

**THE IMPACT OF AUTOMATED TELLER MACHINE SERVICE QUALITY
ON CUSTOMER SATISFACTION AND FUTURE PROSPECTS OF ATM:
IN THE CASE OF COMMERCIAL BANK OF ETHIOPIA.**

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**THE "IMPACT OF ATM SERVICE QUALITY ON CUSTOMER SATISFACTION
AND FUTURE PROSPECTS": THE CASE OF CBE IN ADDIS ABABA**

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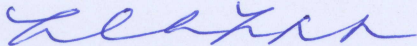
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STATEMENT OF CERTIFICATION

This is to certify that Daniel Abebe has carried out this thesis work entitled ***"THE IMPACT OF AUTOMATED TELLER MACHINE SERVICE QUALITY ON CUSTOMER SATISFACTION AND FUTURE PROSPECTS : IN THE CASE OF COMMERCIAL BANK OF ETHIOPIA"***.

The work is original in nature and is suitable for submission for the award of the Master of Art Degree in Marketing Management.

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Date : 23 May 2014

Declaration

Here I, Daniel Abebe, the student researcher make a declaration that this research work which is entitled by "**The Impact of ATM Service Quality on Customer Satisfaction and Future Prospects :in the case of CBE**" is my original and genuine work and has not been presented neither in Addis Ababa University nor elsewhere across the globe. Accordingly all sources of materials that have been utilized in the research work have been duly acknowledged.

Daniel Abebe Jimma(the student researcher)

Signature.....Date

Date.....

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Acronyms

ATM: Automatic teller machine

CBE: Commercial Bank of Ethiopia

E-business: Electronic business

E-Recs-QUAL: Electronic recovery service quality

E-S-QUAL: Electronic service quality

E-service quality; electronic service quality

SERVQUAL: Service Quality

Techno-based: technology based

VIF- Variation of Inflation Factor

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Abstract

Currently the banking service is well equipped with innovations and as the application of the technology in the banking industry is becoming so significant firms have made huge investment on technology based banking and shifting from bricks and mortar banking to such branchless mode of banking . Following such shift customers are also shifting to technology based banking service due to perceived usefulness, convenient to use , privacy and freedom of mobility. Thus the objective of the study was to examine the effect of ATM Service quality dimensions on customer satisfaction and future prospects of ATM in the case of CBE. With a high emphasis, a quantitative approach based on a convenience sampling technique was used, in which a structured survey questionnaire was employed to collect data from the customers. Also with less emphasis a qualitative method which is a structured interview was used to collect data from the bank. For data analysis a descriptive and inferential statistics were used while to aid computation SPSS was applied. The results of the study reveal that the effect of ATM service quality dimensions on customer satisfaction and future prospects of ATM is direct and significant. Also the results show that the effect of customer satisfaction on future prospects of ATM is direct and significant. More than 60% of respondents signed on positively showing that customers have interest and found out convenient to use the banking technology instead of having interaction with human tellers. It also allows customers to transact their banking service quickly, it saves time, their personal information is not misused by their bank ,support service is good. Hence it can be concluded that the overall application of CBEATM banking has a bright future in the Ethiopian banking industry and CBE has a chance to mobilize the potential customers and reap more profits through provision of quality service using the banking technology as an interface. To improve the service delivery and thereby standardize the service offering the bank has to work hard more on the technology based banking such as ATM in such a way that it can bring standardization of offerings and create more conducive technology based banking environment which is convenient and accessible with more freedom mobility. Also the bank has to increase features and improve the facilities of the technology based banking service in such a way that customers can receive a wider range of financial services. Specifically providing simple, differentiated customer-focus services based on changing and growing customer behavior and preferences. Studies conducted by (Ramsay and Smith 1999; Patricio et al. 2003; Lang and Colgate 2003) cited in AL-Hawari et al.(2005) show that customers prefer to use in combination the technology (ATM, internet and mobile banking) and yet the focus of this study was only on ATM banking service. So further research may assess the effect of ATM, internet and mobile banking in combination so that more insights will be generated. Finally as the study is cross-sectional in its nature and only the relationships instead of the causal direction was addressed, future studies can use the longitudinal studies to show the confirmation of causality.

Keywords: ATM-banking, customer satisfaction, ATM service quality, Future prospects, techno-based banking service and E-banking.

CHAPTER ONE

INTRODUCTION

This chapter provides a bird's eyes view of the entire study. Customer satisfaction, the reason for the choice of the study and technology in the service sector such banks is briefly detailed in the background of the study. Subsequently statement of the problem, research objectives, research questions, limitations of the study, and delimitations of the study, significant of the study, ethics and organization of the study are briefly entertained.

1.1 Background of the Study

Customer satisfaction has been an essential concept in the literature of marketing and for customer focused firms, it is both a " goal and a tool". And yet there are factors that affect customer satisfaction such as friendly employee, service quality and competitive pricing (Angelova and Zekiri, 2011).The challenge is as the environment endures drastic changes and increased awareness with technological advancement, how firms can manage service quality and hence satisfy customers, is what motivated the student researcher to focus on the topic area which is contemporary and dynamic.

Several technology based models have been proposed to measure the service quality which has a direct relationship with customer satisfaction. The technology provides arrays of opportunities to customers such as checking balance, transferring funds and thereby reduces time and costs. Also it enables service providers to customize their offering and make available with superior delivery. And yet studies show that the economy of most developing countries including Ethiopia is still cash driven and the monetary transactions are performed via the exchange of bank notes, and coins for goods and services. To curve this and arm itself with such technology CBE introduced for the first time ATM, in 2001.The data obtained from CBE's e-payment department shows that CBE ATM stations are divided into four districts namely east ,west, north and south with 65,34,59 and 53 number of stations respectively and169 stations are functioning and some are under implementation. According to the e-payment department office the number of CBE ATM card holders are more than 500,000. The

fiscal report of 2011/12 shows that the net income of CBE reached Birr 5.03 billion which is higher by 69.9% from its previous fiscal year(2.96 billion) and its total asset increased by 38.4% and reached Birr 158.1 billion. The number of branch net work reached 547 and its customer base grew to 3.9 billion in June 2011/12(Annual report of CBE, 2011/12).

However, despite CBE's effortless attempts in the last one decade about the ATM banking, studies show that its service is still with different problems and challenges including low level of infrastructure development ,frequent power interruption, broken and slow Internet connections which have adverse effects on the service quality and customer satisfaction.

Sangeetha(2012)states that in service sector technology has been employed to standardize services through the minimization of employee-customer interface and customers prefer a techno-based service offering instead of having interaction with human teller. He further contends that as the interface between the customers and service providers shifted from a customer-employee to a customer- technology in accessing a given organization, various issues are coming to surface regarding the impact of technology on the service quality being delivered and its thereof on customer satisfaction. Also Dabholkar(1996) cited in Sangeetha(2012) contends that regarding customers preference for self-service alternatives little is known, where customers' preference in Ethiopia, CBE in focus would not be exceptional.

By appreciating the actions taken by the CBE in adopting the technology such as a full-fledged ATM and others to move the bank to the "world class" commercial bank, based on the above premises it seems high time to examine the impact of ATM service quality dimensions on customer satisfactions and future prospects to maintain the momentum and accelerate its growth in such a way that to do its level best to turn over the shortcomings and challenges into better opportunities. Simply put, to provide more insights regarding the pertinent issues in association with the service quality delivery via ATM, the study opts to put in place a model which will be comprehensive enough so that it can be employed to measure the impact of ATM service quality and its thereof on customers satisfaction and future prospects. The study was conducted on the CBE ATM card holders with convenient sampling technique to get input into the different factors utilized while conducting the assessment of the ATM service quality. In so doing the study is vindicated as it presents a model which integrates the main dimensions that need to be examined in measuring the impact of the service quality of ATM on customer

satisfaction and future prospects in CBE. It is essentially paramount and significantly valuable in providing comprehensive insights to the marketers and practitioners in general and to the bank in particular, regarding the essential issues related to the ATM and thereby presenting the cue about customers' needs, quality service customer satisfaction and future prospects'.

1.2 Statement of the problem

Currently the banking service is well equipped with innovations, postulating the quality service as the de facto of the digital era using technology as an interface. The world at large including some African nations is enjoying the technology. For instance, studies show that in Singapore the digital economy is legally established and bank notes and coins have sent to archives for historical memorandum. However, a review on the extant literatures shows that most of the studies have been done in the developed world such as USA,UK, Australia and in Asian countries such as Singapore, Pakistan, India and a few in African nations .For instance, Khan(2010) in Pakistani banks identified reliability, convenience ,efficient operation ,security and privacy, responsiveness as dimensions of ATM service quality. He suggests that he used survey design questionnaire but a "mixture of interviews and qualitative data gathering techniques" are desirable to generate more comprehensive outcome. In this regard this study was employed a qualitative research method such as interview to collect data from the service provider, in addition to an extensive use of quantitative research method namely questionnaire survey which was used to collect data from customers and try to balance the research out come by getting data from both sides . Dilijonas etal.(2009) identified dimensions of ATM including sufficient number of ATMs, search locations, user friendly ,ATM functionality and conveniently located in the Baltic states.

In Ethiopia however, banking service is underdeveloped and cash note is still the dominant medium of exchange(Gardachew, 2010).Also ,to the best of the student researcher's knowledge there is only two studies that have been conducted on the challenges ,problems and prospects of e-banking in Ethiopia and two thesis's and determinants of customers' adoption of e-banking in Ethiopia and two thesis on mobile banking .

And yet, the techno- based service quality studies have become increasingly significant as the preference of customers is shifting towards techno- based self service. Above all, in today's

fierce competition and volatile business environment no firms can be remain static enjoying its current innovations. So it is imperative that managers need to know the criterion customers put in place in evaluating the services being offered and know how to measure service quality from their customers' perspective so that to understand their needs and hence satisfy them.

Here the intent is not "to rediscover the Wheel" rather to make what is untapped in the area the research's deal. So the study made an investigation to fill the gaps observed by addressing the pertinent impact of ATM service quality dimensions on customer satisfaction and future prospects. In this regard though in those two thesis's the issue of service quality dimensions in ATM by Tewodros(2012) and determinants of customers' adoption of e-banking by Mulugeta(2013) are addressed ,the impact of ATM service quality dimensions on customers satisfaction and future prospects is still untapped. Likewise Mouawed and Kleiner(1996) cited in Al-Hawari etal.(2005) state that customer perceptions and preferences of service quality have an essential effect on a bank's success. However, in Ethiopia, CBE in focus, customers' perceptions and preferences of the techno -based self service is not yet assessed. Sangeetha(2012) states that technology has been implemented in the service organization with the aim of enhancing customer service quality and delivery and thereby to reduce costs and standardize core service offerings. However, to enjoy benefits of the technology, the techno-based service delivery is still non-existence in Ethiopian banks except some banking services such as ATM debit and limited credit cards and with mobile-banking such as SMS messages telling customers mainly balance "debited and credited" issues. So the factors behind such failure of exploitation of the available technology are another gap that should be examined.

Dabholkar(1994) cited in Rasheed and Latif(2011)states that to elevate more customer participation to a wider coverage , the technology-based services have laid new service delivery options in firms. However, in Ethiopia, CBE in focus the issue is not yet practiced and there are no studies conducted on such area. So this is also another research gap that needs empirical studies. Thus from the aforementioned premises, the focus or the problem study is, what is the effect of ATM service quality dimensions on customer satisfaction and future prospects of ATM in the case of the CBE?

1.3. Research Questions

1. What is the effect of ATM service quality dimensions on customer satisfaction?

2. What is the effect of ATM service quality dimensions on the future prospects of ATM?
3. What is the effect of customer satisfaction on future prospects of ATM?

1.4. Objectives of the Study

1.4.1. General Objectives

To examine the impact of the ATM service quality dimensions on customer satisfaction and future prospects based on perceived perception of the CBE ATM card holders.

1.4.2. Specific Objective

- To assess the effect of ATM service quality dimensions on customer satisfaction
- To explore the effect of ATM service quality dimensions on future prospects.
- To determine the effect of customer satisfaction on future prospects.

1.5. Limitation of the Study

Despite the appropriateness, applicability and suitability of the model adapted, there are limitations. For instance, the study used a convenient sampling technique, as a result the convenience sampling technique itself may have some bias effect as there was no equal chance of selection. As convenient sampling enables a researcher to take what he or she prefers, minimizing such bias might be difficult. And yet to minimize such bias the student researcher tried to increase the number of ATM stations from where the data was being collected. That is the number of samples taken were designed out in such a way that to include enough number of representative stations and with that intent eight ATM stations were selected. So bias was minimized via increasing number of stations. Also to reduce bias the sample was taken from four districts of the bank in which geographic and district wise consideration were take into account to include a representative sample in so doing balancing was done and bias is reduced.

Despite its strength, the standardized questionnaire items typically represent the common characteristics in assessing people's perceptions and orientations. By designing questions that may be at least minimally suitable to all respondents the researcher may miss out what is essential to many respondents showing that survey is superficial in its coverage . Survey is

flexible in some cases, but once it gets designed out modification is quite difficult, requiring initial study design remain unchanged throughout the course (Rubin and Babbie, 2010).

Regarding survey instrument the student researcher had taken due care during instrument selection in which the selected instrument and its items to be comprehensive one in such a way that the possible points that will be minimally suitable to most respondents will not be missed out. As the statements generated were adapted from other scholars work and the instrument was validated by external third party that is Emerald Group Limited publishing and the instrument is generic one which can handle any technology based banking service quality study regardless of the type of technology used the inclusion of minimally suitable statements to most respondents are assumed to be included. The student researcher had also taken due care during data collection time not to collect misleading and biased data which would be malfunctioned by the distributors in the case when the student researcher could not directly get and contact customers to collect the data .

As a survey is empirically focused research, it fails to make contributions to theoretical value and based on rigid science mode of hypotheses and significant testing, it involves little creative thinking (Burton, 2000).To reduce such effect the student researcher tried to have an instrument which is generic and not to be deadly rigid science in such a way that to balance the gap between the rigid science and theoretical aspects . Face to face structured interview can also be influenced by personality of both interviewer and respondent, it is time consuming and relies on the availability of respondents (Rubin and Babbie, 2010). To reduce interview bias of personality of respondents the student researcher tried to be free and just asking the managers for simply designed out structured questions. For instance dressing wise the student researcher tried to be normal dressing in order to not to be considered as someone who may be spying for competitor , strange person or from media or other area where the interviewee might be full of fear not to disclose the truth about what he or she asked for. Also in the interview leading questions were avoided so that bias would be reduced. This study employed only one data collection method to collect data from customers, in which the possibility of evaluating perception of customers by using different methods is lacked by the study. To reduce such effect the student researcher tried to supplement data from the managers so that to make a

balance between what customers would perceive and what the bank confirms regarding its service delivery via the ATM.

1.6. Delimitation of the Study(Scope)

The study used extensively a quantitative research method in which it confines itself to questionnaire survey on customers of CBE ATM card holders that are in Addis Ababa city within those four districts. Also the study with less emphasis used a qualitative research method namely a structured interview questions to collect data from the bank. After a wider range of assessment was done on existing literature a structural model which was developed by Mojoodi et al.(2013) was adapted as a conceptual frame work of the study which is generic model that can handle a given study regardless of the type of technology used. The SERVQUAL model cannot be used in the technology based banking service for the service content and the channel of delivery of techno-based banking are different. In the techno-based banking service technology is the interface. The results of the research would be in a position to address the problem areas of all CBE ATM stations across Ethiopia, if it had been conducted on larger scale. However, as including all CBEATM users in this study is practically impossible the study delimited itself to CBE ATM card holders who are in Addis Ababa city only.

1.7. Significance of the Study

The purpose of the study was to examine the impact of ATM service quality dimensions on customer satisfaction and future prospects. Accordingly findings from this study will give more insights for further investigation concerning the effect of ATM-service quality dimensions on customer satisfaction and future prospects. The results of the study will provide a cue bank managers how to rectify problems and provide better service and hence satisfy their customers. To the best of the student researcher's knowledge except two thesis works by Tewodros(2012) and Mulugeta(2013), this is the other research that was conducted on such topic area in Ethiopia, CBE in focus, regarding the ATM banking service. In this regard this study, which is the first in its kind may lay a solid foundation for further research and enhance the application of ATM banking service. Thus it is the student researcher's belief that the outcome of this

study will render more insights and fills out the knowledge gaps of the research in general and the marketing management field in particular.

1.8 Organization of the Study

The study is organized into five chapters.

Chapter One : deals with back ground of the study statement of the problems stating, general and specific objectives, research questions ,limitation, delimitation, significance and ethics.

Chapter Two: the nucleus of study discusses the extant literature such as theoretical frame work of service quality and technology, prospects and challenges of ATM, diverging views on e-service quality dimensions and the conceptual model. **Chapter Three:** methodology: including research design ,research method, sampling method ,data collection methods ,data analysis ,validity and reliability issues. **Chapter Four** is about results and discussions including factor analysis, uni-variate analysis, correlation analysis, regression analysis, and discussion of results and summary. **Chapter Five:** about conclusion , recommendations , implications and suggestions for further study.

1.9 .Operational Definitions

ATM: "an automatic teller machine which is used to save the cost and reach-ability of a bank ;by satisfying customer needs"(Vasumathi and Dhanavanthan,2010:469).

E-Service quality is any banking service which is rendered by employing computer - controlled systems based on the application of IT without involvement of banks usual branch Allen and Barr(1996) cited in Zaman and Chowdhury (2012).

Internet banking: a type of banking service delivery by using networked computers via internet.

Mobile banking a type of banking service delivery thorough the application of mobile phone.

Traditional service quality -means the quality of all non-electronic based customers that have interactions and expectations with companies (Parasurman etal. ,2005)

CHAPTER TWO

LITERATURE REVIEW

This chapter entertains the review of the extant literature on the topic area of the study. Subsequently different issues such as service quality concepts , characteristics of service and service quality dimensions, determinants of service quality, traditional service quality, SERVQUAL, technological framework such as background of technology, ATM service quality and its dimensions , prospects and challenges of ATM ,diverging views on the e-service quality dimensions and the conceptual framework of the study would be discussed.

2.1 Theoretical Framework

2.1.1 Service Quality Theoretical Framework

2.1.1.1 Service quality Concept

Customers usually evaluate the service quality of their banks' and yet, the criterion they use may be different from customer to customer, based on their individual needs and preferences. Joseph et al.(1999) state that during evaluation of quality of services being delivered customers usually employ various criteria that are likely different from each other in their importance. Most importantly, they state that though many criteria are important but only a few are so essential. Loudon and Bittea(1988)cited in Joseph et al.(1999)state that these determinant attributes are those that shall define service quality from customers point of view.

On the other hand, service quality has received much attention due to the fact that it is related to cost ,financial performance ,customer satisfaction and customer loyalty(Al-Hawari et al.,2005) and it has drawn the attention of managers and researchers due to its great influence on the performance of business firms (Anglova and Zekiri ,2011). So providing quality service is essential as it leads to higher satisfaction, profitability and retention of customers (Ndamnsa and Hamde, 2010). Ahmad and Al-Zu'bi (2011)state that quality has a long lasting effect on customer satisfaction. Clow(1993) cited in Mosahab et al.(2010:72) claims "quality as the organization's life-giving blood". Mesay's(2012) findings on the Private banks in Ethiopia show that all service quality dimensions are positively correlated with customer satisfaction ,

showing that the quality of banking service as essential prerequisite for having customers that are satisfied with the service quality being delivered.

Also nowadays commercial banks due to high pressure of globalization and fierce competition among themselves and volatile and dynamic market are continuously looking for new ways so that they will be in a position to add value to their services being offered to their customers (Muyeed, 2012). Accordingly due to the fact that financial services are competing in the market place most of the time with "undifferentiated products" service quality is a prime competitive tool (Stafford, 1996) cited in Muyeed (2012).

Ndamnsa and Hamde(2013) pointed out service quality as one of the basic aspects among other factors which has significant contribution to business growth and leading position in today's fierce competition of the business environment, in which service quality has a significant role in the service sector, because of its untouchable nature which cannot be disclosed to customers to make judgment before reaching the final decision.

Moreover, services are increasingly taken as a tool for sources of revenue across regions, nations and across the globe(Mosahab et al.,2010) Thus building and maintaining relationships with customer has become as service industries' main strategy which enables them to have long term relations and corporate performance via customer loyalty and customer retention(Anglova and Zeriki, 2011).

According to Rahaman et al.(2011) service quality is an approach which enables to manage the business processes so that it is feasible to ensure full satisfaction of customers and this in turn will result to increasing competitiveness and effectiveness of the given industry. These show that for business firms to improve and maintain a better position in the era of globalization, it demands to evaluate the performance of the services provided to their customers (Ndamnsa and Hamde, 2013). This is due to the fact that service quality is an essential gateway for customer satisfaction (Mosahab et al.,2010). In the old days the game was "best cost " ,however, in the era of globalization ,the game is "best cost and quality " underlying the quality of services being offered as critical issue (Goetsch and Davis,2000).

On the other hand, Oh(1999) cited in Seth et al.(2004) has developed an integrative model of service quality, customer value and customer satisfaction, whose central focus is mainly on

post purchase decision process. His model includes basic variables such as perceptions, service quality, consumer satisfaction, customer value and intentions to repurchase. He contends that the model provides evidence in which customer value has a significant role in customer's post-purchase decision-making process and it is an immediate antecedent to customer satisfaction and repurchase intentions.

2.1.1.2. Characteristics of Service and service quality

Services can be defined as " any activity or benefits that one part can offer to another that is essentially intangible and does not necessarily result in the ownership of anything". That is " services are a form of product that consist of activities , benefits or satisfactions offered to, for sale that are essentially intangible and does not result in the ownership of anything" including banks, hotels ,airlines(Kotler and Armstrong,2006:233)

Regarding the categorization of the services in the techno-based service delivery Dabholkar(1994) cited in Joseph et al.(1999) contends that there are three different classification. One of such classification is "who delivers the service", which is to mean, person to person, by which employee employs the technology or consumer to technology such as the application of ATM. The concern of the second classification is "where the service is delivered. This is either on the service firms sites themselves, at customer's home or office or at a 'neutral' site such as ATM located in the air port ".The third category is concerned with the "contact the customer has with the service operation, either direct or indirect such as in the case of telephone banking".

Service quality has three unique features namely: intangibility, heterogeneity, and inseparability of production and consumption and in the absence of objective measures, an appropriate assessment of the service quality of a firm is to measure consumers' perceptions of quality (Parasuraman et al., 1988 ; cited in Angelova and Zekiri, 2011). There are four basic characteristics of service offerings. Services are "performances or actions" and cannot be touched, tasted, felt or seen. For instance, health care services are actions that will be carried out by the service providers and directed toward patients including surgery and diagnosis treatment. According to this characteristics in one hand, it is quite difficult for service providers to readily display or easily communicate to customers the service which is

intangible, on the other, it is quite challenging for customers to assess the quality of the service being delivered (Zeithmal and Bitner,2004).

The second characteristics of service are **heterogeneity**. Because services are performances that are performed by humans, there is little chances where two services being performed for two customers will be exactly alike . Moreover , it is a hard fact that there is no way that two customers are exactly alike , as they have their own peculiar experience and performances and evaluate the services being offered to them uniquely in their own ways and perspectives. For instance, a bill collector of "Keffya Financial Technology " PLC in Addis Ababa city may render a different service experience to two different customers on the same day based on their individual needs and personalities and on whether the bill collector is entertaining them when he or she is fresh in the morning and or tired of in the after-noon. It is "impossible for service industry or individual seller of services to standardize output" (Stanton,1985:35). For instance, the service quality being rendered by a given Airline might not be the same on each trip. Hence , because heterogeneity is not consistent across time ,organization and people ,ensuring consistent service quality is usually quite challenging to the service providers.

The third characteristics of services are the "**simultaneous production and consumption** of services ". Unlike the most goods which can be produced first then sold and consumed ,most services are sold first and produced at the same time. For instance , a techno mobile can be produced in Bahrdar , shipped to Addis Ababa, sold after some days later and used for some years. However, services which are intangible such as Hotel services have different experiences from that of tangibles goods. Basically, services can't be rendered until they have been sold and the dining experience is actually produced and consumed once at the same time. Moreover, most of the time the customer is present in the moment of the service is being performed and observe and may also sometimes take part or show up in the process of producing the service(Zeithmal and Bitner,2004). Also " services often cannot be separated from the person of the seller" and most services should be created and dispensed at the same time(Stanton,1985:37).

Hence, due to the fact that services are performed and consumed simultaneously ,entertaining mass production is quite difficult . Because of this the quality of service rendered and customer

satisfaction would be essentially influenced by the actions of service providers and the interactions between service providers and customers.

The fourth characteristics of services are **perish-ability**. "Perish- ability refers to the fact that services cannot be saved, stored or returned". For instance, a seat in Ethiopian airlines from Addis to London or a bed room in Raddision BLU hotel, or telephone line capacity not utilized in Ethio-telecom cannot be reclaimed and used or resold at another time . So since it is not possible to store, or resale the services in the latter time, demand forecasting and making creative planning to make available capacity utilization are quite challenging for service providers (Zeithaml and Bitner ,2004:22).

2.1.1.3. Dimensions and Determinates of Service Quality

Gronroos(1984)cited in Seth etal.(2004) in his technical and functional quality model states that to compete successfully a firm need to have a comprehensive understanding regarding customers perceptions of the quality and the way the service quality is being delivered is influenced. He contends that managing service quality means the service provider should match the expected and perceived service to each other in such a way that customer satisfaction will be attained. He further identified that the three components of service quality including technical, functional and image. Technical quality is the quality of what customer really gains following her or his interaction with the service provider and is so essential to her or his evaluation regarding the quality of service. The functional quality refers to how a customer gets the technical outcome, which is so essential to her or his views of the service being delivered to her or him. Finally the image is quite significant to the service provider , by which it can built mostly through technical and functional quality of service including the other factors such as word of mouth , pricing and public relations. Accordingly Gronroos(1984) pointed out that the process of functionality quality shows " how" the service delivered whereas technical quality or outcome meant that "what" customers receive , the benefits of the service being delivered.

2.1.1.4 Traditional Service Quality and SERVQUAL

By traditional service quality Parasurman etal.(2005) meant that the quality of all non-electronic based customers that have interactions and expectations with companies.

Comparatively the traditional banking system is accompanied by tiresome authentication and verification procedures which are time consuming and forcing customers to incur costs by visiting a firm now and then in person (Saleem and Rashid, 2011). Service quality denotes the difference between customers' expectations of how a firm need to carry out and the service performance which customers perceive (Alanezi et al., 2010). To entertain such practices (measuring service quality) there are many models that have been developed by different scholars, of which some are intended to focus on expectations and marginalize importance, for instance, SERVQUAL.

Sangeetha and Mahalingam (2011) state that the issue of managing perceived service quality entails that the firms should match the expected service and perceived service to each other, in such a way that customer satisfaction would be attained. Parasuraman et al. (1985) identified ten determinants of service process quality which were collapsed into five dimensions. Following this distillation the SERVQUAL model show up in the sphere (Gupta and Bansal, 2012) and it was originally designed out to measure the service quality, that was based on the premise that service quality is the difference between customers expectations and the evaluation of the service outcome they received. Accordingly SERVQUAL employs about 22 items, to measure the five dimensions namely: tangible, reliability, responsiveness, assurance and empathy. Generally studies show that these five dimensions were relevant for banking, insurance, repair and maintenance, retail and business service (Clow and Kurz, 2003).

In light of the traditional service quality measurement setting customer satisfaction was measured using the SERVQUAL model (Parasuraman et al., 1988) by adopting Expectancy-Disconfirmation Model, Performance only Model/SERVPERF (Cronin and Taylor, 1992) or American ASCI (Angelova and Zekiri, 2011). Among these the most extensively employed instrument to assess quality service being delivered which influences customer satisfaction in the traditional service settings was the SERVQUAL model.

However, despite SERVQUAL's wider range of applications criticism came out to surface because of its dimensionality, lack of universality and fall short of generalizations (Cronin and Taylor 1992; Brown et al., 1993) cited in Gupta and Bansal (2012). For instance, the SERVQUAL model (Parasuraman et al., 1985, 1988) shows that customers' perception of service quality was influenced by series of expectations-performance gaps. However, for SERVQUAL

model to be properly functional, expectations should be constant but Carman(1990) cited in Joseph et al.(1999) came out with the notion that expectations do actually change with familiarity of service.

To overcome the shortcomings of SERVQUAL Cronin and Taylor(1992) came out with a new scale called SERVPERF to measure the service quality cited in (Gupta and Bansal ,2012;Seth et al.,2004). These two scholars in their study of performance only model tried to examine the conceptualization and measurement of service quality and its association with consumer satisfaction and purchase intentions. They have made a comparison by computing the difference scores with perception and came out with a conclusion that, perceptions only are better predictor of service quality. Furthermore, following the shortcomings of the framework of SERVQUAL, with respect to conceptualization and measurement of service quality Cronin and Taylor (1992) cited in Seth et al.(2004)proposed performance only measurement of service quality(SERVPERF). Most importantly, they argued that it is Performance rather than “Performance-Expectation” which can determine the service quality, proposing that service quality is evaluated by perceptions only regardless of expectations and importance weights. Generally studies show that in assessing service quality SERVQUAL is not appropriate for conceptualizing the service quality construct, due to the inadequacy of expectation /performance gap model that underlines the conceptual development of the SERVQUAL scale, showing that the underlying framework of SERVQUAL is not appropriate enough.

The basic difference between the two is that SERVQUAL dimensions conceptualize service quality by comparing the perceptions of the service being received with expectations whereas SERVPERF entertains only the perception of service quality, the performance only.

Seth et al.(2004) findings' show that service quality relies on technical quality, functional quality and corporate image of the organization in consideration which is consistent with prior findings such as (Gronroos, 1984). They further state that service quality is an antecedent of consumer satisfaction and may have a better effect on purchase intentions.

"service quality is an antecedent of consumer satisfaction, which has a significant effect on purchase intentions" (Cronin and Taylor,1992)cited in Seth et al.(2004:920). Accordingly they have made an attempt to make an assessment regarding the various service quality models ranging from conventional personalized services to the internet-enabled services including the organizational and behavioral aspects. From their assessment they concluded that the service

quality end result and measurement is dependent on type of service setting, situation, time and need factors.

However, customers may or may not utilize all of SERVQUAL dimensions in determining service quality perception. For instance, in a remote encounter such as with an ATM banking services empathy might not be relevant dimensions, showing that among these dimensions, their relevancy will vary (Zeithmal and Bitner,2004).

Also some academicians tried to apply the SERVQUAL with the e- service quality context and yet they have identified that SERVQUAL is problematic and may not be an appropriate to measure the e- service quality. The very reason behind such argument is that e-service quality is different from the traditional service setting.

Seth etal.(2004) state that in today's liberalized economy, to remain competitive and gain competitive edge , service providers are increasingly providing to their customers techno-based service options. Firms have employed techno-based service with the purpose of reducing costs and creating value-added services for their customers. For instance, Furey(1991)cited in Seth etal.(2004)proposes that IT is so essential for enhancing service quality as it increases convenience, rendering extra services, and collecting service performance information for management use. As the importance of the application of IT increased from day to day scholars get motivated to have better insights regarding " how service customers evaluate IT-based services and how their evaluations affect their perceptions of the overall service quality of the service provider and of their own satisfaction"(Seth etal.,2004:20). Accordingly this notion paved the road for the developments of related models by different scholars such as (Berkley and Gupta, 1994; Dabholkar, 1996; Broderick and Vachirapornpuk,2002; Zhu et al., 2002; Santos, 2003)cited in Seth etal.(2004:20). Thus in due course the details of the issue of the technology-based service in the banking industry and its importance over the traditional banking system will be discussed in details.

2.1.2 Technology Based Theoretical Framework

2.1.2.1. Technological Background

As of the mid of 1990's , a radical shift has been made in the banking industry regarding the channel of delivery through the implementation of self service channels, that is via e- banking such as ATM and internet banking(Musiime and Ramadhan, 2011). Following such radical

shift in the banking industry channel of delivery, customers as well have made a shift from traditional banking to the online transaction system (Qureshi et al., 2008) cited in Musiime and Ramadhan (2011). The basic driving force behind such shift is related to perceived usefulness, perceived ease of use, security and privacy (Musiime and Ramadhan, 2011).

Kotler and Armstrong (2006) state that the "technology boom" has created various ways which enable firms to learn about and track customers. Most importantly, to create products and services which are finely tailored to the individual customer needs, they state that the technology is providing a valuable support business companies in such a way that they are in a position to reach out their products and services more efficiently and effectively than ever before. In this way technology has brought new ways of communication and tools which enables companies to reach out their targeted customers at ease. For instance, through e-commerce customers have arrays of opportunities to learn regarding the design, order and payment for the products and services of their choices directly from home without visiting the showrooms physically.

So in today's competitive environment where "knowledge is king" a well designed technology is quite essential in order to extend human capabilities so that organizational competitiveness can be enhanced (Goetsch and Davis, 2000). Studies show that technological advancement is shaping the field and influencing the practices of service marketing and significantly changing the nature of the services which results in tremendous potential, for the new service offering. This means the technological development profoundly changing the way services are delivered, putting both customers and service providers on the better position in order to get and render more efficient and customized services respectively. Most importantly, the technological development facilitates the global reach of services which had been historically tied to the home locations (Zeithamal and Bitner, 2004). In this case, the development of technological innovations, have created opportunities for organizations to provide superior services to improve customers satisfactions. The number of bank customers having performance in using self service delivery mode is also increasing which is attributed to the increase in technological innovations in executing the transactions (Omar et al., 2011). Accordingly technology has been the basic force behind services innovations which we have

now taken it for granted, including innovations automated voice mail, ATM, online banking and electronic banking (Zeithamal and Bitner, 2004).

Besides rendering opportunities for new service offerings the technology is making available vehicles to deliver existing services in more accessible, convenient and efficient manners. For instance, technology such as ATM facilitates the basic customers service functions including bill paying, checking account records, tracking orders, transaction and information seeking ,applying for loans and shift money among accounts without visiting branches. In short technology has changed once and for all the customer service approach. Above all, through self service technologies customers are in a position to serve themselves in more effective and efficient manner which has never been imaginable in the "old days". Joseph and Stone (2003) state that the installment of customer friendly technology such as ATM ,telephone and internet banking as a means to deliver the traditional banking and thereby to maintain customer loyalty and increase market share. Because of these crucial importance banks make huge investment in technology with the aim of controlling cost, attracting potential customers and meeting the convenience and technical expectations of the existing customers (Joseph and Stone, 2003). Also the basic reason behind such huge investments and implementations by banks is related to reduce cost of delivery through personnel and thereby to meet the challenges posed by competitors that are highly innovative with technological advancement (Howcraft and Beckett ,1996 ; Byers and Lederer ,2001 and Kelly, 1989) cited in Joseph and Stone (2003).

The beauty of the technology is that for employees it can render a valuable support in making them more effective and efficient to deliver the required service to the intended customer at the right time. Above all, employees will be in a position to customize the service they render in such a way that, their offerings can fit individual customer needs. Hence the technology has comes out in the potential for reaching out to customers across the globe . That is , "Advances in communication technology have made people from all over the world electronic neighbors and electronic customers" Goetsch and Davis(2000:25). As a result to align business strategies that enable them to be innovative, efficient in functional operations and offer better service , competitive banks have made huge investment to adapt the technology (Saleem and Rashid, 2011) and banks are fundamentally shifting from traditional way of banking to branchless mode of banking, by adopting the technology such as ATM (Angelova and Zekiri, 2011).

According to Seth et al.(2004)to gain a competitive edge an organization need to employ the technology in such a way that to gather information regarding market demands and exchange it between organizations with the aim of enhancing the service quality. They further state that researchers and managers are striving to learn the details regarding components of service quality in their organizations targeting achievement of customer satisfaction and increased profitability. Accordingly it is predicted that conceptual models in service quality put in a position management to examine quality problems and thereby help them in planning for the commencement of a quality improvement scheme which is essential for improving efficiency, profitability and overall performance.

2.1.2.2. Technology Adoption Theory

According to Lee et al.(2008)cited in Mulugeta(2013) there are theoretical approaches of consumers' adoption of technology namely the diffusion of Innovation(DI) model and the technology acceptance (TAM)model. Accordingly they state that the focus of DI is on consumer characteristics which are related to the amount of time it takes to adopt whereas TAM assesses consumer technology adoption through predispositions including overall feeling, attitudes and perceptions. Also according to Fishbein and Ajzen (1975)cited in Eid(2011)the theory of reasoned action (TRA) explains the relationship between attitudes, intentions and behaviors. Accordingly they state that the TRA model posits that human beings make rational decisions in light of the information available to them, and the best immediate determinant of a person's behavior is intent. Also the TRA model shows that an individual's belief towards a behavior is an immediate determinant of his or her intention to carry out a behavior. The Technology Acceptance Model(TAM) Davis (1989) cited in Eid(2011)contends that the intention to accept or use a new technology is determined by its perceived usefulness and perceived ease of use.

Expectation-Confirmation Theory (ECT) which was proposed by Oliver (1980)cited in Eid(2011)also states that consumers firstly form an initial expectation prior to purchase, and then build perceptions about the performance of the consumed product/service after a period of initial consumption. Eid(2011) states that then consumers will decide on their level of satisfaction based on the extent to which their expectation is confirmed through comparison of

the actual performance of the product/service against their initial expectation of the performance.

Scholars such as Burke(2002) states that there are many factors affecting consumer adoption and use of the technologies such as interactive shopping technologies may provide extensive product selections, powerful search and screening tools, and volumes of information. Hoyer and MacInnis(2010)classify those factors that affect adoption of the technology including perceived value, uncertainty, consumer learning requirements, social relevance legitimacy and adaptability and social factors. Perceived ease of use and usefulness are the perception of consumers regarding the innovation in question(Davis,1989) cited in Mulugeta(2013).

Hoyer and MacInnis(2010)state that consumers may decide to adopt for instance purchase or resist adopting a new offering such as an innovation and adoption of an innovation will occur as long as consumers do not resist that innovation. Consumers resist the technology for various reasons, one of which is, it is simpler or seems preferable for them to continue using a more familiar product or service. Also customers may resist the innovation because of risks associated with it. For instance, Khan(2010) state that old ages do not use the technology due to fear of risks they associate with the technology. Also compatibility issue may force customers from adopting the technology. This means "consumers resist new technologies until they perceive that the negative effects from having to deal with something new are outweighed by the positive effects the new product might bring". For instance, Battles between incompatible technology standards, have affected adoption of products such as DVD players in the past two decades (Hoyer and MacInnis, 2010:447). Moreover the complexity of technology may reduce the adoption of technology and force the firm to incur costs to implement(Saleem and Rashid,2011). Hoyer and MacInnis (2010) state that consumers differ in when they adopt an innovation and the timing of consumers in adopting the technology. The five groups are innovators, early adopters, the early majority, the late majority and laggards.

Characteristics of Adopter Groups

According to Hoyer and MacInnis(2010)the adopter groups tend to exhibit different characteristics. For instance, innovators are enthusiastic regarding technology and they want to be the first to get a new high-tech product, even in the presence of a few bugs or inefficiencies. Early adopters are visionaries in the product category in which they admire a technologically

new product not for its features rather for its abilities to create a revolutionary breakthrough in how things get performed. These groups know that additional products that will follow the new product's introduction which may be cheaper, faster, and easier to use than the innovation on the market right now and yet they do not await for the future products.

On the other hand, the early majority are pragmatists, in which their focus is on innovations that provide incremental, predictable improvements on an existing technology. As they do not like risk, they pay due care regarding who is making the innovation as well as the reputation of the company. Late-majority consumers are mainly conservative, cautious of progress, and depends on tradition in which they fear regarding the high tech products not to be stung. They prefer to buy preassembled products that include everything in a single service. Finally the laggards are those who are the slowest group to adopt the technology. Generally Saleem and Rashid(2011) contend that the technology advancement increases the usefulness in which it leads to higher customer satisfaction.

2.1.2.3.E-service Quality

Studies show that the age of e-business has been breaking out unconventional way of performing business and one of such astonishing techno-based service delivery(e-business) is e-banking. Accordingly studies pointed out that the advent of such e-business which has been accompanied with technological innovations and globalization is urging firms to rethink and redefine their business operations in light of value chain reengineering and restructuring business models. Worldwide, e-banking such as ATM banking service has emerged in the 1990s as one of the fastest means of service delivery in the service industry such as banks(Saleem and Rashied, 2011). According to Allen and Barr(1996) cited in Zaman and Chowdhury (2012) e-service quality/techno-enabled self service is any banking service which is rendered by employing computer -controlled systems based on the application of IT without involvement of banks usual branch. The trend in the banking industry has undergone through various economic revolutions, passing from cash economy to cheque economy and converted to plastic and card economy(Pahwa and Saxena, 2011). Some call the present globalised era a "digital economy".

Accordingly in the past decade the banking industry has been highly affected by the advancement of information and communication technology by which banks and other

financial institutions have made improvement on their services through the implementations and application of IT. In so doing technology has become as one of the essential tool which facilitates banks' organizational structures ,business strategies, customers services and related functions (Zaman and Chowdhury, 2012). One of the imputes of such technological advancement in the banking industry is its ability in bringing distant customers come closer(Howcraft and Drukin, 2003) cited in Zaman and Chowdhury(2012).

Rust and Lemon(2001) cited in Seth etal.(2004) defined E-service as "the role of service in cyberspace". According to Saleem and Rashid(2010) the banking industry is driven by technological innovations and market uncertainty and competition ,which in turn forced the business firms to shift from traditional banking to technology based banking. Accordingly the technological innovation has provided an astonishing plate form in such a way that to remove obstacles and limitations in the traditional service setting. Simply put the astonishing innovations is in a position to cutoff the requirements of office set up and other utilities ,reduced numbers and cost of staff customers at the branch ,save firms investment on staff employee and thereby allow firms to carry out the required activities under the supervisions of few skilled IT professionals(Saleem and Rashid, 2010). Moreover, the e- services are revolutionizing the way business is performed in the banking industry. Accordingly the techno-based business models have replaced the traditional banking system and banks are reevaluating the business process designs and customer relationship management strategies(Kumbhar,2011). Zhu et al.(2002) cited in Seth etal.(2004)in their study on IT-based model demonstrated that service providers employ IT for the purpose of cost reduction and creating value-added services for their customers.

And yet studies show that measuring the quality of e- service quality is quite difficult and complicated. The reason behind the difficulties and complication of measuring the quality of e-service quality in light of e-retailing is that unlike the traditional retailing ,e-retailing is not a single uniform marketing activities(Francis and White, 2004). Voss(2003)states that e-retailing based service systems differ from the traditional one in terms of channel delivery, service content and product type cited in (Swaid and Wigand, 2009).

Wolfenbarger and Gilly (2003) developed an instrument in such a way that to measure e-service quality by taking into account factors like website design ,reliability/fulfillment

,privacy/security and customer service(cited in Swaid and Wignad,2009). Voss(2003) cited in Swaid and Wignad(2009)contends that the SERVQUAL model should be reformulated in such a way that it can fit the unique setting of the online stores . This is to mean that to use for measuring the e-service quality such as online stores the SERVQUAL need to be reformulated and reworded in such a way that it can fit the online store setting applications and addresses the issues related to the requirements of the e-service quality appropriately.

Swaid and Wignad(2009) came out with six dimensions regarding the e-service quality measurement such as website usability , information quality , reliability ,responsiveness ,assurance and personalization. Accordingly they found out that with the exception of personalization e-service quality dimensions are related to the various types of customers loyalty. Furthermore, they sate that the perception of reliability and assurance are the essential factors which have effect on favorable loyalty aspects including repurchase intentions ,communicating positive word of mouth and loyalty.

2.1.2.4. ATM Service Quality

2.1.2.4.1 ATM and its benefits

Studies show that the technological revolution came to surface in the banking industry in the 1950s with the implementation of the automated book keeping machines at banks and the history of ATM dates back to the 1960s, the time at which the first ATM was invented by John Shepherd-Barron. The machine was implemented for the first time in the banking industry by Barclays bank in 1967, Wikimedia E-encyclopedia cited in Kumbhar(2011). The first ATM which has been implemented in US in 1968 came out with only a cash dispenser(Zaman and Chowdhury, 2012).

ATM is "an electronic device which allows a bank's customers to make cash withdrawals and check their balances at any time without the need for human teller"(Islam etal.,2005: 3) They state that ATM is an innovation which can mechanically accept deposits ,transfer funds between accounts and collect bills. Also ATM is defined as "an automatic teller machine which is used to save the cost and reach-ability of a bank ;by satisfying customer needs"(Vasumathi and Dhanavanthan, 2010:469). They state that ATM service can be taken as an indicator for the development of IT in the banking sector. Accordingly, there are two types of ATMs

namely: the branch ATM and the out branch ATM. In the branches ATM, the branches are in a position to take care the ATM which is located in their respective branches where as the out of branch ATMs such as those located in department store will be entertained by cash centers.

ATM has several contribution to the banking industry, on one hand it add values to customer satisfaction in terms of giving quality services , on the other it enables, the bank to gain more competitive advantage over their rivals through the provision of superior service delivery (Gbandeyan and Gbonda, 2011;Omar et al.,2011). According to Khan (2010) the use of ATM has rendered new ventures regarding the service quality dimensions and banks are delivering new choices and channel alternatives to their customers. ATM, which is the most commonly utilized electronic distribution channel, allows customers to carry out their foremost banking transactions, such as deposits and withdrawals, 24 hours a day (Davies et al.,1996) cited in AL-Hawari et al.(2005). Cabas(2001) cited in Khan(2010) pointed out that investment opportunities , cost reduction, customers satisfaction and competitiveness are taken as the basic motives behind the installation and addition of new ATM to the existing network. This is because technological developments such as ATM has devised ways to organizations in order to offer superior services for customers' satisfaction(Surjadaja et al.,2000)cited in Khan(2010). Moreover, Moutinho(1992) pointed out that ATM facilities came out in speed of transactions and saved time of customers.

2.1.2.4.2Dimensions of ATM Service Quality

The review of literature shows that there are different models and dimensions of ATM service quality and different scholars have proposed and developed various ATM service quality dimensions. For instance AL-Hawari et al.(2005)proposed five items of ATM service quality dimensions including sufficient number of ATM, secure locations , user friendly system, conveniently location and ATM functions. Khan(2010) identified convenience , efficient operation , security and privacy ,reliability and responsiveness as the dimensions of ATM service quality. Lovelock(2000) cited in Khan(2010) singled out that secure, convenient location , adequate number of ATM , user friendly system and functionality of ATM are the dimensions of ATM service quality . Dilijonas et al.(2009) identified five ATM dimensions namely: sufficient number of ATMs, search locations , user friendly. convenient locations and ATM functionality(such as withdrawal , money transfer and balance checking). Ganguli and

Roy(2010) came out with four dimensions namely customer service , technology security and information quality ,technology convenience and technology usage easiness and reliability.

Joseph and Stone(2003) in their study regarding the US bank customers' perception of the impact of technology on service delivery came out with accurate ATM and electronic banking ,customer service ,excellent telephone and internet banking, secure and flexible service, easy and convenient banking and personalized service as the essential dimensions of the technology based banking service quality including ATM. Sangeetha(2012)has identified different dimensions of technology interface service quality including ATM ,Telephone banking ,Internet banking, Call center , Customer perception of price and Core services and Queue systems.

2.1.2.4.3.Service Quality, Customer Satisfaction, and Dissatisfaction in ATM

Customer satisfaction has been a central concept in the literature of marketing and a goal of firms to attain. The primary focus of marketing is to connect with customers by building a strong customer relationship so that they can meet customers' expectations and for customer focused firms , customer satisfaction is both a " goal and a tool "(Angelova and Zekir, 2011).The changing business environment following the emerging technology is creating challenges and opportunities to business firms and the change of customers' perceptions about quality service is intensifying the challenge.(Lewis ,1994) cited in (Khan ,2010). This means, the development of technological innovations have created a conducive opportunity for organization to provide superior services to improve customer satisfaction and the number of customers having preferences in using self service delivery mode is increasing and the preference is attributed to the increase of innovations in executing the transactions(Omar etal., 2011). Sureshchandar etal.(2002) indicate an existence of two- way relationship between satisfaction and service quality cited in (Mosahab etal.,2010) while Mohammad and Alhamadani(2011) state that customer satisfaction is highly influenced by customers perceptions of the quality of service being delivered.

Pahwa and Saxena's(2011) findings show that customers are highly satisfied with availability of cash in ATMs ,quality of currency notes in the ATMs as primary criteria by customers and also equally satisfied with promptness delivery of ATM cards and correctness of cash withdrawal made from the ATM. However, on the other side of the coin their findings show

that features such as non-availability of compliant books, location issues and insufficient number of ATMs as well as the failure of not having power back up in case of power break dawn were the source for the dissatisfaction with the service being delivered. Bloemer(1998) cited in Mosahab et al.(2010)proposed a model which shows that the mental picture , service quality and customer satisfaction could influence loyalty. Their findings came out with the view that service quality influences loyalty both directly and indirectly through customer satisfaction. Caruana(2002) cited in Mosahab et al.(2010)in the Malta's banks came out with conclusion that customer satisfaction acts as mediators in the effect of service quality on customer loyalty while Mircholi et al.(2013) state that delivering high quality service will result to an increase in customer satisfaction and profit. Davies et al.(1996) cited in Khan(2010) investigated factors that are influential regarding customers' satisfaction of ATM service quality

such as costs related to the use of ATM and efficient functions of ATM. Hokanson(1995) cited in Angelova and Zekiri(2011) identifies factors that affect customer satisfaction including friendly employees, accuracy of billing, competitive pricing and service quality. Angelova and Zekiri(2011) show that factors such as service quality and perceived value are the essential constructs which affects the customer satisfaction with electronic or mobile service.

The findings of Malhotra and Galletta(1999) cited in Saleem and Rashid(2011)shows that the technological advancement has made by firms leads to increase in customer's ease and usage, which in turn increased the level of satisfaction. Saleem and Rashid(2011)contend that to make certain and ensure that customers adopt the technology , it need to be efficient ,quick ,and easy to understand and use by customers at ease. Chmielar(2002)cited in Saleem and Rashid(2011)states that functional diversification , service quality, versatility and efficiency of customer inquire service are the key factors in measuring customer satisfaction. According to Levensque and McDougall(1996) cited in Sangeetha and Mahlingam(2011) high service quality comes out with customers satisfaction and loyalty, greater willingness to share to somebody else, minimization of complaints and enhanced customer retention rates.

Service quality is an essential tool in order to measure customer satisfaction(Pitt et al.,1995) cited in Paul(2013). Accordingly there exist a close relationship between service quality and customer satisfaction and it is usually taken as the critical prerequisite and determinant of

competitiveness for launching and sustaining, satisfying relationships with customers(Rasheed and Latif 2011) and it is an essential indicator of customer satisfaction (Spreng and Machoy, 1996) cited in Rasheed and Latif(2011).

Studies show that service quality has direct link with customer satisfaction(Parasuraman et al.,1988) cited in Khan(2010). Hallowell(1996) states that in the long term customer satisfaction and loyalty has been perceived as the paramount performance for the firms' performance. Due to globalization and liberalization, which affect economies of both developed and developing nations across the globe, the focus areas of organizations are shifted from profits maximizations to maximize profits via increased customer satisfaction.

Hurley and Estelmi(1998) cited in Gupta and Bansal(2012) singled out that whereas service quality and satisfaction are distinct constructs, a causal relationship exists between the two ,and that perceptions of service quality affects feelings of satisfaction which are influential on future purchase behavior. Customer satisfaction in the online environment known as "E-satisfaction" (Gupta and Bansal,2012). "Customer satisfaction is influenced by customers' perceptions of quality "(Zeithaml and Bitner, 2004:87) while "Service quality is an antecedent of the broader concept of customer satisfaction" (Gotlieb et al. ,1994; Buttle, 1996; Zeithaml and Bitner, 1996; Lee et al., 2000)."The relationship between service quality and loyalty is mediated by satisfaction" (Caruana, 2002; Fullerton and Taylor, 2002) cited in Mohammad and Alhamadani(2011:4).

According to Mohammad and Alhamasani's(2011) findings, service quality is an essential antecedent of customer satisfaction and consistent with prior findings (Gotlieb et al., 1994; Buttle, 1996; Zeithaml and Bitner ,1996; Lee et al., 2000)cited in Mohammad and Alhamadani's(2011). Amirzadeh and Mousavi's(2011)findings show that security and privacy is the most indicators of the ATM users while suitable place of ATM and integrated interbank network are the essential factors which are in a position to increase the level of customer satisfaction.

Khan(2010) concluded that banks need to proactively monitor customer preferences in relation to the channel alternatives for effective responsiveness. Most importantly, he contends that

banks need to focus on essential aspects such as security and privacy and efficient operation of ATM and augment and diversify their service offering through ATM in such a way that to build strong, long lasting and sustainable relationship with customers.

Accordingly upgrading ATM systems in such a way that to speed up the machine to save time and money, providing sufficient security to reduce theft of money, identification of factors which affect customer dissatisfaction and promoting the culture of internet banking and service usage are the main factors that should be taken into account to make the technology enabled self service banking more effective ,satisfy customers and thereby foster loyalty and long lasting relationship.

Ganguli and Roy's(2010) findings show that customer loyalty is influenced positively and significantly by customer satisfaction. They have identified that the service quality dimensions in relation to technology based banking service (generic technology)which can be applied for measuring service quality regardless of the type of technology being used by the banks for the purpose of service delivery. Their study renders more insights regarding the consumption process of the retail banking customers in today's volatile and changing scenario of banking service , that is leveraging up on technology for the purpose of service delivery and employing such technology as a weapon for competitive edge and differentiation. Accordingly they further contended that the identified dimensions would be employed by banks managers as guidelines as they will aid them to gain comprehensive insights regarding the particular dimensions which customers usually give highest priority in the process of evaluating the service delivery of banks through technology based channel alternatives. Their study further cleared out that the generic service quality dimensions have impact on customer satisfaction and customer loyalty. Accordingly it is found out that customer satisfaction is positively and significantly affected by technology usage easiness ,reliability and customer service.

Studies show that there is significant correlation between ATM service quality and ATM satisfaction level and service quality is taken as an antecedent of customer satisfaction(Oliver 1993; Sprent and Mackoy, 1996).

Dilijonas etal(2009) found out that more than 50% of respondents agreed that the use of ATM is convenient and time saving as it allows them free movement in providing cash acting like mini, banking to those customers who are in need of cash. Moreover ,despite the restriction and limitations of amount of cash withdrawal ,it fulfills the need of the customers. Accordingly the

authors suggest that banks need to pay attention to essential aspects such as user-friendliness ,ATM functionality and availability of transaction receipts, security and privacy, regular monitoring and maintenance of ATMs.

Mojoodi et al.(2013) tried to present a model which can be applied to examine service quality dimensions related to banking technologies, regardless of the type of technology being employed for the purpose of service delivery by the banks. The model can be taken as generic one which will be applicable to any type of technology in the banking industry. Accordingly , the model and identified dimensions will be used as guidelines for managers in the provisions of technology-based banking services. The model will aid bank managers to gain better understanding regarding the specific dimensions which customers give highest priority in the process of evaluation of technology-based self service banking.

Generally studies show that the different models or dimensions of service quality have been identified thus far vary in the degree of emphasizes given, which is mainly attributed to the objective of the banks. For instance, Ganguli and Roy(2010) in their study have found out four dimensions including security , convenience ,easiness and customer service. Mojoodi et al.(2013)state that in light of their study the assessment they have made which is consistent with prior scholars' findings, have made measurement of easiness ,certainty, convenience ,supporting services and employee's knowledge factors as the basic dimensions of service quality. From the evaluation of the eight dimensions regarding their effects on customer satisfaction and customer loyalty , Mojoodi et al.(2013) came out with a conclusion that variables such as customization and comprehensiveness have no effect on customer loyalty and yet they have enduring effects on customer satisfaction.

From the aforementioned literatures that have been conducted by different scholars across the globe the student researcher has understood that some customers are welcoming the emerging technology while others do not. The very reasons for such like and dislike of use of ATM by customers are enormous. Customers prefer ATM for it is time saving , avoid long queue in banks ,easy to use ,readily available and can be accessed from anywhere without personal contact of bank's employees. Khan(2012) on his part suggests that the youth prefer to use innovative and technology based service offering such as ATM while the olds don't make use of it, due to the perceived risk of failure complexity ,security and absence of personalized service (Moutinho,1992) cite in Khan(2010). Also some customers are in favor of technology

based self service instead of traditional service as it is easy to use and avoid interaction with human-teller(Meuter et al., 2000) cited in Dabholkar(1996).

Dissatisfaction is the main reason for why customers switch banks (Manrai and Manrai, 2007)and the most essential determinant of customer satisfaction is service quality being perceived by clients (Titako et al.,2012).

Sivadaas and Baker-Prewitt(2000)cited in Singh(2006:4) contends that "there is an increasing recognition that the ultimate objective of customer satisfaction measurement should be customer loyalty" Furthermore, Fornell(1992)cited in Singh(2006) pointed out that high customer satisfaction will come out with increased loyalty which is a benefit for firms and customers will be less overwhelmed from competitors while Anton(1996) cited in Singh(2006)states that satisfaction is positively related to repurchase intentions , a possibility of recommending a product or service , loyalty and profitability.

And yet Sivadas and Baker-Prewitt(2000)cited in Singh(2006:5) contend that "satisfaction in itself will not be translated into loyalty" rather it is a prerequisite for maintaining a suitable attitude and for recommendation and repeated purchase from the firms store. Clarke(2001)cited in Singh(2006)on his part argues that a business whose focus is merely on customer satisfaction will soon run to risk of becoming on "undifferentiated brand" in which customer may think that the firm is running just to meet the performance criteria in the category. Thus firms need not run just to satisfy customers ,rather they have to go further ahead looking out for ways that enable them to foster a sense of loyalty and long term relationship development. Clarke(2001)cited in Singh(2006:4)further states that "customer satisfaction is really no more than the price of entry to a category ". Singh (2006) on his part states that to be effective satisfaction need to be in a position to create loyalty among customers. He contends that satisfaction is a measure of how well expectations of customers are getting fulfilled whereas customer loyalty is measuring how likely a customer is committed to purchase repeatedly an engage in relationship activities. Thus satisfaction may not be taken as accurate indicators of loyalty. Most importantly Singh(2006:4)suggests that "satisfaction is a necessary condition but not a sufficient condition for loyalty". Simply put, it is possible to achieve satisfaction without loyalty and yet it is so difficult and unlikely to attain loyalty without satisfaction . Anderson and Jacobsen (2000)cited in Singh(2006)state that customer loyalty is the end result of an

organization's effort in creating a benefit for a customer so that they will be in a favorable condition to maintain and increase their purchase from that organization. They further state that true customer loyalty is maintained provided that the customer becomes to the position of advocating for the company without having any incentive to do so. Thus Singh(2006) concluded that, though customer satisfaction will not be taken as a guarantee for having repurchase on the part of the customer it has its own role to ensure and foster customer loyalty.

2.1.3.Future Prospects of ATM

According to Zaman and Chowdhury (2012:1)for more than a decade, the rapid advancement in information and communication technology has significantly and drastically affected the banking industry across the globe. As a result banks and other financial institutions have forced to improve their services through the application of Information Technologies, which has become a tool that facilitates banks' organizational structures, business strategies, customer services and related functions. They state that the recent " 'Information Technology (IT) revolution' has exerted far-reaching impact on economics, in general, and the financial service industry, in particular" and from the financial service industry, the banking sector was the first to entertain such rapid globalization and get benefited significantly from that development.

In the rest of the world the application of technology based banking service such as ATM is well developed while in Ethiopia such practice is quite low. Actually CBE has been playing a significant role in providing technology based banking services such as ATM in the past one decade , point of sales and recently mobile banking and internet banking . The trend shows that without the application of the technology conducting banking service may not be achievable in the coming years. As a result banks in Ethiopia, CBE in focus should pave a way to this emerging banking technology in such a way that the challenges will be minimized and opportunities will be effectively utilized.

2.1.3.1 Opportunities for ATM Banking Service

Studies show that the banking industry claims that through the application of the emerging new banking technology, they will be able to improve customer service level and tie their customers closer to the bank (Hasan et al.,2010)cited in Zaman and Chowdury(2012). One of such essential implications of technological advancement in banking is that it makes distant customers come closer (Howcroft and Durkin, 2003 ; Zaman and Chowdury ,2012). This

shows that as long as the stated owned bank, CBE determined to work hard and armed itself with such emerging banking technology to reach out its customers the future of banking system with such astonishing technology is so bright and sustainable. Actually, according to the interview which was held with the CBE E-payment department business solution section the bank is in plan to introduce new banking technologies and add new financial services, which will play a vital role in bringing efficiency to the techno-based banking customer service which in turn enhance the service level being delivered to the level of customers demand and thereby enable to reap the return to be gained from such a practice.

In this regard Chandrasekhar and Sonar (2008) and Ali(2010) cited in Zaman and Chowdury(2012) state that banks will be in a position to reap the benefits of IT as long as they pay due attention to technological progress and efficiencies on the input and output sides. On the other hand, Lynch (1996) cited in Zamn and Chowdury(2012) state that the technological benefit is twofold: firstly it is in a position to reduce the cost of production of financial services whereas secondly, it enables to reduce the cost of delivery of the services to the customers. This means the technology is in position to maintain a lower cost by addressing population of certain area at a time, which was not totally attainable in the past through manual branch networking (Huda et al., 2007)cited in Zaman and Chowdury(2012). And yet the implementation of such emerging new technologies are not an easy task and Howard and Moore (1982)cited in Zaman and Chowdury(2012) state that customers should be aware of the new brand before adoption and which in turn urges the bank to create awareness on such astonishing technology based banking service to the consumers. Thus, it is imperative for banks in Ethiopia , CBE in focus to have understanding how to best design , manage and promote such technology in such a way that to improve the chance of customers acceptance.

The findings of Qureshi et al.(2008) reflect that majority of customers in Pakistan have accepted the online banking due to the fact that they have found out that such online banking or technology-based self service has its own favorable factors. Accordingly their study shows that usefulness , security and privacy are the key factors behind customers pursuing for acceptance and utilization of the online banking in Pakistan. Also factors such as amount of information which is rendered to the customers through various ways including advertisement like print and e-media regarding online banking was useful in fostering customer acceptance of online banking in Pakistan. Hasan et al.(2013) concluded that service quality of ATM has significant

association with customer satisfaction and the service quality and customer satisfaction have positive relationship. Accordingly the value of customer satisfaction and customer retention show that they are positively related though the association is not strong.

Regarding the opportunities available to the electronic banking in the Ethiopian banking industry Gardachew(2010) pointed out the following issues . There are opportunities provided by the ICT through e-learning program such as school net to increase the awareness of the public about the technology. Being the later adopter ,the benefits of utilizing the already well established soft-wares that have been tested and their weakness singled out elsewhere across the board are so significant . There are supporters that have the experience and expertise and financial wise to develop better strategies such as (UNECA ,world bank and UNCTAD (UNCTAD,2004) cited in Gardachew(2010) . Finally, there is commitment from the government side as it has initiated the commendable ICT policy frameworks and many e-government projects such as the WoredaNet project(ITU4D, 2006) cited in Gardachew(2010).

2.1.3.2 Challenges of ATM Banking Service

According to (Adeepoiu, 2010)the modern contemporary era has changed traditional monetary instruments from that of paper and metal based currency to "plastic money" in the form of credit cards ,debit cards ,which has come out in the increasing utilization of ATM across the globe. He further states that now-a -days the application of technology based banking service as a medium of communication is practiced by both developing and developed world. Particularity, businesses in the advanced economy have understood that without the application of the emerging technology being a leader and survive in the market is a night mere. As a result organizations are striving to be armed with such technology and track technological changes (Nwabounu,2011). Also following the ever changing of the globe ,which undergoes drastic move ,our lives have over-whelmed with financial products and services. To overcome such drastic move the services provided should maintain its pace with the demand of the intended customers(Singal,2012).

And yet ,as the world is becoming a small village and the digital network is making business so easy and life style is getting simpler in the banking industry ,the future prospects of such astonishing technology is confronting a serious challenges. For instance, Nwabounu(2011) argues that despite its valuable benefits ,ATM is not without challenges. One of such challenge is fraud which is highly accelerating in West African nations such as Nigeria and this threat

can be comes out as a factor of losing customers. Also. Zaman and Chowdry(2012)state some of the challenges of the future prospects of the banking technology including legal barriers and inappropriate policy and legatorial frame work of a country, inefficient and inadequate knowledge of the bank's management regarding the issue of technology driven banking service ,high costs incurred in establishing the technology driven banking system and inadequacy of the back and front office management .

As the usage of the technology such as ATM is increasing, it is exposed to issues of security threat and fraudsters(Adepoiu,2010). In this regard CBE need to be aware enough such alarming financial crisis which has a serious impact on customer satisfaction and future practice of the techno-based banking service. The fraud type may differ from country to country. For instance , Adepoiu(2010) in Nigeria identified ATM card theft, skimming , pin theft card reader techniques ,PIN pad techniques force withdrawal.

CBE as a back bone of the country's economy, need to take into account the virtue of such threats as such threats will significantly affect the use of the banking technology. Actually the issue of customer loyalty in this moment is not as such practical for the banking technology is a recent phenomenon in Ethiopia and thus instead of customer loyalty the deal of future prospects is taken as an appropriate venture.

Joseph and Stone(2003) state that empowering customers with technology based channel alternatives is the inexpensive way to maintain customer loyalty. Customer loyalty is defined as a "deeply held commitment to frequently re-buy or re-patronize the same product or service " (Power and Associates,2009) cited in Musiime and Ramadhan(2011 :264). From this definition the issue of customer loyalty of techno-based banking service is related to long term practice of the given service or product. Michael(2007:264) contends that "loyalty equates to a willingness to sacrifice on the part of the customer", by which the loyal customer forgo a lower cost offering from competitor and lends time to the firm to improve its service valuing the other aspects of the firms to continue doing business with the firm cited in Musiime and Ramadhan(2011 :264). Here again the "willingness to sacrifice on the part of the customer" in our country is to the service of techno-based banking is still at low stage and a wider range of practice is not established and customer has not yet get a chance to compare costs and thus this study committed itself to future prospects of ATM instead of loyalty.

On the other hand, Roberts -Phelps(2003) findings suggest that there are several factors for the loss of customers including price ,physical factors, customer sophistication , complexity and competition. So providing excellent customer care and effective handling is quite essential as it puts firms in a position to build a strong loyalty and warmly relationship with their customers. They further state that by building a "truly customer oriented business" which can treat customers as individual and take into account their "live value" firms can move from "transactional purchase to transformational relationships ". In this regard, customers who are in touch with a given organization usually needs two basic things namely: one they are looking for solutions for their problems. Second Thomas etal.(2002)cited in Haque etal.(2009) contends that despite technology's capability which creates new dimensions of scope and time , it is also opening a window for crimes which can be committed at ease and customers need assurance from banks regarding such threat of security. Raigaga(2000)cited in Haque etal.(2009)states that the concern of security have been the main factors which is challenging and hindering the banking sector from expansion of the emerging technology among banks. Findings of Haque etal.(2009) show that security of transaction is the major challenge in expanding e-banking.

The challenges of such a techno-based banking in the context of Ethiopian banking industry, CBE in focus are so numerous and Gardachew(2010)states them as low level of internet penetration and poorly developed telecommunication, lack of suitable ,legal and regulatory frame work for e-commerce, high rate of illiteracy ,frequent power interruption and security issues are the basic challenges for developing electronic banking in Ethiopia.

Also Abraham (2012) has identified some of the common problems of electronic banking including data and network security and privacy, weak telecommunications ,broken and slow internet connections and lack of internet awareness.

2.1.4.Divergent Views Regarding E-service Quality Dimensions

After a wider range of assessment was done on the extant of the relevant literatures on the research topic area , it is identified that presently there is no generally accepted model to measure the e-service quality such as ATM service quality. Moreover , most of the research studies that have been done and instruments developed so far as well employed in the traditional service setting. Regarding technology based banking though efforts have been made

the development is still in its early stage and the researches that have been done so far across the globe are mainly on internet and banking and lesser studies on ATM banking.

For instance, Al-Hawari et al.(2005) argues that studies that have been conducted so far and available to be used to measure ATM service quality are quite limited in their focus and the emphasizes is only on one electronic channels ,called internet banking and the attributes of the others such as ATM are ignored . They contended that several models have been presented to measure the customer perceptions of service quality in face to face interaction among customers and the employees of the firms so that it is possible to conceptualize a service quality measurement models in the traditional service setting and yet regarding the technology based banking very few are done. They came out with five factors of customer perception of automated banking service quality which have demonstrated strong uni-dimensionality ,reliability ,convergent ,discriminate and criterion related validity. They have conceptualized the automated service quality in banks as a five factor structure including ATM service quality, telephone banking ,internet banking service quality , core service quality and price quality. Jun and Cai(2001) cited in Al-Hawari et al.(2005)state that there have been a lot of studies that recognized the main service quality factors in the traditional banking setting, where the interaction between employees and customers is the basic communication channel while a few studies have inspected in automated service quality attributes in banking. Moreover, though extensive research has been conducted regarding the traditional service quality ,only a limited number of scholarly articles are directly concerned with how customers assess e-service quality and its antecedents and consequences(Parasuraman et al.,2005).

Wolfenbarger and Gilly(2003) cited in Hongxiu et al.(2009) state that, though studies regarding service quality and e-service quality have been conducted and various scales have already been in place for the purpose of measuring e-service quality , the extant study on e-service quality has been a fragmented one . Above all some models are limited in their focus and others marginalize one or few channels and ignore the attributes of the others. For instance, Zeithaml(2002) cited in Alanezi et al.(2010) by modifying the SERVQUAL scale in such a way that to fit to the online setting, came out with eleven dimensions including access, ease of navigation ,efficiency ,flexibility , reliability , customization /personalization, security /privacy ,responsiveness, assurance/trust, site aesthetics and price knowledge.

Based on these eleven dimensions Parasuraman et al.(2005) developed a multiple item scale (E-S-QUAL) to measure the service quality provided through websites by which customers entertain shopping online. The study was conducted in two stages . On one hand the basic scale (E-S-QUAL) was developed with 22 items scale of four dimensions namely: efficient ,fulfillment ,system availability and privacy whereas the E-Recs-QUAL is salient only to those customers who are with non routine encounters with the sites containing 11 items in three dimensions including responsiveness , compensation and contact(complaint handling issues). However, their study limited in focus just to one channel, websites and others such as ATM are overlooked. For instance , in this study the scales E-S-QUAL or E-Recs-QUAL cannot used to measure the effect of ATM service quality dimensions as it is limited to the websites only.

Gefen(2002) cited in Amirzadeh and Mousavi(2011) contends that in the process of evaluating the online service quality, the five traditional dimension of SERVQUAL model(Parasuraman et al.,1985,2988) should be collapsed into three tangibles, combined dimension of responsiveness ,reliability and assurance ,and empathy before employing to measure the e-service quality. Accordingly he tried to examine and find out the links among the dimensions of e- service quality, perceived risk ,trust and cost to switch and the variable of customer loyalty. Santos(2003) cited in Amirzadeh and Mousavi(2011)came out with a model including: ease of use, appearance, linkage , structure and layout and content and the active dimensions consist of reliability , efficiency ,support ,communication , security and incentives. Broderick and Vachirapornpuk(2002) cited in Seth et al.(2004) by using participant observation and narrative analysis of UK internet web site community have explored the perception of internet banking customers. Alanezi et al.(2010) state that because of the differences between the methods of measuring service quality in e-government and the physical market services(traditional service) ,there is a need to reword and modify the SERVQUAL scale items before employing these scales to measure the online context. Unlike the traditional service quality, the dimensions of the electronic banking system are new and different than the traditional service quality model. Accordingly Amirzadeh and Mousavi(2011:102) state that many models are in traditional service quality setting such SERVQUAL ,whereas there are different models of the electronic service quality in which many different dimensions are taken into account and " insights from studies dealing with people- technology interactions imply that customer evaluation of new technologies is a distinct process". As a result to measure the e-service

quality dimensions new instrument dimensions and a comprehensive framework need to be in place to identify the dimensions of e-service quality(Hongxiu et al.,2009). Studies show that customers prefer using a combination of automated service channels (Al-Hawari.,2005).

Even there are divergent views among the scholars regarding the use of ATM and its service quality measurement. For instance, Dilijonas et al.(2009) in the Baltic States assessed the five most dominate lever for ATM delivery channels service quality improvement that can be articulated in terms of sufficient number of ATMs, secure locations ,system user friendly, convenient locations ,and ATM functionality. Al-Hawari et al.(2005)identified ATM service quality dimensions such as sufficient number of ATM, secure locations , user friendly system, conveniently location and ATM functions. In the "old days" the process of long term relationship building has been practiced predominantly through face to face contact (Zeithmal and Bitner, 2004)while in the digital era where technology is the interface regarding communication between the service provider and the customer ,the trend is totally shifted Sangeetha(2012). Zineldin(2000) cited in Sangeetha(2012) argues that technology plays a significant role for the development of such long term relationship. For instance ,through self service technologies customers can serve themselves in more effective and efficient manner which has never been imaginable in the "old days". Hence "Advances in communication technology have made people from all over the world electronic neighbors and electronic customers "(Goetsch and Davis,2000:34). Kapoulas et al.(2002) cited in Sangeetha(2011) refers to such kind of relationship as "technological-ship " marketing.

In Ethiopia , CBE in focus ,the practice of delivering service via banking technology is quite underdeveloped, and very few studies have been conducted in this area. And yet, regardless of whether the banks in Ethiopia ,CBE in focus like it or not the application of technology in banking service and its expansion is "knocking the front door " of every firm across the globe, in which CBE would never be exceptional(Gardachew, 2010).

Thus it is imperative to assess the effect of ATM service quality dimensions on customer satisfaction and future prospects, as customers preference to the use of the techno-based service is increasingly alarming. A few studies identify problems, challenges and opportunities of the e-banking in the Ethiopian banking context and one thesis entertain the adoption of e-banking in Ethiopia and the other thesis assess the ATM banking service quality dimensions.

And yet, no one came out with the impact of the ATM service quality dimensions on customer satisfaction and future prospects in the case of CBE. Hence, the purpose of the study was to examine empirically the most pertinent dimensions of the ATM service quality dimensions that can be employed when measuring the ATM service quality and its thereof on the customer satisfaction and future prospects in the case of CBE.

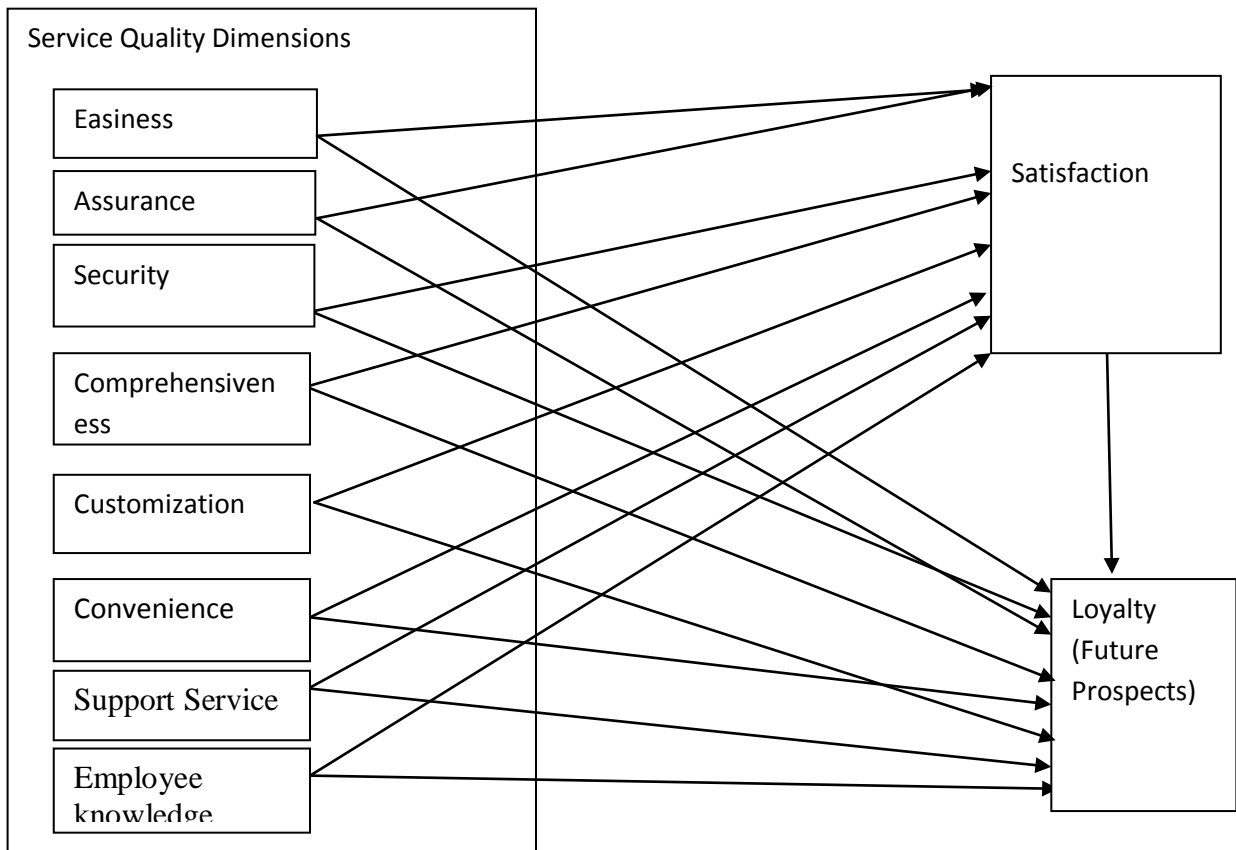
Despite such divergent views, after a wider range of assessment was done on the extant models a structural model was adapted for this study (Mojoodi et al., 2013) with eight dimensions namely easiness, security, assurance, customization, comprehensiveness, convenience, support service and employee knowledge. The very reason for adapting such model was that the technology presented a platform by which companies can be in a position to design out and deliver services which is perceived by customers as superior (Surjadjaja et al., 2003) cited in Al-Hawari et al. (2005) and it addresses the essential constructs of the technology and managers may gain more insights and learn about customers' needs and hence satisfy them.

The other reason for adapting this model over others is, it incorporates the possible factors that may shape customer perceptions of ATM banking. To entertain those dimensions a generic technology instrument (Ganguli and Roy, 2010) was adapted, unlike others such as E-S-QUAL which emphasizes the websites, this instrument includes the three pillars of the technology interface (ATM, Internet and mobile banking) service quality dimensions.

Thus the outcome of this study is essentially paramount and significantly valuable in providing comprehensive insights to the practitioners in general and to the bank in particular, regarding the essential issues of ATM and thereby presenting the cue about customers' needs, quality service and customer satisfaction which enables the bank to make available the right services at the customers' desire state and hence satisfy and even delight them.

2.2 Research Conceptual Framework

The conceptual framework for this study is based on Mojoodi et al. (2013) structural model which has eight dimensions. The effect of each of these dimensions on customer satisfaction and loyalty (future prospects) was assessed. In summing up the discussions so far entertained, this study posits that the impact of ATM service quality dimensions on customer satisfaction and future prospects is based essentially on those stated eight dimensions (see figure 1)



Source : Figure 2.1:Conceptual Model(Mojoodi et al.,2013:3211).

Based on the study model and content entertained the following hypotheses are demonstrated :

Ho1.Generic dimensions of service quality technology-based banking have no direct and significant effect on customer satisfaction .

HA1.Generic dimensions of service quality technology-based banking have direct and significant effect on customer satisfaction .

Ho1a: Easiness has no direct and significant effect on customer satisfaction.

HA1a Easiness has direct and significant effect on customer satisfaction.

Ho1b. Assurance has no direct and significant effect on customer satisfaction.

HA1b. Assurance has direct and significant effect on customer satisfaction.

Ho1c. Security has no direct and significant effect on customer satisfaction.

HA1c. Security has direct and significant effect on customer satisfaction.

Ho1d Customization has no direct and significant effect on customer satisfaction.

HA1d Customization has direct and significant effect on customer satisfaction.

Ho1e Comprehensiveness has no direct and significant effect on customer satisfaction.

HA1e Comprehensiveness has direct and significant effect on customer satisfaction.

Ho1f Convenience has no direct and significant effect on customer satisfaction.
HA1f Convenience has direct and significant effect on customer satisfaction.
Ho1g Support service has no direct and significant effect on customer satisfaction
HA1g Support service has direct and significant effect on customer satisfaction
Ho1h Employee knowledge has no direct and significant effect on customer satisfaction.
HA1h Employee knowledge has direct and significant effect on customer satisfaction
Ho2.Generic service quality dimensions of technology-based banking have no direct and significant effect on customer loyalty (future prospects).
HA2.Generic service quality dimensions of technology-based banking have direct and significant effect on customer loyalty (future prospects).
Ho2a: Easiness has no direct and significant effect on future prospects
HA2a Easiness has direct and significant effect on future prospects.
Ho2b. Assurance has no direct and significant effect on future prospects.
HA2b. Assurance has direct and significant effect on future prospects
Ho2c. Security has no direct and significant effect on future prospects
HA2c. Security has direct and significant effect on future prospects .
Ho2d Customization has no direct and significant effect on future prospects.
HA2d Customization has direct and significant effect on future prospects.
Ho2e Comprehensiveness has no direct and significant effect on future prospects.
HA2e Comprehensiveness has direct and significant effect on future prospects.
Ho2f Convenience has no direct and significant effect on future prospects.
HA2f Convenience has direct and significant effect on future prospects.
Ho2g Support service has no direct and significant effect on future prospects
HA2g Support service has direct and significant effect on future prospects
Ho2h Employee knowledge has no direct and significant effect on future prospects.
HA2h Employee knowledge has direct and significant effect on future prospects
Ho3.Customer satisfaction has no a direct positive effect on customer loyalty.
HA3.Customer satisfaction has a direct positive effect on customer loyalty.

CHAPTER THREE

Research Methodology

The aim of this study was to examine the effects of ATM service quality dimensions on customer satisfaction and future prospects (customer loyalty). To achieve such objective the research design, research methods , data Collection tools, data collection methods ,sampling, target population ,sampling frame, data analysis methods and validity and reliability analysis were briefly discussed which are the essential components for the study.

3.1 Quantitative Research Design

The research is cross-sectional descriptive survey design in its nature. The study employed with high emphasis of a quantitative research method, which involves the utilization of structured questionnaire for the purpose of collecting data to address the research questions of interest at a given point in time and descriptive and inferential statistics for data analysis. It also employed with less emphasis a qualitative approach namely structured interview questions to collect data from the bank. The study was primarily designed out with the purpose to find out from a cross-section of customers of CBE ATM card holders in those four districts of the bank's ATM station, which were selected based on convenience sampling, regarding the perceived effect of ATM service quality dimensions on customers satisfaction and future prospects of ATM. Thus the data type of the study are both from quantitative and qualitative and the data sources are both primary and secondary data.

The structural model was adapted which is composed of eight dimensions to carrying out the examination of the impact of ATM service quality dimension on satisfaction of customers' of CBE ATM card holders and future prospects of ATM(loyalty). To entertain those eight dimensions an instrument was adapted from Ganguli and Roy(2010).

3.2 Sampling Design

The type of sample design that was employed for the population of this study is single stage non-probability sampling procedure. The reason behind such selection is the merit of the non-probability convenience sampling will provide to the study while collecting the required data. One of such merits is, it is straightforward and quick to conduct the data collection at ease (David,2011) and less expensive to conduct the data collection. Also it is feasible to this study as it is difficult to get respondents if another method is employed, for it makes use of the

available sample (Rubin and Babbie, 2010). The single-stage sampling procedure is a procedure by which a researcher is in a position to reach out all names in the population and can sample the people or other elements directly (Creswell, 2012). That is it is simple as it enables a researcher to use the available data and can directly access without clustering further such available data into sample groups unlike the multistage (Creswell,2012).

3.2.1 Population of the study

Table1: Number of ATM stations in those four CBE Districts

District Name	Total No. of ATM Stations per District
East	65
West	34
North	59
South	53
Total	169

Source: E-payment Department of CBE, November 30,2013

Any person who is currently using CBE ATM card banking in the four districts of the bank across Ethiopia has been taken as the target population of this study. According to the data obtained from the CBE ATM e-payment department office the total number of ATM card holders in those four districts of the bank across Ethiopia is more than 500,000, which is the target population of this study.

3.2.2 Sampling Frame

Those four districts of the bank were taken as the sampling frame of this study and accordingly the sample size of the study with convenient sampling strategy was taken from CBE ATM card holders who are in the city of Addis Ababa. The sample size of this study was 384 which was conveniently drawn from those four districts that are found in the city of Addis Ababa. To collect the data of interest from these card holders who are in Addis Ababa city about eight ATM stations with convenient sampling procedure were selected. Accordingly as the sampling strategy is convenient sampling, those customers who are outside Addis Ababa city were systematically excluded from the study.

3.2.3 Sampling Techniques

The type of sample design employed for selecting individuals in this study was based on two criterion namely the representation and element selection technique .In light of representation the convenience sampling procedure. The reason behind such selection is the merit of the convenience sampling which is straightforward and quick to conduct the data collection at ease(David,2011) and less expensive. Also it is feasible to this study as it is difficult to get respondents if another method was employed for it enables to use the available sample(Rubin and Babbie,2010). In light of the element selection technique the unrestricted sample was employed, this is due to the fact that the unrestricted sample will facilitate the data collection activities. Accordingly to identify the sample of ATM-banking customers included in the study convenience sampling technique was preferred among the sampling technique because of difficulty of getting individual customers who are CBE ATM card holders.

3.2.4 Sampling Size/ sampling procedure

To obtain a comprehensive sample, convenience sampling technique was applied for the purpose of primary data collection .So a sample of eight ATM stations from those 169 stations, which are situated in the city of Addis Ababa was selected with convenience sampling methods. The selected eight CBE ATM stations are Finfine branch, Addis Ababa, Mexico, Silassie, Gofa , Sebara Babur, Air port and Jakros branches and altogether have made available a total sample size of 384 customers. The reason for these branches selection was these stations were more suitable for the student researcher to collect the data. The sample size was determined by using a table of Krejcie and Morgan(1970) cited in Mulugeta(2013) that is used for the sample size determination when the number of population is known.

3.3 Data Collection Methods and Procedures

3.3 .1 Data Collection Methods

In this study both primary and secondary data were used.

3.3.1.1. Secondary Data

Secondary data from the bank were consulted to have a prior understanding about the subject matter.

3.3.1.2 Primary Date Sources

The sources of primary data were self administered questionnaire. After the secondary data had been exhaustively assessed, to examine questions that were not answered by secondary

data, the primary data sources were entertained. According to Fin cited in Creswell(2002) there are different types of data collection forms such as: self-administered questionnaires; interviews; structured record reviews to collect financial, medical, or school information; and structured observations. From these self administered questionnaires and interview were used. The rationale behind for choosing self administered questionnaire is four folds . First the strength and weaknesses of the type of data collection type. Second the costs associated with this type of data collection forms. Third the availability of the data and fourthly their convenience in the process of data collection. The rationale for selecting a structured interview was, it was easy to make clarification, probing and prompting with respondents directly(Burton,2000).

Respondents were not required to write their name on the questionnaire and the letter attached to the questionnaire shall explain the objectives and assure the anonymity of respondents. The data was collected from Jan.20 2014 to Feb 19,2014.

3.3.2.Data Collection Procedure

The items for measuring the ATM service quality dimension were adapted from Ganguli and Roy(2010). In collecting the data the student researcher was personally approached customers and asking first of all for their willingness and then prompts whether they are using ATM-banking and if they are user questionnaire were distributed to be filled out. Since filling out a questionnaire will take some time for staff customers , the student researcher gave the questionnaire to the respective customer service mangers to distribute and fill it out when the staff respondents have spare time at office.

After questionnaires filled out customer service managers collected and handed it to the student researcher. Also in some branches "lobby persons" helped the student researcher in distributing questionnaires to customers. Also data were collected from customers of CBEATM users who are working in Ethio-telecom and Ministry of Transport. In the questionnaire respondents were asked about their perceptions towards the ATM and its quality. Also a structured interview was conducted with the bank to know what it would say about its service delivery via the CBE ATM.

3.3.3 Data Collection Tools

In this study the eight dimensions of service quality including easiness ,security ,assurance, customization ,comprehensiveness, convenience, support service and employee knowledge have been entertained as independent variables . Whereas customer loyalty (future prospects) is entertained as dependent variable ,customer satisfaction is a mediating variable.

Independent Variables

Service quality denotes the difference between customers' expectations of how a firm need to carry out and the service performance which customers perceive(Alanezi etal.,2010).

The meaning or usage of these eight dimensions defined by (Mojoodi etal.,2013) as follows:

- 1) *Easiness: this means that users can easily learn how to work with the technology and use it.*
- 2) *Assurance: this means that technology works true.*
- 3) *Security: safety in using technology, proper handling of information and quality information.*
- 4) *Customization: to make (something/ services) according to a customer's individual requirements and needs.*
- 5) *Comprehensiveness: this means that the technology must be capable of providing a wide range of customer needs.*
- 6) *Convenience: convenience of using technology over the employees as well as speed and time of using technology.*
- 7) *Support services: the service provided to customers during problem situations and through call centers.*
- 8) *Employee knowledge: the amount of employees' information and knowledge to solve customer problems (Mojoodi etal.,2013,p.3209)*

Dependent Variables

According to (Bhattacharjee,2012)Operationalization is developing items for measuring constructs. The first step in operationalization is to define and specify the meaning and concepts and variables to be studied, conceptualization of constructs . From existing literature measurement was adapted which can fit the current context. Thus future prospects of ATM(Customer loyalty) can be operationalized as follows: Researchers "have used service recommendations to other customers as a proxy for customer loyalty"(Caruana,2002,Collier

and Bienstoc ,2006) cited in Ganguli and Roy(2010). In addition to "recommendation other items which have been used extensively for measurement of customer loyalty are consideration of the company as the first choice service provider (Caruana,2002 ,Zeithmal etal.,1996) cited in Ganguli and Roy(2010).

Mediating variable

Customer satisfaction :Hansemark and Albinsson (2004)cited in Angelova and Zekiri(2011) define satisfaction as " an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some need, goal or desire”.

The survey questionnaires were employed to measure the impact of ATM service quality dimensions on customer satisfaction and future prospects of ATM in the case of CBE. The status of the eight dimensions were: Easiness(3), Assurance (2),convenience (2), comprehensiveness(2), Security(2),Customization(3), support service (7),and employee knowledge(3),customer satisfaction (4) and future prospects(3) respectively. The survey questionnaire was divided into two parts. The first part is about demographic profiles and usage patterns of respondents such as respondents gender, age category, income range ,frequency of usage and type of service used. The second part has three section. The first section dealt with measurement variables which is to what extent do customers agree or disagree to the various statements or issues related to ATM. The second section dealt with customer satisfaction and the third section is about future prospects of ATM. A five point Likert scale was employed by which the respondents were requested to show the extent to which they do agree or disagree with the various statements provided to them and the five point Likert scale has ratings of " Strongly disagree(1) and Strongly agree(5)".

3.4 Data Analysis Methods

For the analysis of quantitative data both descriptive and inferential statistics were used. To aid computation a Statistical Package for Social Science (SPSS) version 20 was employed. After the data get collected, the data analysis was done as follows:

Coding: is assigning separate code number to each variable in the study. Then the process of eliminating coding and data entry errors," clearing the data'(Rubin and Babbie, 2010) was done.

The statistical tools were utilized in the following ways:

- ✓ The descriptive statistics(Frequency distribution) was used to examine customers perceptions toward ATM service quality dimensions , the level of the customer satisfaction and future prospects.
- ✓ The relationship and effect of the ATM-banking service quality dimensions and customer satisfaction and future prospects were analyzed by using inferential statistics, in particular correlation and multiple regression.
- ✓ A simple linear regression analysis was used to analyze the effect of customer satisfaction on customer loyalty (future prospects).

3.5 Validity and Reliability

Reliability "is the degree to which the measure of a construct is consistent or dependable" (Bhattacharjee, 2012:57), while **Validity** refers "to the extent to which a measure adequately represents the underlying constructs that is supposed to measure"(Bhattacharjee, 2012:59). The model of this study(Mojoodi et al.,2013) is revised, accepted and published under the African - Eurasian Network for Scientific Information(AENSI) publisher and the validity's and reliability's of all eight dimensions have been testified and within the acceptable range. Also the instrument employed to collect the primary data to address the stated dimensions of interest(Ganguli and Roy,2010) is revised, accepted and published under the Emerald Group Publishing Limited and its validity and reliability are testified and within the acceptable range. Thus as the statements have been generated from previous studies were extensively reviewed by the scholars in other cultural settings, its validity is assumed to hold good instrument and valid. The overall reliability test of a cronbach's alpha for this study is 0.883 which is above the minimum threshold (it is annexed as table 4).

3.6 Ethics

This study like other academic researches abides by ethical issues, moral conducts and commercial confidentiality to the bank's data and for the privacy of respondents. The questionnaires were designed out in such a way that respondents are not required to write their names and reveal their personal information on the questionnaire and the confidentiality of the data being collected is handled with due care and used for academic purpose only.

CHAPTER FOUR

Result and Discussion

4.1 Result Analysis

In this chapter data editing and coding ,response rate, results of test of normality of data ,reliability testing, factor analysis, the demographic profile would be briefly detailed. Furthermore ,uni-variate analysis ,correlation and regression analyses, interview questions , discussion of the results and summary of the thesis would be discussed in details.

4.1.1.Data Editing and Coding

Once the primary data was collected, prior to the analysis the questionnaire was reviewed and this is to certify that if questionnaires were filled out appropriately. Any incomplete or missing response was discarded from the subsequent analysis. The steps which were stated in the data analysis section such as Coding, eliminating coding and data entry errors, known as "clearing the data"(Rubin and Babbie,2010) were performed were used.

4.1.2 Response Rate

From the total questionnaire distributed to 384 CBE ATM card holders 325 questionnaires were collected and the remaining 59(15.4%) were lost. The nominal response rate of the collected questionnaire is 84.6%. However, out of these due to incompleteness and missing values only 281(73.2%) were usable for further analysis and the remaining 44(11.4%) were discarded. According to Rubin and Babbie(2010) a response rate of 70% is "very good" for further assessment. So 73.2 % is significant.

4.1.3 .Results of Test of Normality of Data

To avoid multi-collinearity, in the correlation matrix(R-matrix) the value of the determinant should be greater than 0.0001(Field, 2006). Accordingly due to the value of the determinant was 0.000 variables that cause multi- collinearity were eliminated and value of determinant(0.001) was obtained. Also tolerance is expected not to be less than 0.01 and VIF should not be greater than 10(Tewodros,2012) and tolerance and VIF are within the range. Also the auto correlation was tested by using Durbin Watson value and the values for all variables are within the recommended range(Khan,2010).

4.1.4. Results of Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis(EFA) was conducted by using SPSS 20.0 on the service quality perceptions data collected from 281 respondents. Factor analysis is used to reduce a data set to a more manageable size(Field,2000). Before the extraction of factors the Bartlett test of Sphericity($\chi^2=1763.225$) and Kaiser-Meyer-Olkin(KMO)test was conducted and the KMO measure of sampling adequacy score is 0.791. Factors with Eigen value greater than one were retained for further analysis. The principal axis factoring extraction method with Direct Oblimin rotation was used and four factors were obtained: factor 1 Convenience and Comprehensiveness , factor2:Easiness and Assurance , factor 3:Support service and employee knowledge and factor 4:Security and Customization. So a four factor model/8 dimensions was expected to represent the collected data explaining 55.26%.of the total variance(Table 3). Please see the annexed pattern table in appendix C.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.791
Bartlett's Test of Sphericity	Approx. Chi-Square	1763.225
	Df	171
	Sig.	.000

Source :Own Structured Survey Questionnaire
Table 3: Total variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.337	33.354	33.354	5.808	30.568	30.568	2.751
2	1.728	9.094	42.448	1.165	6.131	36.699	2.767
3	1.329	6.997	49.445	.801	4.215	40.914	4.399
4	1.105	5.817	55.262	.542	2.852	43.766	4.462

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Source : own structured survey questionnaire(2014).

4.1.5 Results of Reliability Test

The cronbach's alpha was computed for each of four factors(eight dimensions) regarding customers perceptions to ensure the reliability of data collected. The overall Cronbach alpha value for the 19 items was 0.883(Table 4) and all values of individual dimensions were above the minimum threshold(>0.7)and the adequacy of internal consistency is proved(Hair et al.,1995). The cronbach's alpha for customer satisfaction and future prospects were above the minimum threshold(>.7).

Table 4: Reliability Testing results

S.No	Dimensions within Factors	N of Item	Cronbach's Alpha
1	Factor1: Convenience and Comprehensiveness	4	.736
2	Factor 2: Easiness and Assurance	4	.705
3	Factor 3: Support Service and Employee Knowledge	6	.786
4	Factor 4: Security and Customization	5	.779
5	Over all Cronbach's Alpha for four factors	19	.883
7	Customer Satisfaction	4	.745
8	Future Prospects	3	.763

Source : own structured survey questionnaire(2014).

4.1.6. Survey Analysis

4.1.6.1: Analysis of demographic profile of respondents

The data was collected based on the background of the respondents(Table5). Demographic variables including gender, age, monthly income ,period for which respondents are customers of their, usage pattern or frequency of monthly usage and type of service used were examined.

Table 5: Demographic profile of Respondents

S.NO	Variable	Categories	Response in %
1	Gender:	Male:	71.5%

		Female:	28.5%
2	Age Groups:	20 years and less 21-30 years 31-40 years Greater than 40 years Missing Value	11.7% 44.5% 33.8% 9.6% 0.4%
3	Monthly Income:	Less than br1,200 Between br.1,200-br2,500 Between br.2,500-br 7500 Greater than br7500	7.1% 11.0% 59.8% 22.1%
4	Period for Respondents are customers of their bank	Less than 6 months Between 6-12 months More than 1-up to 3 three years More than three years	13.5% 15.7% 35.2% 35.6%
5	Frequency of monthly usage	Up to five times More than 5-up to 10 times More than 10-up to 20 times More than 20 times	53.0% 26.7% 11.0% 9.3%
6	Service Types used	Checking account with ATM Savings account with ATM Checking account with ATM and Mobile banking Savings account with ATM and Mobile banking Home banking through internet Telephone banking Stock trading Auto loan Mortgage Others- mainly credit card ,ATMs, bill payments	28.8.0% 46.6.8% 10.% 14.6% 0.0 0.0 0.0 0.0 0.0

Source : own structured survey questionnaire(2014).

Service Type Used: Customers who use ATM being saving account holders(46.6%)and checking account holders(28. 8%) are dominant users. Customers who use in combination

both ATM and mobile banking being saving account holders (14.%) and who use both ATM and mobile banking being checking account holders (10.%) respectively.

Legends:

1,4,8: those who use ATM and mobile banking being holder of checking account.

1,8: those who use ATM being holder of checking account.

2,4,8: those who use ATM and mobile banking being holder of saving account.

2,8: those who use ATM banking being holder of saving account

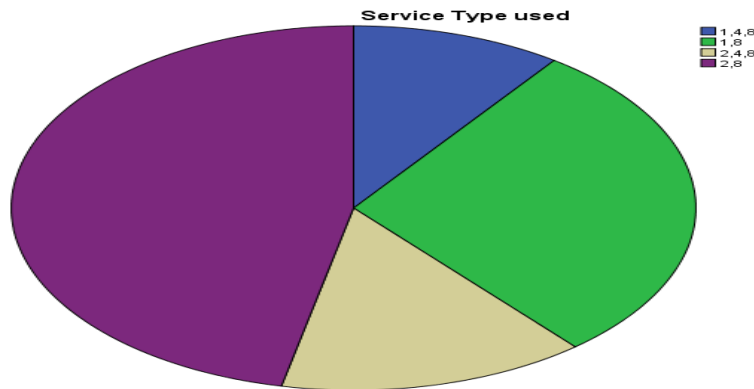


Figure 4.1. Service type used.

Source : Own Survey(2014)

1. checking Account Holders. 2. Saving Account holders.
- 3.Home banking through internet. 4. Mobile banking .
5. Stock trading. 6. Auto loan. 7. Mortgage.
8. others -mainly credit card, ATMs, bill payments

4.1.6.2 Uni-variate Analysis

4.1.6.2.1. Analysis of ATM service quality dimensions

A. Comprehensiveness

Table6:My bank's technology is accessible beyond regular business hours

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	11	3.9	3.9	3.9
Disagree	38	13.5	13.5	17.4
Neutral	54	19.2	19.2	36.7
Agree	145	51.6	51.6	88.3
Strongly Disagree	33	11.7	11.7	100.0
Total	281	100.0	100.0	

Table 6 shows that more than 60% of respondents signed on that the bank's technology is accessible beyond regular business hours(51.6% for agree and 11.7% for strongly agree). And yet there are respondents that are neutral(19.2%) and negatively responded one such as disagree (13.5%)and strongly disagree(3.9%)respectively.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	12	4.3	4.3	4.3
Disagree	25	8.9	8.9	13.2
Valid Neutral	69	24.6	24.6	37.7
d Agree	127	45.2	45.2	82.9
Strongly Agree	48	17.1	17.1	100.0
Total	281	100.0	100.0	

Table7: I find it more convenient to use technology than interacting with branch employees

More than 60% of the respondents signed on positively showing that customers have interest and found out convenient to use the banking technology instead of having interaction with human tellers. However, there are still some respondents who are neutral(24.6%),disagree (8.9%) and strongly disagree(4.3%) to the stated statement.

B. Convenience dimension

Table8 : My bank's technology allows me to complete transactions quickly

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	11	3.9	3.9	3.9
Disagree	28	10.0	10.0	13.9
Valid Neutral	62	22.1	22.1	35.9
d Agree	142	50.5	50.5	86.5
Strongly Agree	38	13.5	13.5	100.0
Total	281	100.0	100.0	

More than 60% of the respondents signed on positivelywhile customers who are neutral (22.1%)and who responded negatively such as disagree(10%) and strongly disagree(3.9%).

Table 9: My bank's technology saves me a lot of time especially when I am pressed for time

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	8	2.8	2.8	2.8
Disagree	18	6.4	6.4	9.3
Neutral	64	22.8	22.8	32.0
Agree	130	46.3	46.3	78.3
Strongly Agree	61	21.7	21.7	100.0
Total	281	100.0	100.0	

Table 9 shows more than 60% of respondents their bank's technology as it saves time particularly during tight time. There are some neutral (22.8%) respondents and a few number of respondents who reacted negatively (disagree(6.4%) and strongly disagree (2.8%)respectively.

Factor 2:.Easiness and Assurance Dimensions

C. Easiness Dimension

Table 10:The technology provided by my bank is easy to use

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	17	6.0	6.0	6.0
Disagree	50	17.8	17.8	23.8
Neutral	65	23.1	23.1	47.0
Agree	132	47.0	47.0	94.0
Strongly Agree	17	6.0	6.0	100.0
Total	281	100.0	100.0	

Table 10 shows that more than 50% of respondents signed on that the technology of CBE is easy to use(47.0% for agreed and 6.0% for strongly agree). And yet there is some neutrality (23.1%)and there are respondents who signed on for disagree 17.8% and for strongly disagree 6.0% respectively.

Table 11:The technology provided by my bank is user-friendly

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	14	5.0	5.0	5.0
Disagree	56	19.9	19.9	24.9
Neutral	71	25.3	25.3	50.2
Agree	130	46.3	46.3	96.4
Strongly Agree	10	3.6	3.6	100.0
Total	281	100.0	100.0	

Table 11 shows that about 50% of respondents show up positively(46.3% for agree and 3.6% for strongly agree), suggesting that the technology through which the banking service is being delivered is user-friendly . Here again some of respondents show up some neutrality (25.3%)and the remaining are 19.9% signed on for disagree and 5.0% for strongly disagree respectively.

Table 12:The technology provided by my bank works accurately and is error free

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	30	10.7	10.7	10.7
Disagree	56	19.9	19.9	30.6
Neutral	93	32.0	32.0	65.5
Agree	95	33.8	33.8	99.3
Strongly Agree	7	2.7	2.7	100.0
Total	281	100.0	100.0	

Table 12 shows that as there is no flawless banking service with the application of technology enabled service such as ATM banking service, respondents shown up for agree (33.5%) which is strongly persuaded by neutrality (32%). Also there are negative responses ,specifically about 21.0% signed on for disagree and 12.5% for strongly disagree respectively.

D: Assurance Dimension

Table 13: My bank's technology is reliable.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	10	3.5	3.5	3.5
Disagree	40	14.2	14.2	14.2
Neutral	45	16.1	16.1	16.1
Agree	169	60.1	60.1	93.9
Strongly Agree	17	6.1	6.1	100.0
Total	281	100.0	100.0	

Majority of the respondents favored to sign on for agree(60.1%) in their reaction ,though on the other side of the coin there are some neutrality (16.1%). Only 6.1% of respondents signed on for strongly agree while there are respondents who reacted 4.2% for disagree and 3.5.0% for strongly disagree respectively.

Factor 3: Support Service and employee Knowledge Dimensions

E. Support Service Dimension

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	7	2.5	2.5	2.5
Disagree	28	10.0	10.0	12.5
Neutral	75	26.7	26.7	39.1
Agree	148	52.7	52.7	91.8
Strongly Agree	23	8.2	8.2	100.0
Total	281	100.0	100.0	

Table 14: My personal information exchanged while using technology is not misused by my bank

Table 14 shows that more than 60% of respondents positively contended that their personal information is not misused by their bank(52.7% signed for agree and 8.2% for strongly agree). . And yet there are a strong neutrality (26.7%) and negativity in which some respondents signed on for disagree(10%) and strongly disagree(2.5%) respectively.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	17	6.0	6.0	6.0
Disagree	72	25.6	25.6	31.6
Neutral	52	18.5	18.5	50.1
Agree	125	44.4	44.4	94.5
Strongly Agree	15	5.5	5.5	100.0
Total	281	100.0	100.0	

Table 15:When I contact my bank's customer service ,my calls are always answered promptly

Table 15 shows that about 44.4% respondents signed for agree and 5.5% for strongly agree. There are 18.5% that are neutral respondents. The rest are those customers who responded negatively with 25.6% for disagree and 6.0% for strongly disagree 6%. The result shows that the majority of customers are happy with service being offered and yet others need due attention for their consent may have effect on the future course of action.

Table 16:My bank resolves my complaints quickly

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	11	3.9	3.9	3.9
Disagree	61	21.7	21.7	25.6
Neutral	65	23.1	23.1	48.8
Agree	124	44.1	44.1	92.9
Strongly Agree	20	7.1	7.1	100.0
Total	281	100.0	100.0	

According to table 16 about 53.1% are responded positively(44.1% signed on for agree and 7.1% for strongly agree). There are neutral(23.1%) and negatively reacted respondents such as 21.7% signed on for disagree and 3.9 % for strongly agree.

	Frequency	Percent	Valid Percent	Cumulative Percent
Stongly Disagree	26	9.3	9.3	9.3
Disagree	57	20.3	20.3	29.5
Neutral	54	19.2	19.2	48.8
Agree	123	43.8	43.8	92.5
Strongly Agree	21	7.5	7.5	100.0
Total	281	100.0	100.0	

Table 17:My bank offers a fair compensation for its mistakes

Table 17 shows that more than 50% of respondents reacted positively and 19.2% signed on neutrally. On the other hand about 29.6% of them reacted negatively.

F. Employee Knowledge Dimension

Table 18:When I contact my bank's customer service(e.g call center either via phone or online) my requests are always anticipated properly

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	10	3.6	3.6	3.6
Disagree	57	20.2	20.2	23.8
Valid Neutral	99	35.2	35.2	59.0
d Agree	102	36.4	36.4	95.4
Strongly Agree	13	4.6	4.6	100.0
Total	281	100.0	100.0	

Table 18 shows that only 41.0% of respondents are responded positively. However there are some respondents that are strongly neutral (35.2%) followed by negative responses such as disagree(22.2%) and strongly disagree(3.6%).

Table 19:When there are problems my bank's customer service people are sympathetic and reassuring

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	11	3.9	3.9	3.9
Disagree	56	19.9	19.9	23.8
Valid Neutral	118	42.0	42.0	65.8
Agree	80	28.5	28.5	94.3
Strongly Agree	16	5.7	5.7	100.0
Total	281	100.0	100.0	

Table 19 indicates that about 42% of respondents are neutral and only 34.2% respondents are those who responded positively(28.5% signed for agree and 5.7% for strongly agree). Also there are about 23.8% of respondents who reacted negatively.

Factor 4:Security and Customization Dimensions

G. Security Dimension

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	22	7.8	7.8	7.8
Disagree	49	17.4	17.4	25.2
Valid Neutral	108	38.5	38.5	63.7
d Agree	78	27.7	27.7	91.4
Strongly Agree	22	8.6	8.6	100.0
Total	281	100.0	100.0	

Table 20:My bank's technology is personalized

Table 20 shows that only 27.7% of respondents signed on for agree and 8.6% for strongly agree and yet most of the respondents are neutral with 38.5%. The remaining reacted negatively with 17.4% disagree and 7.8% strongly disagree.

Table 21:My bank's technology provides the precise information I need

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	8	2.8	2.8	2.8
Disagree	46	16.5	16.4	19.2
Valid Neutral	101	37.8	37.8	56.9
d Agree	106	35.5	35.5	92.9
Strongly Agree	20	7.4	7.1	100.0
Total	281	100.0	100.0	

Table 21 shows that about 42.6% of respondents signed on that their bank's technology provides them the precise information they needed(35.5% for agree while 7.1% for strongly agree). And yet there are more of neutrality (37.8%) and negatively responded customers(16.5% signed for disagree and 2.8% for strongly disagree).

H. Customization Dimension

Table 22: My bank's technology provides sufficient information

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	6	2.1	2.1	2.1
Disagree	48	17.1	17.1	19.2
Neutral	65	23.1	23.1	42.3
Agree	129	45.9	45.9	88.3
Strongly Agree	33	11.7	11.7	100.0
Total	281	100.0	100.0	

Table 22 shows that more than 50% of the respondents signed on that the bank's technology is in a position in providing sufficient information they(45.9% for agree and 11.7% for strongly agree). And yet there are some neutrality(23.1%) and negative responses such as disagree (17.1 %)and strongly disagree(2.1%) respectively.

Table 23:My bank's technology provides the reports I need

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	3	1.1	1.1	1.1
Disagree	44	15.7	15.7	16.7
Neutral	61	21.7	21.7	38.4
Agree	133	47.3	47.3	85.8
Strongly Agree	40	14.2	14.2	100.0
Total	281	100.0	100.0	

Table 23 shows that more than 60% of the respondents signed on for positive response(47.3% for agree and 14.2% for strongly agree). On the other hand there is neutrality (21.7%),and negative responses such as disagree(15.7%) and strongly disagree(1.1%).

Table 24:My bank's technology gives me more freedom of mobility

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	9	3.2	3.2	3.2
Disagree	42	14.9	14.9	18.1
Neutral	66	23.5	23.5	41.6
Agree	131	46.6	46.6	88.3
Strongly Agree	33	11.7	11.7	100.0
Total	281	100.0	100.0	

According to table 24 about 46.6% respondents signed on for agree and 11.7% for strongly agree. There are that neutral(23.5%) and negatively responded customers(14.9% for disagree and 3.2% for strongly disagree) respectively.

4.1.6.2.2. Customer Satisfaction Analysis

Table 25: Overall I am satisfied with my bank

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	12	4.3	4.3	4.3
Disagree	31	11.0	11.0	15.3
Neutral	77	27.4	27.4	42.7
Agree	133	47.3	47.3	90.0
Strongly Agree	28	10.0	10.0	100.0
Total	281	100.0	100.0	

Table 25 shows that about 47.3% signed on for agree and 10.0% for strongly agree while (27.4%) neutral and 11% for disagree and 4.3% for strongly disagree negatively.

Table 26: I think I did the right thing when I chose this bank

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	6	2.1	2.1	2.1
Disagree	24	8.5	8.5	10.7
Neutral	85	30.2	30.2	40.9
Agree	132	47.0	47.0	87.9
Strongly Agree	34	12.1	12.1	100.0
Total	281	100.0	100.0	

Table 26 shows that more than 50% of respondents agreed that the decision they made in selecting CBE as their preferred bank is the right thing(47% for agree and 12.1% for strongly agree). However, despite such momentum there are some respondents who are neutral(30.2%) and responded negatively disagree(8.5%) and strongly disagree(2.1%).

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	21	5.8	5.8	5.8
Disagree	101	26.3	26.3	32.1
Valid Neutral	109	28.5	28.5	60.6
d Agree	135	35.2	35.2	95.8
Strongly Agree	18	4.2	4.2	100.0
Total	281	100.0	100.0	

Table 27: My bank's services meet my expectations

According to Table 27 about 35.2% signed for agree and 4.2 for strongly agree which is strongly persuaded by neutrality (28.5%) and disagree (26.3%) respectively while only about 5.8% are responded strongly disagree.

Table 28: I am delighted with my bank

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	10	3.6	3.6	3.6
Disagree	30	10.7	10.7	14.2
Valid Neutral	126	44.8	44.8	59.1
d Agree	89	31.7	31.7	90.7
Strongly Agree	26	9.3	9.3	100.0
Total	281	100.0	100.0	

Table 28 shows 44.8% of respondents are reacted neutrally and only about 41% are who responded positively. Also about 14.3% of respondents are those who responded negatively.

4.1.6.2.3. Future Prospects Analysis :

Table 29: I would recommend my bank to others

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	7	2.5	2.5	2.5
Disagree	31	11.0	11.0	13.5
Valid Neutral	95	33.8	33.8	47.3
d Agree	130	46.3	46.3	93.6
Strongly Agree	18	6.4	6.4	100.0
Total	281	100.0	100.0	

According to Table 29 more than 50% of respondents reacted positively stating that they would recommend their bank to others though they are not delighted with the service being

delivered. And yet there are some respondents who responded neutrally (33.8%) and responded negatively specifically 11.% and 2.5 % signed on for disagree and strongly disagree respectively.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	10	3.6	3.6	3.6
Disagree	41	14.6	14.6	18.1
Neutral	72	25.6	25.6	43.8
Agree	116	41.3	41.3	85.1
Strongly Agree	42	14.9	14.9	100.0
Total	281	100.0	100.0	

Table 30: I will always consider this bank as my bank in the future

According to Table 30 More than 55% of respondents signed on positively and the remaining are that are neutrally(25.6%) and who responded negatively such as disagree (14.6%and strongly disagree (3.6%)respectively.

Table 31: I expect to do more business with my bank in the future

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	10	3.6	3.6	3.6
Disagree	26	9.3	9.3	12.8
Neutral	79	28.1	28.1	40.9
Agree	115	40.9	40.9	81.9
Strongly Agree	51	18.1	18.1	100.0
Total	281	100.0	100.0	

According to Table 31 about 59% of respondents agreed that they would continue to do business with CBE being as active customer in the future. About 9.3% of customers are neutral and 3.6% are reacted negatively.

4.1.7: Correlation Analysis: Relationships between ATM Service Quality Dimensions, Customer Satisfaction and Future Prospect

Pearson correlation was conducted to know the relationship between the dimensions, customer satisfaction and future prospects of ATM. Correlation coefficients show the magnitude and direction of relationships, in which the magnitude is the degree to which

variable goes either in unison or opposition. Correlation analysis gives insights to gain the direction and strength of relationship(Cooper and Schindler,2008). The correlation coefficient takes the value between -1 and 1. The value of -1 meant the variables are negatively and perfectly correlated and when one increases ,the other decreases by a proportionate amount whereas coefficient value +1 meant that the correlation is perfectly positive, so as one increases the other increases by a proportionate amount. The coefficient value 0 shows that there is no correlation or linear relationship at all between variables and sign of correlation coefficient(-,+)show the direction of the relationship(Field,2006). The value of correlation coefficients ± 0.1 represent small effect, ± 0.3 represent medium effect and ± 0.5 represent large effect respectively(Field,2006).

4.1.7.1. Correlation Analysis between ATM Service Quality dimensions and Customer Satisfaction .

To examine the relationship between perception of customers of ATM service quality dimensions and their satisfaction, correlation analysis was conducted. The correlation between dimensions and customer satisfaction is positive and the effect can be medium (EmpKw. = 0.359)and large or strong(Conv.=0.647) respectively(please refer to the annexed table 32 in appendix C for the details regarding correlation analyses).

From the eight dimensions convenience has the strongest and significant relation (Conv=.647)while the weakest one is employee knowledge (EmpKw=.359) with customer satisfaction. The result shows that convenience allows customers to complete transactions quickly and saves their time. The second and the third strongest and significant relations are observed between support service (SupSe.=0.577) and customer satisfaction, Assurance (Ass.=0.518) and customer satisfaction respectively. The remaining dimensions have a positive and moderately strong and medium relation with value of (Cust.=0.496, Comp.=0.455, Eas. =0.374 ,Sec.=0.372 and EmpKw. =0.359) respectively with customer satisfaction. For instance, customization (Cust=0.496)and comprehensiveness dimension (Comp.=0.455)have moderately strongly relation with customer satisfaction whereas easiness (Eas.=0.374)and security(Sec-=0.372)dimensions have medium relation with customer satisfaction.

4.1.7.2 Correlation Analysis between ATM Service Quality dimensions and Future Prospects

According to table 32 All ATM service quality dimensions have positive relation with future prospects . From the eight dimensions convenience has the strongest and significant relation with future prospects(Conv=.740)while the weakest one is observed in employee knowledge (EmpKw=.305) The result shows customers agreed with convenience dimension and future prospects of the technology is in good shape whereas the failure of employee may deteriorate such attachment. The second strongest and significant relation is observed between support service and future prospects(SupSe.=0.548) showing that support service is confidential.

Thirdly comprehensiveness (Comp.=0.538) has strongest and significant relation with future prospects . Customization (Cust.=0.532) has strong and significant relation with customer satisfaction in which the technology is capable to provide sufficient reports and freedom of mobility. Assurance has moderately strong relation (Ass.=0.499)with future prospects of ATM which shows technology is reliable. Also the relationship between the dimension of security(Sec=-0.361) with future prospects of ATM is positive and the future is so bright. From the eight dimensions the second weakest correlation is in easiness dimensions (Eas.=0.344).

4.1.7.3 Correlation Analysis between Customer satisfaction and Future Prospects

Customer satisfaction(custom.=.508)has strong and significant relation with future prospects. Hence as long as customers get satisfied with the services and their expectations met they stay in touch with their bank and yet failing to do so may lead customers to switch. .

4.1.8. Regression for ATM service quality dimensions and Customer satisfaction and future prospects

To examine the relationship between the ATM service quality dimensions and customer satisfaction and future prospects multiple linear regression was employed. To examine the relationship between customer satisfaction and future prospects simple linear regression was used.

4.1.8.1 Regression for ATM service quality dimensions and Customer satisfaction

Multiple linear regression was used to model the value of a dependent scale variable; in relation to one or more of the independent variable which shows to what extent the dependent variable is affected by the independent variables. The dependent variable (criterion) was customer satisfaction while the independent variable(predictors)were the ATM service quality dimensions. The coefficient of determination (R Square) and regression coefficients (Beta coefficient)for the p-value for the significance of each relationship is analyzed(annexed as Table 33).

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	.506	.138		3.672	.000	.235	.777		
Comp	.153	.163	.184	1.714	.000	-.017	.176	.619	1.655
Conv	.375	.243	.396	2.742	.000	.220	.460	.548	1.825
Eas	.031	.030	.047	1.026	.306	-.029	.091	.776	1.288
Ass	.337	.043	.236	1.803	.000	.252	.422	.643	1.556
EmpKw	.057	.055	.044	1.067	.295	-.041	.139	.713	1.933
SupSe	.259	.054	.254	4.396	.000	.132	.346	.497	2.012
Sec	.022	.045	.021	-.034	.973	-.090	.087	.630	1.587
Cust	.143	.071	.138	1.729	.000	.143	.163	.355	2.379

Table 33 Regression Analysis between ATM service quality dimensions and Customer satisfaction

Coefficients

a. Dependent Variable: Custom

F=41.424, Sig.=.000. Adjusted R Square=.536

The overall Multiple Regression models of Customer Satisfaction with ATM Service Quality

Dimensions will be: $y = a + b_1x_1 + b_2x_2 + \dots + b_nx_n + e$

y=

$0.506 + 0.153\text{Comp} + 0.375\text{Conv} + .031\text{Eas} + .337\text{Ass} + .057\text{EmpKw} + .259\text{SupSe} + .022\text{Sec} + 1.43\text{Cust} + .138$

Where:

y=overall Future Prospects, Comp=Comprehensiveness, Conv.=Convenience, Eas=Easiness

Ass=Assurance, EmpKw=Employee Knowledge, SupSe=Support Support, Sec= Security

Cust= Customization

e= Error Term

Hypothesis1:Ho1.Generic dimensions of service quality technology-based banking have no direct and significant effect on customer satisfaction:

Hypothesis1:HA1.Generic dimensions of service quality technology-based banking have direct and significant effect on customer satisfaction:

The total satisfaction is an aggregation of the eight dimensions. The result shows that about 53.6% of the variance in the overall satisfaction is explained by the generic technology based service quality dimensions. Also the result reveals that there is positive and significance ($p < 0.05, F = 41.424$) relationship between the technology based service quality dimensions and Customer satisfaction. This shows that the ATM service quality dimensions are significant to the CBE ATM banking customer satisfaction. Thus hypothesis one(**Ho1**)is rejected and then the alternative **HA1** is accepted.

Ho1f: Convenience has no direct and significant effect on customer satisfaction.

HA1f :Convenience has direct and significant effect on customer satisfaction.

As illustrated in table 33 the ATM Service Quality dimensions separately have different significant level. For instance there is a positive and significant ($p < 0.05, \text{Beta value} = .396$) relationship between convenience and customer satisfaction. Accordingly among the eight dimensions convenience is the strongest predictor of the customer satisfaction and has positive and significant impact on customer satisfaction. Hence hypothesis(**Ho1f**)is rejected and in turn alternative **HA1f** is accepted.

Ho1g: Support service has no direct and significant effect on customer satisfaction

HA1g :Support service has direct and significant effect on customer satisfaction

Support service has positive and significant relationship ($p < 0.05, \text{Beta value} = .254$) which is the second strongest dimension that predicts customer satisfaction. The result reveals that the faster the bank resolves the complaints quickly, offering fair compensation for its mistakes and kept confidentiality of personal information, has positive and significant impact on customer satisfaction. So hypothesis(**Ho1g**) is **rejected** and then alternative **HA1g** is **accepted**.

Ho1b: Assurance has no direct and significant effect on customer satisfaction.

HA1b: Assurance has direct and significant effect on customer satisfaction.

Also assurance is in a position to predict the dependent variable, customer satisfaction ($p < 0.05$, Beta value = .236). The interpretation is that the more the technology is reliable the more the positive and significant impact on the customer satisfaction. Thus hypothesis (**Ho1b**) is rejected and in turn alternative hypothesis **HA1b** is accepted.

Ho1e: Comprehensiveness has no direct and significant effect on customer satisfaction.

HA1e: Comprehensiveness has direct and significant effect on customer satisfaction.

Comprehensiveness ($p < 0.05$, Beta value = .184) has also positive relation with customer satisfaction which the more the bank's technology is being accessible beyond regular business hours is so suitable than interacting with employees, has the significant effect on customer satisfaction. Thus hypothesis (**Ho1e**) is rejected and alternative **HA1e** is accepted.

Ho1d: Customization has no direct and significant effect on customer satisfaction.

HA1d: Customization has direct and significant effect on customer satisfaction.

Customization has also ($p < 0.05$, Beta value = .138) positive relation with customer satisfaction. The interpretation is the technology is customized so that it can provide sufficient information, reports and thereby ensures freedom of mobility, has the significant impact on the customer satisfaction. Thus hypothesis **Ho1d** is rejected and alternative **HA1d** is accepted.

Ho1a: Easiness has no direct and significant effect on customer satisfaction.

HA1a Easiness has direct and significant effect on customer satisfaction.

Ho1c. Security has no direct and significant effect on customer satisfaction.

HA1c. Security has direct and significant effect on customer satisfaction.

Ho1h Employee knowledge has no direct and significant effect on customer satisfaction.

HA1h Employee knowledge has direct and significant effect on customer satisfaction

On the other hand, according to table 33 the remaining three dimensions and in turn their hypotheses namely security with (Beta value = .021), employee knowledge with (Beta value = .034) and easiness with (Beta value = .047) have no statistically significant ($p > 0.05$) relationship with customer satisfaction. Thus hypotheses **Ho1c, Ho1a and Ho1h** are accepted. The result of easiness may happen because as the banking technology is new and a recent phenomena, the easy to use the technology might not be adaptable by users. Security might be so risky as some ATM stations are not secure enough especially during the night.

Regarding the employee knowledge dimensions except in case of things go bad there is no personal contact with employee and it may not have significant impact.

4.1.8.2. Regression Analysis of ATM service Quality Dimensions with Future Prospects

Table 34 Regression Analysis of ATM service Quality Dimensions with Future Prospects -coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	.653	.147		3.874	.000	.354	.875		
Comp	.170	.063	.189	1.614	.108	.235	.247	.312	1.535
Conv	.275	.053	.296	5.742	.000	.410	.360	.848	1.825
Eas	.331	.030	.137	2.026	.000	.229	.291	.376	1.388
Ass	.237	.043	.249	4.803	.000	.252	.422	.443	1.556
EmpKw	.047	.045	.054	1.047	.296	-.041	.135	.613	1.633
SupSe	.239	.054	.275	5.396	.000	.332	.346	.797	2.012
Sec	.002	.045	.002	-.034	.973	.090	.087	.630	1.587
Cust	.132	.051	.148	2.629	.000	.168	.133	.455	2.199

a. Dependent Variable: FPros

F=62.92, Sig.=.000 and Adjusted R Square:. .593

The overall Multiple Regression models of Future Prospects with ATM Service Quality Dimensions will be: $y = a + b_1x_1 + b_2x_2 + \dots + b_nx_n + e$.

$$y = 0.653 + 0.170\text{Comp} + 0.275\text{Conv} + .331\text{Eas} + .237\text{Ass} + .047\text{EmpKw} + .239\text{SupSe} + .002\text{Sec} + .132\text{Cust} + .147$$

Where:

y=overall Future Prospects, Comp=Comprehensiveness, Conv.=Convenience, Eas=Easiness

Ass=Assurance, EmpKw=Employee Knowledge, SupSe=Support Support, Sec= Security

Cust= Customization, e= Error Term

Ho2:Generic service quality dimensions of technology-based banking have no direct and significant effect on customer loyalty(future prospects).

HA2:Generic service quality dimensions of technology-based banking have direct and significant effect on customer loyalty(future prospects).

The total future prospects is an aggregation of the eight dimensions. The result shows that about 59.3% of the variance of future prospects is explained by the ATM service quality dimensions. Also the result denotes that there is positive and significance ($p < 0.05, F = 62.92$) relationship between the eight dimensions and future prospects, denoting that the dimensions are significant to the CBE ATM banking future prospects. Thus hypothesis (**Ho2**) is **rejected and** in turn Hypothesis **HA2 is accepted**.

Ho2f Convenience has no direct and significant effect on future prospects.

HA2f Convenience has direct and significant effect on future prospects.

The result shows that convenience dimension has positive and significant effect ($p < 0.05, \text{Beta value} = .296$) on future prospects and it is the strongest predictor of future prospects. Hence hypothesis (**Ho2f**) is rejected then alternative **Ha2f** is accepted.

Ho2g Support service has no direct and significant effect on future prospects

HA2g Support service has direct and significant effect on future prospects

According to table 34. support service ($p < 0.05, \text{Beta value} = .275$) has positive and significant relationship with future prospects and it is the second strongest dimension that predicts the future prospects. So hypothesis (**Ho2g**) is rejected and then alternative **HA2g** is accepted.

Ho2b. Assurance has no direct and significant effect on future prospects.

HA2b. Assurance has direct and significant effect on future prospects

Also assurance has positive and significant ($p < 0.05, \text{Beta value} = .249$) relation with future prospects in which the banking technology is reliable and has positive and significant impact on future prospects. Thus hypothesis (**Ho2b**) is **rejected** and alternative hypothesis **HA2b is accepted**.

Ho2e Comprehensiveness has no direct and significant effect on future prospects.

HA2e Comprehensiveness has direct and significant effect on future prospects.

Table 34 also indicates comprehensiveness has a positive and significant relation with future prospects ($p < 0.05, \text{Beta value} = .189$) showing that the bank's technology is being accessible beyond regular business hours and avoids interaction with employee has a significant and positive effect on future prospects. Thus hypothesis (**Ho2e**) is **rejected** then alternative **HA2e is accepted**.

Ho2d Customization has no direct and significant effect on future prospects.

HA2d Customization has direct and significant effect on future prospects.

Also customization($p < 0.05$, Beta value=.148)has a positive and significant relation and predicts the future prospects showing that the technology has positive and significant impact on future prospects. Thus hypothesis(**Ho2d**) is **rejected** and alternative **HA2d** is **accepted**.

Ho2a: Easiness has no direct and significant effect on future prospects

HA2a Easiness has direct and significant effect on future prospects.

Also easiness has positive and significant ($p < 0.05$, Beta value=.137)relation with Future prospects. Thus hypothesis(**Ho2a**) is rejected and HA2a is in turn accepted.

Ho2c. Security has no direct and significant effect on future prospects

HA2c. Security has direct and significant effect on future prospects .

Ho2h Employee knowledge has no direct and significant effect on future prospects .

HA2h Employee knowledge has direct and significant effect on future prospects

And yet security(beta value=0.002) and employee knowledge (beta value=0.0542)have no statistically significant ($p > 0.05$)relationship with future prospects. Thus hypotheses (**Ho2c**) and **Ho2h** are accepted.

4.1.8.3. Regression Analysis of Customer Satisfaction with Future Prospects

Table 35 Regression Analysis of Customer satisfaction with Future Prospects

Coefficients										
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF	
1	(Constant)	.578	.182		3.184	.002	.221	.936		
	Custom	.647	.066	.518	9.853	.000	.518	.777	.8900	1.73

a. Dependent Variable: FPRO

F=97.089 Sig.=.000 and Adjusted R Square: .255

The overall Simple Linear Regression models of future prospects with customer satisfaction will be: $y = a + b_1x_1 + b_2x_2 + \dots + b_nx_n + e$.

$$y = 0.576 + 0.647\text{Custom} + 0.182.$$

Where: y =overall Future Prospects, Custom=Customer Satisfaction, e = Error Term

Ho3:Customer satisfaction has no a direct positive effect on customer loyalty.

HA3.Customer satisfaction has a direct positive effect on customer loyalty.

To analysis the effect of customer satisfaction on future prospects a simple linear regression analysis was employed. The result shows that about 25.5% of the variance of the future prospects is explained by the customer satisfaction. Also the result indicates that there is positive and significance($p < 0.05, F = 97.089$)relationship between the customer satisfaction and future prospects. This means customer satisfaction is so significant to the CBE ATM banking future prospects. Thus hypothesis three (**Ho3**) is **rejected** and in turn **HA3** is **accepted**.

4.1.9 Analysis of Structured Interview Questions of CBE

The structured interview questions which was conducted with CBE E-Payment department business solution section(bank) regarding the CBEATM banking service (CBE reliable visa card)was briefly discussed follows.

The CBE e-payment department business solution section(or bank) said that CBE reliable visa card(CBEATM) banking service in view of the bank's customer is very good. The bank is improving its banking service of reliable visa card from time to time and gaining more customers and the reaction of customers is positive and in good shape. Accordingly the bank confirmed that the results of the assessment was encouraging and more will be done in the future. Customer's feedback tracking is done in two ways. First customer's feedback is done when there is complaints from customers. This is to know whether the solutions given to the complaints are really addressed the issue and the complaints are satisfied with the solutions. The other tracking is done via the bank's communication and business development section to know about the newly launched products or services status and get their feedbacks and reactions towards such newly launched products and services. Concerning the measures that to be taken the bank said that in the past appropriate measures had been taken to and encouraging results were obtained. As the service delivery is a continuous process the bank takes appropriate measures in the future. According to the bank the issue of the standard time period for delivering the CBE reliable visa card (CBEATM) to new customer was fifteen days in the past while currently as the bank acquired latest machines and the process of authorizing the card for individuals customers and the delivering process by respective branches to customers is improved, the time period is highly minimized. For instance, in Addis Ababa it is less than three days while for those branches out of Addis about seven days. In light of customer

satisfaction, according to the bank the previous time period was longer and relatively the current time period is short , though it is still demanding to reduce the time of card delivery. To encourage it sends SMS message to those who were registered to hold the CBE reliable visa card to come and take the card.

According to the bank the reason for having a centralized card production department is twofold: firstly it is so cost effective , as the cost of the newly card production machine is so expensive. Secondly the bank is so advantageous in terms of skilled man power, security and accountability by employing such centralized card production system. To gain more customers, enhance the quality of service delivery and improve satisfaction of its customers and sustain the future prospects the bank has plans to be carried out. One is acquiring new banking technologies in such a way that to improve the banking service delivery which will be reliable, easy and convenient for its customers. To be armed with the banking technology the bank has changed its previous core banking services in such a way that to maintain the compatibility of the new banking technology and its core banking. The change was done by taking into account the convenience and preference of customers. Secondly to use the existing potentials and sustain the future prospects the bank has developed new products and services such as customers segregation. The customer segregation includes woman and youth banking service, in which the CBE reliable visa card can be used by different groups. For instance, a woman CBE reliable visa card is issued only for woman only while the normal one is accessible by all customers.

Regarding the quality of the service delivery the bank said that apart from the external factors such as power breakdown and unavailability of network connection, the quality of the service delivery is in good shape. Moreover, to improve the service delivery quality and enhance customer satisfaction and thereby to develop and foster long term relationship the bank is working with high commitment.

Generally the CBE ATM banking service(reliable visa card) provides various services such as cash withdrawal, fund transfer ,foreign currency exchange service. It also provides mini-statements services including balance transaction, PIN changes and mobile pop services. To excel the service features and enhance service quality of its reliable visa card banking , the

bank has launched recently a CBE "visa classic" reliable card which can put its card in a position to provide diversified banking services.

4.2. Discussion of the Results

The intent of this study was to examine the effect of ATM service quality dimensions on customer satisfaction and future prospects in the case of CBE. The model adopted is a structural model with dimensions including easiness, assurance, security, customization, comprehensiveness, convenience, support service and employee knowledge. It was developed as a generic model which can entertain a given study regardless of the type of technology being used. To entertain these technology based service quality dimensions the instrument was adapted from Ganguli and Roy(2010) which was developed and used for dimensions of generic technology service quality. The structural model is intended to examine how the ATM service quality dimensions affect customer satisfaction and customer loyalty (future prospects). The study attempted to present a model that can explain how the aforementioned dimensions essentially affect customer's perceptions towards the service quality of ATM and to what extent these dimensions influence customer satisfaction and future prospects. The results of the structured questionnaire survey rendered strong empirical support for the stated hypothesized relationships between the given constructs. The discussion on the empirical results of the study are entertained as follows.

The central issue which was given an emphasize in this study was the impacts of the ATM service quality dimensions that are perceived by users as essential elements in the service delivery and to what extent these dimensions are influential on customer satisfaction and future prospects. Through a wider range of the extant literature analysis about eight dimensions have been identified. Accordingly the results of this study revealed that dimensions such as convenience, support service, customization, assurance, and comprehensiveness have a significant and direct influence on customers' satisfactions and customer loyalty (future prospects) in CBE. Among these dimensions convenience is the strongest dimension which has a significant and direct effect on customer satisfaction and customer loyalty (future prospects). This is in turn in line with earlier scholarly findings such as (Khan,2010;Joseph and Stone 2003;Santos 2003.). For instance, Khan(2010) states convenience dimension as an ease of use and a service which is to be accessible at all times. Gerrard and Cunningam(2003)cited in

Khan(2010) pointed out that customers prefer a service which is flexible enough that enables them to attain their financial needs at any time, which in turn affects their perception regarding ATM service quality. The result is consistent with this findings in which the bank's technology is accessible beyond regular business hours ,provides more freedom of mobility and enables to complete transactions quickly and customers are happy with flexibility and convenience of the technology. The result is also consistent with prior findings such as ATM facilities came out in speed of transactions and saved time of customers (Moutinho,1992). Dilijonas etal.(2009) found out that more than 50% of respondents did agree that the use of ATM is convenient and time saving as it allows them free movement in providing cash acting like mini banking and the result of this study is consistent with such findings.

Support service is the second strongest dimension which has a significant and direct effect on customer satisfaction and future prospects. This is consistent with findings such as Gaguli and Roy(2010) in which the service delivered through the banking technology determines customer satisfaction and customer loyalty (future prospects). Also customization ,comprehensiveness and assurance are the next dimensions that have effect on customer satisfaction and future prospects. Joseph and stone(2003) state that accurate ATM and e-banking ,customer service, secure and flexible service, easy and convenient banking and personalized service as the essential dimensions of technology based banking service . The result of this study is consistent with such findings as customers prefer to have a banking technology which enables them to carryout transactions quickly, save time, provide personalized service and keep confidential information.

And yet , in this study easiness ,security and employee knowledge have no significant effect on customer satisfaction. However, the results of easiness and security are contrary or inconsistent with prior findings. For instancee, Amirzadeh and Mousavi's(2011)findings show that security and privacy is the most indicators of the ATM users while suitable place of ATM and integrated interbank network are the essential factors which are in a position to increase the level of customer satisfaction. Raigaga(2000)cited in Haque etal.(2009)states that the concern of security have been the main factors which is challenging and hindering the banking sector from expansion of the emerging technology.

Result of employee knowledge of this study on loyalty(future prospects of ATM) is contrary to previous studies such as Mojoodi et al.(2013) in which their study shows that the value was(Betha =0.450) in which the employee knowledge has effect on loyalty(future prospects) while the result of this shows no effect(Betha value = 0.054). This is an academic research and all researches should not be necessarily come out with same results. Also there might be difference of cultural difference of customers and also there will be difference during collection. Also the result of this study might be might be consistent with Zeithmal and Bitner 's (2004)view of SERVQUAL dimensions' relevancy to the techno- based banking system. They contend that in a remote encounter such as ATM banking services empathy might not be relevant dimensions, in which among the SERVQUAL dimensions , there is variation in relevancy to the e-banking (Zeithmal and Bitner, 2004). By the same token in ATM banking, technology is the interface in which the service accessed from remote area and except special personnel that are needed for assistance when things go bad ,the interaction of employee is minimal.

The results of this study for customization and comprehensiveness is different from that of Mojoodi et al.(2013)in which they concluded that customization and comprehensiveness have no effect on customer loyalty and yet they have enduring effects on customer satisfaction whereas in this study both dimensions have positive effect on customer satisfaction and future prospects.The results also revealed that service quality dimensions have effect on customer satisfaction and loyalty which is consistent with prior findings. For example, Mohammad and Alhamadani(2011) state that customer satisfaction is highly influenced by customers perceptions of the quality of service being delivered. Swaid and Wignad(2009) found out that the perception of reliability and assurance are the essential factors which have effect on favorable loyalty aspects including repurchase intentions ,communicating positive word of mouth and loyalty. Similarly Levesque and McDougall(1996) cited in Sangeetha and Mahlingam(2011) state that high service quality comes out with customers satisfaction and loyalty, greater willingness to share to somebody else, minimization of complaints and enhanced customer retention rates.

Hurley and Estelmi(1998) cited in Gupta and Bansal(2012) singled out that whereas service quality and satisfaction are distinct constructs, a causal relationship exists between the two ,and

that perceptions of service quality affects feelings of satisfaction which are influential on future purchase behavior in which the result of this study is strongly consistent . Ganguli and Roy's(2010) findings show that customer loyalty is influenced positively and significantly by customer satisfaction and their study cleared out that the generic service quality dimensions have an impact on customer satisfaction and customer loyalty. Also the result of this study shows that customer satisfaction has a profound impact on customer loyalty(future prospects) and consistent with prior studies. For instance, the result of Ganguli and Roy's(2010) finding shows that customer satisfaction with (betha value =0.838) has effect on loyalty(future prospects) which is consistent with the present findings of betha value(.518) in which customer satisfaction has effect on loyalty (future prospects of ATM). Also Mojoodi etal.(2013)finding shows with betha value (0.750) customer satisfaction has effect on customer satisfaction and the present study's result is consistent with it.

Caruana(2002) cited in Mosahab etal.(2010)found that in the Malta's banks study customer satisfaction acts as mediators in the effect of service quality on customer loyalty. Bloemer(1998) cited in Mosahab etal.(2010)found that service quality and customer satisfaction could influence loyalty and service quality influences loyalty both directly and indirectly through customer satisfaction. Hasan etal.(2013) concluded that service quality of ATM has significant association with customer satisfaction and the service quality and customer satisfaction have positive relationship. Sivadaas and Baker-Prewitt(2000)cited in Singh(2006:) contend that the ultimate objective of customer satisfaction measurement need to be customer loyalty. Fornell(1992)cited in Singh(2006) pointed out that high customer satisfaction will come out with increased loyalty and customers will be less overwhelmed from competitors while Anton(1996) cited in Singh(2006)states that satisfaction is positively related to repurchase intentions , a possibility of recommending a product or service , loyalty and profitability.

4.3 Summary of Findings

The study was descriptive in type and yet inferential statistics as well such as correlation and regression analysis were used. The objective of the study was to examine the effect of ATM service quality dimensions on customer satisfaction and future prospects in today's such vibrant technology based banking service in the Ethiopian banking industry, CBE in focus.

Technology based models have been proposed to measure the ATM service quality dimensions which have a direct relationship with customer satisfaction. After a wider range of the extant literature was analyzed despite the divergence views regarding the e- service quality dimensions the structural model was adapted as the conceptual model for this study which was developed and used by (Mojoodi et al.,2013)with eight dimensions namely easiness, security ,support service , comprehensiveness, convenience, assurance, employee knowledge and customization. To entertain these eight dimensions regarding customers perceptions on the CBE ATM banking service an instrument which was developed by Ganguli and Roy(2010) was employed. Accordingly after the data were get collected and subsequent analyses were performed the following results or findings were obtained.

Generally the result shows that about 57.3% of respondents are satisfied with the bank's technology which is convenient , support service is good and accessed beyond regular business hours and provides more freedom of mobility. This shows that there is a direct and significant relationship between ATM banking service quality dimensions and customer satisfaction. From the eight dimensions convenience and support service dimensions are the dominant predictors of customer satisfaction and followed by assurance, comprehensiveness and customization. On the other hand the remaining three dimensions namely security, easiness and employee knowledge have no direct and significant on the overall customer satisfaction.

Also the results show there is a direct and significant relationship between ATM service quality dimensions and future prospects in which about 52.7% of customers contended that they are happy with their bank and can recommend to others and continue working with the bank in the future while the remaining 47.3% disagreed with their bank.

From the eight dimensions convenience and support service dimensions are the dominant predictors of future prospects followed by assurance, customization ,comprehensiveness and easiness. On the other hand the remaining two dimensions namely security and employee knowledge have no direct and significant on the future prospects. Also the result reveals that

there is a direct and significant relationship between customer satisfaction and customer loyalty(future prospects of ATM). The results generated from the data which were collected from both sides namely customers and the bank show that except on some areas the service delivery is in good shape and customers are satisfied. And yet in some dimensions such as employee knowledge and security customers are neutral and not happy with the bank's service though the bank says in every aspect the service delivery is good and customers reaction is positive. The following table 36 shows the results of regression analysis of hypotheses.

Table 36:results of hypotheses

Hypotheses and their Statements	Customer Satisfaction
Ho1:Generic dimensions of service quality technology-based banking have no direct and significant effect on :	Ho1 is Rejected then alt. HA1 is Accepted
Ho1a: Easiness has no direct and significant effect on:	Ho1a is accepted
Ho1b. Assurance has no direct and significant effect on:	Ho1b is Rejected then alt. HA1b is Accepted
Ho1c. Security has no direct and significant effect on:	Ho1c is accepted
Ho1d Customization has no direct and significant effect on:	Ho1d is Rejected then alt. HA1d is Accepted
Ho1e Comprehensiveness has no direct and significant effect on:	Ho1e is Rejected then alt. HA1e is Accepted
Ho1f Convenience has no direct and significant effect on:	Ho1f is Rejected then alt. HA1f is Accepted
Ho1g Support service has no direct and significant effect on:	Ho1g is Rejected then alt. HA1g is Accepted
Ho1h Employee knowledge has no direct and significant effect on:	Ho1h is accepted
Hypotheses and their Statements:	On Future Prospects
Ho2.Generic service quality dimensions of technology-based banking have no direct and significant effect on:	Ho2 is Rejected then alt. HA2 is Accepted
Ho2a: Easiness has no direct and significant effect on:	Ho2a is Rejected then alt. HA2a is Accepted
Ho2b. Assurance has no direct and significant effect on :	Ho2b is Rejected then alt. HA2b is Accepted
Ho2c. Security has no direct and significant effect on :	Ho2c is accepted
Ho2d Customization has no direct and significant effect on:	Ho2d is Rejected then alt. HA2d is Accepted
Ho2e Comprehensiveness has no direct and significant effect on :	Ho2e is Rejected then alt. HA2e is Accepted
Ho2f Convenience has no direct and significant effect on :	Ho2f is Rejected then alt. HA2f is Accepted
Ho2g Support service has no direct and significant effect on:	Ho2g is Rejected then alt. HA2g is Accepted
Ho2h Employee knowledge has no direct and significant effect on:	Ho2h is accepted
Ho3.Customer satisfaction has no a direct positive effect on :	Ho3 is Rejected then alt. HA3 is Accepted

CHAPTER FIVE

Conclusion and Recommendations of the Research

It deals with conclusion ,recommendation, Implications and suggestions for future research.

5.1 Conclusion

The study has introduced an area of research that has a crucial practical and theoretical implications to the Ethiopian banking industry CBE in focus. Technology is dramatically altering the way business is conducted and its speed and effect is increasingly significant to the business firms. In the traditional service setting such the interface was employee -customer while in the technology based banking service the interface is shifting into technology-customer through the application of self-service technologies. Accordingly the purpose of the study was to make an original contribution to the body of knowledge in the service sector such as the banking industry by examining the impact of ATM service quality dimensions on customer satisfaction and future prospects of ATM in the case of CBE. It contributes to the service marketing management discipline in finding out the role of the technology based banking such as ATM in enhancing customer satisfaction and loyalty(future prospects of ATM).

A wider range of assessment was done on existing literature in such a way that to determine the most common dimensions that have been used in e-service quality and a structural model was adapted for the study. The study was conducted with a high emphasis of quantitative method which is structured survey to collect primary data and analyzed using SPSS 20. Accordingly factors pertaining to convenience, security, easiness, customization ,comprehensiveness , assurance, support service and employee knowledge were a central constructs of the study as they have an influence on customer satisfaction and loyalty(future prospects of ATM). Furthermore the study supplemented with structured interview questions from the banks managers to balance the study by gaining data from both sides.

The study makes contributions for both academics in general and to the bank managers in particular. Academically, the study will make a contribution to draw academic attention upon the neglected area of the technology based banking services in Ethiopia, where currently there

is no study is conducted in the area in academia . A high quality technology based service is the determinant factor toward the success of the banking industry and by understanding the characteristics of technology based services that enhance customers satisfactions and loyalty business firms can screen out where and how to invest essential resources in providing techno-based banking service quality. The study as well may create awareness among techno- based service managers to pay more attention to technology based service quality, as well as assisting them to improve e-service performance and competitiveness.

Results of the Specific Objectives:

The results of the postulated hypotheses answered the designed out research questions and which in turn answered the specific objectives. Thus the research questions were answered in which the effect of ATM service quality dimensions on customer satisfaction and future prospects were direct and significant. Accordingly the designed specific objectives were achieved. Specifically the specific objectives which dealt with the exploration , assessment and determination of the effect of ATM service quality dimensions on customer satisfaction and future prospects of ATM and the effect of customer satisfaction on future prospects were attained with remarkable results. Hence, the objective designed out by the student researcher to be achieved by the study was with remarkable and significance importance was achieved.

More than 60% of the respondents signed on positively showing that customers have interest and found out convenient to use the banking technology instead of having interaction with human tellers. It is also allows customers to transact their banking service quickly, it saves time. their personal information is not misused by their bank ,support service is good. However, there are still some respondents who are neutral(24.6%),disagree (8.9%) and strongly disagree(4.3%) to the stated statement.

Thus from the results it can be concluded that the effect of ATM service quality dimensions have direct and significant effect on customer satisfaction and future prospects of ATM. Also the effect of customer satisfaction on future prospects of ATM is significant. Furthermore it can be concluded that as the overall result is positive the application of CBEATM banking has a bright future in the Ethiopian banking industry. And yet CBE has to work hard to exceed and go beyond the expectations of customers in such a way that it can retain its customers and develop long lasting relationship and attract more potentials customers and thereby reduce the

switching cost and takes the lead from the vigorous privately owned ,Dashen bank, the leader of e-banking in Ethiopia(Gardachew, 2010).

Finally the research outcome of this study also revealed some vital implications for bank managers and academicians as it is shortly briefed in the implication part of this study.

5.2.Recommendations

The study reveals that as the quality of services being delivered to customers is enhanced, customer satisfaction and resulting customer loyalty(future prospects of ATM) of techno-based banking will be increased and willingness of customers toward techno-based banking is increased. Thus the following recommendations are forwarded:

- Enhancing ATM banking service facilities in such a way that to speed up the machine to save the customer time and enable customers transact banking service at ease.
- Providing sufficient security and making the ATM stations area secure enough especially during night time to increase safety of customers.
- Promoting and fostering the culture of techno- based banking services usage and informing and encouraging customers to use the service which is delivered via the technology.
- Increasing features and improving the facilities of the technology based banking service in such a way that customers can receive a wider range of financial services. Specifically providing simple, differentiated customer-focus services based on changing and growing customer behavior and preferences.
- Improving the customer experience in using the technology based services and facilitating awareness creation ventures in such a way that customers may learn and get aquatinted with the technology and the use of techno- based banking will be availed by the general public.
- The results show that the effect of ATM service quality dimensions on customer satisfaction and future prospects of ATM is direct and significant. So the bank has to pay attention to the ATM dimensions and create conducive environment and increases facilitates and features so that to reap more profits .
- Also as the effect of customer satisfaction future prospects of ATM is direct and significant and about 57.3% of customers get satisfied the bank should use the

satisfaction of customer to develop sense of loyalty in such a way that to sustain the future prospects of the application of ATM.

- Now-a-days the banking technology is totally revolutionized the banking industry and drastically challenging the bricks and mortar banking system and it is a hard fact that it is impossible to be successful and remain competitive without the technology and hence CBE is not exceptional from such influence and the bank should pay utilize the results which may help to fill the gaps.
- To improve the service delivery and thereby standardize the service offering the bank has to work hard more on the technology based banking such as ATM in such a way that it can bring standardization of offerings and create more conducive technology based banking environment which is convenient and accessible with more freedom mobility.
- As the results of the study show convenience and support service are the most important dimensions so the bank has to pay attention on these area for more achievements.
- More than 60% of the respondents signed on that convenient to use the banking technology instead of having interaction with human tellers, allows to transact their banking service quickly, it saves time, their personal information is not misused by their bank ,support service is good. However, the results show that on dimensions such easiness, security and employee knowledge customers are not satisfied. Particularly on employee knowledge for instance there are respondents who are neutral(35.2%)and negative responses from customers(25.8%)to the stated statements. This implies that technology based banking customer service of employee knowledge needs improvements and CBE has to improve employees knowledge who renders service required by customers to be efficient and according to customer's desires.
- ✓ Moreover , as customers preference in using the technology is increasing, the bank need to diversify and increase features and augment its service delivery through the application of ATM so that it is possible to suit customers desire.

5.3 Implications and Suggestions for Future Research

5.3.1 Implications

As the use of technology in Ethiopia ,CBE in focus is a new dimension and the model studied in this study is generic which can assess the banking service regardless of the type of technology being employed, there are some practical implications:

- ✓ The results reveal that as the model is a generic technology which can handle a study regardless of the type of technology employed and the instrument is generic and not yet practiced in Ethiopia, CBE in focus , it will provide the theoretical foundation for future researchers to build on it and enables to draw more insights about customers perceptions.
- ✓ The research outcome will aid managers to rectify the observed problems regarding the CBE ATM banking service delivery.
- ✓ Also the study provides more insights regarding customers needs and wants which is essential for managers to learn customers needs and delivery the required service accordingly to fill that need and hence satisfy them.

5.3.2 Suggestions for Further Studies

- Studies show that customers prefer to use in combination the E-banking(ATM, internet and mobile banking) and yet the focus of this study was only on ATM. So further research may assess the three pillars of the technology interface so that more insights will be generated.
- As the use of the technology based banking service is get accustomed by customers and its application is fully employed in the future ,the behavioral intentions such as loyalty, tendency to switch ,barriers to switch and other similar issues can be examined.
- Finally as the study is cross-sectional in its nature and only the influence between relationships instead of the causal direction was addressed, future studies can use the longitudinal studies to show the confirmation of causality.

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Appendix A

APPENDIX QUESTIONNAIRE

"THE IMPACT OF ATM SERVICE QUALITY ON CUSTOMER SATISFACTION AND FUTURE PROSPECTS": IN THE CASE OF CBE IN ADDIS ABABA

DANIEL ABEBE

A THESIS FOR THE PARTIAL FULFILLMENT OF THE REQUIREMENTS OF MASTER OF ARTS IN MARKETING MANAGEMENT.

ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE MARKETING MANAGEMENT POST GRADUATE PROGRAM

Dear CBE ATM-banking customers,

I am a post graduate student in AA USC in marketing management department. I would like ,first of all to thank you for your cooperation in filing out this questionnaire. It is considered as part of the research thesis for the partial fulfillment of the requirements of Master of Arts in Marketing Management department which is designed for gathering information on how you feel about the quality service of the ATM-banking service of the CBE.

As your responses to the statements below have great bearing to my Thesis work, thus I kindly request you to fill it out carefully and genuinely. This information is going to be used just only for academic purpose and apart from that your responses will be treated with great confidentiality .

For further information please contact the student researcher telephone: +2510911486154 and email: danielmis2003@yahoo.com

Daniel Abebe :Candidate of MA Degree

General Instruction:

There is no need to write your name
I thank you for your participation in advance

Part one

I. Please tick in the box of your response for the following questions.

1. Gender: Male..... Female.....
2. Age: 20 years and less 21-30 years
- 31-40 years Greater than 41years.....
3. Monthly income: Less than Br1,200..... Between Br 1,200- Br 2,500.....

Between Br 2,501- Br 7,500..... Greater than Br 7,500.....

4.Period for which respondents are customers of their bank: Less than 6 months.....

Between 6-12 months..... More than 1 – up to 3 years.....

More than 3 years.....

5.Frequency of monthly usage: Up to 5 times..... More than 5 – up to 10 times ..

More than 10 – up to 20 times More than 20 times.....

6.Service types used:Checking account Savings account.....

Home banking through internet..... Telephone banking.....

Stock trading..... Auto loan.....

Mortgage.....

Others – mainly credit card, ATMs, bill payments.....

Part Two

1. Survey Questions

Based on the experience you have as an ATM-banking user, please assess your perceptions regarding the service rendered with CBE ATM. A list of statements are given below and the student researcher is interested in a number that indicates your feeling concerning the perceptions of the ATM-banking of the CBE on a scale of 1-5.

Each statement is ranked in the following ways:

Strongly Disagree	Dis-Agree	Neutral	Agree	Strongly Agree
1	2	3	4	5
1. The technology provided by my bank is easy to use1.....2.....3.....4.....5				
2.The technology provided by my bank is user-friendly 1.....2.....3.....4.....5				
3.The technology provided by my bank works accurately and is error-free:...1...2...3...4...5				
4.My bank's technology is reliable..... 1.....2.....3.....4.....5				
5.I feel safe using my bank's technology..... 1.....2.....3.....4.....5				
6.My personal information exchanged while using technology is not misused by my bank.....1...2...3...4...5				
7. My bank's technology is personalized:..... 1.....2.....3.....4.....5				
8. My bank's technology provides the precise information I need:..1.....2.....3.....4.....5				
9.My bank's technology provides sufficient information:.....1.....2.....3.....4.....5				
10.My bank's technology provides the reports I need :.....1.....2.....3.....4.....5				
11.My bank's technology is accessible beyond regular business hours:..1.....2.....3.....4.....5				
12. My bank's technology gives me more freedom of mobility.....1.....2.....3.....4.....5				
13. I find it more convenient to use technology than interacting with branch employees:.....1.....2.....3.....4.....5				
14. My bank's technology allows me to complete transactions quickly:...1...2...3...4...5				

- 15. My bank's technology saves me a lot of time, especially when I am pressed for time1.....234.....5
- 16. When I contact my bank's customer service (e.g. call centre either through phone or online), my requests are always anticipated properly.....1.....2.....3.....4.....5
- 17. When I contact my bank's customer service, I am offered proper explanations:1..2..3..4..5
- 18. When I contact my bank's customer service, the representatives are supportive:1..2..3..4..5
- 19. When I contact my bank's customer service, the representatives offer personalized information:.....1.....2.....3.....4.....5..
- 20. When I contact my bank's customer service, my calls are always answered promptly....1.....2.....3.....4.....5
- 21. When there are problems, my bank's customer service people are sympathetic and reassuring.....1.....2.....3.....4.....5...
- 22. My bank employees are knowledgeable enough to resolve the problems:..1.....2.....3.....4.....5
- 23. My bank resolves my complaints quickly:.....1.....2.....3.....4.....5
- 24. My bank offers a fair compensation for its mistakes:.....1.....2.....3.....4.....5

2.Satisfaction(please encircle the number of your answer)

- | | | | | |
|-------------------|-----------|---------|-------|----------------|
| Strongly Disagree | Dis-agree | Neutral | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 | 5 |
- 1. Overall I am satisfied with my bank.....1.....2.....3.....4.....5
 - 2. I think I did the right thing when I chose this bank:.....1.....2.....3.....4.....5
 - 3. My bank's services meet my expectations.:1.....2.....3.....4.....5
 - 4. I am delighted with my bank1.....2.....3.....4.....5

3. Future Prospects(please encircle the number of your answer)

- | | | | | |
|-------------------|-----------|---------|-------|----------------|
| Strongly Disagree | Dis-agree | Neutral | Agree | Strongly Agree |
| 1 | 2 | 3 | 4 | 5 |
- 1. I would recommend my bank to others.....12.....3.....4.....5
 - 2. I will always consider this bank as my first choice:.....12.....3.....4.....5
 - 3. I expect to do more business with my bank in the future:1 . 2.....3.....4.....5

Appendix B: Structured Interview Questions Conducted with CBE

- 1. How do you assess the CBE ATM banking service in view of your customer's reaction?
- 2. Do you track customers' feedback regarding CBE ATM banking service ?
- 3. Based on your assessment ,what measures need to be taken by the CBE to put things at the right spot?
- 4. The standard time period for delivering the CBE ATM card to a new customer is about 15 days, how do you see its suitability in attracting new customers?
- 5. In light of customer satisfaction, how do you evaluate such a time period as customers prefer an immediate card delivery?

6. Card issuing is exclusively done by the CBE E-Payment department, why CBE preferred such a long chain process, instead of granting to branches?

7. To gain more customers and enhance the quality of service delivery and maintain the momentum and thereby to improve satisfaction of its customers and sustain the future prospects what is planned by CBE?

8. How do you evaluate the quality of service being delivered via CBE ATM banking?

Appendix C :Correlation analysis between ATM service quality dimensions, customer satisfaction and future prospect of ATM

Table 32. Correlation Analysis between 8 Dimensions ,Customer Satisfaction and Future Prospects

		Eas	Ass	Sec	Comp	Cust	Conv	EmpKw	SupSe	Custom	FPRO
Eas	P.Co r	1	.323**	.310**	.209**	.408**	.244**	.259**	.389**	.374**	.344**
	Sig. (2- ed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
Ass	P.Co r.	.323**	1	.321**	.429**	.450**	.499**	.401**	.445**	.518**	.499**
	Sig. (2- tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000
Sec	P.Co r.	.310**	.321**	1	.350**	.565**	.391**	.343**	.490**	.372**	.391**
	Sig. (2- tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000
Comp	P.Co r.	.209**	.429**	.350**	1	.527**	.538**	.336**	.402**	.455**	.538**
	Sig. (2- tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000
Cust	P.Co r.	.408**	.450**	.565**	.527**	1	.532**	.442**	.560**	.496**	.532**
	Sig. (2- tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000
Conv	P.Co r.	.244**	.499**	.391**	.538**	.532**	1	.450**	.448**	.647**	.740**
	Sig. (2- tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000
EmpKw	P.Co r.	.259**	.401**	.343**	.336**	.442**	.450**	1	.574**	.359**	.305**
	Sig. (2- tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000
SupSe	P.Co r.	.389**	.445**	.490**	.402**	.560**	.448**	.574**	1	.577**	.448**

Custom	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	P. Cor	.374**	.518**	.372**	.455**	.496**	.647**	.359**	.577**	1	.508**	
FPRO	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	P. Cor	.344**	.499**	.361**	.538**	.532**	.740**	.305**	.448**	.508**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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

Source : Own Survey Result May(2014)

Appendix D: Multiple and Linear Regression Analysis

1. Multiple Regression Analysis of 8 ATM SQ Dimensions with Customer satisfaction

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Cust, Eas, EmpKw, Ass, Comp, Sec, Conv, SupSe ^b	.	Enter

a. Dependent Variable: Custom

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	R	Std. Error of the Estimate	Durbin-Watson
1	.741^a	.549	.536		.462	1.89

a. Predictors: (Constant), Cust, Eas, EmpKw, Ass, Comp, Sec, Conv, SupSe

b. Dependent Variable: Custom

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	70.670	8	8.834	41.424	.000^b
	Residual	58.005	272	.213		
	Total	128.674	280			

a. Dependent Variable: Custom

b. Predictors: (Constant), Cust, Eas, EmpKw, Ass, Comp, Sec, Conv, SupSe

Table 33. Regression Analysis between ATM service quality dimensions and Customer satisfaction
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error				Beta	Lower Bound	Upper Bound	Tolerance
(Constant)	.506	.138		3.672	.000	.235	.777		
Comp	.153	.163	.184	1.714	.000	-.017	.176	.619	1.655
Conv	.375	.243	.396	2.742	.000	.220	.460	.548	1.825
Eas	.031	.030	.047	1.026	.306	-.029	.091	.776	1.288
1 Ass	.337	.043	.236	1.803	.000	.252	.422	.643	1.556
EmpKw	.057	.055	.044	1.067	.295	-.041	.139	.713	1.933
SupSe	.259	.054	.254	4.396	.000	.132	.346	.497	2.012
Sec	.022	.045	.021	-.034	.973	-.090	.087	.630	1.587
Cust	.143	.071	.138	1.729	.000	.143	.163	.355	2.379

a. Dependent Variable: Custom

2. Multiple Regression Analysis of 8 ATM SQ Dimensions on FP

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Cust, Eas, EmpKw, Ass, Comp, Sec, Conv, SupSe ^b	.	Enter

a. Dependent Variable: FPros

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.741 ^a	.549	.593	.632	1.64

a. Predictors: (Constant), Cust, Eas, EmpKw, Ass, Comp, Sec, Conv, SupSe

b. Dependent Variable: FPros

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	80.570	8	8.764	62.92	.000^b
	Residual	65.005	272	.321		
	Total	145.575	280			

a. Dependent Variable: FPros

b. Predictors: (Constant), Cust, Eas, EmpKw, Ass, Comp, Sec, Conv, SupSe

Table 35. Regression Analysis of ATM service Quality Dimensions with Future Prospects -coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error				Beta	Lower Bound	Upper Bound	Tolerance
(Constant)	.653	.147		3.874	.000	.354	.875		
Comp	.170	.063	.189	1.614	.108	.235	.247	.312	1.535
Conv	.275	.053	.296	5.742	.000	.410	.360	.848	1.825
Eas	.331	.030	.137	2.026	.000	.229	.291	.376	1.388
1 Ass	.237	.043	.249	4.803	.000	.252	.422	.443	1.556
EmpKw	.047	.045	.054	1.047	.296	-.041	.135	.613	1.633
SupSe	.239	.054	.275	5.396	.000	.332	.346	.797	2.012
Sec	-.002	.045	.002	-.034	.973	.090	.087	.630	1.587
Cust	.132	.051	.148	2.629	.000	.168	.133	.455	2.199

a. Dependent Variable: FPros

3. Simple Linear Regression Analysis of Customer Satisfaction on FP

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Custom ^b	.	Enter

a. Dependent Variable: FPRO

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.508 ^a	.258	.255	.745		1.936

a. Predictors: (Constant), Custom

b. Dependent Variable: FPRO

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	53.939	1	53.939	97.089	.000 ^b
	Residual	155.002	279	.556		
	Total	208.941	280			

a. Dependent Variable: FPRO

b. Predictors: (Constant), Custom

Table 36 Regression Analysis of Customer Satisfaction with Future Prospects

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error				Beta	Lower Bound	Upper Bound	Tolerance
1	(Constant)	.578	.182	3.184	.002	.221	.936		
	Custom	.647	.066	.518	.000	.518	.777	.8900	1.123

a. Dependent Variable: FPRO

Appendix E: Table of Patter Matrix of the Four Factors(Eight Dimensions)

Table :Pattern Matrix^a

	Factor			
	1	2	3	4
X15:	.677			
X14:	.577			
X13:	.440			
X11:	.332			
X1:		.754		
X2:		.605		
X4:		.533		
X3:		.486		
X23			-.669	
X24			-.668	
X20:			-.616	
X16:			-.552	
X21:			-.551	
X6:			-.336	
X9:				-.685
X10:				-.597
X8:				-.564
X12:				-.543
X7:				-.485

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 15 iterations.

