study undertaken by Gezahegn (2015), on assessment of customer satisfaction with ATM banking on empirical evidence from selected commercial banks in Ethiopia mentioned that, customers will have 24 hours accessibility to their money and less time spent away from their work place, and also they expect accurate and efficient services.

Thus, it is imperative to assess how ATM location suitable to customers' specially placing ATM machine near branches instead of placing like business areas, hospitals, and business malls that create customer dissatisfaction as the customer can use the branch for money withdrawal in working hours. Steve (2002) observes that ATMs are placed not only inside or near the premises of the bank, but also in locations such as shopping malls, airports, grocery stores, gas stations, restaurants or any place where large number of people may gather. Besides this, other factors like privacy and security, frequent problems in connection with ATM usage that create dissatisfaction will also be considered.

## **1.4 Research Questions**

This study attempts to answer the following research questions;

1. How does ATM location near or around the branch affect customer satisfaction than other places?

2. How does the ATM service quality of Nib International Bank S.C. influence customer satisfaction?
3. How customers feel the security and privacy of Nib International Bank S.C. ATM service?
4. How do frequent problems encountered by customers influence customer satisfaction?

## **1.5 Objective of the Study**

### **1.5.1. General Objective**

The main objective of this study is to examine level of customer satisfaction towards ATM service of the technology in Nib International bank S.C.

### **1.5.2. Specific Objectives**

The Specific objectives of the study are;

1. To examine the level of customer satisfaction in locating ATM machine inside or near the branch
2. To identify problems/challenges hindering effective utilization of ATM services.
3. To examine problems associated with privacy and security issue in the delivery of ATM service.
4. To identify frequent problems encountered by customers that create dissatisfaction

## **1.6 Significance of the Study**

Every organization is concerned with the best possible strategy to adopt in improving performance so as to guarantee sustainable growth that can lead to the achievement of other goals. In light of the stated objectives which this study is set to achieve, the following are the significance of the study;

1. The knowledge that would be gained from this research work will assist management of the banks to know the problems associated with ATM service delivery and to enhance customer's level of satisfaction.

2. It will be useful for the bank as a means to conduct further research on the area and achieve technological advantage over their competitors.
3. The study will act as a reference material to other researcher for further research in the subject.

## **1.7. Scope and Limitation of the Study**

The focus of this study is to analyze customer satisfaction on ATM service in private commercial banks of Ethiopia. Specifically, the information in this research work is limited to the activities of Nib International bank S.C. and also it is limited to customers of Nib International Bank that are using the ATM service in Addis Ababa. Moreover, it does not include to customers who have the ATM card but not used since they have.

The researcher tried his best to accomplish the objective of the study successfully. But, time concern, data availability on the issue and absence of previous research on the area were the main constraints that hinder the successful accomplishment of the study.

## **1.8 Organization of the Study**

This paper consists of five chapters. Chapter one presents background of the study, statement of the problem, research questions, objective of the study, significance, scope and limitation of the study. Chapter two presents literature review. The methodology employed, target population and sampling, data collection method and procedures, validity, reliability and ethical issues are covered in chapter three. Data presentation, analysis and discussion on the findings were present in chapter four. Chapter five focuses on conclusions and recommendations of the study.

# **CHAPTER TWO**

## **REVIEW OF RELATED LITERATURE**

### **2. INTRODUCTION**

This chapter presents a review of the relevant literature on the research topic. The review starts with introducing concepts and then mainly focuses on related works done in different times. Accordingly, the literature review covered all relevant related journals and reference books, reports and internet.

### **2.1 Theoretical Review**

#### **2.1.1. The Role of ICT in Banking Operation**

ICT is the automation of processes, controls, and information production using computers, telecommunications, software's and other gadget that ensure smooth and efficient running of activities (Khalifa 2000). It is a term that largely covers the coupling of electronic technology for the information needs of a business at all levels. ICT has surpassed the role of support services or only electronic data processing; its fields of applications are slightly global and unlimited (Khalifa 2000). ICT devices include data recognition equipment, factory automation hardware and services, tele-computing and tele-conferences using real time and online system (Adeoti, 2005). The widely used ICT products in the banking industry include Automated Teller Machine, Smart Cards, Telephone Banking, Electronic Funds Transfer, Electronic Data Interchange, Electronic Home and Office Banking. (Berger, 2003), reveals banks that are using ICT related products such as online banking, electronic payments, security investments, information exchanges, financial organizations can deliver high quality customer services to customers with less effort.

ICT development has thus changed the product range, product development, service channels and type of banking services, as well as the packaging of such services (Jayamaha, 2008). The financial services industry has thus become virtually dependent on IT development that is why most banks make visible efforts to keep up with new systems and processes (Jayamaha, 2008).



ICT has in particular brought a complete paradigm shift on the bank's performance and on the customer service delivery in the banking industry (Alhaji and Bin 2012).

## **2.2 Electronic Banking**

Elisha (2010) disclosed that Financial services industry over time has opened to historic transformation that can be termed as e-developments which is advancing rapidly in all areas of financial intermediation and financial markets such as e-finance, e-money, electronic banking (e-banking), e-brokering, e-insurance, e-exchanges, and even e-supervision. The new ICT is turning into the most important factor in the future development of banking, influencing banks' marketing and business strategies. In recent years, the adoption of e-banking began to occur quite extensively as a channel of distribution for financial services due to rapid advances in IT and intensive competitive banking markets (Mahdi and Mehrdad, 2010; Dube, et. al., 2009). The driving forces behind the rapid transformation of banks are influential changes in the economic environment include among others innovations in information technology, innovations in financial products, liberalization and consolidation of financial markets, deregulation of financial inter-mediation.

### **2.2.1 Concept of E- Banking**

The definition of electronic banking (E-Banking) varies among researchers partially because electronic banking refers to several types of services through which a bank's customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1991; Mols; 1998; Sathye, 1999).

Salehi and Zhila, (2008), defined e-banking as an electronic connection between bank and customer in order to prepare, manage and control financial transactions. The Basel Committee Report (1998) comprehensively define e-banking as "The provision of retail and small value banking products and service through electronic channel, such products and services can include deposit taking, lending, account management, the provision of financial advice, electronic bill payments and service."

The e-banking is transforming the banking and financial industry in terms of the nature of core products /services and the way these are packaged, proposed, delivered and consumed. It is an invaluable and powerful tool driving development, supporting growth, promoting innovation and enhancing competitiveness (Gupta, 2008; Kamel, 2005). The evolution of banking technology has been driven by changes in distribution channels as evidenced by automated teller machine (ATM), Tele-banking, PC-banking (Chang, 2003; Gallup Consulting, 2008).

## **2.2.2 E- Banking Products**

### **1. Automated Teller Machine (ATM)**

ATM is a computerized telecommunication device that provides a financial institution's customers with a method of financial transactions in a public space without the need for a human clerk or bank teller (Rose, 1999).It allows customers to access banking services such as withdrawals, transfers, inquiries about account balances, requests for cheque books, account statements, direct deposits, foreign currency exchange etc. (Fenuga, 2010)

ATM described as a combination of a computer terminal, record-keeping system and cash vault in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the bank's computerized records 24 hours a day (Rose, 1999).

### **2. Credit Cards**

A credit card is a small plastic card issued to users as a system of payment. It allows its holder to buy goods and services based on the holder's promise to pay for these goods and services. The issuer of the card creates a revolving account and grants a line of credit to the consumer (or the user) from which the user can borrow money for payment to a merchant or as a cash advance to the user (Mavri & Ioannou, 2006).

### **3. Debit Cards**

A debit card (also known as a bank card or cheque card) is a plastic card that provides an alternative payment method to cash when making purchases. Functionally, it can be called an electronic cheque, as the funds are withdrawn directly from the bank account. In some cases, the cards are designed exclusively for use on the internet (Mavri & Ioannou, 2006).

### **4. Electronic Funds Transfer at Point of Sale (EFTPoS)**

An Electronic Funds Transfer at the Point of Sale is an on-line system that allows customers to transfer funds instantaneously from their bank accounts to merchant accounts when making purchases or at purchase points (Chorafas, 1988).

**5. Internet banking** - Internet banking refers to systems that enable bank customers to get access to their accounts and general information on bank products and services through the use of bank's website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations (Thulani et al, 2009).

## **2.3 Automated Teller machine (ATM)**

Traditionally, payments were made in cash but these days various electronic based payments system such as ATM cards and Electronic Fund Transfer (EFT) have made their presence. Automated teller machines (ATMs) were the first well-known machines to provide electronic access to customers (Rao, Rajasekhar and Ratnam, 2013). With advent of Automatic Teller Machines (ATM), banks are able to serve customers outside the banking hall. Due to technology advancement efficiency of banks have improved retail banking and quality of services. Technology not only benefits banks but also other stakeholders like employees and customers. Thus, delivery channels like ATM have been put up by banks and are becoming popular among customers.

### **2.3.1 Definition of ATM**

ATM is an innovative service delivery mode that offers diversified financial service like cash withdrawal, fund transfer, cash deposit, payment of utilities and credit card bills, cheque book request and other financial enquiries (Muhammad, 2010). ATM is a computerized communication device that provides services to the customer of a financial institution in a public place without the help of the human clerk or a bank teller. Automated teller machines (ATMs) were the first well-known machines to provide electronic access to customers (Rao, Rajasekhar and Ratnam, 2013).

Traditionally, payments were made in cash but these days various electronic based payments system such as ATM cards and Electronic Fund Transfer (EFT) have made their presence. With advent of Automatic Teller Machines (ATM), banks are able to serve customers outside the banking hall. Due to technology advancement efficiency of banks have improved retail banking and quality of services. Technology not only benefits banks but also other stakeholders like employees and customers. Thus, delivery channels like ATM have been put up by banks and are becoming popular among customers.

ATM service is connected to a computer terminal, record keeping system and cash vault in one unit that permits a customer to enter personal identification number(PIN) or by punching a special code number into the computer terminal that is linked to the bank's computerized records (Rose, 1999). An automatic teller machine allows a bank customer to conduct his/her banking transactions from almost every other ATM machine in the world. It replaces cheque, personal attendance of the customer, banking hour's restrictions and paper based verification. ATM, therefore, represents greater customers' satisfaction and cost savings device. Customers become their own teller when they use ATM (Rose, 1999).

### **2.3.2 The Nature of Automated Teller Machine**

An ATM is typically made up of two components - the hardware and the software. Hardware is the physical part of the machine which we can see and touch. They include: the Central Processing Unit (CPU), the Magnetic and/Chip Card Reader, PIN Pad, Secure Crypto Processor,

Display Unit, Record Printer, Vault, Dispenser ,etc. The software used is mainly Microsoft (MS) Windows XP Professional, MS Windows XP embedded, Linux. ATM uses suitable Application software such as CEN XFS (Ahimbisibwe, 2009).

The customer or a card holder is identified by inserting a plastic mark card with a chip that contains a unique card number and security information such as an expiry date (Ahimbisibwe, 2009). Customers are guaranteed with security of having Personal Identification Number (PIN) that makes them have access to their Account (Kateeba, 1999).

### **2.3.3 Benefits of ATM**

ATM increase profitability of banks, reduce cost of transaction and handle more transaction per unit of time than teller (Laderman, 1990). Odachi (2011) point out the benefits of ATM technology is bank decongestion, reduced cost of transactions for both customers and banks. This has drastically reduced banking time.

The ability of ATM card holder to make withdrawal at any point in time and anywhere close to him or her is one of the greatest benefits of ATM technology. This has reduced the distress of one running out of cash. Another opportunity provided by ATM to users is the flexibility to move around with minimal cash and thereby reduce incidence of theft. ATM technology when properly used leads to the building of cashless society. ATM card has assisted travelers in obtaining foreign exchange service. These potential benefits of ATM are multiplied when banks share their ATMs, allowing depositors of other banks to access their accounts through a bank's ATM (Mcandrews, 2003).

Vijesh,etal (2011) describes the benefits of providing valuable services through delivery channels like ATM. Beside this, ATM enables to deliver the services simpler, faster and securely, acquire new customers, retain existing customers, keep customers highly satisfied on the services provided, lower operational cost, lower transaction processing cost, wider customer base irrespective of geographical barrier, Higher profits on bottom-line. Nyakauma (1994) observes that ATMs have improved speed, accuracy, efficiency and has increased the capacity of the banks of handling large volumes of work.

Many banks are implementing electronic banking, because of the numerous potential benefits associated with it. Some of these major benefits are briefly described below.

**i. Choice and Convenience for Customers**

In modern business environments, customers want greater choice. They want the traditional range of banking services, augmented by the convenience of online capabilities and a stronger focus by banks on developing personal relationships with customers (Mavri & Ioannou, 2006).

Ease of use is important in using ATM card which related to customer apprehension about the efforts required to learn to use ATM card (David, 2010). It is considered as the factor influencing the adoption of ATM card, and related to an easy- to- remember pin codes and URL address, well- organized and usable software, easy of site navigability, concise and understandable contents, terms and conditions (Alagheband, 2006)

. .

**ii. Enhanced Image**

E-banking helps to enhance the image of the organization as a customer focused innovative organization (Foley, 2000). This was especially true in early days when only the most innovative organizations were implementing this channel

**iii. Increased Revenues**

Young (2007) point out that electronic bill payment and other related capabilities of e-banking have a real impact on retail banking practices and rapidly expanded revenue streams.

**iv. Load Reduction on Other Channels**

It's obvious that, E-Channels are largely automatic, and most of the routine activity such as account checking or bill payment may be carried out using these channels. This usually results in load reduction on other delivery channels, such as branches or call centers. Now a days, routine branch transactions such as cash/cheque deposit related activities are also being automated, further reducing the workload of branch staff, and enabling the time to be used for providing better quality customer services.

**v. Reduce transaction cost**

(Al-Sukhar, 2005) clarifies that, improving customer service, increasing market reach and reducing costs are now basic expectations of Internet banking services. If consumers are to use new technologies, the technologies must be reasonably priced relative to alternatives. Otherwise, the acceptance of the new technology may not be viable from the standpoint of the consumer (Al-Sukhar, 2005). Internet banking model offers advantages for both banks and customers. The Internet provides the banks with the ability to deliver products and services to customers at a cost that is lower than any existing mode of delivery.

**vi. Access to current and historical transaction data**

A customer can check balance by logging into banks website through a user name and password. In this way he can enquire balance, status of cheques, perform funds transfers, order drafts, request issue of cheque books etc (Gupta, 2008).

## **2.2.4 Challenges of ATM Banking**

In the study by RafiqulIslam,et.al(2011)it was found that the Customers were facing different types of problems with which ATM is directly related. Machine complexity, machine breakdown, poor quality notes, High frequency of use, safety and security are the major problems identified by the ATM users. On the other hand customers do not like ATMs because of impersonality, fear of technology and reluctance to change and adopt new mode of delivery of service.

The followings are some of the challenges of ATM banking presented in extant literature.

**i. IT and Telecommunication Infrastructure Issues**

At present, the availability of e-banking is substantially greater in developed countries than in developing economies. Many developing countries do not have the necessary telecommunications, banking, commercial, bureaucratic and legal infrastructures to support the widespread introduction of e-banking (Simpson, 2002). Access to the Internet is a major problem in the developing world and presents an obstacle to the growth of e-banking.

## **ii. Security**

Security related issues are major source of concern for everyone both inside and outside the banking industry. According to McDougall (2007), security problems can mainly be categorized as: hacking with criminal intent (e.g. fraud), hacking by ‘casual hackers’ (e.g. defacement of web sites or ‘denial of service’ - causing web sites to slow or crash), and flaws in systems providing opportunities for security breaches (e.g. a users is able to transact on other users’ accounts). These threats have potentially serious financial, legal and reputational risks associated with them.

## **iii. Systems Operational Risks**

Bank IT rests on computers and telecommunications which could be susceptible to system failure, internal manipulations and inconsistent regulatory policies (Etim, 2000).

In general, (Odachi, 2011) categorized ATM technology challenges into two: machine and human related challenges.

### **2.3.4.1 Machine Related Challenges**

Machine related challenges raised by (Odachi, 2011) are: Network Connectivity Problem, No Cash in the Vault, inability of the Machine to give Print out Receipt, Wrong Debiting, Card Trapping, and Irregular deduction from customer account.

### **2.3.4.2 Human Related Challenges**

#### **i. Robbery**

Robbery at ATMs takes various shapes. The couriers who are going to fill ATMs with cash are usually robbed, and the money in their possession taken away. Another ATM crime is the issue of a robber waiting outside ATM for a valid user to complete his transaction and be attacked and robbed.

#### **ii. Production of Counterfeit ATM**

Valid ATM customer’s card can be cloned and used to withdraw from the customer’s account. This is done by copying information from valid card into the counterfeit card.



The counterfeit card is now used to withdraw people's money. The fraudster uses a special machine to copy the magnetic strip.

iii. **Stealing of the Customers PIN by Sophisticated Means**

There have been also a number of incidents of fraud where criminals have used fake machines or attached fake keypads or card reader to existing machines. These, then have been used to record customers' PINs and bank account details in order to gain unauthorized access to their account. Other sophisticated devices, include spy cameras that make them to get customers bank details including the PIN. The criminals are improving on a malicious software program that can be installed on ATMs running Microsoft Windows XP operating system that records sensitive card details.

iv. **Infrastructure problem**

Lack of basic infrastructure such as power, Information and Communication Technology etc. are major challenges to ATM application.

### **2.3.2 ATM Service Quality**

Automated service quality is defined as the customer's overall evaluation of the excellence of the provision of services through electronic networks such as the Internet, Automated Teller Machine (ATM) and telephone banking (Santos 2003). Researches' in relation to ATM service quality realized that, the Automated Teller Machine (ATM) is one type of innovation that can mechanically accept deposits, issue withdrawals, transfer funds between accounts, and collect bills. It has altered the relationship between banks and their depositors, as well as the level of service quality of banking services (Davies et al., 1996; Mcandrews, 2003; Komal& Singh, 2009).

Extant literature regarding customer satisfaction in service industry reveals that service quality is a more specific judgment which can lead to a broad evaluation of customer satisfaction (Oliver, 1993; Parasuraman, et al, 1985; 1988). Likewise, Zeithaml et al (2000) and Parasuraman, et al, (2005) posited that e-service quality is important to assess customer satisfaction in the e-service setting. Use of ATM has become extremely popular among customers as convenient mode of

transactions. The technological innovation has transformed the banking business. Banks are aggressively adopting this mode. The advantages of using ATM have given new impetus in dimensions of service quality and banks are offering new choices to customers. Cabas (2001) noted that investment opportunities, reduction in costs, satisfaction of customers and competitiveness as motives to install and add new ATM to the existing network. Moutinho (1992) on his part established that ATM facility resulted in speed of transactions and saved time for customers.

Some literature indicates different dimensions of ATM service quality. Lovelock (2000) identified, adequate number of ATM, user-friendly system, and functionality of ATM. Davies et al., (1996) examined the factors that influence customers' satisfaction about ATM service quality; These factors include costs involved in the use of ATM, and efficient functioning of ATM. Joseph and Stone (2003) examined the United States customers' perception of ATM quality and found that user-friendly, convenient locations, secure positions, and the numbers of ATM provided by the banks are essential dimensions of ATM service quality. In a case study of Botswana, Mobarek (2007) established speed of operation, and waiting time as important predictors of ATM service quality.

Researchers have forwarded different points about the use and effectiveness of ATMs. Stemper (1990) stressed the positive dimension of ATMs based on freedom of transaction. Effective service delivery in ATM system guarantees quality excellence and superior performance and provide autonomy to the customers (Lovelock, 2000). Yavas et al., (2004) argued that customers' focused ATM delivery system that fulfills their needs and maximize operational performance are essential dimensions for bank to achieve and sustain competitive advantage.

Dilijonas et al., (2009) examined the essential aspects of ATM service quality in Baltic States. They identified essential resources (adequate number of ATMs, convenient and secure location and user-friendly system); important dimensions of operation of ATM (maximum speed, minimum errors, high uptime, cash backup); and value-based aspects (quality service at reasonable cost, and maximum offering to cover maximum needs of customers) as vital facet.

Based on the prior studies, Al-Hawari et al. (2006) compiled a list of five major items about ATM service quality: convenient and secured locations, functions of ATM, adequate number of machines and user-friendliness of the systems and procedures. An empirical study found that these items constitute important aspects of ATM service quality. Khan M. A. (2010) point out convenience, efficient operation, security and privacy, reliability and responsiveness are significant dimensions of ATM service quality and that ATM service quality positively and significantly contributes toward customer satisfaction.

## **2.4. Customer Satisfaction on Automatic Tellers Machine**

### **2.4.1 Customer Satisfaction**

According to Churchill and Surprenant (1982), customer satisfaction can be defined as a “disconfirmation paradigm” since it is a result of confirmation/disconfirmation of expectation that evaluates a product’s performance with its expectation and desire.

Customer satisfaction is therefore an attitude or a rating made by the customer by comparing their pre-purchase expectation to their subjective perceptions of actual performance (Oliver, 1980). “Satisfaction is a person’s feeling of pleasure or disappointment resulting from comparing a product’s performance (outcome) in relation to his or her expectation” (Kotler & Keller, 2006 p. 144).

Bank customer satisfaction is regarded as banks fully meeting the customers’ expectation (Bloemer, Ruyter, and Peeters, 1998) and also said to be a feeling or attitude formed by bank customers after service, which expressly connects the various purchasing behavior (Jamal and Naser, 2002). Customer’s satisfaction is affected by the importance placed by the customers on each of the attitudes of the product/ service. Customer satisfaction measurement allows an organization to understand the key drivers that create satisfaction or dissatisfaction; and what is really driving their satisfaction during a service experience.

Actual manifestation of the state of satisfaction will vary from person to person, product to product and service to service. The state of satisfaction depends on a number of factors which consolidate as psychological, economic and physical factors. The quality of service is one of the

major determinants of the customer satisfaction (Parasuraman, Zeithaml and Barry, 1985; 1998; Cronin and Taylor, 1994; Gronroos, 1984; Zeithaml, Parasuraman, and Malhotra, 2000; Scheffer and Reichheld, 2000; Gommans, Krishnanand Scheffold, 2001; Yoo and Donthu, 2001 and Loiacono, Watson and Goodhue, 2002). Many researchers and experts mentioned that, service quality can be enhanced by using advanced information and communication technology (ICT).

Adoption of ICT-based solution in bank has been common practice these days with an intention to enhance service quality. They are providing ICT based e-services to their customers which is called as e-banking, internet banking or online banking etc. It brings convenience, customer centricity, enhance service quality and cost effectiveness in the banking services and increasing customers' satisfaction in banking services. Even now, customers are also evaluating their banks in the light of e-service era. However, author felt that, there are may be some possibilities of gaps between customers' expectations and actual perception of service quality, brand perception and perceived value in ATM banking.

#### **2.4.2 ATM Service Quality and Customer Satisfaction**

It has been found that consumer's attitudes toward online banking are influenced by the prior experience of computer and new technology (Laforet and Li 2005). As far as online banking adoption is concerned, security, trust and privacy concerns have been outlined as extremely important ones from the consumer's standpoint (Benamati and Serva 2007).

Defining service quality is difficult as compared to product quality due to some features are unique to services including intangibility, inseparability, heterogeneity and non-perishability (Chang and Yeh, 2002). Service quality has been defined in different ways by researchers. Parasuraman et al. (1988) define service quality as a difference between customer expectation of service and customers' perceptions of the actual service. Kasper et al. (1999) defines service quality as the degree to which the service offered can satisfy the expectations of the user. According to these definitions, customers are the sole judges of service quality. Gronroos (1978) suggests that service quality is made of two components – technical quality and functional quality. Technical quality refers to what the service provider delivers during the service provision while functional quality is how the service employee provides the service.

Customer satisfaction and service quality are inter-related. The higher the service quality, the higher is the customer satisfaction. Many agree that in the banking sector, there are no recognized standard scales to measure the perceived quality of a bank service. Thus, competitive advantage through high quality service is an increasingly important weapon to survive. Service quality is particularly essential in the banking sector, of the fact that services context because it provides high level of customer satisfaction, and hence it becomes a key to competitive advantage (Ahmossawi, 2001). In addition, service quality has a significant impact on bank's success and performance (Mouawad and Kleiner 1996).

The most widely used models in measuring service quality in the banking sector are the SERVQUAL and SERVPERF models. According to the SERVQUAL model, service quality can be measured by identifying the gaps between customers' expectations of the service to be rendered and their perceptions of the actual performance of the service (Parasuraman et al., 1988).

SERVQUAL is based on five dimensions of service quality (Parasuraman et al., 1988):

1. **Tangibles:** the physical surroundings represented by objects (for example, interior design) and subjects (for example, the appearance of employees).
2. **Reliability:** the service provider's ability to provide accurate and dependable services.
3. **Responsiveness:** a firm's willingness to assist its customers by providing fast and efficient service performances.
4. **Assurance:** diverse features that provide confidence to customers.
5. **Empathy:** the service firm's readiness to provide each customer with personal.

There exists very strong relationship between quality of service and customer satisfaction (Parasuraman et al, 1985; 1988). Increase in service quality of the banks can satisfy and develop attitudinal loyalty which ultimately retains valued customers (Nadiri, et al 2009). To achieve a high level of customer satisfaction, most researchers suggest that a high level of service quality should be delivered by the service provider as service quality is normally considered an

antecedent of customer satisfaction. As service quality improves, the probability of customer satisfaction increases.

Horstmann (1998) states that, there exists a strong and positive relationship between customer satisfaction and loyalty. A satisfied customer is six times more likely to repurchase a product and share his experience with five or six other people (Grönroos, 2000; Zairi, 2000); further unsatisfied customer can banish more business from the organization than ten highly satisfied customers do (Mohsan, 2011). With higher customer satisfaction the level of loyalty increases. Generally we can conclude that there is significant relationship between customer satisfaction and loyalty.

Organizations aware that, service quality provides strategic competitiveness in dynamic business environment. Literature provides significant relationship between service quality and firms' performance based on improved productivity, increased market share, enhanced customers' attraction and loyalty, improved staff morale, and sustained profitability (Lassar et al., 2000). Research has found that service quality in banks is critical for satisfaction and retention of customers (Jabnoun& Al- Tamimi, 2003). Keeping in view the significance of service quality as a means of competitive advantage and organizational sustainability, the banks are pursuing multidimensional approaches to improvement in service quality to attract and retain customers (Newman, 2001).

According to Castleberry and Resurreccion (1989), the physical location of banks' delivery channels influence perception of customers about quality. Consistent delivery of services, physical dimensions and staff interaction with customers, trustworthy processes and procedures positively affect delivery of services quality (Sureshchandar et al., 2002). Pleasant customer interaction with staff, significantly affects customers' perception of quality (Yavas et al., 1997). In response to this requirement, banks have initiated flawless delivery processes to reduce delivery timings to improve service quality.

## **2.5 E-Banking Development in Ethiopia**

As of June 30, 2014 nineteen commercial banks were operational in Ethiopia; of these sixteen are private commercial banks while the rest three are state owned (NBE 2013/14). Despite a rapid increase in the number of financial institutions which resulted out of the financial liberalization, the e-banking in Ethiopian banking system can be considered as in its infant stage compared to the rest of the world. Cash is still the most dominant medium of exchange and Electronic banking is not well known. According to Worku (2010), modern e-banking methods like ATMs, Debit cards, Credit cards, Tele banking, Internet banking, Mobile banking and others are new to the Ethiopian banking sector and as a result, customers of banks in Ethiopia missed to enjoy IT based banking products.

Banking sector in Ethiopia faces numerous challenges to adopt advanced technologies as well as E-banking applications and seize the opportunities presented by ICT applications in general. Low level of internet penetration and poorly developed telecommunication infrastructure, Lack of suitable legal and regulatory framework for e-commerce and e-payment, High rates of illiteracy, Absence of financial networks that links different banks, Frequent power interruption, Fear of risk, resistance for new technology, security issues are some of the critical challenging factors for e-banking development in Ethiopia (Worku, 2010).

## **2.6. Empirical Review**

Some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia on e-banking and ATM technology. Specifically (Gardachew, 2010) conducted a research on the opportunities and challenges of e- banking in Ethiopia. The study was focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing e-banking system. The author conducted a survey on the existing operating style of banks and identifies some challenges of using e-banking system, such as, lack of suitable legal and regulatory frame works for e-commerce and e- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks.

Furthermore (Assefa, 2013) conducted a study on the impact of e-banking on customer satisfaction in two private banks in Gondar city. The researcher employed descriptive and inferential statistics in analyzing this study and it was limited to customers of two private banks only. The results of the study implied that majority of users of e-banking are the young, the educated, salaried and students, business men and women are not actively using the service of e-banking, e-banking currently provided for saving and current accounts holders only, e-banking reduced frequency of bank hall for banking service, reduced waiting time for customers, there are customers who don't know the fee charged for being e-banking users, the bank customers satisfaction increased after being e-banking users, enabled customers to control their account movements and there is high opportunity to expand e-banking service in the city.

The study of (AlaEddin & Hasan, 2011) on e-banking functionality and outcomes of customer satisfaction in Jordanian commercial banks, it aims to explore the adoption of e-banking functionality and investigates the impact of e-banking on the outcomes of customer satisfaction. A purposive sampling technique was employed to recruit 179 customers representing the desired range of demographic characteristics (e.g. gender, age, and computer use), previous internet experience levels and product-related knowledge. The research showed that adoption of e-banking (accessibility, convenience, security, privacy, content, design, speed, fees and charges) had a positive effect on Jordanian Commercial Bank customers' satisfaction.

The study of Kerem (2003) on the adoption of ATM banking: underlying consumer behavior and critical success factors conducted in Estonia, was intended to study the further understanding of, how consumers perceive ATM banking in the heyday of interactive channels in Estonia, as Estonia is internationally renowned for being a pioneer in the acceptance of new technologies. A series of in depth interviews was conducted with leading industry experts in Estonia. The selection criterion for the respondent was mainly their involvement with the development of Internet banking systems from the early days of its emergence. The survey conducted for this research addressed six different issues influencing the adoption of Internet banking (Better prices, Recommendations, Better service, Marketing efforts, Better access and higher privacy). The most important factors in starting to use ATM banking are first and foremost better access to



the services (convenience), better prices and higher privacy. Better service (i. e. preferring self-service over office service) was also of above average importance. Two factors that the respondents did not consider relevant to their adoption decision were banks' marketing activities and personal recommendations from friends and colleagues. Also the survey conducted six main obstacles (computers are difficult, no access to internet, internet banking is expensive, low security, have had no chance to try and I prefer personal contact) in adopting Internet banking (results of a preliminary study, 100 respondents), the most important factors discouraging the use of ATM banking are lack of Internet access and not having a chance to try out ATM banking in a safe environment. The research indicates that, banking activities alone may not be sufficient in achieving growth if general infrastructure, economic environment and government initiatives are not supportive.

Jannatul (2009) in his study of ATM banking & customer satisfaction which focus on understanding the impact of variables of ATM banking, on customer satisfaction in Bangladesh, five service quality dimensions namely reliability, responsiveness, assurance, empathy, and tangibles are established based on the SERVQUAL model and the literature review. These variables are tested in ATM banking to explore the relationship between service quality and the customer satisfaction. Data were gathered through survey interview by a structured questionnaire with 250 customers. The study shows that these factors are the core service quality dimensions for customer satisfaction in ATM banking. It also explores that reliability, responsiveness, and assurance have more contribution to satisfy the customers of ATM banking in Bangladesh.

In general, most of ATM banking related studies are not far from our cases in some points but, none of them mentioned about the effect on customer satisfaction in placement of ATM machine near or around the branch than in places like business malls, hospitals and other places outside the branch.

## **2.7 Summary of the Literature Review**

The ICT development has a significant effect on development of more flexible and user friendly banking services. ICT products in use in the banking industry include Automated Teller Machine, Smart Cards, Telephone Banking, Electronic Funds Transfer, Electronic Data

Interchange, Electronic Home and Office Banking are made transactions more: accurate, fast, secure and profitable as compared to the manual approach which was being used previously.

Following the application of ICT, electronic banking emerged as a new banking alternative and transforms the banking industry in terms of the nature of core products/service. ATM, debit card, credit card, Point of Sales (POS) and internet banking are some of the major e- banking products. Business efficiency, lower transactional cost, convenience, speed, anytime and anywhere banking are some of the benefits of e- banking. Apart from the benefits security problem, fraud, system operational risk and infrastructure problems are among the challenging factors of e- banking developments.

Automated Teller Machines (ATMs) were the first well-known machines to provide electronic access to customers. Automated Teller Machine (ATM) is a computerized machine that provides the customers of Banks the facility of accessing their accounts for dispensing cash and to carry out other financial transactions without the need of actually visiting a Bank Branch. Some of the benefit of ATM includes: save time and effort, increase accuracy and speed of transaction, withdraw money anytime and anywhere etc. network problems, wrong debiting, card trapping, robbery are the major challenging factors in using ATM service.

Customer satisfactions define as the company ability to fulfill the business, emotional and psychological needs of its customers. Service quality is the difference between customer expectation of service and customer's perception of actual service. Thus, quality of service is one of the major determinants of the customer satisfaction. Automated service quality is defined as the customer's overall evaluation of the excellence of the provision of services through electronic networks such as the internet, Automated Teller Machine (ATM), and telephone banking. On the other hand Reliability, Responsiveness, Assurance/trust and Security/privacy access, flexibility and ease of navigation, efficiency, price knowledge, site aesthetics and Customization /personalization are other factors which affect customer satisfaction on ATM service.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3. INTRODUCTION**

This chapter describes research design and methods that the researcher uses to conduct this research. The content in this chapter covers the research design, study population, sample size and selection method, data collection and analysis, data presentations and the limitations of the study.

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

Sekaran (2003) indicated that after identifying the variables in developing the conceptual framework, the subsequent step is to design the research in a way that the data can be collected and analyzed. The study adopted a case study of research design by using qualitative and quantitative techniques to obtain the desired result for the study and to explore detailed evidence about the problem. The collected data organized, tabulated and described to show the state of happenings.

##### **3.2. Study Population**

In order to achieve the research objectives, customers of Nib International Bank S.C that are using ATM banking service were considered as population of the study. Based on the second quarter report, as of December 31, 2015 total numbers of Nib ATM card holders are 48.180 .The reports includes both ATM card holders leaving in Addis Ababa as well as outside Addis Ababa. Specifically, the population for the study was selected from Addis Ababa city, as majority of card holders are located in Addis Ababa.

##### **3.3 Sampling**

The researcher considered 200 respondents as sample size by obtaining data from the bank on customers that have a visit to ATM terminals at least twice a week. Due to this, the research adopted purposive sampling technique. Their frequent visit and using to Nib International Bank S.C. ATM terminals helps the researcher in obtaining accurate and relevant data for the research.

## **3.4 Data Collection**

### **3.4.1 Sources of Data**

Sources of data included both primary and secondary data that assist the researcher to make a thorough analysis of the problem at hand. Primary data collected through five points Likert scale method by use of structured questionnaires that are distributed to respondents through branches on purposive sampling basis.

Secondary data collected from sources such as text books, journals, published articles, bank's periodic reports, publications and internet search engines.

## **3.5. Data collection Instruments**

### **3.5.1 Questionnaire**

The main research instrument in this study was questionnaire. The items are subsequently edited and vigilantly selected bearing in mind the research objective. The questionnaire began with an introductory statement, which specified the purpose of the research as purely academic and goes to questions related to the topic under study. Respondents were encouraged to be objective in their responses since they assured the confidentiality.

Questionnaires were close-ended questions which require specific answers. The questionnaire used for the study was divided broadly into two sections. These are the demographic section and research related question section. Under the demographic section variables such as age of the respondent, gender, education, marital status and occupation of the respondent are included. The second section includes various research related question. The researcher used a five point Likert Scale, where respondents were asked to indicate the extent to which they agree/disagree with various statements.

## **3.6. Data Analysis and Presentation**

The data gathered from the field through the questionnaires was recorded and coded into Statistical Package for Social Science (SPSS) software version 20. Descriptive statistics by percentages, figures and tables were generated from the software to present most of the variables considered in the study. The association is mainly aimed at identifying those variables (or category of variables) that may significantly affect the customer level of satisfaction on ATM

service. The relevant information presented in a standard form using tables, frequencies and percentages to analyze and interpret the information.

### **3.7. Anticipated Ethical Issues**

The study will be conducted using some ethical considerations. Each respondent to the study will be first informed about the objective of the study and the questionnaires to be administered. The confidentiality of responses was clearly informed as the usage and information obtained from all respondents used for academic purposes and kept properly and confidentially.

In addition, at the time of data collection, the researcher gave respect to the participants and asked permission about their voluntariness for response. For the analysis of the collected data, the researcher ethically considered to be frank and not to include any fictitious data for analysis purpose.

# CHAPTER FOUR

## DATA PRESENTATION, ANALYSIS AND DISCUSSION

### 4. INTRODUCTION

This chapter presents findings on ATM services and customer satisfaction, a case study of Nib International Bank S.C. It covers the background information about the respondents, overall ATM service, Customer satisfaction and the relationship between ATM service and customer satisfaction.

#### 4.1 Demographic characteristics of Respondents

Out of a total distributed questionnaire of 200, 190 questionnaires are properly filled and returned. Accordingly, 190 respondents were included for the final analysis of the study making the overall response rate 95 %. During the data collection, it was difficult to collect all the questionnaires on time, due to the fact that some of the customers are not willing to fill the questionnaire.

##### 4.1.1 Respondents Gender

**Table 1 : Gender of Respondents**

	Frequency	Valid Percent	Cumulative percent
Male	118	62.1	62.1
Female	72	37.8	100.0
Total	190	100.0	

SOURCE: Primary data

Out of the 190 respondents, 62.1% respondents are male while 37.8% are female. As it is shown majority of the respondents are male.

#### 4.1.2 Age of Respondent

**Table 2 : Age of Respondents**

	Frequency	Valid Percent	Cumulative percentage
18-25	41	21.6	21.6
26-35	87	45.8	67.4
36-50	57	30.0	97.4
>50	4	2.1	99.5
Total	189	99.5	
“Missing”	1		
Total	190		

SOURCE: Primary data

As shown in table 2, 45.8% respondents fall in the age group on 26-35 while 21.6% are in the age group of 18-25, 30% fall between 36- 50 and the rest 2.6% fall in the age group of > 50. Majority of the respondents belong to the age group 26 to 35 years. This show that younger generation is more inclined to use ATMs as compared to the older generation.

#### 4.1.3 Educational background of Respondents

**Table 3 : Responses of Respondents on their Educational Background**

	Frequency	Valid Percent	Cumulative percentage
Below grade 10	2	1.0	1.0
Grade 10 completion	10	5.3	6.3
Certificate	4	2.1	8.4
Diploma	65	34.2	42.6
Degree	102	53.7	96.3
Master	7	3.7	100
Total	190	100.0	

SOURCE: Primary data

As shown in table 3, 53.7% of the respondents are degree holder, 34.2% are diploma holder, 3.7% are master degree holder and the remaining 4 are certificate holder, grade 10 completed and below grade 10. This shows us that majority of the respondents are educated and they can easily know how to use ATM machine.

#### 4.1.4 Occupational status of Respondents

**Table 4 : Responses of respondents on their occupational status**

	Frequency	Valid Percent	Cumulative percentage
Student	11	5.8	5.8
Self employed	27	14.2	20.0
Government job	9	4.7	24.7
Private job	143	75.3	100.0
Total	190	100.0	

SOURCE: Primary data

Concerning their occupation, 75.3% of the respondents are private job holder, 14.2% are self employed, 5.8% are students and the remaining 4.7% are government job holder. Thus, private employees are high in ATM usage compared to other work group. This implies that most of the private companies pay salaries through banks by using salary card.



#### 4.1.5 The types of Accounts used by Respondents

**Table 5 : view on the types of account used by respondents**

	Frequency	Valid Percent	Cumulative percentage
Saving account	151	79.5	79.5
Current account	26	13.7	93.2
Both	13	6.8	100.0
Total	190	100.0	

SOURCE: Primary data

As shown in table 6, 79.5% of the respondent are saving account holders, 13.7% are current account holder and the remaining 6.8% are both saving and current account holder. Based on the above data saving account holders prefer to use ATM service than current account holders. This clarifies that most of current account holders prefer to use cheque for their transactions, but during non working hours they can use ATM card for their own consumption.

#### 4.1.6 Year of Association with the bank

**Table 6: Respondents view on Years of Association with Nib Bank**

	Frequency	Valid Percent	Cumulative percentage
Valid 1-3	69	36.3	36.3
4-6	71	37.4	73.7
7-10	33	17.4	91.1
>10	17	8.9	100.0
Total	190	100.0	

SOURCE: Primary data

About 37.4% of the respondents have 4-6 years of association with the bank, 36.3% has 1-3 years of association, 17.4% has 7-10 years of association while the remaining 8.9% of the respondents has more than 10 years association with the bank. This shows us that more than 70% of the respondents have less than 6 years of association with the bank. This may be related to the fact that ATMs service introduction is of recent phenomena and also banks are able to inform and easily communicate the service when customers are opening new accounts than to previously opened ones.

**Table 7**

**Problem encountered in using ATM**

Sr. No.	Statement under analysis	mean	SDV	Strongly Agree		Agree		Neutral		Disagree		Strongly disagree		Total cumulative	
				F	%	F	%	F	%	F	%	F	%	F	%
1	Poor visibility of statement	2.61	1.126	16	8.4	31	16.3	24	12.7	72	37.9	47	24.7	190	100
2	There are time where the ATM machine run out of cash	3.72	1.120	42	22.1	103	54.2	16	8.4	18	9.5	11	5.8	190	100
3	Print out paper is not regularly replaced before running out	4.17	1.263	39	20.5	109	57.4	19	10	13	6.8	9	4.7	189	99.4
4	Due to frequent net work problem I couldn't get ATM service	3.5	1.265	73	38.4	66	34.6	34	17.9	11	5.8	3	1.6	187	98.3
5	Frequent interruption of ATM service because of Electric power	3.62	1.250	54	28.4	76	40.0	41	21.6	15	7.9	4	2.1	190	100
6	Account debited but cash not dispensed to ATM service user	3.29	1.220	81	42.6	57	30.0	29	15.3	12	6.3	5	2.6	184	96.8

SOURCE: Primary data

Table 7: Under Serial no1.8.4% of the respondents strongly agree,16.3% of the respondents agree,12.7% of the respondents neutral, 37.9% of the respondents disagree and 24.7% of respondents disagree on poor visibility of statements given by ATM machine with mean score value 2.61.under this idea customers are getting a clear and visible statement from the ATM machine.

Table 7: Under Serial no.2. 22.1% of the respondents strongly agree, 54.2% of the respondents agree, 8.4% of the respondents are neutral to the situation, 9.5% of the respondents disagree and 5.8% of the respondents strongly disagree on ATM machine run out of cash. Most of the respondents respond that there are times where the ATM machine may not have the necessary cash when customers need withdrawal. This may lead customers not to trust on ATM service so that customers may be forced to use other banks ATM service.

Table 7: under serial no.3. 20.5% of the respondents strongly agree, 57.4% of the respondents agree, 10% of the respondents are neutral, 6.8% of the respondents strongly disagree ,4.7% of the respondents strongly disagree and 0.6% not respond to the question on the replacement of printout paper before running out of paper with a mean score value 4.17. Majority of the respondents agree that it is not regularly replaced and makes customers not to get their statement when they need.

Table 7: Under serial no.4. 38.4% of the respondents strongly agree, 34.6%of the respondents agree, 17.9% of the respondents are neutral, 5.8% of the respondents disagree, 1.6% of the respondents strongly disagree and 1.7% did not respond to frequent network problem they couldn't get ATM service with mean score value 3.5. Most of the customers face the problem of network as they may need the money for urgent cases or at night or in weekend where banks closed. Therefore, the bank must seek a better solution by communicating with the sole provider” Ethio Telecom.”

Table 7: Under serial no.5. 28.4% of the respondents strongly agree, 40% of the respondents agree, 21.6% of the respondents neutral, 7.9% disagree and 2.1% strongly disagree on frequent interruption of ATM service because of electric power with mean score value 3.62.Here majority of the respondents face the problem when they are withdrawing money through ATM terminals. Therefore the bank must place a power backup or generator for the smooth service delivery.

Table 7: Under serial no.6. 42.6% of the respondents strongly agree, 30% of the respondents agree, 15.3% of the respondents are neutral to the statement, 6.3% of the respondents disagree , 2.6% of the respondents strongly disagree and 3.2% do not respond in connection with the customer account debited but the ATM machine is not dispensing the cash with mean score value 3.29. 81% of the respondents; which is the majority of the respondents faced the problem that needs an immediate solution. The bank must assign a section or department that can solve such problem as early as, if avoidance is not possible.

**Table 8**

## ATM privacy &amp; Security

Sr. No.	Statement under analysis	mean	SDV	Strongly Agree		Agree		Neutral		Disagree		Strongly disagree		Total cumulative	
				F	%	F	%	F	%	F	%	F	%	F	%
1	I trust the security of the ATM's as it is placed in convenient & secured place	3.14	1.331	15	7.9	79	41.6	30	15.8	32	16.8	34	17.9	190	100
2	I feel safe in inserting my pin number and when I took money	3.46	1.434	61	32.1	83	43.6	25	13.2	19	10.0	2	1.1	190	100
3	By using ATM's my banking information will not fall into wrong hands	4.26	1.314	112	58.9	48	25.3	13	6.8	15	7.9	2	1.1	190	100

Table 8: under serial no.1 7.9% of the respondents strongly agree, 41.6% of the respondents agree, 15.8% of the respondents neutral, 16.8% of the respondents disagree, and 17.9% of the respondents disagree in connection with trust and security in which the bank ATM's are placed with a mean score value 3.14. here, even if 41.6% of the respondents have confidence that the bank's ATM machine are placed in convenient and secured area, around 34% of respondents didn't feel comfortable and secure in using the bank ATM terminals. As most of the respondents feel secured on security of the ATM, 34% of them don't feel comfortable. Therefore the bank must increase the security features even if most of the respondents feel secure.

Table 8: under serial no.2. 32.1% of the respondents strongly agree, 43.6% of the respondents agree, 13.2% of the respondents are neutral, 10% of the respondents disagree and 1.1% of the respondents view is strongly disagree to feel safe in inserting my pin number and when I took money with a mean score value 3.46. here also the majority of the customers are feel safe in inserting and when they withdraw money through ATM.

Table 8: under serial no.3. 58.9% of the respondents strongly agree, 25.3% of the respondents agree, 6.8% of the respondents neutral, 7.9% of the respondents disagree and 1.1% of the respondents strongly disagree with regard to banking information will not fall into wrong hands with a mean score value 4.26. Based on the above table, more than 84% of the respondents confirm the reliability of ATM banking transaction.

**Table 9**

**Factors affecting customer satisfaction on ATM service**

Sr. No.	Statement under analysis	mean	SDV	Strongly Agree		Agree		Neutral		Disagree		Strongly disagree		Total cumulative	
				F	%	F	%	F	%	F	%	F	%	F	%
1	My bank ATM card delivery system is fast	2.73	1.237	5	2.7	37	19.5	20	10.5	77	40.5	51	26.8	190	100
2	When I receive ATM card, I informed the location of ATM terminals	2.6	1.143	1	0.5	9	4.8	34	17.9	81	42.6	65	34.2	190	100
3	It is not useful to locate ATM Machine adjacent to branches where anyone can get service in normal working time	3.67	1.222	58	30.5	46	24.3	39	20.5	36	18.9	11	5.8	190	100
4	I found quality notes of birr when I withdraw money through ATM	2.14	1.143	8	4.2	34	17.9	52	27.4	59	31.1	36	18.9	189	99.5
5	ATM withdrawal error settled quickly in my bank	2.41	1.226	14	7.4	21	11.1	36	18.9	67	35.3	48	25.3	186	98
6	I found always my bank ATM in working condition	2.58	1.198	13	6.8	18	9.5	39	20.5	68	35.8	52	27.4	190	100
7	There is a power back-up generator for power interruption	2.96	1.433	33	17.4	24	12.6	18	9.5	72	37.9	40	21.1	187	98.5
8	My ATM card enable me to perform banking activities anywhere and anytime	3.55	1.212	96	45.3	51	26.8	36	18.9	8	4.3	9	4.7	190	100
9	The ATM has a user friendly screen to handle transaction	3.34	1.189	49	25.8	68	35.8	61	32.1	7	3.7	1	0.5	186	97.9
10	Transacting with ATM card saves time	3.91	1.538	71	37.4	88	46.3	15	7.9	13	6.8	3	1.6	190	100
11	My bank gives the guideline on how to use ATM	2.14	1.143	16	8.4	29	15.3	40	21.1	58	30.5	47	24.7	190	100
12	I recommend my ATM service to others to use it	2.43	1.303	24	12.6	43	22.6	27	14.2	65	34.2	31	16.4	190	100



Table 9: under serial no.1. 2.7% of the respondent strongly agree, 19.5% of the respondent agree, 10.5% of the respondent neutral, 40.5% of the respondent disagree and 26.8% of the respondent strongly disagree on quick delivery system of my bank ATM card with 2.73 mean score value. The figures on the table shows that, more than 67% of the respondents agree that, the card delivery system is too slow. The bank must design a mechanism with the vendor in order to shorten the printing time of ATM cards as customers dissatisfy on long time waiting of the delivery.

Table 9: under serial no. 2 0.5% of the respondents strongly agree, 4.8% of the respondents agree, 17.9% of the respondents neutral, 42.6% of the respondents disagree and 34.2% of the respondents strongly disagree that, the bank informed them about ATM terminals with a mean value of 2.6. But, the analysis show that, more than 76% of the respondents argue as they didn't get any material that show the ATM terminals. The bank must prepare a material that shows ATM locations so that customers can choose their nearest place and also they will avoid waste of time in searching terminals.

Table 9: under serial no.3. 30.5% of the respondents strongly agree, 24.3% of the respondents agree, 20.5% of the respondents are neutral, 18.9% of the respondents disagree and 5.8% of the respondents strongly disagree on not useful to locate ATM machine adjacent to branches where anyone can get the service in normal working hours with a mean score value 3.67. majority of the respondents agree not to place the ATM machine adjacent to the branches. Most of the time people use ATM service for urgent and necessary withdrawal; therefore it will be wise to place ATM machine around Business areas, Hospitals, and around malls than near branches, as the customers can use it during working hours.

Table 9: under serial no. 4 4.2% of the respondents strongly agree, 17.9% of the respondents agree, 27.4% of the respondents neutral, 31.1% of the respondents disagree, 18.9% of the respondents strongly disagree and 0.5% did not respond to founding of quality notes of birr when withdrawn through ATM with a mean score value 2.14. As 31.1% of the respondents agree that, they found poor quality of notes when cash dispensed, there are also 27.4% under neutral which means the notes are neither poor nor good in quality. The above data shows majority of the respondents not obtaining quality of notes when withdrawing money. The bank should take at

most care when inserting notes to ATM machine to maintain good image in the eyes of customers. Besides this the machine may give more or less to customers if the money is not a good type.

Table 9: under serial no.5 7.4% of the respondents strongly agree, 11.1% of the respondents agree, 18.9% of the respondents neutral, 35.3% of the respondents disagree, 25.3% of the respondents strongly disagree and 2% did not respond to ATM withdrawal error settled quickly in my bank with a mean score value 2.41 This shows that, when ever an error occurred it will take time to solve the problem. The bank should assign a section that handle only errors committed by ATM machine and get solution as quick as possible.

Table 9: under serial no.6 6.8% of the respondents strongly agree, 9.5% of the respondents agree, 20.5% of the respondents neutral, 35.8% of the respondents disagree and 27.4% of the respondents strongly disagree that they found the ATM in working condition always with mean value 2.58. Majority of the customers didn't found the ATM service in working condition. The bank must have a stand by technician to fix when the ATM machine so that the service not discontinued.

Table 9: under serial no.7. 17.4% of the respondents strongly agree, 12.6% of the respondents agree, 9.5% of the respondents neutral, 37.9% of the respondents disagree, 21.1% of the respondents strongly disagree and 1.5% of the respondents did not respond on availability of back-up or generator for power interruption with mean score value 2.96. This implies that majority of the respondents fear for power interruption and may lose their trust towards ATM service.

Table 9: under serial no.8. 45.3% of the respondents strongly agree, 26.8% of the respondents agree, 18.9% of the respondents neutral, 4.3% of the respondents disagree, 4.7% of the respondents strongly disagree that through ATM card able to perform banking activities anywhere and anytime with mean score value 3.55. most of the respondents strongly agree as it reduce burden of carrying the liquid cash that can be stolen or lost easily.

Table 9: under serial no. 9. 25.8% of the respondents strongly agree, 35.8% of the respondents agree, 32.1% of the respondents neutral, 3.7% of the respondents disagree, 0.5% of the respondent strongly disagree, 2.1% of the respondent didn't make any choice that the ATM has a user friendly

screen to handle transaction with mean score value 3.34. And most of the respondents agree that the ATM has a user friendly screen.

Table 9: under serial no.10. 37.4% of the respondents strongly agree, 46.3% of the respondents agree, 7.9% of the respondents neutral, 6.8% of the respondents disagree, 1.6% of the respondents strongly disagree that transacting with ATM card saves time with mean score value 3.91 indicating that using ATM card for banking transaction saves time and reduce risk of carrying money.

Table 9: under serial no.11 8.4% of the respondents strongly agree, 15.3% of the respondents agree, 21.1% of the respondents neutral, 30.5% of the respondents disagree, 24.7% of the respondents strongly disagree that the bank give the guideline on how to use ATM with a mean score value 2.14. Based on the table, majority of them don't get guideline on how to use ATM service. The bank must prepare and deliver guidelines on how to use ATM machine, this will help the customer to easily use the service and also the bank will reduce its maintenance and replacement cost of the machine.

Table 9: under serial no. 12. 12.6% of the respondents strongly agree, 22.6% of the respondents agree, 14.2% of the respondents neutral, 34.2% of the respondents disagree, 16.4% of the respondents strongly disagree on that they recommend the ATM service to others to use it. Majority of the respondents agree not to recommend the service to others. This shows that due to malfunction of ATM machines, unavailability of network, location problems and other problems they don't want to recommend the service to others. Therefore the bank must struggle to avoid such problems so that, customers weight the benefits than problems.

## **CHAPTER FIVE**

### **Summary of findings, conclusion and Recommendation**

This chapter presents findings, conclusions and recommendations based on the analysis made:

#### **5.1 Summary of Findings**

Under this topic, I summarized findings based on their factors analyzed

Under problems encountered in using ATM

- There is a high rate of pros visibility of statements that customer get from ATM
- It is found that there are many incidents that the ATM machines of Nib Bank runs out of cash
- It is also found that frequent network problem affects customers
- It is found that Electric Power interruption affect the service delivery
- There is also high challenge when customer account debited but cash is not dispensed.

Under ATM Privacy and Security

- Customers trust the location and security of ATM's as they are placed in convenient place.
- It is found that customers feel safe in inserting their PIN number and withdrawing money
- Moreover, customers are comfortable in using ATM service as the information does not fall in wrong hand.

Under Factors affecting customer satisfaction

- The bank card delivery system is slow
- It is found that locating ATM machine near the branch is not useful as someone can get the service from the branch in working hours.
- It also found that quality of note are not placed in ATM machine.
- Errors are not settled quickly
- It is found that guidelines on how to use ATM machines are not given by the bank
- Most of the users of ATM cards do not recommend the ATM service to others.

## 5.2 Conclusion

Based on the analysis of data to findings the following conclusions are drawn:

- Most of the attributes perceived that it is not preferred to locate ATM machine inside or adjacent to the branch when anyone can get the service in normal working time.
- As problem or challenges hindering the ATM service are associated with slow card delivery system, lack of information on where ATM terminals are found for new customers, not getting a working ATM machine, frequent network failure even if most of the attribute show good trust and secure on the location where ATM machines are placed there is unsafe feelings of customers in insuring pin code and receiving money from ATM machine which creates inconvenience in using the service beside this customers feel comfortable that their banking information will not fall in the wrong hands when using ATM service.
- Unavailability of guideline given on how to use ATM, lack of power back-up/generator during power interruptions, decreasing from customer account but unable to dispense the requested amount, unable to give guidelines other problems create dissatisfaction on customers.

Hence, Nib International bank to create competitive advantage and achieve more customer satisfaction needs to improve problems associated with ATM banking service.

## 5.3 Recommendations

The following recommendations are presented based on the findings of the research:

- ATM machines are better serve customer if it is placed around hospitals, Business malls, Hotels and areas where many people gather than near to branches. In working hours customer can get the service from the branch but if, person needs money in business malls or hospital it will travel to get ATM terminals especially in weekend or night time as there is no any banking service other than ATM.
- Availability of network facility, is a paramount to banking sector products like ATM Nib International bank must negotiate with Ethio telecom in order to get a better network service, besides this, the slow card delivery system must be improved by getting a better card supplier and shortening the process of filling forms, and compiling and sending to central office through them obtaining the card printing company.

- Preparing various printing materials, or brochures to locate ATM terminal will ease for customers to reach the service; even if it is more beneficial to new customers, it will help the existing customers to choose the nearest location.
- The bank should install its ATM machine thinking of protection of customer getting the service from the waiting ones to feel safe in inserting their pin code as well as in withdrawing money.
- Most of the ATM machine located inside or near the branch get generator support at the time of power interruption, but those that are located in other places may lack the power back-up and create disturbance to the user. Therefore, the bank must arrange the availability of power back-up before installing its ATM machine.

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**APPENDEX**  
**St. MARY’S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**  
**MASTER OF BUSINESS ADMINISTRATION IN GENERAL**  
**MANAGEMENT**

**TOPIC- ASSESSMENT OF ATM SERVICE ON CUSTOMER SATISFACTION IN PRIVATE COMMERCIAL BANKS IN ETHIOPIA: THE CASE OF NIB INTERNATIONAL BANK S.C.**

Dear Respondents:

The main Objective of this Questionnaire is to gather data and weigh the opinion of customers of Nib International Bank S.C. that are using ATM services in order to assess the level of satisfaction. Data and opinion will be strictly used for writing a research thesis which shall be submitted in partial fulfillment of Masters Degree in Business Administration in General Management.

Thus your honest, immediate and thoughtful response will be appreciated, and certainly make the research work fruitful.

**Note:**

- Please do not write your name.
- After filling all the questions, please hand it to the researcher.

If you have any question to ask please don't hesitate to contact me at any time through the following address. Tel-.**0911 61 10 80**

## Part one: Demographic Factors

### Part One I. Background Information

Please put a tick mark in the proper box listed below

1.1 Sex      Male                      Female   

1.2 Age      18-25        26-35        36-50        > 50   

#### 1.3 Educational background:

Below grade 10                      Degree                 

Grade 10 Completion                      Masters                 

Certificate                                    PhD or above                 

Diploma                 

### Part II. General ATM Related Question

#### 2.1 Type of account used

Saving Account                      Current/cheque Account   

#### 2.2 Years of association with the bank

1-3                      4-6                      7-10                      > 10   

#### 2.3 Problem, if any, encountered while using ATM service:

*5- Strongly agree 4- Agree 3- Neutral 2- Disagree 1- Strongly disagree*

No	Statement	Degree of response				
		5	4	3	2	1
1	Poor visibility of statement					
2	There are time where the ATM machine run out of cash					
3	Print out paper is not regularly replaced before running out					
4	Due to frequent net work problem I couldn't get ATM service					
5	Frequent interruption of ATM service because of Electric power					
6	Account debited but cash not dispensed to ATM service user					

#### 2.4 ATMs privacy and security

*5- Strongly agree 4- Agree 3- Neutral 2- Disagree 1- Strongly disagree*

No	Statement	Degree of response				
		5	4	3	2	1
1	I trust the security of the ATM's as it is placed in convenient & secure place					
2	I feel safe in insuring my pin member and when I took money					
3	By using ATM's my banking information will not fall into wrong hands					

#### 2.5 Level of Customer Satisfaction with respect to Various Aspects

*5- Strongly agree 4- Agree 3- Neutral 2- Disagree 1- Strongly disagree*

No	Statement	Degree of response				
		5	4	3	2	1
1	My bank ATM card delivery system is fast					
2	When I receive ATM card, I informed the location of ATM terminals					
3	It is not useful to locate ATM Machine adjacent to branches where anyone can get service in normal working time					
4	I found quality notes of birr when I withdraw money through ATM					
5	ATM withdrawal error settled quickly in my bank					
6	I found always my bank ATM in working condition					
7	There is a power back-up generator for power interruption					
8	My ATM card enable me to perform banking activities anywhere and anytime					
9	The ATM has uses friendly screen to handle transaction					
10	Transacting with ATM card sales time					
11	My bank give the guideline on how to use ATM					
12	I recommend my ATM service to other to use it					

❖ *Thank you for your patience to complete this questionnaire!!*