# ST.MARY'S UNIVERSITY COLLEGE SCHOOL OF GRADUATE STUDIES



# THE EFFECT OF AUTOMATIC TELLER MACHINE BANKING SERVICE QUALITY ON CUSTOMER SATISFACTION AT SELECTED ABYSSINIA BANK BRANCHES IN ADDIS ABABA

### **BY: - ELISABET KENDIE**

A research project submitted in partial fulfillment of the requirement for Masters of Business Administration

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| Approved by the Board of Examiners: |  |  |  |      |
|-------------------------------------|--|--|--|------|
| Advisor                             |  |  |  | <br> |
| Signature                           |  |  |  | <br> |
| Examiner<br>Signature               |  |  |  | <br> |
| Examiner                            |  |  |  | <br> |
| Signature                           |  |  |  | <br> |

#### DECLARATION

I am submitting this paper in Partial fulfillment of the requirements for the award of the Masters of Business Administration and I hereby do declare that this is my own work and that all works of other persons have been dully acknowledged.

| Elisabet Kendie: | D | Date: |
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#### LIST OF ACRONYMS AND ABBREVIATIONS

| ATM(s) –  | Automated Teller Machine(s)            |
|-----------|--|
| BOA-      | Bank of Abyssinia                      |
| CBE-      | Commercial Bank of Ethiopia            |
| SQ-       | Service Quality                        |
| SPSS -    | Statistical Package for Social Science |
| SERVQUAL- | Service Quality                        |

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#### ABSTRACT

This research paper focuses on studying the effect of ATM banking service quality on customer satisfaction at selected Abyssinia bank branches in Addis Ababa Ethiopia. The main objective of this study is to examine the effect of ATM service quality on customer satisfaction. A sample of 381 customers was selected using Convenience sampling technique, and among those 290 was considered. Explanatory research design and quantitative and qualitative research methods used to analyze the data collected from customers. For the purpose of the study, primary data were collected using likert scale based questionnaire. In addition, the data was analyzed using descriptive statistics and inferential statistics. The result of this study shows that, there was significant relationship between all service quality dimension with customer satisfaction and SQ attributes with customer satisfaction in bank of Abyssinia. At the same time, all service quality dimensions and attributes significantly correlate to customer satisfaction and have significant influences on customer satisfaction. Among the dimensions, tangibles found to be the highest contributor for customer satisfaction. In conclusion, ATM banking service of the bank satisfies customers and has a positive and significant effect on customer satisfaction. Recommendations includes, improving the quality of human resources, increasing the number of ATM machines, working on the assurance and empathy dimensions are the major ones.

Key words: ATM (automatic teller machine), service quality, customer satisfaction, SERVQUAL.

# CHAPTER ONE INTRODUCTION

#### 1.1 Background of the Study

In today's intensive competitive economy, providing excellent customer service plays a vital role in a company success and failure. How the customers are deriving more and more benefits through the introduction of new innovative technology adopted by banking industry enhancing the good service quality level in order to meet their expectations. (Sabita, 2013) in line with technology advancement ,the advantages of using automatic teller machine (ATM ) have given new impetus in dimensions of service quality and Banks are offering new choices to customers.

The idea behind the ATM was to automate the Bank tellers' job, which subsequently removed the face-to-face interaction between the customer and the Bank teller by allowing the customer to use plastic cards with magnetic strips to access their Bank accounts using an ATM machine [that may be available either on premise or off premise of the Bank]. By entering their personal identification number (PIN), up on request by the ATM machine; which verifies the identity of the customer. Upon verification, the customer is then able to gain access into the main computer at the Bank via the communication link for the transaction to be completed. (Gezahegn Bacha, 2015)

ATM's were first introduced in Ethiopia in 2001, the Commercial Bank of Ethiopia being the pioneers in this kind of service to the Banking sector (Getachew, 2010). This has been done to enable customers to have a 24- hour access to their money and hence, improve customer satisfaction. Cash machines are relatively new to Ethiopia, but their number is growing quickly recently, while other Banks as well eager to apply so as to create ease of access for their customers.

Though the technology has a number of benefits, there has been observed many challenges associated with the introduction of ATMs, Ideally, ATMs supposed to help Banks to be competitive, improved customer service and cut down costs, since ATMs facilitate speed of transactions, improved accessibility and saved time for customers, ultimately helping Banks to achieve a higher customer satisfaction (Charles, 2014).

Keeping the above points in mind, this study focus on one of the privately owned Banks in Ethiopia, called Bank of Abyssinia, Which was established on February 15, 1996 (90 years after the first but non-operational private Bank, which was established during Emperor Menelik II). Though the new Bank of Abyssinia (BOA), which shares nothing with the former one but its name, was established. BOA started its operation with its subscribed capital of 25 million, with an authorized capital of Birr 50 million, whereas its paid-up capital was just birr 18 million, and started its operation with only 131 shareholders and 32 staffs (Official website of the BOA, 2016).

Currently the Bank's total capital amounts to Birr 1.8 billion of which Birr 1.12 billion paid up capital (Annual report, 2014/2015). Moreover, BOA currently has 2,976 regular employees (HR department) and 181 branches (retail Banking department, as of may 26, 2016). BOA started ATM Banking in June 2014 and currently has 80 ATM machines in selected branches, of which 55 of it is located in Addis Ababa and generally has 53,552 cardholders, of which 32,885 of the card holders are from Addis Ababa (E-Banking department, as of May 26,2016).

Therefore, the purpose of this study is to examine the effect of ATM Banking and service quality on customer satisfaction in Abyssinia Bank selected branches in Addis Ababa, Ethiopia. Many different researches conducted related to ATM service quality and its effect on customer satisfaction in case of some African countries and mostly in western perspectives, but upon the researcher knowledge there are no similar studies done related to ATM service quality and its effect on customer satisfaction at Abyssinia Bank of Ethiopia.

#### **1.2 Statement of the Problem**

The influence of technology over Banking sector is enormous; the trend in Banking has evolved from cash economy to cheque economy, which further been converted to plastic card economy. ATMs play an important role in Banking business. It is one of the most popular delivery channels as it permits customers to do anywhere, anytime Banking, in which generally that allows both the Banks and customers get benefit from ATMs in several ways.

ATM service continues to grow in importance in the Banking sector. From the customer's perspective ATM services has significantly reduced the amount of queues in Banks, time spent, and cost of searching for a particular Bank to make transaction and increased convenience. The satisfaction of customers is of great importance to any organization and that is why many of commercial Banks in Ethiopia now make use of ATM service as a means of satisfying their customer through convenience and availability of services. (Adeleye, Samson, 2015) Prior to the introduction of ATMs, there was a need for face-to-face interaction between the customer and the Bank teller in issues of fund withdrawals; account inquiries and funds transfer between accounts as a result the Bank's costs at that time included wages for tellers and back office personnel and the cost of maintaining premises.

Now a day's, almost all Banks in Ethiopia has its own network of ATMs and that ATMs have become the second most used channels for accessing Banking services behind branch Banking. However, long queues become common in banking holes. As the researcher is the current employee of Bank of Abyssinia, looking at the many queues that characterize the premises of the Bank branches at sometimes and the customers outcry of ATM services, it may inferred that the service quality of the ATM has a problem.

Despite the huge investment and Bank's effort to improve access for its customers by increasing the number of ATMs, there are also a number of instances where customers would prefer to use Bank premises to get service even when ATMs are operational. On the other hand ,while customers are about to use, the researcher observed that sometimes the ATMs being out of cash or network issues arises hindering customers to get a proper service resulting a general outcries from Bank customers that the quality of ATM Banking service has not been up to their expectations. Furthermore, based on the 2014/2015 Bank of Abyssinia retail department's report, collected and compiled from suggestion boxes of all branches, most customers of the Bank; i.e. 55% were complaining about the general operations of the ATMs. plus most of the customers explained in their comments that they faced problems related with the ATM's being out of service, their ATM card swallowed by the machines and other related ATM Banking service issues. (retail department, as of may 2016)

Based on the above-mentioned problems related with ATM service and the impact on the customers' expectations, the researcher feels that it is important and worth to study the effect of ATM service quality on Customer satisfaction of BOA. Accordingly, by comparing the levels of contributions of the service quality, BOA can be able to decide on the part of attention and effort to be assigned to each factor, based on their importance. In addition, the study is maintaining relevance to contribute to the overall body of the literature in the area of service quality.

#### **1.3 Basic Research Questions**

- I. Are ATM service offering of the Bank of Abyssinia meet the level of service quality that customer expect?
- II. What is the relationship between perceived ATMs service quality attributes and customer satisfaction among ATM Banking customers of Abyssinia Bank?
- III. What is the relationship between perceived ATMs service quality dimensions and customer satisfaction among ATM Banking customers under study?

IV. To what extent does the ATM service quality provided by the Bank in par with the customer's expectation/perception?

#### 1.4 Objectives of the Study

The general objective is to study the effect of ATM service quality on Customer satisfaction of Bank of Abyssinia; in line with this, the following are the specific objectives of the study.

- i. To study the level of satisfaction of customers in ATM Banking services of Abyssinia Bank.
- ii. To study the factors that affect customers' satisfaction of ATM users of Abyssinia Bank in Addis Ababa through the perceived service quality dimensions and attributes.
- iii. To identify the ATM Banking service offering of the Bank of Abyssinia are as per the level of service quality expected by customers.

#### **1.5 Significance of the study**

It has been suggested that in order to keep customers loyal, firms should constantly improve overall relationship quality. However, little is understood about the key antecedents of relationship quality and the actual contributions of each of these antecedents from a relationship-marketing viewpoint in relation to ATM services provided by Banks in Ethiopia. Therefore, by comparing the levels of contributions of the relationship quality dimension's the Bank of Abyssinia can improve the service quality of the ATM machines so that customers benefit from the service quality and reduce time spent at the Bank so that their satisfaction and confidence increase. Furthermore, the study also have a practical significance for the Bank's decision makers since when people use ATM it is very evident that they will also undergo some set of problems. Therefore, to understand easily the problems and customer's attitude towards the ATM service quality of the Bank in Addis Ababa to recommend the solutions to problems. In a similar manner, the growing use of ATM has made it all the more necessary to study the perception, behavior and the purpose for which people use ATM at the same time shedding some light for further similar studies in the future.

#### **1.6 Scope of the Study**

**Conceptually**: - this study only focuses on the cause and effect relationship between service quality dimensions (tangibility, responsiveness, reliability, empathy, and assurance) and customer satisfaction. In addition, service quality attributes with customer satisfaction.

**Geographically**:- The study will be conducted in Bank of Abyssinia branches, which is found in Addis Ababa, the capital city Ethiopia, and may not be generalized in other similar service providers or Banks.

**Methodologically**: - this research is an explanatory research. Additionally, the main source of this data could be questionnaire, and secondary data. The questionnaire distributed and collected to customers who queue in the selected branches of BOA.

#### **1.7 Limitation of the study**

Due to time and financial constraints, the research focused only on Addis Ababa; only on ten selected branches with reasonable number of cardholder fairly represent the cardholder population in the Bank. Another thing is that this research concentrated only on the more common service quality as identified by past studies (reliability, assurance, responsiveness, empathy and tangibles). By using a more comprehensive list and covering all the branches of the Bank a richer outcome may emerge therefore, extended studies are required before general conclusions can be drawn.

#### **1.8 Definition of terms**

Below here presented are the definition of concepts/terms or variables from the theoretical perspective.

**Automated teller machines (ATMs)** were the first well-known machines to provide electronic access to customers. With advent of Automatic Teller Machines (ATM), Banks are able to serve customers outside the Banking hall. (Sultan, 2009).

**Service quality** defined as the difference between customers' expectations of service and perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Jain and Saakshi, 2009).

**Customer satisfaction** is a person's feelings of pleasure or disappointment resulting from comparing products perceived performance (or outcome) in relation to his or her expectations. (kotler, 2003).

**SERVIQUAL** the most often used approach for measuring service quality, has been to compare customer's expectation before a service encounter and their perceptions of the actual service delivered. The SERVIQUAL instrument has been the predominant method used to measure consumer's perceptions of service quality. It has five generic dimensions or factors within which they include 25 service quality attributes validated by empirical researchers. (Charles, 2014); the dimensions of service quality include reliability, assurance, responsiveness, empathy and tangibles (JAIN, 2009).

#### **1.9 Organization of the Study**

The thesis is organized into five chapters. The first chapter is an introduction, which consist background of the study, statement of the problem, objectives, significance of the study, definition of terms, scope and limitation of the study. The second chapter addresses review of the related literatures, which consists theoretical reviews, empirical review and conceptual frameworks. The third chapter consists of the research methodologies applied in the study. Chapter four focuses on the result and discussion of the study. Finally, chapter five focuses is on summery of findings, conclusions and recommendations of the study.

#### **CHAPTER TWO**

#### **REVIEW OF RELATED LITERATURE**

This chapter contains both the theoretical and empirical review of the study. The theoretical framework includes Banking in Ethiopia, definition and evolution of ATMs, growth of ATMs, definitions of service quality, definitions of customer satisfactions and the relationship between service quality and customer satisfaction. In addition, it also includes empirical review of the study from different researchers in different countries.

#### 2.1 Theoretical Literature

#### 2.1.1 Banking in Ethiopia

The history of Banking in Ethiopia goes back in fact to the reign of the Emperor Menelek II. The Emperor, as a second step after the institution of a national monetary system, wanted to establish a Bank in the country, at that time called Abyssinia (Arnaldo, 2003).

It was in 1905 that the first Bank, the "Bank of Abyssinia", established based on the agreement signed between the Ethiopian Government and the National Bank of Egypt, which was owned by the British. Its capital was one million shillings. According to the agreement, the Bank was allowed to engage in commercial Banking (selling shares, accepting deposits and effecting payments in cheques) and to issue currency notes. The agreement prevented the establishment of any other Bank in Ethiopia, thus giving monopoly right to the Bank of Abyssinia. (Arnaldo, 2003).

The Bank, which started its operation a year after its establishment, agreement was signed, opened branches in Harar, Dire Dawa, Gore and Dembi- Dolo as well as an agency office in Gambela and a transit office in Djibouti. Apart from serving

foreigners residing in Ethiopia, and holding government accounts, it could not attract deposits from Ethiopian nationals who were not familiar with Banking services.

The Ethiopian Government, under Emperor Haile Sellassie, closed the Bank of Abyssinia, paid compensation to its shareholders and established the Bank of Ethiopia, which was fully owned by Ethiopians, with a capital of pound Sterling 750,000. The Bank started operation in 1932. The majority shareholders of the Bank of Ethiopia were the Emperor and the political elites of the time. The Bank was authorized to combine the functions of central Banking (issuing currency notes and coins) and commercial Banking. The Bank of Ethiopia opened branches in Dire Dawa, Gore, Dessie, Debre Tabor and Harrar. With the Italian occupation (1936-1941), the operation of the Bank of Ethiopia came to a halt, but a number of Italian financial institutions were working in the country. These were Banco Di Roma, Banco Di Napoli and Banca Nazionale del Lavora. It should also be mentioned that Barclays Bank had opened a branch and operated in Ethiopia during 1942-43.

With the departure of the Italians and the restoration of Emperor Haile Selassie's government, the State Bank of Ethiopia established in 1943 with a capital of one million Maria Theresa Dollars by a charter published as General Notice No. 18/1993 (E.C). The Bank, which, like its predecessor, combined the functions of central Banking with those of commercial Banking, opened 21 branches, including one in Khartoum (the Sudan) and a transit office in Djibouti. Then later in 1963, the State Bank of Ethiopia split into the National Bank of Ethiopia and the Commercial Banking from those of commercial Banking. The new Banks started operation in 1964. (Arnaldo, 2003).

The first privately owned company in Banking business was the Addis Ababa Bank S.C., established in 1964. Ethiopian shareholders, 9% by foreigners living in Ethiopia and 40% by the National and Grind lays Bank of London owned 51% of the shares of the Bank. The Bank carried our typical commercial Banking business. Banco Di Roma and Banco Di Napoli also continued to operate. Thus, until the end of 1974,

there were state owned, foreign owned and Ethiopian owned Banks in Ethiopia. The Banks were established for different purposes: central Banking, commercial Banking, development Banking and investment Banking. Such diversification of functions, lack of widespread Banking habit among the wider population, the uneven and thinly spread branch network, and the asymmetrical capacity of Banks, made the issue of completion among Banks almost irrelevant.

On January 1, 1975, all private Banks and 13 insurance companies were nationalized and along with state owned Banks, placed under the coordination, supervision and control of the National Bank of Ethiopia. The three private Banks, Banco Di Roman, Banco Di Napoli and the Addis Ababa Bank S.C. were merged to form "Addis Bank." Eventually in 1980 this Bank was itself merged with the Commercial Bank of Ethiopia S.C. to form the "Commercial Bank of Ethiopia," thereby creating a monopoly of commercial Banking services in Ethiopia. (Arnaldo, 2003).

#### 2.1.2 What is ATM?

In the service sector, technology been used to standardize services by reducing the employee/ customer interface (Quinn, 1996). The automated teller machine (ATM) is one of the technological advances that brought about change in the way Banks provide a service to their customers. This kind of technology has a bearing on service quality (SQ) and customer satisfaction level. ATM is innovative electronic delivery channel, which offers different financial services like Cash withdrawal, payments of utility bills, and credit cards, transfer of funds etc (Ameer, Usman, Muhammad, Nimra, 2013).

As defined by Sultan Singh in his study, ATM means neither "avoids traveling with money" nor "any time money," but certainly implies both. Slim ATM cards are fast replacing confounding withdrawal forms as a convenient way of getting your money from Banks. In a way, they are rewriting the rules of financial transaction. A smart person no longer needs to carry a wallet- full of paper money on his purse. All he needs to do is fish out an ATM (automated teller machine) card, insert it in the slot, punch in a few details and go home with hard cash.

ATMs have made hard cash just seconds away all throughout the day at every corner of the globe. ATMs allow you to do a number of Banking functions – such as withdrawing cash from one's account, making balance inquiries and transferring money from one account to another – using a plastic, magnetic-stripe card and personal identification number issued by the financial institution (Sultan, 2009).

**ATM** is a an automated tellers machine, a product of technological development developed to enhance quick service delivery as well as diversified financial services such as cash deposits, withdrawals, funds transfer, transactions such as payment for utilities credit card bills, cheque book requests and other financial enquiries. All financial institutions are using this method/system, aggressively encouraging all their customers to take advantage of these services on the grounds of ease process but an unannounced financial generation to the Bank (Odusina, 2014).

ATMs network contributed significantly in performing most of the customers' financial services in a reliable way (Giannakoudi, 1999). According to Mcandrews in 2003, ATMs can offer significant advantages to both Banks and customers. The machines can enable depositors to withdraw and deposit cash at times that are more convenient and places than during Banking hours at branches. At the same time, by automating services that previously completed manually and ATMs can reduce the costs of servicing some customer demands.

For a person to use ATMs, they should be cheap, ease of use, secret and safety. However, safety related to privacy and security. In respect to the ATMs service costs, there are some varieties in the applicable fees. Some Banks charge their customer some fees against the usage of their ATMs. On the other hand, some Banks introduce the ATMs services free to their customers (Gezahegn, 2015).

#### **Evolution of ATM**

The automated teller machine, or ATM, is such a complicated piece of technology that it does not have a single inventor. Instead, the ATMs we use today are an amalgam of several different inventions. Some of these proto-ATMs dispensed cash but did not accept deposits, for example, while others accepted deposits but did not dispense cash. Today's ATMs are sophisticated computers that can do almost anything a human Bank teller can, and have ushered in a new era of self-service in Banking. Many experts believe that the first automated Banking machine was the creation of an American inventor and businessman named Luther George Simjian and was installed in 1939 in New York by the City Bank of New York though it was removed after six months due to lack of customer acceptance (Kumar, L., Malathy, D., & Ganesh, L.S. ,2011).

It is noticed that in last two decade there has been a tremendous growth in ATM sector. Those days are gone when ATM was only used for withdrawing cash now the functions of ATM have increased tremendously. In this era, ATM's are equipped with touch sensitive and user-friendly options to serve the consumers without any delays and to increase customer delightment in order to retain the customer in this competitive scenario. The following table will demonstrate that how with passage of time the functions and features of ATM services has changed (Malik and Bansal 2015).

#### Table 2.1 evolution of ATM

| Time Period                              | Features/Functionalities            |
|--|-------------------------------------|
| 1988 to 1994 (the initially periods)     | Depositing cash                     |
|  | • Withdrawing of cash               |
| 1995 to 1999 (early developed)           | Small statements                    |
|  | Balances enquiries                  |
| 2000 to 2001 (firstly extensions) Coupon | Coupon dispense                     |
| dispense                                 |                                     |
| 2002 to 2004 (extending functions)       | • Fulfilling Request from Customers |
|  | (e.g. Check Book)                   |
|  | Account Transfers                   |
|  | Touch Screen Menus/Facilities       |
| 2004 to 2006 (non-Bank service)          | • Booking tickets of railway and    |
|  | airways                             |
|  | • Bill Payments                     |
|  | Mobile Recharges                    |
| Future (2007 onwards)                    | Check Deposit with Scanning         |
|  | Customized ATMs                     |
|  | • Ubiquitous Multifunction          |
|  | • ATMs Biometric ATMs               |

#### **Challenges of ATM**

Previous literature introduced a series of challenges and difficulties that prevent the proper use of ATMs. Study showed that some intermediate users have some difficulties in using ATMs including for example, inserting the card in the wrong way, lacking experience and inconvenience. On the other hand, the frequent users indicated that ATMs not providing enough feedback and they are not responding quickly enough. Fawzi(2012)

Also Cabas, (2001) in his study tried to discuss the challenges before the introduction of ATM, he explained that Congestion Customers were compelled to get to the Banks

within the stipulated operating times and resulted in them leaving work to beat the Bank closing time and this more often resulted in congestion. This used to impact negatively on the quality of service delivery. However, the introduction of ATMs facilitated speed of transactions, improved accessibility and saved time for customers.

Costs Before the introduction of ATM Banks needs to have a number of tellers in the Bank hall, which increases operation cost of the Bank. The Bank also had to have a number of branches in different locations, which resulted in costs of maintaining buildings as well as payment of rent for those that did not own the buildings they were using. The introduction of ATMs helped the Banks to be competitive, improved customer service and cut down costs (Cabas, 2001).

Odachi, (2011), the fact that ATM technology has the potentials for transforming countries into card-based economy as opposed to cash-based economy is not in doubt. This notwithstanding, ATM technology is faced with many challenges. These challenges as discussed by Odachi, are categorized into two – machine and human related challenges. Those Machine Related Challenges includes Network Connectivity Problem, Quality of Notes, and No Cash in the Vault Syndrome, inability of the Machine to Print out Receipt, Wrong Debiting and Card Trapping. The human related challenges include Illiteracy/Lack of Skill, Basic ATM Infrastructure, and Robbery etc.

#### **Benefits of Using ATMs**

Tague (2010) observed that a plastic Automatic Teller Machine card linked to your Bank account makes financial transactions a breeze by eliminating the waste of writing cheques or the dangers of carrying large sums of cash. The debit cards benefit both the cardholders and the Banks. Some of the benefits of ATM technology are Bank decongestion, reduced cost of transactions for both customers and Banks. This has drastically reduced Banking time. The ability of ATM cardholder 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 agony of one running out of cash.

Another nice 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 will make the building of cashless society possible. ATM card has assisted travelers in obtaining cheaper exchange rate. Foreign ATM machines offer users access to the wholesale exchange rate, which is often less expensive than paying service fees when exchanging cash or travelers cheques in foreign Bank or currency exchange office (Odachi, 2011).

As ATMIA(2010), ATMs have benefitted Banks, cardholders, retailers and governments, as well as society and the economy in general for four decades. They are an extremely popular and trusted global technology, which is at the forefront of modern retail-based economies. Besides, cash is still and ATMs are the main distribution channel for humanity's favorite form of payment (cash). We will see some benefits of ATMs for the Bank as well as the cardholder.

ATMs benefit for the Bank

- ✤ ATMs reduce queues in Banking halls.
- ATMs save Banks costs of hiring tellers by automating many "teller" transactions.
- ATMs create extended service hours provided by Banks beyond traditional Banking hours.
- ATMs have become the customer's most popular and most used interaction with the Bank and an important Customer Relations Management (CRM) and customer retention tool each off-premise & branded ATM becomes an advertising and marketing tool by putting the Bank's signage in front of thousands of additional potential Banking customers in traditionally non-Bank locations.

- Branded off-premise ATMs extend the Bank's visibility to current customers, providing visible reassurance of their Banks reach beyond the branch.
- ATMs enable Banks to re-design branches into more sophisticated customer services and sales outlets.
- ATMs have enabled some Banks and non-Bank financial institutions to develop successful "branchless" business models
- \* ATMs reject unfit Banknotes, helping maintain Banknote standards

#### **Benefit to Card Holders**

- ATMs allow citizens to draw cash outside of Banking hours, enabling retail cash purchases around the clock.
- ATMs save cardholders transport costs and time by bringing self-service Banking into convenient, non-branch locations near to where they live, work and shop in a variety of locations such as shopping malls, supermarkets, convenience stores, railway stations, hotels, airports, petrol/gas stations, post offices, university campuses, restaurants and bars, etc, creating time-saving convenience for modern citizens.
- ATMs provide cardholders travelling outside their country with a reassuringly familiar, uniform and comprehensible interface for obtaining cash.
- ATMs allow for easy payment of utility bills and other functions like topping up airtime on cell/mobile phones.
- ATMs can help cardholders monitor their Bank accounts outside of Bank hours through balance enquiries.
- ATM debit cards use debit rather than credit teaching financial self-discipline as opposed to credit card payments that can, and do, get citizens into debt. ATMIA(2010)

#### Growth of ATM in Ethiopia

Certainly the Banking industry in Ethiopia is underdeveloped and therefore there is an all immediate need to embark on capacity building arrangements and modernize the Banking system by employing the state of the art technology being used anywhere in the world. With a growing number of import-export businesses, and increased international trades and international relations, the current Banking system is short of providing efficient and dependable services. Therefore, all Banks operating in Ethiopia should recognize the need for introducing electronic Banking system to satisfy their customers and meet the requirements of rapidly expanding domestic and international trades, and increasing international Banking services (Gardachew, 2010).

Undeniably, the largest state-owned Bank, Commercial Bank of Ethiopia, introduced ATM service for local users in 2001 with its fleet of eight ATMs located in Addis Ababa. Moreover, CBE has had Visa membership since November 14, 2005. However, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite, being the pioneer in introducing ATM based payment system and acquired Visa membership, CBE lagged behind Dashen Bank, which worked aggressively to maintain its lead in electronic payment systems. This would make Dashen Bank the first Bank in Ethiopia to acquire e-commerce and mobile merchant transactions. Although, Dashen's new technology is one step ahead in that it allows transfer of funds from one's account to others, the younger United Bank was the first to introduce telephone and Internet Banking systems - including text messages (SMS). By the end of 2008 in the same year Wegagen Bank has signed an agreement with Technology Associates (TA), a Kenyan based IT firm, for the development of the solutions for the payment system and installation of a network of ATMs on December 30, 2008 (Gardachew, 2010).

The Bank of Abyssinia started ATM Banking in June 2014 and currently has 80 ATM machines in selected branches, of which 55 of it is located in Addis Ababa and generally has 53,552 cardholders, of which 32,885 of the card holders are from Addis Ababa (E-Banking department, as of May 26,2016).

#### 2.1.3 Service quality and customers satisfaction

Service quality and customer satisfaction are very important concepts that Banks must understand in order to remain competitive in the business and hence grow.

#### Service quality

Quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs. This is clearly a customer-centered definition. We can say the seller has delivered quality whenever its product or service meets or exceeds the customers' expectations (Kotler, 2012).

Service quality is the discrepancy between consumers' perceptions of services offered by a particular firm and their expectations about firms offering such services. If what perceived is below expectation, consumer judges quality as low and if what perceived meets or exceeds expectation then consumer sees quality to be high. Critical component of service quality identified are; consumer's expectation which is seen as what they feel service provider should offer and this is influenced by his/her personal needs, past experience, word-of-mouth and service provider's communications, (Parasuraman et al., 1985).

Service quality mainly focused on meeting the customer's needs also how good the service offered meets the customer's expectation of it. It is however difficult according to previous studies to measure service quality because of its intangible nature and also because it deals with expectations and perceptions of consumers which is difficult as well to determine due to the complexity of human behavior (Chingang andLukon, 2010).

According to Chingang and Lukon, the intangible elements of a service (inseparability, heterogeneity and perish ability) are the critical determinants influencing service quality perceived by a consumer. This means that a service must well defined by the provider in terms of its characteristics in order to understand how consumers perceive service quality. A service could mean an industry, a performance, an output, an offering or a process and it defined differently in various service industries. The differences in service industries are based on the characteristics of service that include; intangibility, heterogeneity, perish ability and inseparability (Chingang and Lukon, 2010).

Service quality, as defined by Jain and Saakshi, generally viewed as the output of the service delivery system. Service quality has been defined keeping in view at least four perspectives; excellence, value, conformance to specifications, meeting and/or exceeding expectations (Jain and Saakshi, 2009).

High quality satisfying service requires that a firm understand the consumer needs in detail as also the operational constraints. Service quality can be a way of achieving success among competing services. (R.Srinivasan,2012) culiberg's(2010) defined service quality as perceived quality which means a customer's judgment about the service .Unlike goods quality, which can be measured objectively by such indicators as durability and number of defects, service quality is an abstract and elusive construct and inseparability of production and consumption. Most services cannot be counted, measured inventoried, tested and verified in advance of sale to assure quality.

Service quality refers to an attitude formed by a long term overall evaluation of a firm's performance. Customer satisfaction and service quality are closely related. It can be said that satisfaction assists consumers in formulating a revised opinion about their service quality perception (R.Srinivasan, 2012).

Gronroos (1984) "identified service quality as the evaluation process outcome, in which customers are involved and where a certain experience is always compared to the perceived service received." "Service quality is not objectively measured according to some technical standards but is subjectively felt by customers and measured relative to customer-determined standards" (Kwortnik, 2005).

#### **Customer satisfaction**

Kotler (2006) defined customer satisfaction by giving details on the attributes of a highly satisfied customer. According to him, a highly satisfied customer stays loyal, longer, and buys more as the company introduces new products and upgrades existing products; talks favorably about the company and its products, pays less attention to competing brands and is less sensitive to price, offers service or product ideas to the company and costs less to serve him than new customers because transactions are routine. Customer assessments of product performance depend on many factors, especially the type of loyalty relationship the customer has with the brand. Consumers often form more favorable perceptions of a product with a brand they already feel positive about (Kotler, 2012).

Customer satisfaction can be measured indirectly through sales changes, profits and number of customer complaints registered. The direct measure of satisfaction is through service. Generally, a five-point likert scale used to measure customer satisfaction.(R.Srinivasan, 2012)Customer satisfaction is conceptualized, as been transaction-specific meaning it is based on the customer's experience on a particular service encounter, and some think customer satisfaction is cumulative based on the overall evaluation of service experience. These highlight the fact that customer satisfaction is based on experience with service provider and the outcome of service (Chingang and Lukong, 2010).

Giese & Cote, (2000, p.15) clearly state that, there is no generic definition of customer satisfaction and after carrying a study on various definitions on satisfaction they came up with the following definition, "customer satisfaction is identified by a response (cognitive or affective) that pertains to a particular focus (i.e. a purchase experience and/or the associated product) and occurs at a certain time (i.e. post-purchase, post- consumption)".

It has been identified that human needs, quality of services and products, the userfriendly nature of product and services, and comfort assurance are some of the important determinants of customer satisfaction. Even though different customers will require different levels and combinations of these variables, they generally are important factors that affect customer satisfaction. (Chingang and Lukong, 2010)

According to kumbahar (2010), the customer satisfaction measured via service quality and service quality measured by various measurement tools and instruments developed by various researchers and marketing consultancy organizations. 'There are various dimensions of service quality has been used different researchers to assess service quality and customers' satisfaction. E.g. SERVQUAL, SERVPERF, SITQUAL, WEBQUAL, BANKSERV etc

As mentioned by valarie, parasuraman, and leonard, the keys to delivering high quality service is to balance customers' expectations and perceptions and close the gaps between the two. The SERVQUAL methodology can help determine where and how serious the gaps are. Within the SERVQUAL model, service quality defined as the gap between customer perceptions of what happened during the service transaction and his expectations of how the service transaction have been performed. (valarie, et al.1990)satisfaction is an attitude or evaluation that is formed by the customer by comparing what they expect to receive to their subjective perceptions of the performance they actually get (Oliver, 1980).

Parasuraman et al., (1985), developed a model of service quality after carrying out a study on four service settings: retail Banking, credit card services, repair and maintenance of electrical appliances, and long-distance telephone services. The SERVQUAL model represents service quality as the discrepancy between a customer's expectations of service offering and the customer's perceptions of the service received (Parasuraman et al., 1985).

The SERVQUAL model was made of ten dimensions of service quality when created; tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding the customer, and access, but later on these dimensions were reduced to five because some dimensions were overlapping (communication, credibility, security, competence, courtesy, understanding customers and access) and they included, Tangibles- physical facilities, equipments, and staff appearance. Reliability- ability to perform the promised service dependably and accurately; Responsiveness- willingness to help customers and provide prompt service; Assurance- knowledge and courtesy of employees and their ability to inspire trust and confidence; Empathy- caring, individual attention the firm provides its customers (Chingang and Lukong, 2010).

Other authors defines SERVQUAL and the service quality dimensions, One service quality measurement model that has been extensively applied is the SERVQUAL model developed by (parasuraman et al.; zeithaml et al.) The five SERVQUAL dimensions derived from systematic analysis of customers' ratings from hundreds of interviews in several service sectors. These dimensions are a concise representation of the core criteria that customers employ in evaluating service quality (parasuraman et al.; zeithaml et al, 1985).

Dimensions of service quality as mentioned by R.srinivasan(2012) includes

**Tangible dimension**: in a service enterprise, consumers often rely on tangible evidence that surrounds the service to form their own evaluation of the service.

In a service enterprise, consumers often rely on tangible evidence that surrounds the service to form their own evaluation of the service it can be a variety of objects such

as carpeting, desks, lighting, wall colors, correspondence, brochures and the appearance of the firm's personnel.

**Reliability dimensions**: reliability refers to the consistency and dependability of a firm's performance. The customer might like to know whether the firm provides the same level of service each time or its quality varies with each service encounter. It has been generally found that number of service firms Fail to keep up their promises. The result is that the consumer is willing to pay only when the service provider provides the transaction as promised. Faller to provide reliable service translates a service firm into an unsuccessful firm

**Responsiveness dimension:** Responsiveness refers to the readiness of the employees of the service firm to provide service in a timely manner. It reflects the preparedness of the firm to provide the service. Sometimes services are not advertised till the delivery of systems are fine-tuned and prepared to handle large incoming volumes

**Assurance dimensions**: This is a reference to courtesy extended by the service firm to its customers and its competence of service, in addition to the security of the operation. The firm should have the skills to complete a service, be it professional or knowledge service. The firm's personnel should interact with the customer in a polite and friendly manner and with consideration. Security reflects a customer's fillings when he takes the serviced from the firm he is free from danger, risk, or doubt.

**Empathy dimensions**: A service firm should have to experience a customer's feeling as its own. Empathetic firms understand customer needs and make their services acceptable to their customers.

#### Service quality attributes

Several empirical studies have identified and verified a number of common elements within the five dimensions for ATM Service Quality. The attributes of ATM Service Quality identified by empirical researchers includes the following items as mentioned by Charles, 2014. He explained in his studies that there are a total of the 25 service quality attributes validated by empirical researchers as mentioned as follows.

- User friendliness of ATM systems (Joseph and Stone, 2003; Lovelock, 2000)
- Speed of ATM operations (Patricio et al., 2003; Yavas et al., 2004)
- Cash availability in ATMs (Dilijonas et al., 2009)
- Accuracy of transactions by ATMs (Dilijonas et al., 2009, Shamsdouha et al., 2005)
- ATMs not out of order (Islam et al., 2005; Patricio et al., 2003;Howcroft, 1991)
- Waiting time at ATMs (Mountihno and Brownlie, 1989)
- Employee effectiveness in solving ATM problems, employees speed in responding to ATM problems (Islam et al., 2005)
- Returning fast swallowed cards (Islam et al., 2005)
- Quick replacement of lost cards, Bank employees friendliness, security at ATMs (AlHawari and Ward, 2006; Dilijonas et al., 2009; Islam et al., 2005; Joseph and Stone,2003;Shamsdoha et al., 2005)
- Fees charged (Athanassopoulos, 2000; Dilijonas et al, 2009)
- Convenient location (Al Hawari and Ward, 2006; Dilijonas et al., 2009; Islam et al. 2005; Joseph and and Stone, 2003; Lovelock, 2000; Moutihino and Brownie, 1989)
- Accessibility of employee to solve ATM problems, easy access to ATMs ; (Joseph and Stone, 2003)
- Advise on ATM usage and security, privacy when using ATMs, (Shamsdoha et al., 2005)
- Easy process of applying for ATM cards, cleanliness of ATMs and ATM stations, appearance of corporate branding on ATMs, issuing of clean or new notes (Islam et al.,2005)
- Issuing or readable slips, accessibility of a wide range of services via ATMs, the number of ATMs per ATM locations (Dilijonas et al., 2009; Islam et al., 2005; Joseph and Stone, 2003; Lovelock, 2000)

#### Relationship between service quality and customer satisfaction

Different strategies formulated to satisfy and retain customers and the key of it is to increase the service quality level. Typically, customers perceive very competitors quickly match little difference in the Banking products offered by private Banks dealing in services as any new offering. Parasuraman et al., (1985) suggested that when perceived service quality is high, it will lead to increase in customer satisfaction.

The status or prestige of an organization has determined by the quality of the provided services. An organization of high quality level of its services has a high competitive position, achieving high level of services meet the needs of customers. Studies confirmed that service quality and customer satisfaction have a strong relationship (Alagheband, 2006; Bedi, 2010; Keiningham, 2005).

When the customer receives high quality services, his behavior and attitude towards the organization will be positive and that would strengthen the relationship with the organization and vice versa. Customer satisfaction is the most important criteria that enable organizations to ensure the quality of their goods or services (Parasuraman et al1985).

Various studies that focused on a link between satisfaction and quality argued for different views in terms of relationship. Some think that quality leads to satisfaction, and others support that satisfaction leads to quality. Some researcher propose that quality and satisfaction are determined by the same attributes like tried to relate customer satisfaction to service quality since what SERVQUAL model struggles to

measure is attitude. They see customer satisfaction as transaction specific meaning consumers get satisfied with a specific aspect of service while perceived service quality is a global judgment or attitude to a service (Chingang and Lukon, 2010, pp11).

Overall, service quality is significantly associated with and contributes to the overall satisfaction of customers. Customer satisfaction based on the level of service quality delivered by the service providers, which is determined by the consumer's cumulative experiences at all of the points of contact with company. This shows that there is some link between service quality and customer satisfaction, which, highlights that

importance of customer satisfaction when defining of quality (Chingang and Lukon, 2010).

#### 2.2 Empirical Review

Sultan Singh, Ms. Komal,(2009)" Impact Of ATM On Customer Satisfaction (A Comparative Study of SBI, ICICI & HDFC Bank)" Business Intelligence Journal -August, 2009 Vol. 2 No. 2. The study presents the impact of ATM on customer satisfaction. This is a comparative study of three major Banks i.e. State Bank of India, ICICI Bank and HDFC Bank. This paper has been divided into two sections. First section presents the introduction of ATM, brief history of three Banks compiled through the literature available in the field. It also includes the review of the various services provided by the three Banks under study. Second section presents the result obtained based on the data collected for the three Banks. A sample of 360 respondents equally representing each Bank has been taken through questionnaire. Data has also been collected through interview also. Then various statistical tools have been used accordingly to compile the result. It is concluded through this paper that material satisfaction level is highest in SBI, then second is ICICI Bank and third is HDFC Bank. This is due to the size of the respective Bank and number of years of its establishment. But according to abstract customer satisfaction i.e. in terms of efficiency and performance, HDFC Bank is at 1st position, 2nd is ICICI Bank and 3rd is SBI.

Charles Mwatsika(2014) "Customer satisfaction with ATM Banking in Malawi" African Journal of business Management vol. 8(7), 2014. The study conducted on data collected from 353 ATM card users. The study adopted the importanceperformance approach (Fishbein and Ajzen, 1975) to measure customer satisfaction. Measurement of satisfaction was based on performance only (SERVPERF). Descriptive and correlation analysis used to answer research questions. The result shows that all service quality dimensions significantly correlate with customer satisfaction and responsiveness was the list performing service quality dimension. The result further shows that reliability is the most important dimension followed by responsiveness, empathy, assurance and tangibles are the least important dimension. Odusina, Ayokunle Olumide(2014) "Automated Teller Machine usage and Customers' Satisfaction in Nigeria Global Journal of Management and Business Research: C Finance Volume 14 Issue 4 Version 1.0 Year 2014 Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA) Online ISSN: 2249-4588 & Print ISSN: 0975-5853. This study endeavors to investigate ATM Usage and Customers' Satisfaction in Nigeria. It was discovered that despite the increasing number of ATM installations in Nigeria. Customers' needs are not satisfactorily met as customers are always seen on queue in large numbers at various ATM designated centers as well as poor service delivery of some of these machines. The research engages comparative analysis of three Banks in Ogun State, Metropolis of Nigeria viz-a- viz First Bank, Guaranty Trust Bank and Skye Bank. However, questionnaires were distributed to the respondents. 200 respondents answered the questionnaire cutting across the three Banks, the chi-square statistical tool was used to analyze the data and the results showed a positive and significant relationship between ATM Usage and Customers' Satisfaction.
#### 2.3. Conceptual framework of the study

Based on previous research outcomes the researcher developed the following conceptual framework to find out the statistically significant and positive relationship between independent variables and dependent variable. Independent variable is service quality i.e. the five dimensions while the dependent variables is customer satisfaction.



Source:- Charles Mwatsika (2014), and modified by researcher

#### 2.4 Research Hypotheses

It is, therefore, to achieve the objectives; the following hypothesis will be tested:

There was no hypothesis for question number one.

Hypothesis for question number two:

• Ho<sub>1</sub>. There is no significant relationship between perceived ATMs service quality attributes and customer satisfaction.

• H1<sub>1</sub>. There is significant relationship between perceived ATMs service quality attributes and customer satisfaction.

Hypothesis for question number three:

- Ho<sub>2</sub>. There is no significant relationship between perceived service quality dimension and customer satisfaction.
- H1<sub>2</sub>. There is significant relationship between perceived service quality dimensions and customer satisfaction.

Hypothesis for question number four:

- Ho<sub>3</sub>: service quality dimensions perceived by customers do not have significant influences on customer satisfaction.
- H1<sub>3</sub>: service quality dimensions perceived by customers do have significant influences on customer satisfaction

## **CHAPTER THREE**

# **RESEARCH METHODOLOGY**

#### **3.1Introduction**

This chapter describes the research methods used in the study, and reports on the process of the development of the instrument for the purpose of data collection from primary source, sample size, and techniques used to analyze the data along with ethical considerations. Discussed here in this chapter

#### **3.2 Research Design**

Explanatory research design were used that helps the researcher to explaining, understanding, predict and control the relationship between variables. Studies that establish causal relationship between variables may be termed as explanatory studies since it allows causal inferences to be made; seeks to identify cause and-effect relationships between service quality dimension ,i.e. reliability, assurance, responsiveness, empathy and tangibles with customer satisfaction and those service quality attributes with customer satisfaction.

The researcher had used both qualitative and quantitative type of data. The Data collected from the sample through questionnaire that describes numerical figures were the quantitative data types that have used in this study, whereas data that have collected from open-ended questions have been the qualitative data types of this study. The method is the one in which that allows the researcher first to conduct quantitative research, analyzes the results and then builds on the results to explain them in more detail with qualitative research.

#### **3.3 Population and Sampling Techniques**

Population is described as a group of elements or cases, whether individuals, objects, or events, that conform to specific criteria and to which we intend to generalize the result of the research (McMillan and Schumacher, 2001).

For the present research, the target populations are customers of Abyssinia Bank in the selected Addis Ababa branches. Due to Geographic and resource constraints to study the overall outlying branches, the researcher chooses ten branches with a larger number of ATM cardholders, which is located in Addis Ababa city. From those branches, grade two, three and four branches selected randomly. level (grade 4&3) branches were selected since this will help the researcher to address more customers who are being stayed loyal to the Bank for a longer period in similar manner grade 2 branches were elected since it helps the researcher to capture the perception of new customers.

The sample size of branches has been determined by using a simple formula which is developed by Taro (1967) as stated on the work of Ayecheluhem(2014). In this calculation of sample determination, 95% confidence interval is used.

n=  $\underline{N}$ 1+ N(e<sup>2</sup>) Where n = the sample size N= population size e= the level of precision Sampling error = (.05)

$$n = \frac{7872}{1+7872(.05^2)} = 381$$

| S. | Branch          | No of ATM | No of card | Samples taken       |    |
|----|-----------------|-----------|------------|---------------------|----|
| no |                 | machines  | holders    |                     |    |
| 1  | Bole branch     | 1         | 1612       | =1612/7872=0.204776 |    |
|    |                 |           |            | =381*0.204776       | 78 |
| 2  | Filwuha branch  | 3         | 1603       | =1603/7872=0.203633 |    |
|    |                 |           |            | =381*0.203633       | 78 |
| 3  | B/medhanialem   | 1         | 854        | =854/7872= 0.108486 |    |
|    | branch          |           |            | =381*0.108486       | 41 |
| 4  | Saries branch   | 1         | 816        | =816/7872=0.103659  |    |
|    |                 |           |            | =381*0.103659       | 39 |
| 5  | Gerji branch    | 1         | 673        | =673/7872=0.085493  |    |
|    |                 |           |            | =381*0.085493       | 33 |
| 6  | Negadras branch | 1         | 639        | =639/7872=0.081174  |    |
|    |                 |           |            | =381*0.081174       | 31 |
| 7  | Raguel branch   | 1         | 586        | =586/7872=0.074441  |    |
|    |                 |           |            | =381*0.074441       | 28 |
| 8  | Airport branch  | 1         | 428        | =428/7872=0.05437   |    |
|    |                 |           |            | =381*0.05437        | 21 |
| 9  | Hayat branch    | 1         | 376        | =376/7872=0.047764  |    |
|    |                 |           |            | =381*0.047764       | 18 |
| 10 | kazanshese      | 1         | 285        | =285/7872=0.036204  |    |
|    | branch          |           |            | =381*0.036204       | 14 |
|    | Total           | 12        | 7872       | 381                 |    |

Table 3.1:- number of customers and proportion of samples taken from each branch

Sampling method can be divided into probability and non-probability. Probability sampling method used since in probability samples, each member of the population has a known non-zero probability of being selected.

Participants in each branch were selected using Convenience sampling technique, which is one of a non-probability sampling method .In non-probability sampling unlike probability sampling, the probability of selecting population elements is unknown. Non-probability sampling involves the selection of subject based on assumption regarding the population of interest, which forms the criteria for selection (Donald, Pamela, 2003).

Convenience sampling occurs when a researcher selects sample members for ease or convenience. And it also refers to the method of obtaining a sample that is most conveniently available to the researcher. Since Abyssinia Bank introduces ATMs to its customers in 2014, the number of ATM cardholders is not more, so convenience sampling technique chosen for this study. Accordingly, 381 customers were chosen based on the sample size determination.

#### **3.4 Methods of Data Collection**

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer the stated research questions, test hypotheses, and evaluate outcomes. Both qualitative and quantitative data will be collected. **Primary data** are original data, which collected for the first time for a specific purpose. Primary data was obtained by way of questionnaires that were both structured and open ended and these were distributed to the selected Abyssinia Bank branches of ATM users that believed to spend their time genuinely fill the questionnaire. Observation and some discussion with ATM user conducted during the various visits to ATMs stations. On the other hand, **Secondary data** are those which already collected by some other agency and which already been processed. Secondary data may be available in the form of published material, journals, articles magazines, books and related research materials available both in hard copy as well as in electronic forms that includes search from companies' website and documentaries.

#### **3.5 Procedures of Data Collection**

As suggested by different researchers, the questionnaire items adopted from previous researches, which identifies ATM service quality attributes was prepared. After identifying the items, the questionnaires administered to the target population through personal contact and from some assistance from employees of the Bank at the selected branches. The questionnaires are distributed to respondents' of the Bank's ATM users as they appear in the branch or ATM station. The researcher has put an introductory letter in front page of the questionnaire, which properly explains the purpose, the objectives of the study and identifies the researcher to the respondents. In addition to the researcher, eight individuals including four deputy managers of the branch managers were involved in the distribution and collection of questionnaires. Finally, the survey questioners were collected from the respondents on site, by giving a few minutes to respondents' to put their response on the questioner.

#### **3.6 Validity and Reliability**

Validity defined as "the degree to which a measure accurately represents what it is supposed to". Validity is concerned with how well the concept is defined by the measures. It refers to the degree to which a statistical instrument measures what it is intended to measure. It emphasizes the accuracy of a measurement instrument (Cooper & Schindler, 2008).

Reliability Extents to which a variable or set of variables is consistent in what it is intended to measure. It differs from validity in that it relates not to what should be measured, but instead to how it is measured. Several measures have been used to establish the reliability of the instrument, if  $\alpha$  is greater than 0.7, it means that it has high reliability and if  $\alpha$  is smaller than 0.3, then it implies that there is low reliability.( (Cooper & Schindler, 2008). Cronbach alpha has been employed to evaluate the reliability scale of construct and dimension of each construct.

#### **3.7 Methods of Data Analysis**

To develop the measurement scale, the study adopted 25 validated ATM service quality attributes (SERVQUAL) from various empirical studies, which are categorized in to five dimensions'. The participants were asked to rate the ATM service quality attributes on Likert scales of 1 to 5 where 1 was very poor, 2- poor, 3- neutral, 4- good and 5- very good on performance scale respectively.

Descriptive and inferential analysis techniques employed to demonstrate processed data in absolute terms with the help of SPSS. Descriptive analysis techniques used to describe the basic features of the data in a study since it provides simple summaries about the sample and the measures. The data that have been collected from questionnaire will be summarized in terms of frequency, percentage, mean, and standard deviation, while inferential statistical analysis has been used to explore the relationship between variables by using associational inferential statistics like, Pearson correlation and multiple regression analysis. Data were computed and analyzed using SPSS (statistical package for social sciences) version 20.

#### **3.8 Ethical Consideration**

Throughout the research, the researcher upheld and respected the participants' right to privacy, anonymity, fair treatment and to protection from discomfort and harm (Neuman, 2003). Ethics is the code of moral principles and values that governs the behavior of an individual or group with respect to what is right or wrong (Bratton and Gold, 2000). In this research, ethical issues have especial consideration. The researcher discussed the purpose of the research clearly to the participants during data gathering stage of the research. As a matter of confidentiality, the participants were not required to write or tell their names. Furthermore, the participants were assured that their responses for the questionnaire are used for the intended purpose only and wiped out their responses as no more required after completing the research.

## **CHAPTER FOUR**

# DATA PRESENTATION, ANALYSIS AND INTERPRETATION

#### Introduction

In this chapter, a brief overview of the respondents' profile is derived to support findings based on demographics. Statistical procedures, carried out using SPSS version 20, were presented in line with study objectives. Additionally, the results of the analysis are presented in the most appropriate manner

#### **4.1 Demographic Characteristics of the Respondents**

Three hundred eighty one questionnaires distributed to the respondents and out of the 381 questionnaires, 323 of them were collected. However, only 290 responses were valid with complete answers. The demographic characteristics include gender, age, and level of education, account type and frequency of usage of the respondent. This aspect of the analysis deals with the personal data of the respondents of the questionnaires as filled by respondents. The table below shows the details of background information of the respondents'.

|        |        | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------|--------|-----------|---------|---------------|--------------------|
| gender | Female | 130       | 44.8    | 44.8          | 44.8               |
|        | male   | 160       | 55.2    | 55.2          | 100.0              |
|        | total  | 290       | 100.0   | 100.0         |                    |

**Table 4.1 Respondents Demographics statistics** 

|                        |                 | Frequency | Percent | Valid   | Cumulative |
|------------------------|-----------------|-----------|---------|---------|------------|
|                        |                 |           |         | Percent | Percent    |
| age                    | 18-30           | 148       | 51.0    | 51.0    | 56.6       |
|                        | 31-40           | 90        | 31.0    | 31.0    | 87.6       |
|                        | 41-50           | 36        | 12.4    | 12.4    | 5.5        |
|                        | >51             | 16        | 5.5     | 5.5     | 100.0      |
|                        | total           | 290       | 100.0   | 100.0   |            |
|                        | Degree          | 163       | 56.2    | 56.2    | 56.2       |
| Education al           | Diploma         | 79        | 27.2    | 27.2    | 83.4       |
| level                  | Masters         | 18        | 6.2     | 6.2     | 89.7       |
|                        | Primary         | 30        | 10.3    | 10.3    | 100.0      |
|                        | total           | 290       | 100.0   | 100.0   |            |
| Account                | Current         | 58        | 20.0    | 20.0    | 20.0       |
| type                   | other           | 2         | .7      | .7      | 20.7       |
|                        | Saving          | 215       | 74.1    | 74.1    | 94.8       |
|                        | Sps             | 15        | 5.2     | 5.2     | 100.0      |
|                        | Total           | 290       | 100.0   | 100.0   |            |
| Frequenc<br>v of using | Daily           | 131       | 45.2    | 45.2    | 45.2       |
| the Bank               | monthly         | 36        | 12.4    | 12.4    | 57.6       |
|                        | Twice a<br>week | 65        | 22.4    | 22.4    | 80.0       |
|                        | Weekly          | 58        | 20.0    | 20.0    | 100.0      |
|                        | total           | 290       | 100.0   | 100.0   |            |
|                        | total           | 290       | 100.0   | 100.0   |            |

Source: Compiled by author from SPPSS version 20

From the above table shows the demographic profile of the respondents this shows the number, frequency and the cumulative frequency of the number of respondents being male female their age their occupation and income.

As the above table in the analysis shows, 44.8 % of the respondents are females and 55.2 % of them are males. More than 87.6% of ATM users age ranges from 18 - 40 indicating that the ATM Banking channel seems to be more preferred by younger societal group. Furthermore, 56.2 % of its customers are found to be degree holders, 27.2% are diploma holders and 6.2% of them have masters. Furthermore, 74.1% of the respondents have a saving account in the Bank this shows that ATM Banking is more preferred by saving account holders. In addition, out of the 290 respondents, 45.2 % of them indicated that they visit the Bank on daily basis.

#### 4.2 Data Analysis

The data analyzed in different sections: descriptive analysis, correlation analysis and multiple regression analysis.

#### 4.2.1. Descriptive Data Analysis

Descriptive statistics used to examine the variables being used based on their performance

|  | Ν   | Mean | Std. Deviation |
|--|-----|------|----------------|
| Accessibility of employee to solve ATM problem | 290 | 3.62 | 1.023          |
| Accessibility of wide range of services        | 290 | 3.93 | .955           |
| Accuracy of Transaction by ATMs                | 290 | 4.04 | .897           |
| Advise on ATM usage and security               | 290 | 3.70 | 1.139          |
| Appearance of corporate branding on ATM        | 290 | 3.99 | .963           |
| ATMs not out of order                          | 290 | 3.59 | .930           |
| Bank employees friendliness                    | 290 | 4.27 | .839           |

 Table 4.2 Descriptive Statistics of service quality attributes

| Cash availability in ATMs   | 290 | 4.26 | .819  |
|---|-----|------|-------|
| Cleanness of ATMs and ATM stations  | 290 | 3.87 | .922  |
| Convenient location   | 290 | 3.66 | 1.103 |
| Easy access to ATMs   | 290 | 3.60 | 1.065 |
| Easy process of applying for ATM cards  | 290 | 3.71 | 1.025 |
| Employee effectiveness in solving ATM problem                                 | 290 | 3.67 | 1.069 |
| Employee speed in responding to ATM problems                                  | 290 | 3.78 | 1.077 |
| Fees charged  | 290 | 3.95 | .908  |
| Issuing of clean or new notes   | 290 | 4.04 | .944  |
| Issuing of readable slips   | 290 | 4.19 | .921  |
| Number of ATMs per station  | 290 | 3.28 | 1.154 |
| Privacy when using ATMs   | 290 | 4.10 | .921  |
| Quick replacement of lost cards   | 290 | 3.42 | 1.054 |
| Returning fast swallowed cards  | 290 | 4.01 | .996  |
| Security at ATMs  | 290 | 4.09 | .926  |
| Speed of ATM operation  | 290 | 4.15 | .871  |
| User friendliness of ATM system   | 290 | 4.25 | .807  |
| Waiting times ATMs  | 290 | 4.12 | .864  |
| Generally how happy are you with the ATM services that provided by the Banks? | 290 | 3.87 | .743  |
| Valid N (list wise)   | 290 |      |       |

Source: Compiled by author from SPPSS version 20

All the above service quality attributes except Number of ATMs per station and Quick replacement of lost cards had the highest mean of above 3.5. As far as the mean values are concerned, out of all service quality attributes, Bank employees friendliness(4.27), cash availability in ATMs(4.26) and user friendliness of ATM(4.25) system have relatively major values on service quality. While standard deviation shows how diverse are the responses of customers for a given construct. For

instance, high standard deviation means that the dates' are wide spread, which means that customers gave a variety of opinion while low standard deviation means customers express close opinion.

Gezahegn Bacha in his study found that, ATM service quality had the lowest mean of less than 3.5 in accuracy of transaction by ATMs, ATMs not out of order, employee effectiveness in solving problems, employee speed in responding to ATM problems. And Returning fast swallowed cards, quick replacement of lost cards, convenient location, accessibility of employee to solve problem, easy access to ATMs, issuing of readable slips, accessibility of wide range of services and number of ATMs per station.

|                       | Ν   | Mean | Std. Deviation |
|-----------------------|-----|------|----------------|
| Assurance             | 290 | 3.98 | .932           |
| Empathy               | 290 | 3.67 | .864           |
| Reliability           | 290 | 4.07 | .670           |
| Responsiveness        | 290 | 3.82 | .811           |
| Tangibles             | 290 | 3.88 | .717           |
| Customer satisfaction | 290 | 3.91 | .734           |
| Valid N (listwise)    | 290 |      |                |

 Table 4.3 Descriptive Statistics of service quality dimensions

Source: Compiled by author from SPPSS version 20

Descriptive statistics of Table 4.3 shows the mean value of all service quality dimensions had the highest mean above 3.5. This indicates that, quality of service offered by the Bank perceived by its customers as satisfactory, since all the dimension of service quality is above average as well as positive.

As far as the mean values, concerned tangible dimensions had a mean of 3.88 that shows above the average 3.5 so the quality of service perceived by customers in Tangible dimension as satisfactory since tangible features includes physical facilities, equipment, personnel and Communication material and if the personnel appear neat.

Reliability is connected to the consistency of performance and dependability, Grönroos (1983). Since the mean of the reliability dimension in the study was above the average mean and has the highest value, the perceived service quality in reliability dimension was satisfactory. According to Grönroos (1983), responsiveness concerns to what extent the employees are prepared to provide service. It had a mean of 3.82 that implies customers perceived this dimension as satisfactory.

Assurance is about competence, courtesy, credibility, and security (Grönroos, 1983). Regarding the mean value of this dimension, it has 3.98 mean values above the average mean value and also the second mean value next to reliability. This indicates that customers are more satisfied related to assurance dimensions.

Empathy is about easy access, good communication and understanding the customer (Grönroos, 1983). Even though this dimension has the lowest mean values other than the remaining dimensions, it still is above the average mean value of 3.5 that implies customer satisfies with the perceived service quality dimension of empathy dimension.

Under the study conducted by Gezahegn Bacha, Descriptive statistics of the five service quality dimensions shows that all the dimensions except responsiveness has the highest mean values. Reliability and assurance on average had the highest mean (3.7 and 3.738) respectively. Items under responsiveness dimension were perceived lowest (3.192).

#### 4.2.2. Correlation Analysis

The purpose of using correlation coefficients is to depict the relationship between two variables with the degree of association. However, correlation analysis was carried out in the study for two purposes. The first is to check the presence of multicollinearity, which is revealed when the inter-correlation between explanatory variables (dimensions). Secondly, correlation analysis helps to explore the relationships between independent and dependent variables. (SPSS ver.20 user guide manual).

The interrelationships of perceived service quality dimensions and attributes with customer satisfaction in the study were investigated through correlation analysis, which is measured in a single number that falls between -1 and +1 A correlation analysis with Pearson coefficient conducted on all variables. A correlation coefficient expresses quantitatively the magnitude and direction of the relationship between two variables.

This section involves answering to Research Question number 2 and 3 and testing hypothesis 2 and 3.

|  | ATM SQ performance correlation to      |                 |  |  |  |
|--|--|-----------------|--|--|--|
|  | customer satisfaction with ATM service |                 |  |  |  |
|  | Pearson Correlation                    | Sig. (2-tailed) |  |  |  |
| Accessibility of employee to solve ATM problem | .645**                                 | 0.000           |  |  |  |
| Accessibility of wide range of services        | .574**                                 | 0.000           |  |  |  |
| Accuracy of Transaction by ATMs                | .606**                                 | 0.000           |  |  |  |
| Advise on ATM usage and security               | .638**                                 | 0.000           |  |  |  |
| Appearance of corporate branding on ATM        | .572**                                 | 0.000           |  |  |  |
| ATMs not out of order                          | .564**                                 | 0.000           |  |  |  |
| Bank employees friendliness                    | .619**                                 | 0.000           |  |  |  |
| Cash availability in ATMs                      | .603**                                 | 0.000           |  |  |  |
| Cleanness of ATMs and ATM stations             | .591**                                 | 0.000           |  |  |  |
| Convenient location                            | .688**                                 | 0.000           |  |  |  |
| Easy access to ATMs                            | .645**                                 | 0.000           |  |  |  |
| Easy process of applying for ATM cards         | .595**                                 | 0.000           |  |  |  |
| Employee effectiveness in solving ATM problem  | .654**                                 | 0.000           |  |  |  |
| Employee speed in responding to ATM problems   | .636**                                 | 0.000           |  |  |  |
| Fees charged                                   | .569**                                 | 0.000           |  |  |  |
| Issuing of clean or new notes                  | .545**                                 | 0.000           |  |  |  |
| Issuing of readable slips                      | .563**                                 | 0.000           |  |  |  |
| Number of ATMs per station                     | .582** 0.000                           |                 |  |  |  |

 Table 4.4: Pearson Correlation between SQ Attributes and Customer Satisfaction

| Privacy when using ATMs         | .658** | 0.000 |
|---------------------------------|--------|-------|
| Quick replacement of lost cards | .577** | 0.000 |
| Returning fast swallowed cards  | .593** | 0.000 |
| Security at ATMs                | .664** | 0.000 |
| Speed of ATM operation          | .606** | 0.000 |
| User friendliness of ATM system | .640** | 0.000 |
| Waiting times ATMs              | .558** | 0.000 |

\*\*Correlation is significant at the 0.01 level (2- tailed).

\*\*Correlation is significant at the 0.05 level (2-tailed).

Source: Compiled by author from SPPSS version 20

Since all the above service quality attributes falls between -1 and +1, they significantly correlates to customer satisfaction.

As inferred from table 4.4, the correlation analysis between ATM services satisfaction and ATM SQ attributes shows that all SQ attributes significantly correlate to customers' satisfaction positively. Thus, from the table we can conclude that Service quality attributes perceived by customers does have significant correlation with customer satisfaction.

Hence, we reject the hypothesis  $Ho_1$  that says there is no significant relationship between perceived ATM service quality attributes and customer satisfaction and accept  $H1_1$ , which supports the idea that there is significant relationship between perceived ATM service quality attributes and customer satisfaction.

The study, "Assessment of Customer satisfaction with ATM Banking" by Gezahegn Bacha, shows the correlation analysis between ATM services satisfaction and ATM SQ attributes that all SQ attributes significantly correlate to customers' satisfaction positively except four items under responsiveness dimensions. Only quick replacement of lost cards significantly correlates to customer satisfaction. Employee effectiveness in solving ATM related problems, employee speed in responding to ATM problem, returning fast swallowed cards and Bank employee's friendliness correlates to other quality attributes but not in itself correlate to customers' satisfaction. Notably fees charged, easy access to ATMs, privacy when using ATMs, accessibility of wide range of services strongly and significantly correlate to ATM service satisfaction.

| Table   | 4.5:  | Pearson | Correlation | between | SQ | dimension | and | Customer |
|---------|-------|---------|-------------|---------|----|-----------|-----|----------|
| Satisfa | ction |         |             |         |    |           |     |          |

|              |                 | Assurance     | Empathy        | Reliability | Responsiv      | Tangibles       | customer     |
|--------------|-----------------|---------------|----------------|-------------|----------------|-----------------|--------------|
|              | -               |               | -              |             | eness          |                 | satisfaction |
|              | Pearson         | 1             |                |             |                |                 |              |
|              | Correlation     | 1             |                |             |                |                 |              |
| Assurance    | Sig. (2-tailed) |               |                |             |                |                 |              |
|              | N               | 290           |                |             |                |                 |              |
|              | Pearson         | **            |                |             |                |                 |              |
|              | Correlation     | .599          | 1              |             |                |                 |              |
| Empathy      | Sig. (2-tailed) | .000          |                |             |                |                 |              |
|              | N               | 290           | 290            |             |                |                 |              |
|              | Pearson         | <b>-</b> ~~** | <b>-</b> 0.2** |             |                |                 |              |
| D 11 1 11    | Correlation     | .595          | .593           | 1           |                |                 |              |
| Reliability  | Sig. (2-tailed) | .000          | .000           |             |                |                 |              |
|              | Ν               | 290           | 290            | 290         |                |                 |              |
|              | Pearson         |               | **             | **          |                |                 |              |
| Responsivene | Correlation     | .573          | .564           | .556        | 1              |                 |              |
| SS           | Sig. (2-tailed) | .000          | .000           | .000        |                |                 |              |
|              | N               | 290           | 290            | 290         | 290            |                 |              |
|              | Pearson         | c10**         | 50.4**         | c01**       | 59 <b>0</b> ** | 1               |              |
| <b>T</b>     | Correlation     | .015          | .594           | .021        | .382           | 1               |              |
| Tangibles    | Sig. (2-tailed) | .000          | .000           | .000        | .000           |                 |              |
|              | Ν               | 290           | 290            | 290         | 290            | 290             |              |
|              | Pearson         |               |                | <b></b>     | - 4 1 **       | <b>-</b> - 1 ** |              |
| customer     | Correlation     | .731          | .734           | .758        | .741           | .761            | 1            |
| satisfaction | Sig. (2-tailed) | .000          | .000           | .000        | .000           | .000            |              |
|              | Ν               | 290           | 290            | 290         | 290            | 290             | 290          |

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Source: Compiled by author from SPSS version 20

The five service quality dimensions have positive and significant relationship with customer satisfaction.

The results in table 4.5 indicated that, there is positive and significant relationship between tangibility and customer satisfaction (r = 0.761, p< 0.01), reliability and

customer satisfaction (r = 0.758, P < 0.01), responsiveness and customer satisfaction (r = .741, p<0.01), assurance and customer satisfaction (r = 0.731, P <0.01), empathy and customer satisfaction (r = 0.734, < 0.01). Therefore, it can be said that, the correlation between the five service quality dimensions and customer satisfaction shows there is a strong and positive relationship. Among those dimensions, tangibles (.761) observed the highest positive correlation followed by reliability (.758) and responsiveness (.741).

Furthermore, the above table also shows how the five quality dimensions correlated to each other. From these one can understand that service quality dimensions have effect not only to customer satisfaction but also to each other. Concerning hypothesis number three these correlations supports  $H1_2$  and rejects  $H0_2$ . There is significant relationship between perceived service quality dimensions and customer satisfaction.

Based on Akalu Awelachew study, the correlation result showed that, there is positive and significant relationship between tangibility and customer satisfaction (r = 0.451, p < 0.01), reliability and customer satisfaction (r = 0.528, P < 0.01), responsiveness and customer satisfaction (r = .534, p < 0.01), assurance and customer satisfaction (r = 0.574, P < 0.01), empathy and customer satisfaction (r = 0.530, < 0.01). The finding further indicates that the highest relationship was found between assurance and customer satisfaction (r = 0.574, p < 0.01). The five service quality dimensions (tangibility, responsiveness, assurance, empathy and reliability) positively and significantly related with customer satisfaction.

#### 4.2.3 Multiple Regression Analysis

Multiple regression analysis used in an attempt to demonstrate the impact of five service quality dimensions in explaining the overall satisfaction of customers in ATM Banking.

Multiple regression analysis utilized to identify the service quality dimensions that make the highest contribution to overall customer satisfaction. These analyses conducted with service quality dimensions as independent variables and customer satisfaction as dependent variable. It will help to answer Research Question 4 and to decide on the hypothesis choice of hypothesis number four.

| Mode | R                 | R Square | Adjusted R | Std. Error of the | Durbin-Watson |
|------|-------------------|----------|------------|-------------------|---------------|
| 1    |                   |          | Square     | Estimate          |               |
| 1    | .910 <sup>a</sup> | .829     | .826       | .306              | 1.994         |

 Table 4.6 : Regression Model Summary

a. Predictors: (Constant), Tangibles, Responsiveness, Empathy, Reliability, Assuranceb. Dependent Variable: customer satisfaction*Source: Compiled by author from SPSS version 20* 

Table 4.6 indicates the investigation of the relationship between service quality dimensions (independent variables) and customer satisfaction (dependent variable). As per the regression result, the adjusted R square of .826 indicates 82.6 % of the variation in the dependent variable i.e. customer satisfaction is explained by this five predictors (tangibles, reliability, assurance, empathy and responsiveness); while the rest of 17.4 % customer satisfaction is influenced by other variables outside the variable under study.

Comparing the findings of this research with the study of Akalu Awelachew, the results revealed that all independent variables accounted for 35% of the variance in customer satisfaction (R2 = 0.348). Thus, 35% of the variation in customer satisfaction could be explained by the five service quality dimensions and other unexplored variables may explain the variation in customer satisfaction which accounts for about 65%.

| Mode | 1          | Sum of  | Df  | Mean Square | F       | Sig.              |
|------|------------|---------|-----|-------------|---------|-------------------|
|      |            | Squares |     |             |         |                   |
|      | Regression | 129.018 | 5   | 25.804      | 274.969 | .000 <sup>b</sup> |
| 1    | Residual   | 26.651  | 284 | .094        |         |                   |
|      | Total      | 155.669 | 289 |             |         |                   |

**Table 4.7 ANOVA** 

a. Dependent Variable: customer satisfaction

b. Predictors: (Constant), Tangibles, Responsiveness, Empathy, Reliability, Assurance Source: Compiled by author from SPSS version 20 Depending on the ANOVA table, overall significance/acceptability of the model from a statistical perspective can be determined. Table 4.7 shows the ANOVA test of the model, which confirms customer satisfaction as a function of service quality dimension used by the researcher. The result shows that the set of predictors is statistically significant at predicting customer satisfaction at 0.01 level of significance. The results further support the research model, which shows service quality as an antecedent of customer satisfaction

|                | Ν         | Mean      | Std.      | Skewness  |            | Kurtosis  |            |
|----------------|-----------|-----------|-----------|-----------|------------|-----------|------------|
|                |           |           | Deviation |           |            |           |            |
|                | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| Assurance      | 290       | 3.98      | .932      | 896       | .143       | .663      | .285       |
| Empathy        | 290       | 3.67      | .864      | 576       | .143       | 139       | .285       |
| Reliability    | 290       | 4.07      | .670      | 563       | .143       | 1.322     | .285       |
| Responsiveness | 290       | 3.82      | .811      | 570       | .143       | .254      | .285       |
| Tangibles      | 290       | 3.88      | .717      | 496       | .143       | .735      | .285       |
| Valid N        | 200       |           |           |           |            |           |            |
| (listwise)     | 290       |           |           |           |            |           |            |

#### Table 4.8 Descriptive Statistics

Source: Compiled by author from SPPSS version 20

The skewness of all service quality dimensions are within the range of normality (-1.0 to +1.0). The kurtosis of all service quality dimension except reliability dimension which is 1.322 i.e. out of the range of normality, satisfy the assumption of normality(-1.0 to +1.0).

#### **Table 4.9: Coefficients**

| Model |                | Unstandardized<br>Coefficients |            | Standardized<br>Coefficients | Т      | Sig. | Collinearity<br>Statistics |       |
|-------|----------------|--------------------------------|------------|------------------------------|--------|------|----------------------------|-------|
|       |                | В                              | Std. Error | Beta                         |        |      | Tolerance                  | VIF   |
|       | (Constant)     | 175                            | .118       |                              | -1.477 | .141 |                            |       |
|       | Assurance      | .139                           | .028       | .176                         | 4.994  | .000 | .486                       | 2.059 |
| 1     | Empathy        | .169                           | .029       | .199                         | 5.729  | .000 | .501                       | 1.997 |
| 1     | Reliability    | .274                           | .038       | .250                         | 7.127  | .000 | .491                       | 2.037 |
|       | Responsiveness | .230                           | .030       | .254                         | 7.578  | .000 | .538                       | 1.858 |
|       | Tangibles      | .238                           | .037       | .233                         | 6.487  | .000 | .469                       | 2.134 |

a. Dependent Variable: customer satisfaction

Source: Compiled by author from SPPSS version 20

Multiple linear regression analysis has been carried out to show the most important dimension that contribute the most in customer satisfaction among the five service quality dimensions As per the result Table 4.9, of the five service quality dimension, reliability(.274) is highest contributor for customer satisfaction followed by tangibles(.238) and responsiveness(.230). However, empathy (.169) Assurance (.139) had the least influence on customer satisfaction compared to the other dimensions. The table further helps the researcher to assess the effect each predictor had on customer satisfaction. For example, in the B column for reliability the value .274 means that for every one-unit increase in the reliability dimensions, satisfaction increases by .274 units.

From the multiple regression analysis we can conclude that Service quality dimensions perceived by customers does have significant influences on customer satisfaction; hence, we reject  $Ho_{3-}$  service quality dimensions perceived by customers do not have significant influences on customer satisfaction And accept H1<sub>3</sub>. Service quality dimensions perceived by customers do have significant influences on customer satisfaction while In Akalu Awelachew study, the highest contributor for customer satisfaction was found to be the assurance dimension (.295) followed by reliability (.154) and responsiveness (.048). Tangibles are the lowest contributor to customer satisfaction i.e. (.014).

#### **CHAPTER FIVE**

## SUMMARY, CONCLUSIONS & RECOMMENDATIONS

The aim of this chapter is to present a summary of the findings and to make conclusions based on that. Additionally, the implications of the study to the theory and practice are addressed along with directions to future researches. Finally, the limitations of the study and suggestions for further research have been presented.

#### 5.1 Summary of the major findings

The purpose of this study is to examine the effect of ATM Banking and service quality on customer satisfaction in Abyssinia Bank selected branches in Addis Ababa, Ethiopia In doing so, The service quality were analyzed in a series of survey questionnaires and the findings are summarized as follows

- More than 87.6% of ATM users age ranges from age 18 40 indicating that this Banking channel more preferred by younger societal group.
- 74.1% of the respondents are saving account holders indicating that ATM Banking is more preferred by saving account holders of the Bank While, 45.2% of respondents' visit the Bank on a daily bases.
- Quality of service offered by the Bank perceived by customers as satisfactory, since all the dimensions of service quality is above average as well as positive. Moreover, the mean value of the reliability dimension in the study was above the average mean and has the highest value.
- All service quality attributes except Number of ATMs per station (3.28) and Quick replacement of lost cards (3.42) had the highest mean of above 3.5.
- The result also demonstrates that all Service Quality attributes and dimensions significantly correlate to customer satisfaction. Moreover, the result point out that the service quality attributes perceived by customers does have significant influences on customer satisfaction of ATM users.
- Furthermore, the correlation between the five service quality dimensions and customer satisfaction shows that there is a strong and positive relationship, among the dimensions tangibles (.761) observed to have the highest positive

correlation followed by reliability (.758) and responsiveness (.741) while assurance dimension is the lowest.

- The analysis revealed that customer satisfaction is influenced by the five predictors i.e. tangibles, reliability, assurance, empathy and responsiveness explaining 82.6% variation. Where among the predictors ,reliability dimension is found to be the highest contributor for customer satisfaction followed by tangibles and responsiveness dimensions on the other hand assurance dimension having the least influence on customer satisfaction.
- Of the five-service quality dimension, reliability (.274) is highest contributor for customer satisfaction followed by tangibles (.238) and responsiveness (.230). However, empathy (.169) Assurance (.139) had the least influence on customer satisfaction compared to the other dimensions.

#### **5.2 Conclusions**

ATM services are going to grow especially in Ethiopia and Ethiopia can be seen as a huge potential for this segment. Customer satisfaction with the Bank's ATM service is created by five quality components, which are Reliability, Responsiveness, Empathy, Assurance, and Tangibles.

As of the descriptive analysis, majority of Abyssinia Bank ATM users were at the age range of 18-40, which indicates that ATM Banking, is more preferred by the younger societal group and most of the customers are degree holders and who has saving account type.

This study confirms most of the respondents are fairly satisfied with Bank ATM services, that answers the research question of number one. All the Service Quality attributes adopted from empirical researches are valid attributes of ATM Service Quality and that all the five Service Quality dimensions significantly associate with customer satisfaction. ATM technologies installed by the Banks are user friendly, have good operational speed and almost no waiting times at ATMs. This demonstrate that Banks in Ethiopia have invested in effective ATM technologies that enhance the

performance of ATM Service Quality but the downside is the supporting services and management decisions in the delivery of ATM services. ATM Banking had the lowest mean in Number of ATMs per station and Quick replacement of lost cards. This means that customers encounter a problem of finding ATM machines in different places also when they lost their card they did not get their cards back at the expected time.

Based on the correlation analysis, there is a positive and significant correlation between ATM services satisfaction and ATM SQ attributes hence, Ho<sub>1</sub> rejected while H1<sub>1</sub> accepted. Also answers the research question number two. There is significant relationship between perceived service quality dimensions and customer satisfaction. These correlations supports H1<sub>2</sub> and rejects H0<sub>2</sub> and answers research question number three

The finding of the study also indicates that, customers were most satisfied with the tangibles dimensions of service quality. However, customers were less satisfied in assurance dimensions of service quality. The correlation result as well shows that, all service quality dimensions (tangibility, assurance, empathy, responsiveness and reliability) related with customer satisfaction positively and significantly.

All of the service quality dimensions including reliability, assurance, tangibility, responsiveness and empathy have positive and significant impact on customer satisfaction.

Seeing the multiple regression analysis it can be conclude that SQ dimensions perceived by customers does have significant influences on customer satisfaction; hence, Ho<sub>3</sub> rejected and H1<sub>3</sub>accepted

The findings of this study also indicated that reliability is the most important factor to have a positive and significant impact on customer satisfaction followed by tangibles and responsiveness

Generally, ATM Banking system of the Bank satisfies customers. From the finding of this study, the researcher concludes that ATM Banking has positive and significant relationship with customer satisfaction and also has positive and significant effect on customer satisfaction.

#### **5.3. Recommendations**

Abyssinia Bank needs to constantly improve service quality to enhance customer satisfaction, especially improving the quality of human resources plus the Bank should work more in increasing the number of ATM users composed from different age groups, educational background, and different account holders. Hence, the Bank should work hard to create awareness to the importance and convenience it brings for them, among the public at large to increase ATM cardholders.

As Abyssinia Bank was in the early introduction of ATM to its customers, the numbers of ATM machines available are not as expected. So as to compete with other governmental and private Banks in the Banking industry and satisfied its customers and also to be a number one choice by its customers, Abyssinia Bank must increase the number of ATM machines in many areas like at outlined branches, shopping malls, recreation centers. Further, there is a need to improve ATM cards system application to keep up with the recent features developed and available so that customers can be able to access and use additional services, which in turn can be able to create a competitive advantage for the Bank. In addition, the Bank also needs to work on replacing quickly lost cards when requested by customers to boost up customer satisfaction.

It is important to have enough human resources and also improve the capabilities knowledgeable, professional and equipped with soft skills i.e. Communication skills and sales skills. Simultaneously, the Bank staff should also have good service attitude, be polite, enthusiastic to meet customer's expectation and to shape positive behavior and attitude in customer service among their employees. Therefore the Bank needs to train and equip its support employees related with ATM service in order to handle customer queries confidently and competently, because employees' effectiveness and speed in handling ATM issues will increase customer's confidence in the Bank.

The Bank should also consider having staff specifically assigned to carry out routine checks among the ATM customers to improve on their response to queries as this one

area of concern. Similarly the management of Bank should ensure that officers in charge of ATMs should always made enough cash available so as to enable the machine dispense cash to customers whenever need arises.

Assurance dimension was one of the most important factors influencing customer satisfaction. However, as per the finding of this research customers of the Bank found to be less satisfied with this dimension. As a result, the Bank should work on developing employees who are committed and satisfied with their jobs, efficient and effective for solving problems, responding quickly to customers by giving them a continuous training on the issues of customer handling related to ATM service.

Empathy dimension also considered as one of the most important factors influencing customer satisfaction in this research findings. However, the customers of the Bank were less satisfied in terms of the empathy dimensions. One way of addressing this could be by treating customer with great respect, giving individual attention to customers, serving customers based on their specific needs and treating customers in a friendly manner. This is to say, the Bank management should focus on this factor to maximize customer satisfaction.

Finally, the Bank should provide an online 24/7 phone support to clients who experience service interruption up on suing ATM services, so that users can get direct assistance. For this to work perfectly the Bank should also work on availing a standby team equipped with a car that can dispatch to any location where a customer faces inconvenience.

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# APPENDIX

Appendix 1: Questionnaire for ATM users

Respected madam/sir,

This questionnaire aims at finding out the effect of ATM banking service quality on customer satisfaction at selected Abyssinia bank branches in Addis Ababa. As a part of my project I would like to gather some information from you which will help me in an in depth study of the project. I would be indebted if you co-operate with me in filling the questionnaire. Since this questionnaire is gone be used for academic purpose, the information gathered will be strictly confidential.

Thank you

ELSABET KENDIE

### **Survey Questionnaire**

#### PART 1

| A. General information about the respondents              |              |               |    |                   |      |  |  |  |
|---|--------------|---------------|----|-------------------|------|--|--|--|
| Please put a tick mark in the appropriate box $\boxed{1}$ |              |               |    |                   |      |  |  |  |
| Branch Name:  |              |               |    |                   |      |  |  |  |
| 1. Type of Account:                                       |              | Current       |    | Savings           |      |  |  |  |
|   |              | Special savin | ng | any other         |      |  |  |  |
| 2. Gender:  |              | Male          |    | Female            |      |  |  |  |
| 3. Educational level:                                     | Primary to 1 | 2th complete  |    | Diploma           |      |  |  |  |
|   | 1st degree   |               |    | Masters and above |      |  |  |  |
| 4. Age  |              |               |    |                   |      |  |  |  |
| 5. Frequency of using                                     | the bank     | daily         |    | twice a           | week |  |  |  |
|   |              | Weekly        |    | Month             | ly   |  |  |  |

|    | Service quality attributes                    | Very<br>poor | Poor | Neutral | Good | Very<br>Good |
|----|---|--------------|------|---------|------|--------------|
|    |   | 1            | 2    | 3       | 4    | 5            |
|    |   | Tangil       | oles |         |      |              |
| 1  | Cleanness of ATMs and ATM stations            |              |      |         |      |              |
| 2  | Appearance of corporate branding on ATM       |              |      |         |      |              |
| 3  | Issuing of clean or new notes                 |              |      |         |      |              |
| 4  | Issuing of readable slips                     |              |      |         |      |              |
| 5  | Accessibility of wide range of services       |              |      |         |      |              |
| 6  | Number of ATMs per station                    |              |      |         |      |              |
|    | Resp  | onsiven      | ess  | 1       |      |              |
| 7  | Employee effectiveness in solving ATM problem |              |      |         |      |              |
| 8  | Employee speed in responding to ATM problems  |              |      |         |      |              |
| 9  | Returning fast swallowed cards                |              |      |         |      |              |
| 10 | Quick replacement of lost cards               |              |      |         |      | <br>         |
| 11 | Easy process of applying for ATM cards        |              |      |         |      |              |
| 12 | Bank employees friendliness                   |              |      |         |      |              |
|    | Re  | liability    | ,    | I       |      |              |
| 13 | User friendliness of ATM system               |              |      |         |      |              |
| 14 | Speed of ATM operation                        |              |      |         |      |              |
| 15 | Cash availability in ATMs                     |              |      |         |      |              |
| 16 | Accuracy of Transaction by ATMs               |              |      |         |      |              |
| 17 | ATMs not out of order                         |              |      |         |      |              |
| 18 | Waiting times ATMs                            |              |      |         |      |              |

# Performance of ATMs against the following variables

|    | Assurance                                      |  |  |  |  |  |  |  |
|----|--|--|--|--|--|--|--|--|
| 19 | Security at ATMs                               |  |  |  |  |  |  |  |
| 20 | Advise on ATM usage and security               |  |  |  |  |  |  |  |
| 21 | Privacy when using ATMs                        |  |  |  |  |  |  |  |
|    | Empathy  |  |  |  |  |  |  |  |
| 22 | Fees charged                                   |  |  |  |  |  |  |  |
| 23 | Convenient location                            |  |  |  |  |  |  |  |
| 24 | Accessibility of employee to solve ATM problem |  |  |  |  |  |  |  |
| 25 | Easy access to ATMs                            |  |  |  |  |  |  |  |

1. Generally how happy are you with the ATM services that provided by the banks?

| A. Very poor     |                | C. Neutral   |        |                             |
|------------------|----------------|--------------|--------|-----------------------------|
| B. Poor          |                | D. Good      |        | E. Very good                |
| 2. What do you   | think needs to | be done to i | mprove | the service you get through |
| Abyssinia bank's | ATM?           |              |        |                             |
|                  |                |              |        |                             |
|                  |                |              |        |                             |
|                  |                |              |        |                             |
|                  |                |              |        |                             |
|                  |                |              |        |                             |

ስተከበራችሁ መሳሾች

የዚህ መጠይቅ አሳማ በአቢሲንያ ባንክ አዲስ አበባ የተመረጡ ቅርንጫፎች ላይ የኤቲኤም ማሽን አንልግሎት ጥራት በደንበኞች እርካታ ላይ ያለውን ተፅዕኖ ለመተንተንና ለመገምገም ታስቦ የተዘጋጀ ነው። ለፕሮጀክቴ ማጠናክሪያ ይሆን ዘንድ ከደንበኛው የተወሰኑ መረጃዎችን ለመሰብሰብ ያቀድኩኝ ሲሆን ይህንንም መረጃ በመስጠት ለተባበሩኝ ደንበኞች በቅድሚያ የክበረ ምስጋናዬን አቀርባለሁ። መጠይቁ ለትምህርት አንልግሎት ብቻ በመዋሉ ምክንያት የምትሰጡኝ መረጃ በሚስፑር የሚጠበቅ መሆኑን በትህተና አሳውቃለሁ።

አልሳቤጥ ክንዴ

ክፍል አንድ፡- የደንበኛው መረጃ

እባክዎን በሚፈልጉት ሳጥን ውስጥ ምልክ / የድርጉ

*የቅርንጫ*ፍ ስም -----

| 1. | የሂሳብ አይነት      | ホንቀ       | ሽ ሒሳብ | 🗌 ‡ጠባ ሒሳብ  |
|----|----------------|-----------|-------|------------|
|    |                | ልዩ የቁጠባ ጠ | ምነብ   | <u>_</u> 1 |
| 2. | የታ             | ወንደ       | 🗌 ሴት  |            |
| 3. | የትምህርት ደረጃ     | ከእንደኛ ያ   | ደ     | ዲፕሎማ       |
|    |                | ዲግሪ       |       | ማርስ        |
| 4. | ዕድሜ            |           |       |            |
| 5. | ባንኲን የሚጎበኙበት ጊ | 16 NP     | በሳምን  | ነቴ         |
|    |                | በየሳም      | በየወፋ  |            |

# 2. በደንበኞች የሚሞሳ መጠይቅ

|    | አንልግሎት ጥራት ክፍሎች   | እጅማ<br>ደካ <i>ማ</i>      | ደካማ             | አይታወቅ<br>ም/<br>መካከለኛ | ዋሩ | እጅማ<br>በጣም<br>ጥሩ |  |  |  |
|----|---|-------------------------|-----------------|----------------------|----|------------------|--|--|--|
|    |   | 1                       | 2               | 3                    | 4  | 5                |  |  |  |
|    | Тъ  | 1 <b>E</b> V            | ·ኔ <i>ታ</i> ·ዎቫ | :                    |    |                  |  |  |  |
| 1  | የሌቲኤም ማሽኖች እና የስቴሽኖች<br><i>የዕዳት</i> ሁኔ <i>ታ</i>               |                         |                 |                      |    |                  |  |  |  |
| 2  | ኤቲኤም ማሽኖች አንልማሎት<br>የሚሰጡበት ቦታ ምልክቶች ለደንበኞች<br>በሚታይ መልኩ መሆናቸው  |                         |                 |                      |    |                  |  |  |  |
| 3  | በኤቲኤም ማሽን የሚከ <b>ፌል የብር ኖቶ</b> ች<br>ጥራት በተመ <mark>ለ</mark> ከተ |                         |                 |                      |    |                  |  |  |  |
| 4  | የኤቲኤም ማሽኖች የሚነበብ ደረሰኝ<br>ወይም እስቴትመንቶች መስጠት                    |                         |                 |                      |    |                  |  |  |  |
| 5  | የኤቲኤም ማሽኖች የተሟላ እና ዘርፌ<br>ብዙ አንልማሎት ስለመስጠታቸው                  |                         |                 |                      |    |                  |  |  |  |
| 6  | በቂ የሌቲኤም ማሽኖች በየቅርንጫፉ<br>የመንኘት ሁኔታ                            |                         |                 |                      |    |                  |  |  |  |
|    | ምሳሽ ሰጨ  | . <b>ነ</b> ት ( <b>ግ</b> | ልፅነት)           |                      |    |                  |  |  |  |
| 7  | የባንኩ ሰራተኞች ከኤቲኤም <i>ጋ</i> ር<br>የተ <i>ያያ</i> ዙ ችግሮችን የመፍታት ብቃት |                         |                 |                      |    |                  |  |  |  |
| 8  | የባንኩ ሠራተኞች በኤቲኤም አንልግሎት<br>ላይ ለሚከሰት ችግር ፈጣን ምላሽ<br>መስጠት       |                         |                 |                      |    |                  |  |  |  |
| 9  | በኤቲኤም ማሽን የተያዙ ካርዶች<br>በፍጥነት መመስስ                             |                         |                 |                      |    |                  |  |  |  |
| 10 | የጠፋቦትን ካርድ በፍጥነት መተካት   |                         |                 |                      |    |                  |  |  |  |
| 11 | ኤቲኤም ካርድ አንልግሎት ጥያቄዎች<br>በቀሳሉ ስለመከናወን                         |                         |                 |                      |    |                  |  |  |  |
| 12 | የባንኩ ሠራተኞች ከደንበኞች <i>ጋ</i> ር<br>ያሳቸው <b>ግን</b> ኙነት            |                         |                 |                      |    |                  |  |  |  |
|    | 1.09317.  |                         |                 |                      |    |                  |  |  |  |

| 13 | የኤቲኤሞች ለአጠቃቀም ምቹና ቀላል<br>መሆን                                     |      |      |  |  |  |  |  |
|----|--|------|------|--|--|--|--|--|
| 14 | የኤቲኤሞች አንል <b>ግሎት የ</b> መስጠት<br>ፍጥነት                             |      |      |  |  |  |  |  |
| 15 | በኤቲኤሞች ውስጥ በቂ 7ንዘብ መኖር   |      |      |  |  |  |  |  |
| 16 | የሌቲኤም ማሽኖች አንልማሎቶች<br>በትክክል መፈፀም/ ሂሳቡን በአማባቡ ቀንሶ<br>ንንዘብ መስጠት    |      |      |  |  |  |  |  |
| 17 | የሌቲሌሞች ከአንልግሎት ውጪ<br><i>ያ</i> ለመሆን                               |      |      |  |  |  |  |  |
| 18 | አንልግሎቱን ለማግኘት የሚወስደው ጊዜ  |      |      |  |  |  |  |  |
|    | ሕምነት ማሳደር ወይንም ማሬ,ጋገዋ  |      |      |  |  |  |  |  |
| 19 | በኤቲኤሞች አካባቢ አንልማሎቶችን<br>ለማማኘት ያለው የደህንነት ሁኔታ                     |      |      |  |  |  |  |  |
| 20 | ተገቢውን ምክር ስስ ኤቲኤም አጠቃቀም<br>እና መደረግ ስሳሰበት ጥንቃቄ ከባንኩ<br>ይሰጥዎታል     |      |      |  |  |  |  |  |
| 21 | ኤቲኤምችን በሚጠቀሙበት ጊዜ ነፃነቱን<br>የተጠበቀ ስ <b>ስ</b> መሆኑ                  |      |      |  |  |  |  |  |
|    | ለደ ንበኛው ካ  | ትኩረት | መስጠት |  |  |  |  |  |
| 22 | የአንልግሎቱ ክፍያ ተመጣጣኝነት  |      |      |  |  |  |  |  |
| 23 | የኤቲኤሞች በአመቺ ቦታ መገኘት  |      |      |  |  |  |  |  |
| 24 | የባንኩ ሰራተኞች በኬቲኤም አገልግሎት<br>ላይ በተደደዘ ለሚገጥሞት ችግር<br>በጣንኛውም ጊዜ መገኘት |      |      |  |  |  |  |  |
| 25 | ኤቲኤምችን ለአንልማሎት በቀላሉ<br>ማግኘት                                      |      |      |  |  |  |  |  |

1. በአጠቃሳይ አቢሲንያ ባንክ የሚሰጠው የኤቲኤም አንልግሎት እንዴት ያዩታል?

ሀ. እጅግ ደካማ ለ. ደካማ ሐ. አይታወቅም/መካከለኛ

መ. ጥሩ ሥ. እጅግ በጣም ጥሩ
2. የኤቲኤም አንልሎትን ለማሻሻል ወይም የበለጠ ጥሩ ለማድረግ አቢሲንያ ባንክ ማድሪግ አስበት የሚያስቡትን ብስው በዝርዝርይግለው ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....

# Appendix 2: SPSS Results

# **Reliability Statistics**

| Cronbach's | N of Items |
|------------|------------|
| Alpha      |            |
| .873       | 5          |

| Reliability Statistics |            |  |  |  |  |  |
|------------------------|------------|--|--|--|--|--|
| Cronbach's             | N of Items |  |  |  |  |  |
| Alpha                  |            |  |  |  |  |  |
| .946                   | 25         |  |  |  |  |  |

# **Descriptive Statistics**

|  | N   | Mean | Std. Deviation |
|--|-----|------|----------------|
| Accessibility of employee to solve ATM problem | 290 | 3.62 | 1.023          |
| s Accessibility of wide range of services      | 290 | 3.93 | .955           |
| Accuracy of Transaction by ATMs                | 290 | 4.04 | .897           |
| Advise on ATM usage and security               | 290 | 3.70 | 1.139          |
| Appearance of corporate branding on ATM        | 290 | 3.99 | .963           |
| ATMs not out of order                          | 290 | 3.59 | .930           |
| Bank employees friendliness                    | 290 | 4.27 | .839           |
| Cash availability in ATMs                      | 290 | 4.26 | .819           |
| Cleanness of ATMs and ATM stations             | 290 | 3.87 | .922           |
| Convenient location                            | 290 | 3.66 | 1.103          |
| Easy access to ATMs                            | 290 | 3.60 | 1.065          |
| Easy process of applying for ATM cards         | 290 | 3.71 | 1.025          |
| Employee effectiveness in solving ATM problem  | 290 | 3.67 | 1.069          |
| Employee speed in responding to ATM            | 200 | 2 70 | 1 077          |
| problems                                       | 290 | 3.76 | 1.077          |
| Fees charged                                   | 290 | 3.95 | .908           |
| Issuing of clean or new notes                  | 290 | 4.04 | .944           |
| Issuing of readable slips                      | 290 | 4.19 | .921           |
| Number of ATMs per station                     | 290 | 3.28 | 1.154          |
| Privacy when using ATMs                        | 290 | 4.10 | .921           |
| Quick replacement of lost cards                | 290 | 3.42 | 1.054          |
| Returning fast swallowed cards                 | 290 | 4.01 | .996           |
| Security at ATMs                               | 290 | 4.09 | .926           |
| Speed of ATM operation                         | 290 | 4.15 | .871           |
| User friendliness of ATM system                | 290 | 4.25 | .807           |
| Waiting times ATMs                             | 290 | 4.12 | .864           |
| Generally how happy are you with the ATM       | 200 | 2.01 | 724            |
| services offered by the bank                   | 290 | 3.91 | .734           |
| Valid N (listwise)                             | 290 |      |                |

|       | ······································ |           |         |               |                    |  |
|-------|--|-----------|---------|---------------|--------------------|--|
|       |  | Frequency | Percent | Valid Percent | Cumulative Percent |  |
|       | 1 very poor                            | 8         | 2.8     | 2.8           | 2.8                |  |
|       | 2 poor                                 | 35        | 12.1    | 12.1          | 14.8               |  |
|       | 3 neutral                              | 75        | 25.9    | 25.9          | 40.7               |  |
| valid | 4 good                                 | 114       | 39.3    | 39.3          | 80.0               |  |
|       | 5 very good                            | 58        | 20.0    | 20.0          | 100.0              |  |
|       | Total                                  | 290       | 100.0   | 100.0         |                    |  |

Accessibility of employee to solve ATM problem

Accessibility of wide range of services

|            |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-------------|-----------|---------|---------------|--------------------|
|            | 1 very poor | 2         | .7      | .7            | .7                 |
|            | 2 poor      | 26        | 9.0     | 9.0           | 9.7                |
| . <i>.</i> | 3 neutral   | 52        | 17.9    | 17.9          | 27.6               |
| valid      | 4 good      | 119       | 41.0    | 41.0          | 68.6               |
|            | 5 very good | 91        | 31.4    | 31.4          | 100.0              |
|            | Total       | 290       | 100.0   | 100.0         |                    |

Accessibility of wide range of services

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 2         | .7      | .7            | .7                 |
|       | 2 poor      | 26        | 9.0     | 9.0           | 9.7                |
|       | 3 neutral   | 52        | 17.9    | 17.9          | 27.6               |
| Valid | 4 good      | 119       | 41.0    | 41.0          | 68.6               |
|       | 5 very good | 91        | 31.4    | 31.4          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

### Accuracy of Transaction by ATMs

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 3         | 1.0     | 1.0           | 1.0                |
|       | 2 poor      | 15        | 5.2     | 5.2           | 6.2                |
|       | 3 neutral   | 47        | 16.2    | 16.2          | 22.4               |
| Valid | 4 good      | 126       | 43.4    | 43.4          | 65.9               |
|       | 5 very good | 99        | 34.1    | 34.1          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

| F     |             |           |         |               |                    |  |
|-------|-------------|-----------|---------|---------------|--------------------|--|
|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |  |
|       | 1 very poor | 14        | 4.8     | 4.8           | 4.8                |  |
|       | 2 poor      | 36        | 12.4    | 12.4          | 17.2               |  |
|       | 3 neutral   | 52        | 17.9    | 17.9          | 35.2               |  |
| valid | 4 good      | 109       | 37.6    | 37.6          | 72.8               |  |
|       | 5 very good | 79        | 27.2    | 27.2          | 100.0              |  |
|       | Total       | 290       | 100.0   | 100.0         |                    |  |

Advise on ATM usage and security

### Appearance of corporate branding on ATM

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 3         | 1.0     | 1.0           | 1.0                |
|       | 2 poor      | 24        | 8.3     | 8.3           | 9.3                |
|       | 3 neutral   | 45        | 15.5    | 15.5          | 24.8               |
| Valid | 4 good      | 118       | 40.7    | 40.7          | 65.5               |
|       | 5 very good | 100       | 34.5    | 34.5          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

### ATMs not out of order

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 6         | 2.1     | 2.1           | 2.1                |
|       | 2 poor      | 27        | 9.3     | 9.3           | 11.4               |
|       | 3 neutral   | 92        | 31.7    | 31.7          | 43.1               |
| Valid | 4 good      | 120       | 41.4    | 41.4          | 84.5               |
|       | 5 very good | 45        | 15.5    | 15.5          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

Bank employees friendliness

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 3         | 1.0     | 1.0           | 1.0                |
|       | 2 poor      | 9         | 3.1     | 3.1           | 4.1                |
| .,    | 3 neutral   | 28        | 9.7     | 9.7           | 13.8               |
| Valid | 4 good      | 116       | 40.0    | 40.0          | 53.8               |
|       | 5 very good | 134       | 46.2    | 46.2          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 3         | 1.0     | 1.0           | 1.0                |
|       | 2 poor      | 7         | 2.4     | 2.4           | 3.4                |
|       | 3 neutral   | 30        | 10.3    | 10.3          | 13.8               |
| Valid | 4 good      | 121       | 41.7    | 41.7          | 55.5               |
|       | 5 very good | 129       | 44.5    | 44.5          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

Cash availability in ATMs

Cleanness of ATMs and ATM stations

|             |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-------------|-----------|---------|---------------|--------------------|
|             | 1 very poor | 7         | 2.4     | 2.4           | 2.4                |
|             | 2 poor      | 19        | 6.6     | 6.6           | 9.0                |
| ) ( - 1: -1 | 3 neutral   | 46        | 15.9    | 15.9          | 24.8               |
| valid       | 4 good      | 152       | 52.4    | 52.4          | 77.2               |
|             | 5 very good | 66        | 22.8    | 22.8          | 100.0              |
|             | Total       | 290       | 100.0   | 100.0         |                    |

#### **Convenient location**

|             |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-------------|-----------|---------|---------------|--------------------|
|             | 1 very poor | 11        | 3.8     | 3.8           | 3.8                |
|             | 2 poor      | 42        | 14.5    | 14.5          | 18.3               |
| ) ( = 1: -1 | 3 neutral   | 51        | 17.6    | 17.6          | 35.9               |
| Valid       | 4 good      | 118       | 40.7    | 40.7          | 76.6               |
|             | 5 very good | 68        | 23.4    | 23.4          | 100.0              |
|             | Total       | 290       | 100.0   | 100.0         |                    |

Easy access to ATMs

|            |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-------------|-----------|---------|---------------|--------------------|
|            | 1 very poor | 9         | 3.1     | 3.1           | 3.1                |
|            | 2 poor      | 43        | 14.8    | 14.8          | 17.9               |
| . <i>.</i> | 3 neutral   | 62        | 21.4    | 21.4          | 39.3               |
| Valid      | 4 good      | 117       | 40.3    | 40.3          | 79.7               |
|            | 5 very good | 59        | 20.3    | 20.3          | 100.0              |
|            | Total       | 290       | 100.0   | 100.0         |                    |

Easy process of applying for ATM cards

| -     |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 8         | 2.8     | 2.8           | 2.8                |
|       | 2 poor      | 31        | 10.7    | 10.7          | 13.4               |
|       | 3 neutral   | 65        | 22.4    | 22.4          | 35.9               |
| Valid | 4 good      | 119       | 41.0    | 41.0          | 76.9               |
|       | 5 very good | 67        | 23.1    | 23.1          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

## Employee effectiveness in solving ATM problem

| _     |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 9         | 3.1     | 3.1           | 3.1                |
|       | 2 poor      | 40        | 13.8    | 13.8          | 16.9               |
| Valid | 3 neutral   | 56        | 19.3    | 19.3          | 36.2               |
|       | 4 good      | 119       | 41.0    | 41.0          | 77.2               |
|       | 5 very good | 66        | 22.8    | 22.8          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

# Employee speed in responding to ATM problems

| -     |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 11        | 3.8     | 3.8           | 3.8                |
|       | 2 poor      | 29        | 10.0    | 10.0          | 13.8               |
|       | 3 neutral   | 53        | 18.3    | 18.3          | 32.1               |
| Valid | 4 good      | 116       | 40.0    | 40.0          | 72.1               |
|       | 5 very good | 81        | 27.9    | 27.9          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

#### Fees charged

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 3         | 1.0     | 1.0           | 1.0                |
|       | 2 poor      | 23        | 7.9     | 7.9           | 9.0                |
| Valid | 3 neutral   | 40        | 13.8    | 13.8          | 22.8               |
|       | 4 good      | 144       | 49.7    | 49.7          | 72.4               |
|       | 5 very good | 80        | 27.6    | 27.6          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 5         | 1.7     | 1.7           | 1.7                |
|       | 2 poor      | 18        | 6.2     | 6.2           | 7.9                |
|       | 3 neutral   | 39        | 13.4    | 13.4          | 21.4               |
| Valid | 4 good      | 126       | 43.4    | 43.4          | 64.8               |
|       | 5 very good | 102       | 35.2    | 35.2          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

Issuing of clean or new notes

### Issuing of readable slips

| -          |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-------------|-----------|---------|---------------|--------------------|
|            | 1 very poor | 3         | 1.0     | 1.0           | 1.0                |
|            | 2 poor      | 17        | 5.9     | 5.9           | 6.9                |
| . <i>.</i> | 3 neutral   | 31        | 10.7    | 10.7          | 17.6               |
| Valid      | 4 good      | 109       | 37.6    | 37.6          | 55.2               |
|            | 5 very good | 130       | 44.8    | 44.8          | 100.0              |
|            | Total       | 290       | 100.0   | 100.0         |                    |

# Number of ATMs per station

| -     |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 15        | 5.2     | 5.2           | 5.2                |
|       | 2 poor      | 73        | 25.2    | 25.2          | 30.3               |
|       | 3 neutral   | 62        | 21.4    | 21.4          | 51.7               |
| Valid | 4 good      | 95        | 32.8    | 32.8          | 84.5               |
|       | 5 very good | 45        | 15.5    | 15.5          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

# Privacy when using ATMs

| -     |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 6         | 2.1     | 2.1           | 2.1                |
|       | 2 poor      | 12        | 4.1     | 4.1           | 6.2                |
|       | 3 neutral   | 38        | 13.1    | 13.1          | 19.3               |
| Valid | 4 good      | 126       | 43.4    | 43.4          | 62.8               |
|       | 5 very good | 108       | 37.2    | 37.2          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

### Quick replacement of lost cards

|             |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-------------|-----------|---------|---------------|--------------------|
| \ / - !: -! | 1 very poor | 12        | 4.1     | 4.1           | 4.1                |
| Valid       | 2 poor      | 46        | 15.9    | 15.9          | 20.0               |

| 3 neutral   | 82  | 28.3  | 28.3  | 48.3  |
|-------------|-----|-------|-------|-------|
| 4 good      | 107 | 36.9  | 36.9  | 85.2  |
| 5 very good | 43  | 14.8  | 14.8  | 100.0 |
| Total       | 290 | 100.0 | 100.0 |       |

-

#### Returning fast swallowed cards

|            |             | Frequency Percent Valid Percent |       | Cumulative Percent |       |
|------------|-------------|---------------------------------|-------|--------------------|-------|
|            | 1 very poor | 7                               | 2.4   | 2.4                | 2.4   |
|            | 2 poor      | 20                              | 6.9   | 6.9                | 9.3   |
| . <i>.</i> | 3 neutral   | 40                              | 13.8  | 13.8               | 23.1  |
| Valid      | 4 good      | 119                             | 41.0  | 41.0               | 64.1  |
|            | 5 very good | 104                             | 35.9  | 35.9               | 100.0 |
|            | Total       | 290                             | 100.0 | 100.0              |       |

#### Security at ATMs

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 4         | 1.4     | 1.4           | 1.4                |
|       | 2 poor      | 20        | 6.9     | 6.9           | 8.3                |
|       | 3 neutral   | 28        | 9.7     | 9.7           | 17.9               |
| Valid | 4 good      | 132       | 45.5    | 45.5          | 63.4               |
|       | 5 very good | 106       | 36.6    | 36.6          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

# Speed of ATM operation

| _     |             | Frequency | Percent | Valid Percent | Cumulative Percent |  |
|-------|-------------|-----------|---------|---------------|--------------------|--|
|       | 1 very poor | 3         | 1.0     | 1.0           | 1.0                |  |
|       | 2 poor      | 11        | 3.8     | 3.8           | 4.8                |  |
|       | 3 neutral   | 40        | 13.8    | 13.8          | 18.6               |  |
| Valid | 4 good      | 121       | 41.7    | 41.7          | 60.3               |  |
|       | 5 very good | 115       | 39.7    | 39.7          | 100.0              |  |
|       | Total       | 290       | 100.0   | 100.0         |                    |  |

### User friendliness of ATM system

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 2         | .7      | .7            | .7                 |
| 2     | 2 poor      | 8         | 2.8     | 2.8           | 3.4                |
| Valid | 3 neutral   | 31        | 10.7    | 10.7          | 14.1               |
|       | 4 good      | 124       | 42.8    | 42.8          | 56.9               |

| 5 very good | 125 | 43.1  | 43.1  | 100.0 |
|-------------|-----|-------|-------|-------|
| Total       | 290 | 100.0 | 100.0 |       |

#### Waiting times ATMs

|       |             | Frequency Percent |       | Valid Percent | Cumulative Percent |  |
|-------|-------------|-------------------|-------|---------------|--------------------|--|
|       | 1 very poor | 5                 | 1.7   | 1.7           | 1.7                |  |
|       | 2 poor      | 8                 | 2.8   | 2.8           | 4.5                |  |
|       | 3 neutral   | 38                | 13.1  | 13.1          | 17.6               |  |
| Valid | 4 good      | 134               | 46.2  | 46.2          | 63.8               |  |
|       | 5 very good | 105               | 36.2  | 36.2          | 100.0              |  |
|       | Total       | 290               | 100.0 | 100.0         |                    |  |

### Generally how happy are you with the ATM services offered by the bank

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
|       | 1 very poor | 1         | .3      | .3            | .3                 |
|       | 2 poor      | 5         | 1.7     | 1.7           | 2.1                |
|       | 3 neutral   | 71        | 24.5    | 24.5          | 26.6               |
| valid | 4 good      | 155       | 53.4    | 53.4          | 80.0               |
|       | 5 very good | 58        | 20.0    | 20.0          | 100.0              |
|       | Total       | 290       | 100.0   | 100.0         |                    |

### **Model Summary**

| Model | R                 | R Square | Adjusted R | Std. Error of the | Durbin-Watson |
|-------|-------------------|----------|------------|-------------------|---------------|
|       |                   |          | Square     | Estimate          |               |
| 1     | .910 <sup>a</sup> | .829     | .826       | .306              | 1.994         |

a. Predictors: (Constant), Tangibles, Responsiveness, Empathy, Reliability, Assurance

#### **ANOVA**<sup>a</sup>

| Model |            | Sum of Squares | df  | Mean Square | F       | Sig.              |
|-------|------------|----------------|-----|-------------|---------|-------------------|
|       | Regression | 129.018        | 5   | 25.804      | 274.969 | .000 <sup>b</sup> |
| 1     | Residual   | 26.651         | 284 | .094        |         |                   |
|       | Total      | 155.669        | 289 |             |         |                   |

a. Dependent Variable: customer satsfaction

b. Predictors: (Constant), Tangibles, Responsiveness, Empathy, Reliability, Assurance

# **Coefficients**<sup>a</sup>

| Model        |            | Unstandardized |              | Standardized | t      | Sig. | Collinearity Statistics |     |
|--------------|------------|----------------|--------------|--------------|--------|------|-------------------------|-----|
| Coefficients |            | ficients       | Coefficients |              |        |      |                         |     |
|              |            | В              | Std. Error   | Beta         |        |      | Tolerance               | VIF |
| 1            | (Constant) | 175            | .118         |              | -1.477 | .141 |                         |     |

b. Dependent Variable: customer satisfaction

| Assurance      | .139 | .028 | .176 | 4.994 | .000 | .486 | 2.059 |
|----------------|------|------|------|-------|------|------|-------|
| Empathy        | .169 | .029 | .199 | 5.729 | .000 | .501 | 1.997 |
| Reliability    | .274 | .038 | .250 | 7.127 | .000 | .491 | 2.037 |
| Responsiveness | .230 | .030 | .254 | 7.578 | .000 | .538 | 1.858 |
| Tangibles      | .238 | .037 | .233 | 6.487 | .000 | .469 | 2.134 |

\_

a. Dependent Variable: customer satisfaction

| Correlations            |                        |           |         |             |                |           |                      |
|-------------------------|------------------------|-----------|---------|-------------|----------------|-----------|----------------------|
|                         |                        | Assurance | Empathy | Reliability | Responsiveness | Tangibles | Customer satsfaction |
| Assurance               | Pearson<br>Correlation | 1         | .599**  | .595**      | .573**         | .613**    | .731**               |
|                         | Sig. (2-tailed)        |           | .000    | .000        | .000           | .000      | .000                 |
|                         | Ν                      | 290       | 290     | 290         | 290            | 290       | 290                  |
| Empathy                 | Pearson<br>Correlation | .599**    | 1       | .593**      | .564**         | .594**    | .734**               |
|                         | Sig. (2-tailed)        | .000      |         | .000        | .000           | .000      | .000                 |
|                         | Ν                      | 290       | 290     | 290         | 290            | 290       | 290                  |
| Reliability             | Pearson<br>Correlation | .595**    | .593**  | 1           | .556**         | .621**    | .758**               |
|                         | Sig. (2-tailed)        | .000      | .000    |             | .000           | .000      | .000                 |
|                         | Ν                      | 290       | 290     | 290         | 290            | 290       | 290                  |
| Responsiv<br>eness      | Pearson<br>Correlation | .573**    | .564**  | .556**      | 1              | .582**    | .741**               |
|                         | Sig. (2-tailed)        | .000      | .000    | .000        |                | .000      | .000                 |
|                         | Ν                      | 290       | 290     | 290         | 290            | 290       | 290                  |
| Tangibles               | Pearson<br>Correlation | .613**    | .594**  | .621**      | .582**         | 1         | .761**               |
|                         | Sig. (2-tailed)        | .000      | .000    | .000        | .000           |           | .000                 |
|                         | Ν                      | 290       | 290     | 290         | 290            | 290       | 290                  |
| customersa<br>tsfaction | Pearson<br>Correlation | .731**    | .734**  | .758**      | .741**         | .761**    | 1                    |
| customer                | Sig. (2-tailed)        | .000      | .000    | .000        | .000           | .000      |                      |
| satsfaction             | N                      | 290       | 290     | 290         | 290            | 290       | 290                  |

\*\*. Correlation is significant at the 0.01 level (2-tailed).