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"Assessment of customer Satisfaction with ATM banking: Empirical evidence from Selected Commercial Banks in Ethiopia "

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DECLARATION

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

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ABSTRACT

ATMs introduced with the view to automate the operation of the banks and create competitive advantage in the banking industry. The purpose of the study was to measure customer satisfaction with ATM banking. The data collected was analyzed by use of descriptive statistics, correlation analysis and multiple regressions. The finding revealed that, out of 379 ATM card users where over half are fairly satisfied with ATM services from their respective bank. All ATM service quality attributes associated with technology have been perceived good performers, while all attributes associated with employee performance and management functionality have been perceived not so good in performance. The results have further found that all service quality significantly correlate with customer satisfaction except three items under responsiveness. The result from multiple regressions also confirms also all service quality attributes used in the study significantly influences customer satisfaction. Therefore, the results designate that for banks to remain competitive through ATM banking efforts should be exerted in providing responsive ATM services.

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

ATM(s) – Automated Teller Machine(s)

AIB – Awash International Bank

ADB – Addis International Bank

BIB - Birhan International Bank

CBE - Commercial Bank of Ethiopia

CBO – Coperative Bank of Oromia

DB - Dashen Bank

KMO - Kaiser-Meyer- Olkin

NIB – Nib International Bank

SQ- Service Quality

SPSS -Statistical Package for Social Science

UB- United Bank

CHAPTER ONE: BACKGROUND TO THE STUDY

1.1 Introduction

The evolution of payments in recent history has gone from cash to cheques, and then to payment cards such as credit cards and debit cards (Batiz, 2005). Debit cards are the most rapidly growing method of payments in several countries around the world (Pierce, 2001). The idea behind the ATM was to automate the duties of a bank teller which subsequently removed the face to face interaction between the customer and the bank teller. The customer use plastic cards with magnetic strips to access their bank accounts. The identity of the customer is verified by them entering their personal identification number (PIN) up on request by the ATM. 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. ATMs may either be on premise or off premise depending on their location.

The first ATM was developed and built by luther George Simjian and was installed in 1939 in New York by the City Bnak of New York thogh it was removed after six months due to lack of customer acceptance (http://en.wikipedia.org/wiki/automatic teller machine, 2006). The ATM services have gone through many stages. According to Abor (2004), the ATM was first introduced solely as a cash dispensing machine but it can now perform other banking services such as cash withdrawals, funds transfers from one account to the other and the payment of bills.

The ATM was introduced with the view to automate the operations of the banks and thus reduce the need for bank tellers and in the long run reduce costs. Charges introduced with ATM service was also seen as a means of increasing profits for the banks

There were many challenges associated in the introduction of ATM and also there were equally a number of benefits and drawbacks that were associated with this technology. One of the aims of banks in bringing the ATM was to reduce congestion in the banks and improve service delivery to the customer but long queues and unreliable ATM service seem to characterize this otherwise good intention.

1.2 ATMs in Ethiopia

Automated teller machine were firist introduced in Ethiopia in 2001, with the Commercial Bank of Ethiopia being the pioneers in this kind of service to the banking sector Getachew Worku (2010). This was done so as to enable customers have a 24- hour access to their money and hence improve customer satisfaction.

Except for the few banks that are part of the premium Switch Solution(PSS), bank ATMs are only for their own clients. Currently, there are only a few agreements in place to share ATM resources. The first was the Premium Switch Solution (PSS), which was established by three banks in 2010, with a capital of 165 million Br, and now has six member banks, including: Awash International Bank S.C. (AIB), United Bank S.C., Nib international Bank S.C. (NIB), Berhan International Bank S.C. (BIB), Addis International Bank (ADB) and the Cooperative Bank of Oromia S.C. (CBO). The PSS now has 214 ATMs. Zemen bank attempted to become part of the PSS arrangement, but it was rebuffed largely due to disagreements with its single branch approach at the time. The bank, now with 45 machines of its own, has an agreement with Dashen Bank, which has 230 machines, 60 of them outside Addis Abeba. Out of the 214 ATMs under the PSS, Awash and United banks own 120 and 70 ATMs, respectively, with NIB owning 20 and Berhan just four(Fortune Vol 15, No. 7062).

The PSS is benefiting member banks and their clients by allowing customer through the use of different ATM machines by member banks morethan other banks owning their own ATM only for their own client.

Cash machines are relatively new to Ethiopia, but their number is growing quickly, with banks eager to ease access for their customers. A fair distribution of the ATMs in areas convenient to the customers (shopping malls, filling stations and supermarkets) does have an effect on the satisfaction of customers due the convenience of bringing banking closer to the customers(www.atmgurus.com).

Here under the reasercher tried to mention those banks currently owning their own ATM and those using shared ATM through PSS.

Table 1.1: Banks owning their own ATM only for their client only

Bank	Number of ATM Machine	Number of ATM Card holder	%
CBE	889	1.300,000	69.4
DB	214	303,045	16.2
Wogagen	91	70,698	3.8
Zemen	45*	20,000	1.1
AIB	120*	73,503	3.8
UB	70*	52,102	2.8
NIB	20*	39,275	2.1
BI	4*	5,287	0.3
Abysiniya	50	7,845	0.4
Total	**1,412**	**1,871,755**	**100**

Source: Banks' manager and Fortune (Vol 15, No. 7062)

* Banks using shared ATMs under PSS membership

However, despite the Bank's effort to improve access for its customers by increasing the number of machines, network failure, due to service breakdown from the country's sole telecommunications service provider, ethio – telecom, and internal network problems, are the challenges faced by commercial banks in successful service delivery and distribution of ATM throuout the country.

1.3 Background of the Problem

Automated teller machine (ATM) banking is the second popular access channel to banking services behind branch banking in Ethiopia which offers competitive advantage in the homogenous market of retail banking products and services.

The introduction and use of ATM system of banking has received different perception. One of the views is that, it may not have really created customer satisfaction for bank clients, and the other is that, it may have. Despite of all the merits of the ATMs, customers still complaint of

shortfalls on the use of the system. The impact of Automated Teller Machine cannot be ignored if meaningful goals and objectives are expected to be achieved.

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 funds withdrwals; account inquiries and funds transfer between accounts. The bank's costs at that time included wages for tellers and back office personnel and the cost of maintaining premises. However, as customers become more comfortable with this new technology they began demanding for more convenience and high quality services.

With the coming of ATMs, the banks were of the view that ATM banking would save time and money as it was expected to reduce congestion in the banks as clients would not be in a hurry to beat the closing time for the banking business and hence spend more productivity time at their working places instead of spending long hours in queues.

The banks were also of the view that this service would improve customer relations, reduce employee overtime hours and improve profitablity in the long run due to reduction in costs as a result of a reduction in the number of bank tellers and also as a result of bank charges from the provision of the ATM service. Heli (2006) confirmed this assertion when he held that the use of electronic means of payment has increased at the expense of paper-based payment instruments.

This was also expected to generate loyality and customer satisfaction on the part of the client. The customer also expected 24 hour accesability to their money and less time spent away from their work places. In short they expected accurate and efficient services.

In bringing up the ATM technology, banks portrayed the use of ATMs to be more superior in the delivery of service as compared to the use of cashiers. Looking at the many queues that characterize the premises of several banks at sometimes, it may be inferred that the quality of service delivery throgh the use of these ATMs may be greatly affetced and hence the need to look at the effectivness of this technology. There are also some instances when customers would prefer to queue up in the bank even when the ATMs are operational and no customers are in sight using the facility. People do not believe that they can go and collect many without talking to any body, hence, instead of using ATMs, they prefer to go to bank premises to get the sevice

(Nazeret.com). Cash machines are relatively new to Ethiopia, but their number is growing quickly, with banks eager to ease access for their customers. However, despite the bank's effort to improve access for its customers by increasing the number of machines, ATM users are still feeling the brunt of the consequence of unreliable service Fortune(Vol 14. No 700).

Reporters news paper dated Jan. 18, 2015 pulished a title "Cashless ATM", indicating public disappointment on ATM service in Ethioia. Further in Fortune (Vol 15, No. 7062) stated customers are also facing problem of disproportional ATM concentration. In the news paper Ato Ermias Eshetu, the marketing and corporate services vice president at Zemen Bank said over ATM distribution, there are a limited number of ATM machines in the country and you find six to seven ATM machines concentrated at some malls and then none at others, which shows there is a poor resource utilisation. "The ATM machines are bought for at least half a million Birr and the poor distribution of machines is a waste," he told Fortune.

Despite 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 when customers would prefer to use bank premises to get sevice even when ATMs are operational and no customers are in sight using the ATMs. There is a general outcry from bank customers that the quality of ATM banking service has not been up to their expectations.

1.4 Research Questions

This research will therefore try to answer the following questions:

i. Are ATMs offering the level of SQ customer expects for their continued preference to other modes of accessing banking service?
ii. Is there a significant relationship between perceived ATMs SQ atributes and customer satisfaction among ATM banking customers under study?
iii. Is there any relationship between SQ dimensions percived by customers and customer satisfaction in ATM banking services?
iv. And to what extent do those SQ dimension percived by customer effects customer satisfaction in banking service?

1.5 Hyphotesis

i. Hyphtesis for question Number 1
   - For question number one the study used descriptive statistical analysis method, hence does not require hyphotesis.

ii. Hyphotesis for question number two:
   - Ho1. There is no significant relationship between percived ATMs SQ atributes and customer satisfaction among ATM card holders..
   - Ha1. There is signficant relationship between percived ATMs SQ atributes and customer satisfaction among ATM card holders.

iii. Hyphotesis for question number three:
   - Ho2. There is no no significant relationship between percived SQ dimension and customer satisfaction among ATM card holders..
   - Ha2. There is signficant relationship between percived SQ dimensions and customer satisfaction among ATM card holders.

iv. Hyphotesis for question number four:
   - Ho3: SQ dimensions perceived by customers does not have significant influences on customer satisfaction.
   - Ha3: SQ dimensions perceived by customers does have significant influences on customer satisfaction

1.6 Research Objectives

Againist this background of reling on bank premisses service, unreliable service, this research will evaluate the effectiveness of the ATM in terms of the following.

i. To measure customers' satisfaction with ATM banking in commercial banks.
ii. To identify problem associated and areas that needs improvement in ATM banking.
iii. To offer valuable suggestion to improve service quality and make ATM banking the most prefered chanal to access banking service.

1.7 The Significance of the Study

i. The customer will benefit in terms of improved service and reduced time spent at the banks hence resulting in customer satisfaction and customer confidence in the banking sector.
ii. Banks formulate strategy and policy in terms of future investment in this type of technology as well as in trying to improve the quality of service to be given to customers as well as reducing cost.

1.8 Scope of the Research

This study was restricted to the city of Addis Ababa which has large concentration of ATM and focusing on those banks with reasonable number of card holder and to fairly represent the card holder population in the city.

1.9 Limitation of the Study

The following factors could serve as limitation during the course of writing this project;

- **Inadequate materials**: This is another constraint to execute the work more effectively due to paucity of data such as; journals, newspaper, seminars etc.(iv)
- **Attitude of respondents**: The attitude of the respondents to the study could not encourage and this will affect the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

In the previous chapter, the significance of the study as well as the problem statement and objectives of the research were looked at. This chapter explores literatures, written by different authors, on the benefits of ATM banking in financial service delivery.

In the service sector, technology has 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.

ATMs network contributed significantly in performing most of the customers' financial services in a reliable way (Giannakoudi, 1999). According to Mcandrews (2003) ATMs can offer significant advantages to both banks and customers. The machines can enable depositors to withdraw and deposit cash at more convenient times and places than during banking hours at branches. At the same time, by automating services that were previously completed manually, ATMs can reduce the costs of servicing some customer demands. These potential advantages are multiplied when banks share their ATMs with others, allowing depositors of other banks to access their accounts through a bank's ATM.

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 variety 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. In respect to the sharing ATMs, the ATM bank's owner is usually charge those customers who hold other banks cards. In this context, Mcandrews (2003) argued that the decision by banks to share their ATMs is partially determined by the terms under which different banks agree on. In particular, there are several prices that can be charged to or collected by the three main parties involved in an ATM transaction, the cardholder or the customer, the cardholder's bank, and the ATM owner.

2.2 Financial Service Delivery

A service is any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything (Kotler, 2002). Here services are looked at in the context of financial delivery using ATMs. The banks are now providing financial services via ATMs and this is looked at to see how well this facility affects service delivery. A service must be consistent, easy to use and strategically applied. The ATM tries to depict this by way of providing a service way beyond the normal banking hours of a bank.

Financial service delivery involves the use of banks and other financial institutions to fulfill their obligations towards their customers through the use of facilities such as the internet, telephone and ATMs. Development of new and more efficient processing and delivery channels as well as more innovative products and services have come up as a result of financial liberalization and technology revolution. This has resulted in the banks striving to provide services of high standards. The service industries in general and the financial services in particular have generally been large investors in information technology. Time factor in the delivery of a service is of paramount importance as customers do not like spending a lot of time waiting to be attended to. For instance in a bank, customers would not like spend a lot of time on queues.

The ATM was therefore introduced with the intention of addressing this issue of spending a lot of time in the bank. Banks first used the ATM as a marketing tool with regard to offering a 24 hours banking service but, are now using it for the provision of new and better services to the customers such as mobile phone talk time top up and utility payments.

The ATM as an innovation has both process and product characteristics. As a process, it brings in automated delivery of service in place of those previously offered by bank tellers on a bank counter as well as offering services not previously offered such as 24 hours service, foreign currency provision abroad and cash provision in areas remote to the bank premises such as public area and hotels. One aspect that is a great challenge in managing services is managing quality.

2.3 Service Quality and Its Measurement

Quality has been defined differently by different authors. Some prominent definitions include 'conformance to requirements' (Crosby, 1984), 'fitness for use' (Juran, 1988) or 'one that satisfies the customer' (Eiglier and Langeard, 1987). As per the Japanese production philosophy, quality implies 'zero defects' in the firm's offerings. Quality has come to be recognized as a strategic tool for attaining operational efficiency and improved business performance (Anderson and Zeithaml, 1984; Babakus and Boller, 1992; Garvin, 1983; Philips, Chang and Buzzell, 1983). This is true for the service sector too.

Several authors have discussed the unique importance of quality to serve firms (e.g., Normann, 1984; Shaw, 1978) and have demonstrated its positive relationship with profits, increased market share, return on investment, customer satisfaction, and future purchase intention (Anderson, Fornell and Lehmann 1994; Boulding et al., 1993; Buzzell and Gale, 1987; Rust and Oliver, 1994). One obvious conclusion of these studies is that firms with superior quality products outperform those marketing inferior quality products.

Theoretically customers' perception of service consists of two dimensions. Berry and Parasuraman (1990) distinguish a process and an outcome dimension. Of the five dimensions of quality, reliability is primarily concerned with the service outcome, whereas the rest are primarily concerned with the service process. However, all five dimensions emphasize the customer's perception of the service (functional quality) rather than the service provider's view of how the service should be delivered (technical quality).

Gronroos (2001) however makes a distinction between functional and technical quality. The process of functional quality refers to how the service is delivered whereas technical quality which is an outcome refers to what customers receive (the benefits of using the service). In the case of the ATM, how cash is processed is a functional benefit whereas effectiveness, less time spent on an ATM, easy to use and efficiency over the traditional methods are known as technical benefit.

Some of the complaints that come from the customer are as a result of customers not knowing some of the technical aspects of an ATM whose source of problems are various. Some problems

connected to ATM faults may require the attention of either the service provider, the bank or the communications company to intervene whereas the customer may view the problem differently due to lack of adequate knowledge on the operations of an ATM.

Various definitions of the term 'service quality' have been proposed in the past and, based on different definitions; different scales for measuring service quality have been put forward. SERVQUAL and SERVPERF constitute two major service quality measurement scales.

Empirical studies evaluating validity, reliability, and methodological soundness of service quality scales clearly point to the superiority of the SERVPERF scale. The diagnostic ability of the scales, however, has not been explicitly explicated and empirically verified in the past.

It is the SERVQUAL scale which outperforms the SERVPERF scale by virtue of possessing higher diagnostic power to pinpoint areas for managerial interventions in the event of service quality shortfalls.

(Juan and Gupta 2004) in their study demonstrated the major managerial implication of the measurements:

- Because of its psychometric soundness and greater instrument parsimoniousness, one should employ the SERVPERF scale for assessing overall service quality of a firm. The SERVPERF scale should also be the preferred research instrument when one is interested in undertaking service quality comparisons across service industries.
- On the other hand, when the research objective is to identify areas relating to service quality shortfalls for possible intervention by the managers, the SERVQUAL scale needs to be preferred because of its superior diagnostic power.

However, one serious problem with the SERVQUAL scale is that it entails gigantic data collection task. Employing a lengthy questionnaire, one is required to collect data about consumers' expectations as well as perceptions of a firm's performance on each of the 22 in our case 25 service quality scale attributes. Addition of importance weights can further add to the diagnostic power of the SERVQUAL scale, but the choice needs to be weighed against the additional task of data collection. Collecting data on importance scores relating to each of the 22/25 service attributes is indeed a major deterrent.

However, less tedious approach (SERVPERF), employed by the researchers to ease the data collection task and to successfully achieve our research objective.

2.4 ATM Service Quality Attributes

Organizations are aware that quality of service rendered or provided promulgates strategic competitiveness in dynamic business environment. Literature provides significant relationship between quality of service and firms' performance based on improved productivity, increased market share, enhanced customers' attraction and loyalty, improved staff morale and sustained profitability (Lassar W. M., Manolis C., and Winsor R. D., 2000).

Use of ATM has become exceedingly admirable and popular among customers as convenient mode of Banking Transactions. This technological innovation has transformed the Banking Business. The advantages and benefits of using ATM have given new impulsion in dimensions of quality of service and Banks are offering new choices to customers. The commonly used model, SERVQUAL (Parasuraman et al.,1988), SERVPERF (Cronin and Taylor, 1992) and BANKSERV, a model developed by Avkiran (1994) based on SERVQUAL, depends on the similar dimension of SQ that includes tangibles, reliability, responsiveness, empathy and assurance. However, depending on the product and or service under study the attributes in each of the dimensions have been different.

Several empirical studies have identified and verified a number of common elements within the five dimensions for ATM SQ.

The attributes of ATM SQ identified by empirical researchers includes the following 25 items:

- User friendliness of ATM systems (Joseph and Stone, 2003; Lovelock, 200)
- 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 (Islam et al., 2005)

- Returning fast swallowed cards (Islam et al., 2005)
- Quick replacement of lost cards, bank employees friendliness and security at ATMs (Al Hawari 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)
- Accessablity 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 sations, 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 and the number of ATMs per ATM locations (Dilijonas et al., 2009; Islam et al. , 2005; Joseph and Stone, 2003; Lovelock, 2000)

This study adopts the above 25 ATM SQ attributes validated by empirical researchers for measuring customer satisfaction with ATM banking service in selected commercial banks in Ethiopia. The above mentioned service quality can also be classified in to five service quality dimension comprised Tangible (6 items), reliability (6 items), responsiveness (6 items), assurance (3 items) and empathy (4 items) the five SQ dimensions provided by Parasuraman et al. (1988).

2.5. Dimension of ATMs Service Quality

The understanding from this review demonstrates that SQ dimensions are the starting point and it requires that items in each dimension be properly defined and tested for their validity to measure SQ in particular study context. Parasuraman, Berry and Zeithmal (1998) categorized service quality into five dimensions namely: reliability, tangibles, responsiveness, assurance, empathy whose descriptions are defined below.

SQ dimensions in an ATM study includes the following:

- **Tangibles:** It comprises the physical equipment, its appearance, support services and even the appearance of service personnel.
- **Reliability**: It refers the degree to which the ATMs offer accurate, dependable and timely services to the users.
- **Responsiveness:** The willingness of ATM service providers to help their customers and meet their needs and wants. In difficult situations it would also mean the ATM service provider's ability to respond effectively.
- **Assurance:** It refers the issues of confidence and trust that consumers have towards ATMs and feeling of safety in usage in case of perceived problems.
- **Empathy:** It refers the attention and care that the ATM service provider may offer to its customers and which may also to convenient operating arrangements in the use of ATMs.

2.6. Challenges In Banking Industry

2.6.1 Before Introduction Of ATM

Before the introduction of ATM the banking industry was face with a number of challenges some of which were:

i, Congestion

Customers were compelled to get to the banks within the stipulated operating times and resulted in them leaving work so as to beat the bank closing time and this more often resulted in congestion. This used to impact negatively on the quality of service delivery. But, the introduction of ATMs facilitated speed of transactions, improved accessibility and saved time for customers.

ii, Costs

Before the introduction of ATM banks needs to have a number of teller 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).

2.6.2 Challenges after the Introduction of ATMs in Banking Industry

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 are categorized into two – machine and human related challenges (Odachi, Gebriel Nwabounu, 211)

i. Machine Related Challenges:

- *Network Connectivity Problem*: This is one of the problems facing ATM application in Ethiopia. In this case communication are provided by Ethiopian Tele Com (ETC). ATMs are linked to the bank's main computer through the telecommunication channel which in an ideal situation is supposed to be permanently up. An unreliable communication link will result in the ATMs being offline most of the time. It is very disappointing when one goes to ATM to withdraw some money and will be told that ATM is out of Service.
- *Quality of Notes*: This is the physical state of the notes that are put in the ATM for dispensing purposes. The quality of notes that are put in the ATM have direct bearing on how well or how badly the ATM will operate as bad notes are usually the source of note jams in the ATMs which results in poor service.
- *No Cash in the Vault Syndrome*: This is a situation where ATM runs out of cash and not replaced immediately.
- *Inability of the Machine to Print out Receipt*: At times ATM machine gives the user a screen message showing its inability to print receipt. This is very disappointing too.
- *Wrong Debiting*: There are cases of ATM machine debiting the account of a customer without releasing the money to him. It takes time to rectify this problem.

- *Card Trapping*: At times the ATM card is trapped inside the machine, thereby frustrating the owner.
- There have been cases of ATM giving out money without debiting the account, or giving a higher value notes as a result of incorrect denomination loaded in the money cassettes.

ii. Human Related Challenges

- *Illiteracy/Lack of Skill***:** Some account holder cannot read and write. These people find it difficult to use ATM card. Others lack the basic skill on how to use ATM card. The result is that they seek for assistance. A dubious assistant can steal vital information from the card such as the cardholder's PIN and use it to defraud the person being assisted.
- *Basic ATM Infrastructure***:** Lack of basic infrastructure such as power is a major challenge to ATM application.
- *Robbery***:** Robbery at ATMs takes various shapes. The couriers who fill ATMs with cash are usually robbed, and the money in their possession taken away. Another ATM crime is the issue of a robber waiting outside ATM for a valid user to complete his transaction and be attacked and robbed.
- Other robbery cases include **theft of money from ATMs by bank/ATM service employees**; theft of personal identification numbers (PINs) through shoulder surfing; robbery of ATM cards and forcing the owners to reveal the PINs etc.

2.7. 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 card holders and the banks. Some of the benefits of ATM technology is bank decongestion, reduced cost of transactions for both customers and banks. This has drastically reduced banking time. The ability of ATM card holder to make withdrawal at any point in time and anywhere close to him or her is one of the greatest benefits of ATM technology. This has reduced the 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, Gebriel Nwabounu, 211).

2.7.1 Benefits of ATMs to Banks

Some benefits of ATMs mentioned by ATM gurus Triton (www.atmgurus.com)

- 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 9-5 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 bank's 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

2.7.2. 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 air-time 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 which can, and do, get citizens into debt.

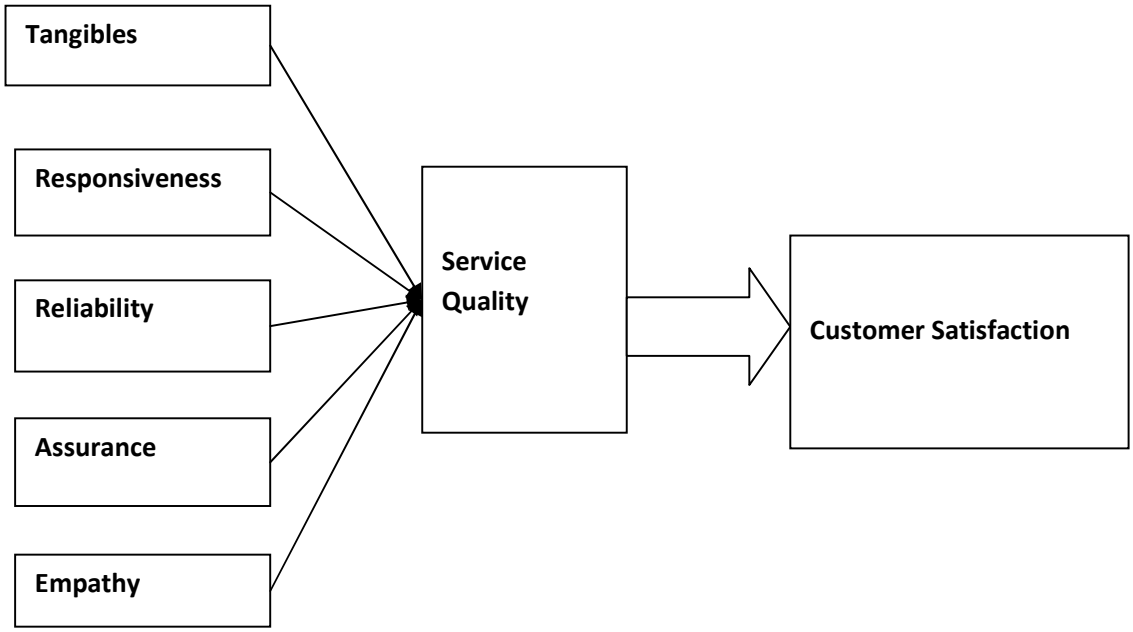
2.8 Empirical Review

Mesay Sata (2012) "Bank Service Quality, Customer Satisfaction and Loyalty in Ethiopian Banking Sector" Journal of Business Administration and Management Science Research Vol. 1(1), 2012. He tried to investigate the relationship between service quality, customer satisfaction and loyalty" This study uses five dimensions of SERVPERF model. Correlation and multiple regression were used to investigate the relationship between independent and dependent variables. The correlation results indicate that there is a positive correlation between the dimensions of service quality and customer satisfaction. The results of the regression test showed that offering quality service have positive impact on overall customer satisfaction. The research proves that empathy and responsiveness plays the most important role in customer satisfaction level followed by tangibility, assurance, and finally the bank reliability.

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 importance-performance 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.

Vijay M.Kumbhar (2011) "Customer satisfaction in ATM service; empirical evidences from public and private sector bank in India" Management Research and Practice vol. 3, Issue 2/2011. The study used performance only scale (SERVPERF) to assess service quality and customer satisfaction. Descriptive and correlation analysis used to answer research question. According to the study private sector banks are providing more satisfactory ATM services as compared to public sector banks. Empirical evidence of this study indicates that customers' perception about efficiency, security and responsiveness, cost effectiveness, problem handling and compensation and contact service related to ATM service is low in both public and private sector banks.

2.9 Research Model



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

The above model helped the study to assess customers' satisfaction with ATM banking in selected commercial banks located in Addis Ababa by providing a clear picture for assessing Customers' perceived service quality of ATM banking through the measurement of their perceptions of performance of ATM SQ attributes in each of the five dimensions (Tangibles, responsiveness, reliability, assurance, and empathy).

Research literature suggests that service quality is a more specific judgment which can lead to a broad evaluation of customer satisfaction (Oliver, 1993; Parasuraman et al, 1985, 1988, 2005; Cronin and Taylor, 1994). Service Quality is an antecedent of customer satisfaction (Anderson and Sullivan, 1993; Anderson and Fornell, 1994) and precursor in the measurement of customer satisfaction .The higher level of perceived service quality results in increased customer satisfaction. When perceived service quality is less than expected service quality customer will be dissatisfied (Jain and Gupta, 2004).

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter gives an outline of the research approach and methodology used in the study. The source of data required for conducting the study, sampling technique employed, method of data collection and analysis were presented in these sections. Moreover, the statistical method (SPSS) used to analyze the data and statistical model employed for presentation of the quantitative result briefly discussed here in this chapter.

3.2 Research Approach

This research focused on describing the current situation of the problem and test the hypothesis developed from the literature review and statement of the problem. The hypothesis developed tried to test the relationship between service quality attributes and SQ dimension had with customer satisfaction and also assess the influence that this service quality dimensions had on customer satisfaction. Descriptive and inferential analysis were used to answer research questions.

The questionnaires were distributed based on convenience and aimed to address those people believed to use ATM card for reasonable period that is more than three months. Purposive sampling was also used by targeting certain organizations employees using their ATM card as salary payment and would be in a position to provide the needed data.

3.3 Target Population and Sample Size

The study carried out in Addis Ababa city. It was also conducted through a survey of ATM users at the following banks: Commercial Bank, Dashen Bank and banks under PSS membership (AIB, BIB, UB and NIB) using shared ATMs. There are around 1.8 million ATM card holders in the city. The population size of the banks under study was assumed to be quite large and the sample size of 384 used for the study. Table 3.1 shows target population from which sample was drawn for the study.

Table 3.1 Target population of the study and sample taken

Bank	Number of ATM Machine	Number of ATM Card holder	Sample Taken / Questionnaire Distributed	Responded
CBE	889	1.300,000	260	210
DB	214	303,045	76	68
AIB	120	73,503*	49	38
UB	70	52,102*	34	29
NIB	20	39,275*	26	25
BI	4	5,287*	4	4
Total	**1,317**	**1,773,212**	**450**	**379**

* ATMs under PSS membership using shared ATM

The researcher distributed 450 questionnaires with the expectation of some questionnaires will remain uncollectable; and accordingly only 379 questionnaires collected from respondents. Judgment sampling was used as the banks under PSS membership and other two banks; Dashen and Commercial Bank of Ethiopia chosen for the study have a greater representation and experience than the other banks that have not been considered. Moreover, the banks not considered have just recently acquired ATMs. Convenience sampling was used for the study.

3.4 Data Sources and Data Collection Techniques

Primary and secondary data was used for the study:

Primary data was obtained by way of questionnaires that were both structured and open ended and these were distributed to the above mentioned banks ATM user believed to spend their time genuinely fill the questionnaire. Observation and some discussion with ATM user also conducted during various visit to ATMs stations**.**

Secondary data obtained from news print journals, magazines and internet which includes search from companies' website and documentaries.

3.5 Questionnaire Development and Administration

The questionnaire items adopted from previous researches which identifies ATM service quality attributes recommended by different researchers (Charles Mwatsika et. al. , 2014). After the items are identified, the questionnaires administered to the target population through personal contact by the researcher and their assistance. Convenience as well as judgment was used in the distribution of questionnaire to the ATM customers. Purposive sampling was also used to address those people that expected reasonably to use ATMs at least once in a month and selecting those institutions with employees under their domain that would be in a position to provide the needed data. The number of questionnaires distributed to each banks customer under study made proportionally that is based on the percentage of card holders from the target population.

The above mentioned sampling technique also used with the aim to facilitate the collection of questionnaires from the respondents by selecting those organizations working with the above banks having reasonable number of card holders. After identifying those institutions the researcher assigned individuals with the capacity to organize the distribution and timely collection of questionnaires. Around 20 individuals including four branch managers involved in the distribution and collection of questionnaires.

3.6 Data Analysis Methods

Data collected laid out in a manner that would make analysis easy. The statistical Package for Social Science (SPSS) version 20 used for analysis of the variables under investigation. To develop the measurement scale, the study adopted 25 validated ATM SQ attributes from various empirical studies.

The participants were asked to rate the ATM SQ 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. The Cronbach’s Alpha and KMO and Bartlett's Test can be used to measure scale reliability and sample adequacy to undertake the study. Descriptive statistics, correlation analysis and multiple regressions used to answer research question.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

The data were analyzed in different sections: reliability and non response bias analysis, descriptive analysis, correlation analysis, and multiple regression analysis.

- **Reliability*:*** in a study focuses on whether the research method and design are accurate (Cooper & Schindler, 2008).
- **Validity:** It refers to the degree to which a statistical instrument measures what it is intended to measure. It emphasize the accuracy of a measurement instrument(Cooper & Schindler, 2008).
- **Descriptive statistics**: to examine the variables being used based on their performance.
- **Correlation analysis** using Pearson's test was used to examine the association between service quality attributes or dimensions and customer satisfaction.
- **Multiple regression analysis** was used in an attempt to demonstrate the impact of five service quality dimensions in explaining the overall satisfaction of customers in ATM banking.

4.2 Reliability

The researcher started the data analysis by examining the reliability and validity of the sample data. The Cronbach Alpha score ranges from 0 to 1. George and Mallery (2003) provide the following rules of thumb: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable" (p. 231).

Table 4.1: Reliability Statistics for all service quality attributes

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.917	.918	26

Table 4.2: Reliability statistics for service quality dimensions and customer satisfaction

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.893	.894	6

Source: Compiled by author from SPSS version 20 result, 2015

Table 4.1 and 4.2 shows Cronbach's alpha coefficients for the study were 0.918 and 0.894, higher than benchmark of 0.70 of Cronbach's Alpha. These high Cronbach's alpha coefficients indicate that each construct had high internal consistency among the items measuring the constructs.

4.3 Validity Test (KMO and Bartlett's Test)

KMO measures sample adequacy of the study. It is said to be acceptable measure if the KMO is .6 or higher value (Sharma 1996). As per (Table 4.2) KMO measure of sample adequacy for all variables is greater than .6 for all domains with a value of .793 for reliability, .716 for responsiveness, .606 for assurance, .675 for empathy and, .837 for tangibles.

From the KMO test, it can be concluded that the sample is adequate to measure as the KMO for all service quality dimension is above the recommended value.

Table 4.3: KMO and Bartlett's Test

Variables		
Reliability	KMO measure of Sampling Adequacy	.793
Responsiveness	KMO measure of Sampling Adequacy	.716
Assurance	KMO measure of Sampling Adequacy	.606
Empathy	KMO measure of Sampling Adequacy	.675
Tangibles	KMO measure of Sampling Adequacy	.837

Source: Compiled by author from SPSS version 20 result, 2015

4.4 Respondents Demographics

Table 4.4 Demographics statistics

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	257	67.8	67.8	67.8
	Female	122	32.2	32.2	100.0
	Total	379	100.0	100.0	
Age	21 - 30	164	43.3	43.3	43.3
	31-40	144	38.0	38.0	81.3
	41-50	62	16.4	16.4	97.6
	>51	9	2.4	2.4	100.0
	Total	379	100.0	100.0	
	Total	**379**	**100.0**	**100.0**	

Table 4.4 shows more than 80% of ATM users age ranges from age 21 - 40 and indicates that this banking channel more preferred by younger societal group. Hence, commercial banks needs to do more to create awareness among the society at different age group.

4.5 Descriptive Data Analysis

Data obtained from the respondents using ATM card shown in table 4.3. A total of 379 respondents provided their opinion on perceived service quality and overall satisfaction.

Classification of service quality attributes in Table 4.5 to their respective dimension adopted from previous researchers (Charles Mwatsika et al., 2014).

Table 4.5: Service quality attributes statistics

Service attributes	Mean	Std. Deviation	Number	Quality Dimension
User friendliness of ATM system	4.1636	.92847	379	Reliability
Speed of ATM operation	3.9393	.97265	379	Reliability
Cash availability in ATMs	3.6570	1.01758	379	Reliability
Accuracy of Transaction by ATMs	3.4828	1.16909	379	Reliability
ATMs not out of order	2.9947	1.05659	379	Reliability
Waiting times ATMs	3.9604	1.04198	379	Reliability
Employee effectiveness in solving ATM problem	3.0449	1.00822	379	Responsiveness
Employee speed in responding to ATM problems	3.1003	1.00025	379	Responsiveness
Returning fast swallowed cards	3.1557	1.01290	379	Responsiveness
Quick replacement of lost cards	2.5594	1.11200	379	Responsiveness
Easy process of applying for ATM cards	3.7388	.88661	379	Responsiveness
Bank employees friendliness	3.5541	1.0686	379	Responsiveness
Advise on ATM usage and security	3.5567	1.14957	379	Assurance
Privacy when using ATMs	3.8259	1.12747	379	Assurance
Security at ATMs	3.8311	1.00685	379	Assurance
Fees charged	3.8918	.94640	379	Empathy
Convenient location	3.4776	1.11574	379	Empathy
Accessibility of employee to solve ATM problem	3.1451	1.07030	379	Empathy
Easy access to ATMs	3.3087	1.23751	379	Empathy
Cleanness of ATMs and ATM stations	3.8338	.89757	379	Tangible
Appearance of corporate branding on ATMs	3.5884	1.10049	379	Tangible
Issuing of clean or new notes	3.7361	1.08819	379	Tangible
Issuing of readable slips	3.2533	1.23409	379	Tangible
Accessibility of wide range of services	3.1583	1.21335	379	Tangible
Number of ATMs per station	2.8654	1.21731	379	Tangible
Generally how happy are you with ATM service that is provided by the banks?	**3.670**	.96742	379	

Source: Compiled by author from SPSS version 20 result, 2015

Table 4.5 shows user friendliness of ATMs, Speed of operations, cash availability, waiting times, easiness of process to apply for ATM cards, bank employees friendliness, advise on ATM usage, privacy, security, fees charged, cleanness of ATM, appearance of corporate brand and issuing of clean notes had the highest mean of above 3.5.

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, 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.

Table 4.6: Descriptive Statistics of Service Quality Dimensions

	Mean	Std. Deviation	N
Reliability	3.6996	.72831	379
Responsiveness	3.1922	.61966	379
Assurance	3.7379	.83001	379
Empaty	3.4558	.84017	379
Tangibles	3.4059	.80549	379
Generally how haappy are you with ATM service that is provided by the banks?	3.6702	.96742	379

Source: Compiled by author from SPSS version 20 result, 2015

Descriptive statistics of Table 4.6 shows service quality attributes under reliability and assurance on average had the highest mean (3.7 and 3.738) respectively. Items under responsiveness dimension were perceived lowest (3.192).

Table 4.7: Rating of ATM attribute according to their perceived performance "good to Very good"

Item	Performing 'good to Very good'
User friendliness of ATM system	80.2%
Speed of ATM operation	75.2%
Cash availability in ATMs	61.8%
Accuracy of Transaction by ATMs	53.3%
ATMs not out of order	31.2%
Waiting times ATMs	74.2%
Employee effectiveness in solving ATM problem	39.0%
Employee speed in responding to ATM problems	37.5%
Returning fast swallowed cards	40.7%
Quick replacement of lost cards	23.2%
Bank employee friendliness	61.7%
Easy process of applying for ATM cards	63.0%
Security at ATMs	70.7%
Advise on ATM usage and security	58.0%
Privacy when using ATMs	68.4%
Fees charged	67.0%
Convenient location	56.4%
Accessibility of employee to solve ATM problem	37.2%
Easy access to ATMs	49.3%
Cleanness of ATMs and ATM stations	74.4%
Appearance of corporate branding on ATMs	60.7%
Issuing of clean or new notes	72.8%
Issuing of readable slips	50.4%
Accessibility of wide range of services	43.8%
Number of ATMs per station	33.7%
Customer Satisfaction	68.6%

Source: Compiled by author from SPSS version 20 result

Table 4.7 shows performance rate of ATM SQ attributes to be performing 'good' to 'very good' by respondents. ATM services have been rated to perform extremely well in system usability by 80.2% of the respondents, speed of ATMs(75.2%), waiting times ATMs(74.2%), security at ATMs (70.7%), cleanness of ATMs and ATM stations (74.4%) and issuing of clean or new notes (72.8%).

Performance ratings on average have been very low in responsiveness (44.19%). Banks in Ethiopia are performing poorly in the provision of responsive ATM services. Employee effectiveness was rated good by only by 39% of the participants; employee speed in responding to ATM problem 37.5%, returning fast swallowed cards 40.7%, quick replacement of lost cards 23.2%, accessibility of employees to solve ATM problem 37.2%, easy access to ATMs 49.3%, accessibility of wide range services 43.8 and number of ATM per station 33.7% and all these attributes perceived low in performance relate to personnel and management decision making.

Table 4.8: Performance rating of service quality dimension "good to very good"

Service quality Dimension	Performance rate in % (good to Very good)
Tangibles	55.98
Reliability	62.62
Responsiveness	44.19
Assurance	65.70
Empathy	52.50

Source: Compiled by author from SPSS version 20 result

As per (Table 4.8) when SQ dimensions are ranked based on average performance rating of all attributes in each dimension, assurance(65.7%) ranks first followed by reliability (62.2%), tangibles(55.98), empathy(52.2%) and lastly performing below average responsiveness(44.19).

Customer Satisfaction:

Customer satisfaction is the degree to which a customer believes that the use of a service evokes positive feelings (Rust & Oliver, 1994). Hence in general (Table 4.5 - 4.8) answers Question 1, which requests the level of service quality ATMs offering. Hence, the result of the study

confirms over all customers are fairly satisfied with the level of service quality offered through ATM banking.

4.6 Correlation Analysis

The interrelationships of perceived service quality dimensions in the study were also investigated through correlation analysis. This section involves answers to Research Question 2 and 3.

Table 4.9: Spearman Correlation between SQ Attributes and Customer Satisfaction

Items	ATM SQ performance correlation to customer satisfaction with ATM service	
	Spearman Correlation	Sig. (2-tailed)
User friendliness of ATM system	.374**	0.000
Speed of ATM operation	.502**	0.000
Cash availability in ATMs	.467**	0.000
Accuracy of Transaction by ATMs	.514**	0.000
ATMs not out of order	.470**	0.000
Waiting times ATMs	.471**	0.000
Employee effectiveness in solving ATM problem	.200**	0.000
Employee speed in responding to ATM problems	.234**	0.000
Returning fast swallowed cards	.208**	0.000
Quick replacement of lost cards	.380**	0.000
Bank employee friendliness	.275**	0.000
Easy process of applying for ATM cards	.551**	0.000
Security at ATMs	.642**	0.000
Advise on ATM usage and security	.426**	0.000
Privacy when using ATMs	.350**	0.000
Fees charged	.641**	0.000
Convenient location	.386**	0.000
Accessibility of employee to solve ATM problem	.628**	0.000
Easy access to ATMs	.530**	0.000
Cleanness of ATMs and ATM stations	.438**	0.000
Appearance of corporate branding on ATMs	.568**	0.000
Issuing of clean or new notes	.447**	0.000
Issuing of readable slips	.372**	0.000
Accessibility of wide range of services	.655**	0.000
Number of ATMs per station	.426**	0.000

**. Correlation is significant at the 0.01 level (2- tailed). List wise N= 379

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

Source: Compiled by author from SPSS version 20

Table 4.9 shows the correlation between all the predictor variables and dependent variable. The correlation analysis between ATM services satisfaction and ATM SQ attributes shows that all SQ attributes significantly correlate to customers' satisfaction positively except four items under responsiveness dimensions. 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. Under the responsiveness dimension only quick replacement of lost cards significantly correlates to customer satisfaction. But, under responsiveness dimension, employee effectiveness in solving ATM related problems, employee speed in responding to ATM problem, returning fast swallowed cards and bank employees friendliness correlates to other quality attributes which does not in itself correlate to customers' satisfaction.

From Table 4.9 it was concluded that Service quality attributes perceived by customers does have significant correlation with customer satisfaction; hence, we reject Ho1 and accept Ha1.

Table 4.10: Spearman correlation between service quality dimension and customer satisfaction

	Customer Satisfaction	Reliability	Responsiveness	Assurance	Empathy	Tangibles
Customer Satisfaction	1.000	-	-	-	-	-
Reliability	.658	1.000	-	-	-	-
Responsiveness	.485	.515	1.000	-	-	-
Assurance	.655	.542	.482	1.000	-	-
Empathy	.671	.627	.432	.573	1.000	-
Tangibles	.672	.507	.371	.635	.595	1.000

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

Source: Compiled by author from SPSS version 20, 2015

Table 4.10 shows that all SQ dimensions significantly correlate to customer satisfaction at varying degrees depending on the type of SQ attribute they contain. The highest correlation is between assurance, tangibles and customer satisfaction (0.683); followed by reliability (.653) and

empathy (.662). The weakest correlation is between responsiveness and customer satisfaction (.514). From the above table we can conclude that Service quality dimension perceived by customers does have significant correlation with customer satisfaction; hence, we reject Ho2 and accept Ha2.

4.7 Multiple Regression Analysis

Multiple regression analysis was utilized to investigate the relationship between service quality dimensions (independent variables) and customer satisfaction (dependent variable) or the contribution of each of the independent variables to dependent variable answering Research Question 4.

Table 4.11: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.802a	.643	.638	.58168	.643	134.514	5	373	.000	1.683

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

b. Dependent Variable: Generally how happy are you with ATM service that is provided by the banks?

Source: Compiled by author from SPPSS version 20, 2015

Table 4.12 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	227.567	5	45.513	134.514	.000b
	Residual	126.206	373	.338		
	Total	353.773	378			

a. Dependent Variable: Generally how happy are you with ATM service that is provided by the banks?

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

Table 4.11 used to investigate the relationship between service quality dimensions (independent variables) and customer satisfaction (dependent variable). As per the regression result, the adjusted R square of .638 indicates 63.8% 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 36.2% customer satisfaction is influenced by other variables outside the variable under study

Table 4.12 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

Table 4.13: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.609	.182		-3.357	.001		
	Reliability	.282	.058	.212	4.864	.000	.501	1.995
	Responsiveness	.125	.061	.080	2.056	.040	.636	1.573
	Assurance	.253	.056	.217	4.557	.000	.422	2.372
	Empaty	.255	.050	.222	5.103	.000	.508	1.970
	Tangibles	.297	.055	.247	5.380	.000	.453	2.206

a. Dependent Variable: Customer Satisfaction

Source: Compiled by author from SPPSS version 20, 2015

As per multiple regression coefficients result (Table 4.13), customer satisfaction is positively influenced by all service quality dimension.

The table further helps us to assess the effect of each predictor had on customer satisfaction. For example, in the B column for reliability the value .282 means that for every one unit increase in the response to this question, satisfaction increases by .282 units. From the above table tangible

(.297) had the highest influence followed by reliability (.282). But responsiveness (.125) had the least influence on customer satisfaction compared to the other dimensions.

By using the B coefficients for all significant predictor, we can create a prediction equation to use for overall customer satisfaction.

Customer Satisfaction = -.609 + (.282 × reliability + .125 × responsiveness + .253 × assurance + .255 × empathy + .297 × tangibles)

Moreover, Table 4.13 helps us to identify critical predictor that helps to significantly improve customer satisfaction. Based on that commercial banks can develop efficient and effective strategy for improving customer satisfaction, with a focus on only relevant features. Banks also use this information to make predictions about dissatisfied customers, and target future marketing efforts appropriately.

From table 4.11, 4.12 and 4.13 we can conclude that Service quality attributes perceived by customers does have significant influences on customer satisfaction or offering quality service have positive impact on overall customer satisfaction; hence, we reject Ho3 and accepted Ha3.

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CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summery of Findings

- The result of the study shows that over half of the respondents that is 68.6% of respondents are satisfied with ATM services from their respective banks.
- The study further shows approximately 119 (31.4%) of the respondents did not agree with or were neutral to ward this item
- The result demonstrates all SQ attributes and dimensions significantly correlate to customer satisfaction.
- Service quality attributes perceived by customers does have significant influences on customer satisfaction, supporting the research model, which shows service quality as an antecedent of customer satisfaction
- Performance ratings on reliability and assurance dimension have been the highest.
- Performance rating on average has been low in responsiveness (44.19%)
- Employee effectiveness, employee speed in responding to ATM problem, returning fast swallowed cards, quick replacement of lost cards, accessibility of employees to solve ATM problem, easy access to ATMs, accessibility of wide range services and number of ATM per station rated good to very good by less than 50% of respondents.
- All attributes related to personnel and management decision making performed the lowest.
- In general attributes in tangibles and reliability dimension whose performance perceived good, are closely related to performance of ATM technology while the attributes in responsiveness perceived not so good relate to personnel and management functionality.

5.2 Conclusion

This study confirms most of the respondents are fairly satisfied with bank ATM services. All the SQ attributes adopted from empirical researches are valid attributes of ATM SQ and that all the five SQ 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 SQ but the downside is the supporting services and management decisions in the delivery of ATM services. The result have further found that service quality performance under responsiveness dimension performing the least among the other service quality dimension. ATM banking performed the lowest in ATMs not out of order, employee effectiveness in solving ATM problem, employee speed in responding to ATM problems, returning fast swallowed cards, quick replacement of lost cards, accessibility of employee to solve ATM problems, easy access to ATMs, accessibility of wide range of service and number of ATMs per station.

Most attributes perceived low in performance are related to personnel and management decision making. Competition in banking industry is getting tough, and to create competitive advantage and customer satisfaction only through ATM technology, cannot bring the intended result, as it were in the early introduction of ATM to the market. Hence, banks to create competitive advantage and achieve more customer satisfaction needs to improve supporting service and managerial decision, working on those area identified by the researcher as a weakness in ATM banking.

5.3 Recommendation

There is a need to improve in ATM cards application process, employee effectiveness and speed in handling ATM issues such as fast return of cards and quick replacement of lost cards and passwords. Improved management decisions are required when installing ATMs to provide customers with ease of access and convenience in the usage of ATM service to ensure increased preference to ATM banking. ATM custodians need to be well trained in order to handle customer queries confidently and competently. The bank should provide phone support to clients who

experience service interuption, so users can get direct assistance. In addition, there should be a standby team equiped with a car that can be dispatched to any location where a customer faces an convenience. There is need to improve on the communication link by the banks negotating with Ethio Tel Com to avoid interuptions which results in communication break between the ATM and main server resulting failure to process the transaction accurately. Bank should consider having staff specifically assigned to carry out routine checks with the customers so as to improve on their response to queries as this one area of concern. 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. Quality of notes is negatively affecting quality of service provided to customer through ATMs. The quality of notes needs to be improved to avoid note jams in the ATMs. Hence, all banks should work hard to create awareness to the importance and convenience it brings for them, among the public at large to increase ATM card holders and also should adopt a holistic strategy to promote ATM usage at the branch.

5.4 Future Research

The researcher assessed customer satisfaction on ATM banking focusing only in Addis Ababa. Hence, it will be necessary to replicate this study on a sample different in demographic characteristics such as having low levels of education and indifferent regions of the country, for comparison of the study results. This also would help in developing ATM banking as strategic access channel for bank products and services.

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Appendix 1: Questionnaire for ATM users

Feb. 25, 2015

Survey Questionnaire

Part 1

A. General information

Customer Name: ----------

Bank Name: ----------

Type of Account: Current / Savings / Fixed Deposit / Any other

Gender: Male / Female

Marital Status: Married / Single

Age:

- Under 20
- 21 – 30 years
- 31 – 40 years
- 41 – 50 years
- Above 50 years

Questionnaire for ATM users

Your Bank _____

Performance of ATMs against the following variables /የኤ ቲ ኤሞች አገልግሎት በሚከተሉት መመዘኛዎች

S. No	Service quality attributes	Very poor (እጅግ ደካማ)	Poor (ደካማ)	Neutral (አይታወቅም /መካከለኛ)	Good (ጥሩ)	Very Good (እጅግ በጣም ጥሩ)
		1	2	3	4	5
1	User friendliness of ATM system የኤቲኤሞች ለአጠቃቀም ምቹ እና ቀላል መሆን					
2	Speed of ATM operation የኤቲኤሞች አገልግሎት መስጠት ፍጥነት					
3	Cash availability in ATMs በኤቲኤሞች ውስጥ አገልገሎቱን ለማግኘት ገንዘብ መኖር					
4	Accuracy of Transaction by ATMs የኤቲኤም ማሽኖች አገልግሎቶችን በትክክል መፈፀም /ሂሳቡን በአግባቡ ቀንሶ ገንዘብ መስጠት/					
5	ATMs not out of order የኤቲኤሞች ከአገልግሎት ውጪ አለመሆን					
6	Waiting times ATMs አገልግሎቱን ለማግኘት የሚወሰደው ግዜ					
7	Employee effectiveness in solving ATM problem የባንኩ ሰራተኞች ከኤቲኤም ጋር የተያያዙ ችግሮችን የመፍታታ ብቃት					
8	Employees speed in responding to ATM problems የባንኩ ሠራተኞች በኤቲኤም አገልግሎት ላይ ለሚከሰት ችግር ፈጣን ምላሽ መስጠት					
9	Returning fast swallowed cards በኤቲኤም ማሽን የተያዙ ካርዶችን በፍጥነት መመለስ					
10	Quick replacement of lost cards የጠፋቦትን ካርድን በፍጥነት መተካት					

S. No	Service quality attributes	Very poor (እጅግ ደካማ)	Poor (ደካማ)	Neutral (አይታወቅም/መ ካከለኛ)	Good (ጥሩ)	Very Good (እጅግ በጣም ጥሩ)
		1	2	3	4	5
11	Bank employee friendliness የባንኩ ሠራተኞች ከደንበኞች ጋር ያላቸው ግንኙነት					
12	Security at ATMs በኤቲኤሞች አካባቢ አገልግሎቶችን ለማግኘት ያለው የደህንነት ሁኔታ					
13	Fees Charged የአገልግሎቱ ክፍያ ተመጣጣኝነት					
14	Convenient location የኤቲኤሞችበአመቺ ቦታ መገኘት					
15	Accessibility of employee to solve ATM problem የባንኩ ሠራተኞች በኤቲኤም አገልግሎት ላይ በተያያዘ ለሚገጥሞት ችግር በማንኛውም ግዜ መገኘት					
16	Easy access to ATMs ኤቲኤሞችን ለአገልግሎት በቀላሉ ማግኘት					
17	Advise on ATM usage and security ተገቢውን ምክር ስለ ኤቲኤም አጠቃቀም እና መደረግ ስላለበት ጥንቃቄ ከባንኩ ይሰጥዎታል					
18	Privacy when using ATMs የኤቲኤሞችን በሚጠቀሙበት ግዜ ነፃነቱ የተጠበቀ ስለመሆኑ					
19	easy process of applying for ATM cards ኤቲኤም ካርድ አገልግሎት ጥቃቄዎች በቀላሉ ስለመከናወን					
20	Cleanliness of ATMs and ATM stations የኤቲኤም ማሽኖች እና የስቴሽኖች የጽዳት ሁኔታ					
21	Appearance of corporate branding on ATMs ኤቲኤም ማሽኖች አገልግሎት የሚሰጡበት ቦታ ምልክቶች ለደንበኞች በሚታይ መልኩ መሆናቸው					

S. No	Service quality attributes	Very poor (እጅግ ደካማ)	Poor (ደካማ)	Neutral (አይታወቅም/ መካከለኛ)	Good (ጥሩ)	Very Good (እጅግ በጣም ጥሩ)
		1	2	3	4	5
22	Issuing of clean or new notes በኤቲኤም ማሽን የሚከፈል የብር ኖቶች ጥራት በተመለከተ					
23	Issuing of readable slips የኤቲኤም ማሽኖች የሚነበብ ደረሰኝ ወይም እስቴትመንቶችን መስጠት					
24	Accessibility of wide range of services የኤቲኤም ማሽኖች የተሟላ እና ዘርፈ ብዙ አገልግሎት ስለመስጠታቸው					
25	Number of ATMs per station በቂ የኤቲኤም ማሽኖች በየ እስቴሽኑ የመገኘቱ ሁኔታ					

1. Generally how happy are you with ATM service that is provided by the banks?
   ባጠቃለይ ባንኩ የሚሰጠው የኤቲኤም አገልግሎትን እንዴት ያዩታል?
   A. Very poor (**እጅግ ደካማ**)
   B. Poor (**ደካማ**)
   C. Neutral (**አይታወቅም/መካከለኛ**)
   D. Good (**ጥሩ**)
   E. Very good (**እጅግ በጣም ጥሩ**)
2. What do you think needs to be done to improve the service you get through the ATM.
   የኤቲኤም አገልግሎትን ለማሻሻል ወይም የበለጠ ጥሩ ለማድረግ ያለባቸውን በዝርዝር ይግለፁ _____
   _____

Appendix 2: SPSS Results

Reliability and Validity Test Statistics

Reliability Statistics

Cronbach's Alpha	N of Items
.893	6

Reliability KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.793
Bartlett's Test of Sphericity	Approx. Chi-Square	642.548
	df	15
	Sig.	.000

Responsiveness KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.716
Bartlett's Test of Sphericity	Approx. Chi-Square	363.084
	df	15
	Sig.	.000

Assurance KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.606
Bartlett's Test of Sphericity	Approx. Chi-Square	148.247
	df	3
	Sig.	.000

Empathy KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.675
Bartlett's Test of Sphericity	Approx. Chi-Square	417.988
	df	6
	Sig.	.000

Tangibles KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.837
Bartlett's Test of Sphericity	Approx. Chi-Square	662.899
	df	15
	Sig.	.000

Descriptive Statistics

Descriptive Statistics

	N	Mean	Std. Deviation
User friendliness of ATM system	379	4.16	.928
Speed of ATM operation	379	3.94	.973
Cash availablity in ATMs	379	3.66	1.018
Accuracy of Transaction by ATMs	379	3.48	1.169
ATMs not out of order	379	2.99	1.057
Waiting times ATMs	379	3.9604	1.04198
Employee effectivness insolving ATM problem	379	3.0449	1.00822
Employee speed in responing to ATM problems	379	3.1003	1.00025
Returning fast swallowed cards	379	3.1557	1.01290
Quick replacement of lost cards	379	2.5594	1.11200
Bank employee friendliness	379	3.5541	1.06860
Security at ATMs	379	3.8311	1.00685
Fees chrged	379	3.8918	.94640
Convenient location	379	3.4776	1.11574
Accesseblity of employee to solve ATM problem	379	3.1451	1.07030
Easy access to ATMs	379	3.3087	1.23751
Advise on ATM usage and security	379	3.5567	1.14957
Privacy when uing ATMs	379	3.8259	1.12747
Easy process of applying for ATM cards	379	3.7388	.88661
Cleaness of ATMs and ATM stations	379	3.8338	.89757
Appeance of corporate branding on ATMs	379	3.5884	1.10049
Issuing of clean or new notes	379	3.7361	1.08819
Issuing of readable slips	379	3.2533	1.23409
Acceasablity of wide range of services	379	3.1583	1.21335
Number of ATMs per station	379	2.8654	1.21731
Generally how haappy are you with ATM service that is provided by the banks?	379	3.6702	.96742
Valid N (listwise)	379		

User friendliness of ATM system

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	4	1.1	1.1	1.1
	Poor	21	5.5	5.5	6.6
	Neutral	50	13.2	13.2	19.8
	Good	138	36.4	36.4	56.2
	Very good	166	43.8	43.8	100.0
	Total	379	100.0	100.0	

Speed of ATM operation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	5	1.3	1.3	1.3
	Poor	36	9.5	9.5	10.8
	Neutral	53	14.0	14.0	24.8
	Good	168	44.3	44.3	69.1
	Very good	117	30.9	30.9	100.0
	Total	379	100.0	100.0	

Cash availablity in ATMs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	69	18.2	18.2	18.2
	Neutral	76	20.1	20.1	38.3
	Good	150	39.6	39.6	77.8
	Very good	84	22.2	22.2	100.0
	Total	379	100.0	100.0	

Accuracy of Transaction by ATMs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	18	4.7	4.7	4.7
	Poor	70	18.5	18.5	23.2
	Neutral	89	23.5	23.5	46.7
	Good	115	30.3	30.3	77.0
	Very good	87	23.0	23.0	100.0
	Total	379	100.0	100.0	

ATMs not out of order

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	30	7.9	7.9	7.9
	Poor	91	24.0	24.0	31.9
	Neutral	140	36.9	36.9	68.9
	Good	87	23.0	23.0	91.8
	Very good	31	8.2	8.2	100.0
	Total	379	100.0	100.0	

Waiting times ATMs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	15	4.0	4.0	4.0
	Poor	20	5.3	5.3	9.2
	Neutral	63	16.6	16.6	25.9
	Good	148	39.1	39.1	64.9
	Very good	133	35.1	35.1	100.0
	Total	379	100.0	100.0	

Employee effectivness insolving ATM problem

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	21	5.5	5.5	5.5
	Poor	105	27.7	27.7	33.2
	Neutral	105	27.7	27.7	60.9
	Good	132	34.8	34.8	95.8
	Very good	16	4.2	4.2	100.0
	Total	379	100.0	100.0	

Employee speed in responing to ATM problems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	22	5.8	5.8	5.8
	Poor	83	21.9	21.9	27.7
	Neutral	132	34.8	34.8	62.5
	Good	119	31.4	31.4	93.9
	Very good	23	6.1	6.1	100.0
	Total	379	100.0	100.0	

Returning fast swallowed cards

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	16	4.2	4.2	4.2
	Poor	92	24.3	24.3	28.5
	Neutral	117	30.9	30.9	59.4
	Good	125	33.0	33.0	92.3
	Very good	29	7.7	7.7	100.0
	Total	379	100.0	100.0	

Quick replacement of lost cards

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	65	17.2	17.2	17.2
	Poor	142	37.5	37.5	54.6
	Neutral	84	22.2	22.2	76.8
	Good	71	18.7	18.7	95.5
	Very good	17	4.5	4.5	100.0
	Total	379	100.0	100.0	

Bank employee friendliness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	19	5.0	5.0	5.0
	Poor	49	12.9	12.9	17.9
	Neutral	77	20.3	20.3	38.3
	Good	171	45.1	45.1	83.4
	Very good	63	16.6	16.6	100.0
	Total	379	100.0	100.0	

Security at ATMs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	8	2.1	2.1	2.1
	Poor	39	10.3	10.3	12.4
	Neutral	64	16.9	16.9	29.3
	Good	166	43.8	43.8	73.1
	Very good	102	26.9	26.9	100.0
	Total	379	100.0	100.0	

Fees chrged

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	3	.8	.8	.8
	Poor	26	6.9	6.9	7.7
	Neutral	96	25.3	25.3	33.0
	Good	138	36.4	36.4	69.4
	Very good	116	30.6	30.6	100.0
	Total	379	100.0	100.0	

Convenient location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	19	5.0	5.0	5.0
	Poor	63	16.6	16.6	21.6
	Neutral	83	21.9	21.9	43.5
	Good	146	38.5	38.5	82.1
	Very good	68	17.9	17.9	100.0
	Total	379	100.0	100.0	

Accessibility of employee to solve ATM problem

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	25	6.6	6.6	6.6
	Poor	77	20.3	20.3	26.9
	Neutral	136	35.9	35.9	62.8
	Good	100	26.4	26.4	89.2
	Very good	41	10.8	10.8	100.0
	Total	379	100.0	100.0	

Easy access to ATMs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	25	6.6	6.6	6.6
	Poor	97	25.6	25.6	32.2
	Neutral	70	18.5	18.5	50.7
	Good	110	29.0	29.0	79.7
	Very good	77	20.3	20.3	100.0
	Total	379	100.0	100.0	

Advise on ATM usage and security

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	24	6.3	6.3	6.3
	Poor	46	12.1	12.1	18.5
	Neutral	89	23.5	23.5	42.0
	Good	135	35.6	35.6	77.6
	Very good	85	22.4	22.4	100.0
	Total	379	100.0	100.0	

Privacy when uing ATMs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	21	5.5	5.5	5.5
	Poor	27	7.1	7.1	12.7
	Neutral	72	19.0	19.0	31.7
	Good	136	35.9	35.9	67.5
	Very good	123	32.5	32.5	100.0
	Total	379	100.0	100.0	

Easy process of applying for ATM cards

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	5	1.3	1.3	1.3
	Poor	23	6.1	6.1	7.4
	Neutral	112	29.6	29.6	36.9
	Good	165	43.5	43.5	80.5
	Very good	74	19.5	19.5	100.0
	Total	379	100.0	100.0	

Cleaness of ATMs and ATM stations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	10	2.6	2.6	2.6
	Poor	21	5.5	5.5	8.2
	Neutral	66	17.4	17.4	25.6
	Good	207	54.6	54.6	80.2
	Very good	75	19.8	19.8	100.0
	Total	379	100.0	100.0	

Appeance of corporate branding on ATMs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	16	4.2	4.2	4.2
	Poor	55	14.5	14.5	18.7
	Neutral	78	20.6	20.6	39.3
	Good	150	39.6	39.6	78.9
	Very good	80	21.1	21.1	100.0
	Total	379	100.0	100.0	

Issuing of clean or new notes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	18	4.7	4.7	4.7
	Poor	47	12.4	12.4	17.2
	Neutral	38	10.0	10.0	27.2
	Good	190	50.1	50.1	77.3
	Very good	86	22.7	22.7	100.0
	Total	379	100.0	100.0	

Issuing of readable slips

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	35	9.2	9.2	9.2
	Poor	86	22.7	22.7	31.9
	Neutral	67	17.7	17.7	49.6
	Good	130	34.3	34.3	83.9
	Very good	61	16.1	16.1	100.0
	Total	379	100.0	100.0	

Acceasablity of wide range of services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	43	11.3	11.3	11.3
	Poor	72	19.0	19.0	30.3
	Neutral	98	25.9	25.9	56.2
	Good	114	30.1	30.1	86.3
	Very good	52	13.7	13.7	100.0
	Total	379	100.0	100.0	

Number of ATMs per station

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	60	15.8	15.8	15.8
	Poor	94	24.8	24.8	40.6
	Neutral	97	25.6	25.6	66.2
	Good	93	24.5	24.5	90.8
	Very good	35	9.2	9.2	100.0
	Total	379	100.0	100.0	

Generally how haappy are you with ATM service that is provided by the banks?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	13	3.4	3.4	3.4
	Poor	38	10.0	10.0	13.5
	Neutral	68	17.9	17.9	31.4
	Good	202	53.3	53.3	84.7
	Very good	58	15.3	15.3	100.0
	Total	379	100.0	100.0	

Correlations

		Reliability	Responsiveness	Assurance	Empaty	Tangibles	Customer Satisfaction
Reliability	Pearson Correlation	1	.534**	.573**	.612**	.557**	.653**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	379	379	379	379	379	379
Responsiveness	Pearson Correlation	.534**	1	.533**	.446**	.432**	.514**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	379	379	379	379	379	379
Assurance	Pearson Correlation	.573**	.533**	1	.588**	.693**	.683**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	379	379	379	379	379	379
Empaty	Pearson Correlation	.612**	.446**	.588**	1	.597**	.662**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	379	379	379	379	379	379
Tangibles	Pearson Correlation	.557**	.432**	.693**	.597**	1	.683**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	379	379	379	379	379	379
Customer satisfaction	Pearson Correlation	.653**	.514**	.683**	.662**	.683**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	379	379	379	379	379	379

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

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.802a	.643	.638	.58168	.643	134.514	5	373	.000	1.683

a. Predictors: (Constant), Tangibles, Responsiveness, Empaty, Reliability, Assurance
b. Dependent Variable: Generally how haappy are you with ATM service that is provided by the banks?

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	227.567	5	45.513	134.514	.000b
	Residual	126.206	373	.338		
	Total	353.773	378			

a. Dependent Variable: Generally how haappy are you with ATM service that is provided by the banks?
b. Predictors: (Constant), Tangibles, Responsiveness, Empathy, Reliability, Assurance

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.609	.182		-3.357	.001
	Reliability	.282	.058	.212	4.864	.000
	Responsiveness	.125	.061	.080	2.056	.040
	Assurance	.253	.056	.217	4.557	.000
	Empathy	.255	.050	.222	5.103	.000
	Tangibles	.297	.055	.247	5.380	.000

a. Dependent Variable: Generally how haappy are you with ATM service that is provided by the banks?

Correlations

		Reliability	Responsiveness	Assurance	Empaty	Tangibles	Generally how haappy are you with ATM service that is provided by the banks?
Reliability	Pearson Correlation	1	.534**	.573**	.612**	.557**	.653**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	379	379	379	379	379	379
Responsiveness	Pearson Correlation	.534**	1	.533**	.446**	.432**	.514**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	379	379	379	379	379	379
Assurance	Pearson Correlation	.573**	.533**	1	.588**	.693**	.683**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	379	379	379	379	379	379
Empaty	Pearson Correlation	.612**	.446**	.588**	1	.597**	.662**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	379	379	379	379	379	379
Tangibles	Pearson Correlation	.557**	.432**	.693**	.597**	1	.683**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	379	379	379	379	379	379
Generally how haappy are you with ATM service that is provided by the banks?	Pearson Correlation	.653**	.514**	.683**	.662**	.683**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	379	379	379	379	379	379

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