

**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES**



**THE EFFECT OF BROADBAND SERVICE QUALITY AND PRICE ON KEY
ACCOUNT CUSTOMERS' SATISFACTION IN ETHIO TELECOM**

**BY: TSEGEREDA GETACHEW SELEWONDEM
(SGS/0120/2008B)**

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**A THESIS SUBMITTED TO SAINT MARY'S UNIVERSITY, SCHOOL OF GRADUATE
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APPROVED BY BOARD OF EXAMINERS

DEAN, GRADUATE STUDIES

SIGNATURE

ADVISOR

SIGNATURE

EXTERNAL EXAMINER

SIGNATURE

INTERNAL EXAMINER

SIGNATURE

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Dr. Dereje Teklemariam. All sources of material used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Tsegereda Getachew Selewondem
St. Mary's University, Addis Ababa

SIGNATURE
JANUARY 2018

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

Dereje Teklemariam PhD
St. Mary's University, Addis Ababa

SIGNATURE
JANUARY 2018

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List of Abbreviations/Acronyms

KACs Key Account Customers

SOHO Small Office Home office

SME Small and Medium Enterprise

VSAT Very Small Aperture Terminal

SPSS Statistical Package of Social Science

VIF Variance Inflation Factor

CLRM Classical Linear Regression Model

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ABSTRACT

The role of service quality becomes a critical success factor for organizations. The main purpose of the study is to assess the effect of broadband service quality and price on the satisfaction of Key Account customers in ethio telecom. To address the stated research objective primary and secondary data are employed. Primary data was collected from a sample of 343 respondents of the target population of the study who are Key Account customers through stratified random sampling procedure. Secondary data was used to compare ethio telecom's broadband internet bandwidth and price with Sub-Saharan African countries with the same economic level. Both qualitative and quantitative data analysis techniques were employed. Tests for the Classical Linear Regression Model (CLRM) Assumptions made. To analyze data, a modified SERVQUAL model called SERVPERF model was used. Results indicate that the Key Account customers have a positive perceived service quality towards all dimensions with a score of tangible (3.69), reliability (3.08), responsiveness (3.69), assurance (3.66) and empathy (3.70). Their correlation to each other is also significant with p-value less than 0.05. Also, all dimensions of perceived quality separately contributed to customer satisfaction significantly except responsiveness. Impact of Price and total perceived quality on customer satisfaction was positive as well. In addition, with the comparison of ethio telecom's broadband internet bandwidth and fair price rank with some Sub-Saharan African countries, Ethiopia found in the lowest rank in both dimensions. Finally, the researcher recommended that ethio telecom should focus on reducing the frequency of the broadband internet interruption, provide the service with more reasonable price and further researches shall be done on this area.

Key Words: *SERVPERF, Perceived Service Quality, Customer Satisfaction*

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy (Gitman and McDaniel, 2005). According to Kotler & Keller (2009), customer satisfaction is the extent to which a product's perceived performance matches a buyer's expectations. Hansemark and Albinsson (2004) also 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.

Improving Service quality and customer satisfaction has been the major concern of organizations in any industry for many years. According to Shemwell, Yavas and Bilgin (1998), in today's world of intense competition, the key to sustainable competitive advantage lies in delivering high quality service that will in turn result in satisfied customers. When considering the service sector, service quality has been proven to be the best determinant of customer satisfaction. There is also much evidence in the literature to the fact that customer satisfaction is principally driven by service quality of a firm from the perspective of its customers. Bitner, Boom & Mohr (1994) and Anderson, Fornell & Lehmann (1994) also point out the relationship between customer satisfaction and service quality by stating that improved service quality will result in a satisfied customer.

One of the difficulties in analyzing the effect of service quality on customer satisfaction is the fact that services have their own distinguishing characteristics which make them difficult to measure. Services include all economic activities which are intangible, not physically apparent like products, which provide value to the customer. Services are characterized by intangibility which made them difficult to be recognized by touching, they are not inventoriable this made them susceptible for perishability and variability on their quality. For example, in the telecommunication sector, even though, there are tangible physical products associated to

provide services such as customer premise equipment and cable, the major product is intangible in nature and the production and consumption of the final product take place simultaneously (Rajasekhara & Poultry, 2010). This makes studies on service quality of paramount importance.

Service quality is defined as the delivery of excellent or superior service relative to customer expectations (Zeithaml and Bitner, 1996). Service quality is recognized as a multi-dimensional construct. Many researchers try to identify different dimensions that construct quality of service. Among those the SERVQUAL model constructed by Parasuraman (1988) and modified later by Cronin & Taylor, 1992 called SERVPERF is most popular. It features five dimensions: tangibles, reliability, responsiveness, empathy and assurance. The tangibles dimension is related to the physical environment aspect of the service provider, the reliability dimension relates to the service outcome aspect and the remaining responsiveness, empathy and assurance represents aspects of interaction quality between the service provider and the customer.

1.2 Background of the Study Organization

Ethio telecom is a monopoly telecom company in Ethiopia. It was established in 1894 and was renamed and restructured through different stages (ethio telecom, 2016). The company has successfully introduced diverse telecom services like broadband VSAT, internet, and data infrastructure. Broadband Internet is a relatively fast Internet service provided through wired and wireless connections. It provides voice, data and video services in an integrated way. The majority of the users of this service are enterprise customers. The company gave special attention to these customers and established a division to handle their cases. The division categorizes its customers into two different sections. These are “Key Account customers” and “Small and Medium Enterprises or Small Office Home Office. The first category i.e., Key Account customers are big organizations which have at least above 50 employees and more than a million capital. These are federal government administrative offices, financial institutions, international organizations, embassies and NGOs, factory or production enterprises, public/government owned enterprises and private enterprises.

The second category of customers is Small Office Small Home/Small and Medium (SOSH/SME) enterprises that fall in any of the above categories and don't fulfill the key account customers' criterion will be managed by SoHo/SME.

This study focused on Key Account Customers specifically because of their contribution to the company's profit is high and their satisfaction on the service not only affects their business but the overall country's economy. At this age of globalization, telecom is very important like that of energy and water for investment.

The main reason that motivated this research was not only the personal observation of the author while customers complain but also publications of financial institutions, tax authorities and other organizations who automated their operations frequently blamed the internet connection failures has significantly impaired their performance and their customer satisfaction.

Thus, this study aimed to analyze the effect of broadband internet service quality and price on customer satisfaction in Ethio telecom.

1.3 Statement of the Problem

Modern businesses that operate in the current dynamic competitive business environment aspire to be at the apex of the competition by creating more values to customers through their value chain. A business will be at frontline so long as it creates more value to satisfy customers. In contrast, businesses with growing number of dissatisfied customers will lag behind in the ever increasing competitive service industry. To the worth they will be forced to close their doors by loosing their life blood cash as customers will cast their Birr vote for businesses that perform satisfactory activities in the value chain.

Value creation is as important for service providers as it is for manufacturers. Service companies like internet and telecom service providers must perform their business activities to boost customer satisfaction and avoid customer dissatisfaction. A number of factors in the telecom industry can bring about customer dissatisfaction. These include core service failure, mistakes, billing errors, unfair pricing practices, inconvenient location, and hours of operation, and waiting time for service or appointments (Hawkins et al., 2003). Few things are more irritating to customers than unresponsive service. For many customers, even if it is good service, it is not good when it is late (Potluri & Hailemichael, 2010).

In the extant literature, in Ethiopia customers complain about ethio telecoms service quality. (Yoseph, 2013) stated on Addis Fortune News that ATMs (Automatic Teller Machines) are often marred by a series of problems and complications and the majority of the blame has been placed

at the feet of ethio telecom. The researcher of this study also observed that the society can be affected indirectly by the poor quality of internet and broadband service. As different enterprises such as banks, NGOs, embassies, production and service giving companies are direct customers to ethio telecom, when their work affected by the internet network and could not able to deliver their service properly, the end user will be suffered.

Different studies were conducted about ethio telecom customers' satisfaction. A study done by Potluri & Mangnale (2010) on assessment of Ethiopian Telecom customer satisfaction that focuses on service interaction, service delivery process, customer complaint handling procedure and overall satisfaction level. Another study by Daniel (2015) focuses on service quality and customer satisfaction in the case of cellular phone users of Ethio telecom in Ambo Town.

However, concrete scientific evidence is lacking regarding the effect of ethio telecom's broadband service quality and price on the satisfaction of Key Account Customers (KACs). Besides, the factors that determine the satisfaction level among KACs over the service provided by ethio telecom have remained unexplored.

Therefore, the study examined the effect of broadband internet service quality and price on users' satisfaction in the context of Key Account customers, ethio telecom and the factors which underpins.

1.4 Research Question

The study was intended to answer the following key research questions:

- Does Ethio telecom has an appropriate facilities and equipment to provide quality the broadband internet service? (Tangibility)
- Does Ethio telecom give a reliable broadband service for Key Account customers? (Reliability)
- Is Ethio telecom responsive for Key Account customers' requests and give prompt service? (Responsiveness)
- Are the employees knowledgeable and able to convey trust from Key Account customers? (Assurance)

- Does Ethio telecom understands Key Account customers' needs and prioritizes their best interest? (Empathy)
- Does Ethio telecom offers broadband service with reasonable price?
- How much is the level of satisfaction among the Key Account customers Ethio telecom?

1.5 Objective of the Study

1.5.1 General Objective

The overall aim of this study was to assess the effect of broadband service quality and price on the satisfaction Key Account customers in Ethio telecom.

1.5.2 Specific Objective

The study specifically aimed to:

- To assess the layout modernity of the shops and quality of equipment.
- To investigate how reliable the broadband internet service for the Key Account customers.
- To evaluate the responsiveness of Ethio telecom for Key Account customers' requests.
- To investigate level of employees' knowledge on broadband service and their courtesy to customers.
- To investigate the efficiency of empathy related with broadband internet service.
- To identify customers' satisfaction with the broadband internet service price.
- To identify the level of satisfaction Key Account customers have on broadband internet service.

1.6 Significance of the Study

When compared to the long aged telecom service history of Ethiopia, only limited number of studies was undertaken up to now in relation to service quality and customer satisfaction with the telecom services. The study identified the satisfaction level of KACs on broadband service. Thus, the subject matter of this research and the resulting lessons drawn from the

analysis are likely to benefit different companies. This study will be in terms of its contribution to knowledge, managerial decision making, existing literature and serving as a point of departure to future studies, and policy. The study sheds light on the impact of broadband service on business performance of institutions. The findings and recommendations are highly important to management of the company because it draws their attention to some of the points where corrective actions are necessary and to consider it on policy making process. The research also could be used to establish a framework for subsequent studies that can work with more comprehensive data sets. Furthermore, it could stimulate further research.

1.7 Scope of the Study

The study focused on evaluating customer's perceived quality and satisfaction level in ethio telecom. The satisfaction of all customers is very important to the company and should be evaluated. However, some customers are entirely dependent on the broadband service to their day-to-day activities. Geographically, this study covered enterprise customers specifically Key Accounts whose operations are through internet. It also focused only on internet and data broadband service. Journals and the company reports since the transformation of ethio telecom, November, 2010 years referred.

1.8 Limitation of the Study

The purpose of this study was limited to assess the level of customer satisfaction and quality of broadband internet service provided in ethio telecom from the view of KACs. Currently the company is taking different measures to improve the quality of broadband internet service; however, this study did not assess these efforts of the company.

The study also was limited to ethio telecom KACs who uses broadband internet service only.

1.9 Organization of the Research Report

Structurally, the paper was composed of four chapters. The first chapter presented introductory materials, which included background of the study, problem statement, research objective, research questions, methodologies, significances of the study and the scope and limitations of the study. The second chapter presented the related literatures reviewed during

the desk research phase of the study. With this background, the report presented analysis and interpretation of the data gathered in the third chapter. Finally, the report concluded with the summary and conclusion of the study and recommendations that are made.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Theoretical Review

In the contemporary business relations, emotions as well as personal impressions of customers have a great meaning. Understanding the level of customer satisfaction is becoming a necessity, and the care of a high rate of satisfaction is being an indispensable condition in order to maintain the leader position in the market.

2.1.1 Service Quality

Quality differs from person to person and situation to situation. Service quality has become a major area of attention during the past few decades for managers, researchers, practitioners because of its huge impact on business performance of firms. Kim et al. (2004) concluded that call quality, offering value added services and provision of customer support plays an important role in satisfying customers and their intentions to stay with the same service provider.

According to Johns (1999), the word ‘service’ has many meanings which lead to some confusion in the way the concept is defined in management literature, service could mean an industry, a performance, an output or offering or a process. He further argues that services are mostly described as ‘intangible’ and their output viewed as an activity rather than a tangible object which is not clear because some service outputs have some substantial tangible components like physical facilities, equipment and personnel. For example, for Ethio telecom to give a complete broadband internet service, it needs physical equipment such as modems, cooper and fiber cables, terminal boxes, etc. and these physical facilities affect the quality of the service. As Gummesson, (1994, p.77-96) stated, a service design which details a service, service system and the service delivery process must consider customers, staff, technology, the physical environment, and the consumption goods.

According to Parasuraman et al. (1988) service quality has five specific dimensions i.e. tangibles, empathy, reliability, assurance, and responsiveness. Cavana et al. (2007) discussed that

responsiveness, empathy and assurance have strong relationship with customer satisfaction and repurchase intentions, but convenience and reliability were found to be but not much relevant to the issue.

There are three dimensions of service quality, the technical quality, the function quality and the corporate image Gronroos (1994): The technical quality, which involves what the customer, is receiving from the service delivery. This can be measured by the consumer in a rather objective manner.

Functional quality, which involves the manner in which the service is delivered, concerns the psychological interaction between the buyer and the seller that is perceived in a very subjective way, and would include elements such as attitudes and behavior of employees, approachability of service personnel accessibility of service, appearance and personality of personnel relationship between employees, and Interrelationships between employees and customers.

Corporate image dimension of quality is the result how consumers perceive the firm, and it is expected to be built up mainly by the technical and functional quality of its services, and will eventually affect service perceptions.

2.1.2 Customer Satisfaction

Satisfaction is defined as a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under-or-over-fulfillment (Oliver, 1981). According to Tse and Wilton (1988), satisfaction is the consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product as perceived after its consumption. Every company would be wise to measure customer satisfaction regularly because one key factor to customer retention is customer satisfaction. Understanding what customers expect from a service organization is necessary for service managers, because expectations provide a standard of comparison against which consumers judge an organization's performance. Customers of services have expectations about what they will receive from the delivery system.

As Wicks & Roethlein, (2009, p.89) stated, customer satisfaction can be formed through an affective evaluation process and this affective evaluation is done following the purchase experience by the consumer.

Undoubtedly, customer satisfaction is the key to survival and thriving in the competitive time is to win the customer and to keep them in our service or product range. Customer satisfaction will occur only through conscious efforts to alter the way we approach our service delivery process. Service companies must not only change their attitudes towards market but also change their way in providing services with market expected parameters like quality, reliability, tangible evidences, responsiveness, assurance, empathy, price, availability, accessibility, etc.

2.1.3 SERVPERF

Many researchers attempted to define and measure the concept of service quality (Carman, 1990; Cronin & Taylor, 1992; Parasuraman et al., 1985, 1988, 1991). After SERVQUAL was proposed by Parasuraman, Zeithaml & Berry (1988), several critiques were levied against it. Carman (1990) argued that SERVQUAL could not be a generic measure that could be applied to any service. It needed to be customized to the specific service.

SERVQUAL model represents service quality as the discrepancy between a customer's expectations of service offering and the customer's perceptions of the service received Parasuraman, Zeithaml & Berry (1985). Whereas SERVPERF is the performance component of the Service Quality scale (SERVQUAL), which has been shown to measure five underlying dimensions corresponding to Tangibles, Reliability, Responsiveness, Assurance, and Empathy. When SERVQUAL model was made first, it had ten dimensions of service quality but later, Parasuraman et al., (1988), the scale decomposes the notion of service quality into five constructs.

Cronin and Taylor (1992) provided empirical evidences across four industries which are fast food, pest control, dry cleaning and banking to support the superiority of their 'performance only' scale over SERVQUAL scale retaining the same items as had been proposed by the Parasuraman, et al., (1988). An empirical analysis by Babakus and Boller (1992) also indicated that perceptions-only measures had higher correlations with an overall service quality measure and with complaint resolutions scores than did the SERVQUAL measures.

In addition, Brady & Cronin, (2001), proposed a multidimensional and hierarchical construct, in which service quality is explained by three primary dimensions; interaction quality, physical environment quality and outcome quality. These and other tried to evaluate service quality from different dimension and contributed to increase customers' satisfaction.

Therefore, in this paper, much attention was paid to the measurement model of service quality in Ethio telecom broadband service based on SERVPERF model, but with reasonable modification on the attributes of evaluation.

2.2 Empirical Review

Consumer satisfaction has different levels of specificity in various studies. Although satisfaction with, say, a product attribute, a sales-person, and a consumption experience may be useful, at a more fundamental level, it should be seen as satisfaction with a product, whether a commodity or service.

Key quality-related drivers of customer satisfaction

As for the key quality-related drivers of customer satisfaction, Oliver (1993) first suggests that service quality is the antecedent to customer satisfaction regardless of whether these constructs are measured for a given experience or over time. Up to now, other researchers have found empirical support for the point of view mentioned above (Anderson et al., 1994; Fornell et al., 1996; Spreng and Mackoy, 1996; Ying-Feng et al., 2009).

Therefore, similar to the identification of the key quality-related drivers of customer value, we can also propose that quality related factors are the key drivers of customer satisfaction. For example, a customer who obtain a reliable product/service in the proper time and place supported by quick responses of a product/service provider when he/she have any inquiry or problem tends to exhibit higher satisfaction. Therefore, the following hypotheses can be formed.

Hypothesis 1: High tangibility of broadband internet service positively affects customer satisfaction.

Hypothesis 2: Reliability of broadband internet service positively affects customer satisfaction.

Hypothesis 3: Responsiveness of personnel of broadband internet service positively affects customer satisfaction.

Hypothesis 4: Assurance of broadband internet service positively affects customer satisfaction.

Hypothesis 5: Empathy of broadband internet service positively affects customer satisfaction.

Relationship between price and customer satisfaction

Fairness of price/billing is the biggest influence of customer in selecting their mobile service provider and competitive advantage to retain consumers for longer period of time which will make them to be loyal without switching/porting to other competitor (Adebiyi, Shitta, & Olonade, 2016). Even if ethio telecom is monopoly and customer has no alternative to switch to other operators, it is important to evaluate the contribution of price to their satisfaction. Therefore, the following hypothesis can be formed.

Hypothesis 6: Price of broadband internet service positively affects customer satisfaction.

Relationship between perceived service quality and customer satisfaction

The expectancy/disconfirmation paradigm provides the theoretical basis for the link between customers perceived service quality and satisfaction (Yi, 1990). And also a recent study by Ojo (2010) in the telecommunication industry showed that a positive relationship exists between service quality and customer satisfaction. Thus the following hypothesis can be proposed.

Hypothesis 7: Customer perceived service quality contributes positively to customer satisfaction.

2.3 Conceptual Framework

There are two conceptualization of customer satisfaction that are transaction-specific and cumulative (Boulding et al., 1993; Andreassen, 2000). Transaction-specific evaluate a certain specific purchase and transaction while cumulative evaluates the whole consumption experience overtime. (Oliver, 1977, 1993); (Fornell et al., 1996; Johnson and Fornell, 1991; Anderson et al., 1994). The theoretical framework of this research considers customer satisfaction as a cumulative of the factors indicated by Figure 2.1.

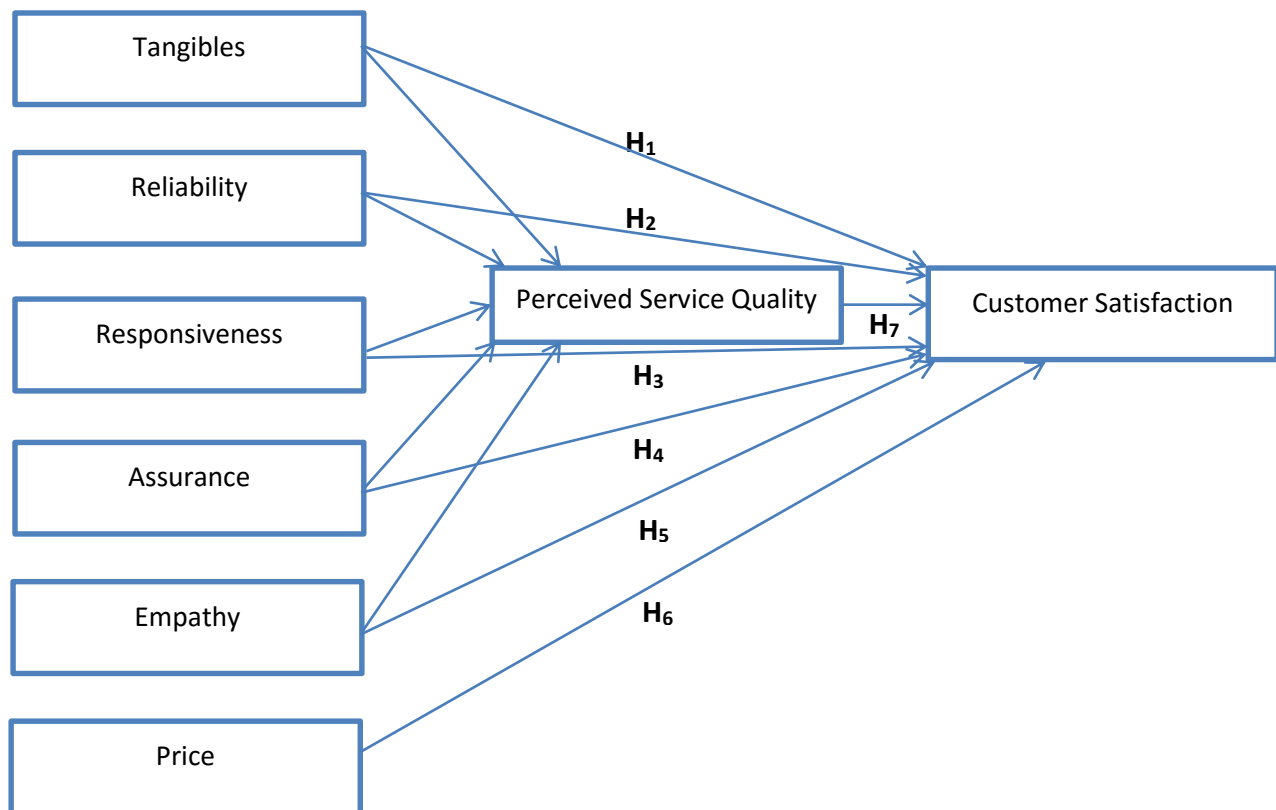


Figure 2. 1 Perceived Service Quality and Customer Satisfaction Framework

The conceptual framework adapted from the empirical study by Wang, Lo, & Yang (2004); that shows the underlying process applied to guide this study. As discussed on the literature section, SERVPERF model is suitable for measuring service quality and customer satisfaction. Hence, the framework adapted from Wang et al (2004) and modified in a way to suite this study.

The figure illustrates the relationship between each perceived service quality dimensions (tangibles, reliability, responsiveness, assurance and empathy) and customer satisfaction, price with customer satisfaction and total perceived service quality with customer satisfaction.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The research design was explanatory in which data collected from respondents using self-completion questionnaires in order to make our study very objective. In this study, service quality, price and customer satisfaction measured from the customers' perspective. To answer our research question, we based the standard SERVPERF model.

3.2 Research Approach

Using a combination of qualitative and quantitative data can improve an evaluation by ensuring that the limitations of one type of data are balanced by the strengths of another. Thus, mixture of both qualitative and quantitative data used to present a more completed and synergistic research analysis.

3.3 Data Sources

3.3.1 Primary Data Sources

The primary data collected from KACs using a modified SERVPERF survey questionnaire to assess their satisfaction level. The professional employees in those companies chosen to fill the questionnaire. That helped to receive unbiased and more accurate response.

3.3.2 Secondary Data Sources

To strengthen the reliability of research data and supplement the information missing in the questioner survey, information collected from other related researches, Journals, the company procedure and policy and relevant corporate and global competitiveness reports.

3.4 Sampling Size and Sampling Design

3.4.1 Sampling Design

In this study, the study design adopted quantitative data collection using a modified SERVPERF questionnaire. Six sections managed under KACs namely, Financial Institutions, Government Administration, Private Service Enterprises, Public Service Enterprises, Production Enterprises and International Organizations & Embassies. There are a total of 2392 customers registered as Key Account customer category. The stratified random sampling technique has been considered to select customers from these sections to this study.

3.4.2 Sample Size Determination

In principle, accurate information about given population could be obtained only from census study. However, due to time constraint, in many cases, a complete coverage of population was not possible; thus sampling was one of the methods, which allow the researcher to study relatively small number of units representing the whole population (Sartnakos, 1998).

This study applied simplified formula provided by Yamane, (1967) to determine the required sample size at 95% confidence level, degree of variability = 0.5.

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = Desired sample size

N = Total population size

e = Accepted error limit (0.05) on the basis of 95 percent degrees of confidences put into decimal form

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{2392}{1 + 2392(0.05)^2}$$

$$n = \frac{2392}{6.98}$$

$$n = 342.69$$

$$n = \sim 343$$

In order to sample the population, the researcher used probability sampling of stratified sampling technique. From each section managed under Enterprise KACs who subscribe a broadband internet service a randomly selected sample served as a sampling frame.

Currently, Enterprise, Key Account Department has 6 different sections. To have fair distribution between the sections, stratified random sampling method used. Population number for each section taken from the division's monthly report (Ethio telecom, 2017).

Table 3. 1 Sample frame and proportionately selected sample

Sections Name	No. of Population	Sample
Financial Institution	77	11
Government Administration	597	86
International Org., NGO & Embassies	477	68
Production Enterprises	373	54
Public Service Enterprises	475	68
Private Service Enterprises	393	56
	2392	343

3.5 Data Collection Methods and Tools

The research was conducted both on primary and secondary data. A Structured Questionnaire from Cronin and Taylor (1992) standard SERVPERF questionnaire was adapted. The questions were modified in a way that best represent the quality of perceived broadband internet service quality and satisfaction level. The questionnaire had three parts. The first part was questions about the respondents' demographic information such as gender and educational background. The second part aimed to evaluate customers' perceived quality with the five service quality dimensions (tangibles, reliability, responsiveness, assurance and empathy) in addition with price using 24 questions. The third and last part was evaluating the customers' satisfaction level using 10 evaluation questions. The last two parts were 5 point Likert scale types where the respondents were asked to select the most appropriate number that could express their agreement and disagreement. Global competitiveness report and telecom companies' websites were referred to

compare ethio telecom's price and bandwidth with Sub-Saharan African countries with the same economic level.

3.6 Data Analysis and Presentation

As data means raw material, it has to pass through a process of analysis and interpreted accordingly before their meaning and implications are understood. Hence, both qualitative and quantitative data analysis techniques were employed to analyze the data. Software of SPSS (Statistical Package for the Social Sciences) was used to process and analyze the data.

The data from Likert scale questionnaire were presented in a narrative form by using tables and figures. The descriptive statistics used to explain the mean, standard deviation, frequencies and percentages. Inferential analysis that are correlation and regression analysis were also applied. The correlation coefficients were used to understand the relationship between variables (tangible, reliability, responsiveness, assurance, empathy, price and customer satisfaction) while regression analysis used to investigate the impact of the independent variables (perceived service quality dimensions) on dependent variable (customers' satisfaction).

$$Y_i = (b_0 + b_1X_{i1} + b_2X_{i2} + \dots + b_nX_{in}) + \epsilon_i$$

Secondary data were used to compare the bandwidth and price of ethio telecom with other Sub-Saharan Africa countries with similar economic level.

3.7 Ethical Standards and Procedures

According to Rajesh Kumar and C. Kandasamy (2012) ethical consideration in research work recognize that, everyone has the right to determine whether or not to participate in a marketing research project, all consumers have the right to privacy, research participants have the right to be informed of all aspects of the research task. Knowing what is involved, how long it will take, and what will be done with the data, etc.

CHAPTER FOUR

DATA INTERPRETATION AND ANALYSIS

This chapter describes the results of the study based on the information collected from 343 respondents using questionnaires. As can be seen most of the questions are 5 (five) level Likert scale questions meant to elicit the knowledge, Attitude and perception of respondents who are key account customers towards the utilization of broadband internet service that ethio telecom; the sole internet service provider in Ethiopia supplies. 343 questionnaires were collected and the findings were extracted using the methods described in the methodology section.

4.1 Demographic Characteristics of the Respondents

In any research, the background of the respondents helps the researcher to put the analysis in the correct context. Accordingly, respondents were asked the company type they are working in, their position in the company, educational background, work experience, gender and how long they have used the broadband internet service.

Table 4. 1 Personal profile of respondents

	Items	Frequency	Percent
Company Type	Federal Government Office	86	25.1
	Financial Institution	11	3.2
	International Org., NGOs & Embassies	68	19.8
	Production Enterprise	54	15.7
	Public Enterprise	68	19.8
	Private Enterprise	56	16.3
	Total	343	100.0
	Position in the company	Business Manager	71
IT Manager/Expert		201	58.6
Admin		60	17.5
General Service		11	3.2
Total		343	100.0
Educational Background	B.A	217	63.3
	MSC	90	26.2
	PhD	23	6.7
	BSC	10	2.9
	Diploma	3	.9
	Total	343	100.0

Items		Frequency	Percent
Work Experience	1-3 years	39	11.4
	3-5 years	66	19.2
	More than 5 years	238	69.4
	Total	343	100.0
Gender	Male	241	70.3
	Female	102	29.7
	Total	343	100.0
Broadband service customer for	1-3 years	52	15.2
	3-5 years	71	20.7
	More than 5 years	220	64.1
	Total	343	100.0

Source: Own survey data, November 2017

The demographic profile of the respondents is described as follows; 25.1% of the respondents were from Federal Government office, 3.2% were from Financial institutions and 19.8% from International Org., NGOs & Embassies followed by 15.7%, 19.8% and 16.3% were from Production, Public and private enterprises respectively that shows the data collection had addressed all types of companies under Key Account and had fair distribution. On the other side, when we see the position of respondents in the companies they are working, 20.7% Business Managers, 58.6 IT Manager/Expert, 17.5% Admin and 3.2% General Service. As we can understand from the result the majority of the respondents were IT experts that helps to have more reliable information about the service quality as they are the one, most of the time, dealing with the broadband internet service directly.

The minimum educational background level of the respondents which was .9% were Diploma and the other 63% B.A, 26.2% MSC, 6.7% PhD and 2.9% BCS that contributes for the quality of the response in terms of understanding the questions well and respond accordingly. 70.3% of the respondents were male while the remaining 29.7% were female. This shows that the respondents gender background is male dominated.

Customers were asked for how long they have used the broadband internet service. The Result shows that 15.2% are customers for 1 - 3 years, 20.7% for 3 - 5 years and the rest 64.1% are above 5 years. The result indicates that the average respondents have many years' experience

using the service and that may have affected their response of the quality and satisfaction evaluation questions.

4.2 Reliability Coefficient Discussion

A reliability test was done using Cronbach's Alpha. Cronbach's alpha is the most common measure of internal consistency ("reliability"). According to George & Mallery (2003), reliability is the degree to which measurements are free from error and therefore yield consistent results. They also added, if the Cronbach's alpha coefficient is greater than 0.9 it implies excellent, greater than 0.8 is Good, greater than 0.7 is acceptable, greater than 0.6 is questionable, greater than 0.5 is poor, and less than 0.5 is unacceptable.

Table 4. 2 Reliability analysis (Cronbach's Alpha)

Dimension	Number of Items	Cronbach's Alpha for Dimensions	Cronbach's Alpha if item Deleted	Items
Tangibles	4	0.713	0.615 0.592 0.745 0.624	Quality-Tangible (1) Quality-Tangible (2) Quality-Tangible (3) Quality-Tangible (4)
Reliability	5	0.790	0.775 0.723 0.736 0.751 0.767	Quality-Reliability (1) Quality-Reliability (2) Quality-Reliability (3) Quality-Reliability (4) Quality-Reliability (5)
Responsiveness	5	0.678	0.610 0.575 0.634 0.623 0.691	Quality-Responsiveness (1) Quality-Responsiveness (2) Quality-Responsiveness (3) Quality-Responsiveness (4) Quality-Responsiveness (5)
Assurance	5	0.758	0.730 0.724 0.742 0.677 0.691	Quality-Assurance (1) Quality-Assurance (2) Quality-Assurance (3) Quality-Assurance (4) Quality-Assurance (5)

Dimension	Number of Items	Cronbach's Alpha for Dimensions	Cronbach's Alpha if item Deleted	Items
Empathy	4	0.770	0.769 0.681 0.691 0.708	Quality-Empathy (1) Quality-Empathy (2) Quality-Empathy (3) Quality-Empathy (4)
Customer Satisfaction	10	0.908		
Overall Scale Reliability	34	0.941		

Source: Own survey data, November 2017

The total reliability scale for this study is 0.941, which indicates that the overall reliability factor is excellent. As the result shows on Table 4.2, except Responsiveness (0.678), all the other dimensions are above 0.70; Tangible 0.713, Reliability 0.790, Assurance 0.758 and Empathy 0.770. The scale for customer satisfaction evaluation is also 0.908.

4.3 Score for Each SERVPERF Dimensions and Price

4.3.1 Perceived Service Quality

According to Brady & Cronin, (2001, p.36), based on various studies, service quality is defined by either or all of a customer's perception regarding 1) an organizations' technical and functional quality; 2) the service product, service delivery and service environment; or 3) the reliability, responsiveness, empathy, assurances, and tangibles associated with a service experience. In this study, perceived service quality was measured considering these dimensions using the 5-point likert scale whereby the higher numbers indicate higher level of perception.

4.3.1.1 Perception Towards Tangible Items

Tangible dimension includes four items that evaluates ethio telecoms' office layout, quality and standardizes of equipment such as modem, personnel neat appearance and understandability of pamphlets or statements. The results listed on Table 3:

Table 4. 3 Perception towards Tangible items

Items	N	Mean	Std. Deviation
Modern and standardized equipment	342	3.27	1.043
Comfortable and conducive physical layout of equipment and furniture	341	3.73	.866
Well-dressed and neat personnel	342	4.04	.784
Visually appealing and understandable materials (such as pamphlets or statements)	343	3.71	.846
Total Tangible	343	3.69	.651

Source: Own survey data, November 2017

The fact that all the results are above three has indicated the good perception of the customers towards tangible items. Specially the dimension that evaluates the dressing and neat appearance of personnel scores the highest of the entire quality dimension that was 4.04. Ethio telecom has first approved employees' dressing code policy at the end of December, 2013 but fully applied starting from January, 2015. The result reflects the positive consequence of this action. Quality of modems and other network equipment are one of the factors affecting broadband internet service quality. The score for modern and standardized equipment were positive with 3.27. Also, the scores for the physical layout comfort and conduciveness was 3.73 and visually appealing material such as pamphlets 3.71.

Therefore, the customers agreed on ethio telecom's appropriate facilities and modern equipment by giving a total tangible mean of 3.69. Similarly, Hashem & Hamdan (2017) on their study of customers perceived service quality on Jordanian's Telecommunication, respondents had a higher level of positive attitudes towards tangible items with 4.24 score.

4.3.1.2 Perception Towards Items of Reliability

Reliability includes items that relate to with the actual service performance of broadband service. The timely delivery, consistency, maintenance and speed of the service perceived by the customers is presented as follows.

Table 4. 4 Perception towards items of Reliability

Items	N	Mean	Std. Deviation
Delivery of broadband service at the promised time	343	3.18	1.087
Uninterrupted broadband service	343	2.68	1.227
Quick maintenance service	342	3.28	1.043
Ethio telecom get things right the first time	339	3.23	.965
Your broadband speed matches with what you subscribed for	342	3.03	1.220
Total Reliability	343	3.08	.821

Source: Own survey data, November 2017

As the Table 4.4 shows, customers give 3.28 mean score for quick maintenance service. On customers' charter of ethio telecom, the maintenance time line for broadband fault is 7 days and there is a division called Customer Service Management that handles such cases. The customers gave 2.68 point for the request whether the company provides uninterrupted broadband service. This indicates the broadband service is down frequently that the customers are unsatisfied and give the lowest score of all perceived quality evaluation items. The results for timely delivery, getting things right the first time and broadband internet speed were 3.18, 3.23 and 3.03 respectively.

Therefore, the overall perceived quality of customers towards reliability is 3.08. Theerthaana (2015) found on the study on customer satisfaction and retention, mobile phone services through SERVPERF was scored 6.42 out of 7. Even if the result in this study is also good, ethio telecom has to work on minimizing the frequency of interruption as it is a key factor that affects internet service reliability.

4.3.1.3 Perception Towards Items of Responsiveness

This section holds the items about responsiveness of the company to customers in terms of telling the exact performance time, prompt service and willingness of personnel to help customers and accessibility of contact center.

Table 4. 5 Perception towards items of Responsiveness

Items	N	Mean	Std. Deviation
Personnel in ethio telecom tell exactly when services will be performed	343	3.50	.982
Personnel in ethio telecom give prompt service	342	3.77	.939
Understandability of forms and other required documents for new broadband service	343	3.82	.955
Ethio telecom personnel's willingness to help and respond to your requests on broadband service	343	3.86	.792
Accessibility of ethio telecom's contact center (994/980)	342	3.51	1.140
Total Responsiveness	343	3.69	.639

Source: Own survey data, November 2017

At table 4.5, customers show their agreement on the points by providing with the mean score of 3.50 up to 3.86. As Key Account, each customer has dedicated Sales Specialist and Customer Service Management Specialist to support them with all their inquiries on the new service provisioning and after sales issue. Overall, the result shows the customers have positive perception on this dimension.

Hence, the individual points score and the total responsiveness result of 3.69 shows that most of the customers agreed with the responsiveness and prompt service of ethio telecom. Another study conducted by Al-Aali, Khurshid, Nasir and Al-Ali Hasham (2011) on service quality of Saudi Arabia's mobile phone companies, the company called Zain scored 3.68 indicating the staff are more responsive.

4.3.1.4 Perception Towards Items of Assurance

Under assurance dimension there are five points related with customers’ confidence with the behavior of personnel, knowledge of engineers and front office staff and generally their feeling on dealing with ethio telecom. Customers’ response towards their perception of assurance is presented on Table 4.6.

Table 4. 6 Perception towards items of Assurance

Items	N	Mean	Std. Deviation
Ethio telecom personnel behavior and courteousness instills confidence	342	3.75	.872
Feels safe dealing with ethio telecom	343	3.73	.902
Ethio telecom engineers have technical competence on broadband service	343	3.60	.855
Personnel in front office and call center are knowledgeable on broadband service	341	3.47	.938
Personnel in ethio telecom help customers know about broadband service in a simply understandable manner.	343	3.74	.831
Total Assurance	343	3.66	.627

Source: Own survey data, November 2017

The result indicates that customers are happy regarding the personnel knowledge on the broadband internet service and their communication manner (Score: 3.75, 3.60, 3.47 and 3.74). They also showed their agreement that they feel safe dealing with ethio telecom by giving a mean score of 3.73. Enterprise division has its own training section that gives regular training on products and services to employees. For the last six months the section gave trainings for 563 employees in the department. (Enterprise Division, Training Section, 2017). Other external trainings are facilitated as well

Therefore, the customers perceived quality towards Assurance was positive with the average score of 3.66 that indicates employees of ethio telecom are knowledgeable to convey trust from

KACs. The result was similar with the study on the impact of service quality dimensions on customer satisfaction in telecom mobile companies in Yemen by Al-Hashedi and Abkar (2017) that was 3.57.

4.3.1.5 Perception Towards Items of Empathy

The last perceived quality dimension was empathy. Customers were requested ethio telecoms' attention to customers; prioritization of their best interest and the operating hours of shops, installation and maintenance service. Their perception score stated on the table 4.7.

Table 4. 7 Perception towards items of Empathy

Items	N	Mean	Std. Deviation
Providing personal attention to companies	342	3.82	.825
Convenience of operating hours of shops	343	3.96	.879
Convenience of operating hours for broadband installation and maintenance service	342	3.54	.982
Understanding and prioritizing customers' best interest	342	3.47	1.029
Total Empathy	343	3.70	.717

Source: Own survey data, November 2017

Customers agreed on the convenience of operating hours of shops and installation and maintenance service by giving 3.96 and 3.54 respectively. Ethio telecom shops are available to customers Monday to Saturday, from 8:30 a.m. in the morning up to 5:30 p.m. in the afternoon. Same with installation and maintenance service except that they work on Sundays when there is a high work load. Scores for ethio telecom's providing personal attention to customers was 3.82 and prioritizing their best interest 3.47.

Hence, the result shows that ethio telecom understands and prioritizes their need by providing personal attention. Also, the operating hours are convenient to customers. The total mean of Empathy (3.70) supports that as well. This is in line with previous study on an evaluation of service quality of Mobily and STC Telecommunication Companies in Saudi Arabia by Kadasah

(2014) that indicated the two telecommunication companies do better in the empathy with a mean score of 3.86.

4.3.1.6 Perception Towards Price

Customers were also asked about their feeling towards the broadband internet service price.

Table 4. 8 Perception towards Price

Item	N	Mean	Std. Deviation
Price of broadband service is reasonable	343	2.86	1.179

Source: Own survey data, November 2017

The score which is 2.86 shows on Table 4.8 that customers' agreement of the fairness of the broadband internet service price is just above average. A mean value of 2.23 has been found by Rahman, Redwanuzzaman, Ul-Hasen & Rahman A. (2014) on their study on factors affecting customer satisfaction, Grameenphone users in Bangladesh. The result was close but below average.

Generally, the overall SERVPERF dimensions and price score was 3.52. The result shows that the KACs have a good perception towards ethio telecom broadband internet service quality.

4.3.2 Customer Satisfaction

Negi (2009) investigated the relevance of customer-perceived service quality in determining the overall satisfaction of customers in the context of mobile services. The result was that reliability and network quality were relevant factors to evaluate service quality and he confirms that tangibles, empathy and assurance should not be neglected when evaluating perceived service quality and customer satisfaction.

Table 4. 9 Customer satisfaction towards SERVPERF dimensions

Customer Satisfaction				
Items		N	Mean	Std. Deviation
Tangible	Satisfaction level on quality of equipment and appealing facilities (modern quality, shop layout, etc.)	343	3.44	1.033
	Satisfaction level on personnel's neat appearance and presentability	343	3.88	.838
Reliability	Satisfaction level on broadband service consistence and speed	343	2.82	1.060
	Satisfaction level on timely delivery and maintenance service of broadband service	343	3.16	1.032
Responsiveness	Satisfaction level on personnel's willingness and prompt support	343	3.91	.808
Assurance	Satisfaction level on personnel's knowledge and courteousness	342	3.77	.778
	Satisfaction level on engineers' technical competence	342	3.62	.823
Empathy	Satisfaction level on the convenience of ethio telecom's operating hours	342	3.74	.843
	Satisfaction level on ethio telecom's approach on giving individual attention to customers and prioritizing their best interest	342	3.69	.902

Source: Own survey data, November 2017

Ethio telecom's Key Account customers' evaluation of their satisfaction on the broadband internet service is presented on Table 4.9. The higher score for satisfaction evaluation was less compared to the evaluation of perceived quality. However, the dimensions that have got higher score were similar. There is better customer satisfaction on ethio telecom's personnel willingness to support (3.91) and their neat appearance and presentability (3.88). The result indicates that customers are satisfied with both customer handling and physical appearance of ethio telecom

personnel. On the other hand, customers are dissatisfied with the broadband internet service consistency and speed which have been scored (2.82). Similar result was reflected on this point on service quality evaluation.

The remaining points were scored as; satisfaction with ethio telecom's quality equipment and appealing facilities which is found in tangible item dimension (3.44), timely delivery and maintenance that affects the reliability of broadband service scored 3.16. Likewise, under Assurance, personnel knowledge and courteousness scored (3.77) while engineer's technical competence scored (3.62). Customers also agreed on their satisfaction of Empathy dimension by giving 3.74 and 3.69 for the convenience of ethio telecom's operating hours and ethio telecom's approach on giving individual attention and prioritizing customers' best interest respectively.

4.3.2.1 Overall Satisfaction

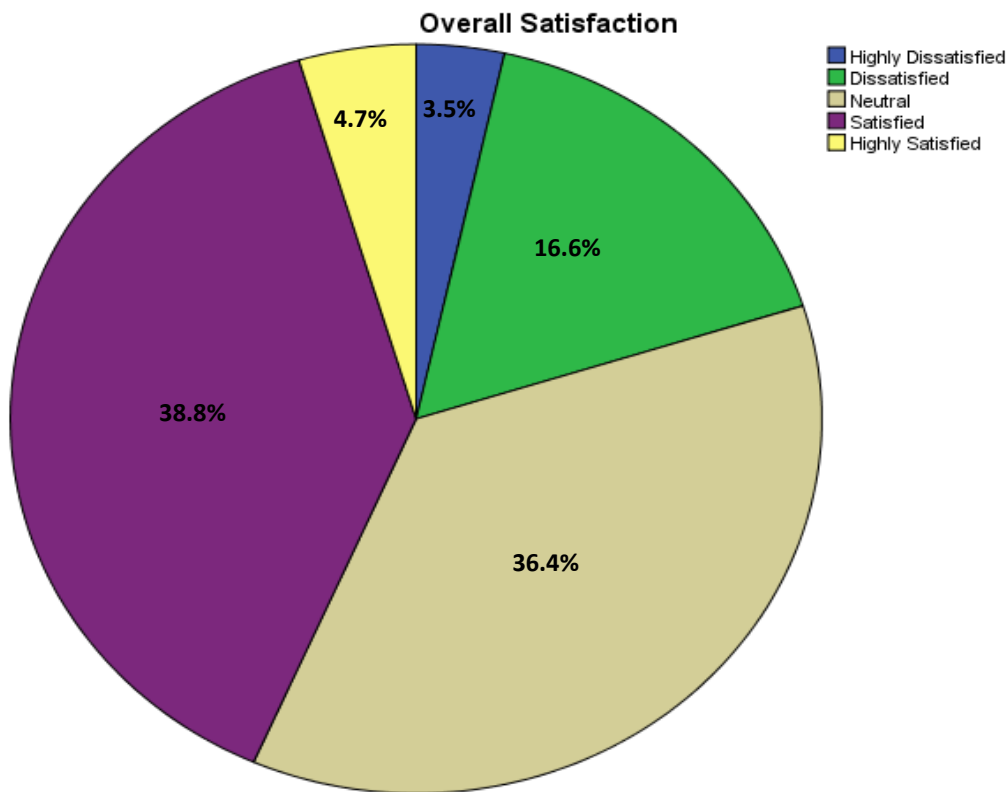


Figure 4. 1 Overall Key Account Customers' Satisfaction

The respondents were requested to evaluate their overall satisfaction to determine their satisfaction on broadband internet service and the result was 3.24. This indicates that most of the KACs are satisfied with ethio telecom’s broadband internet service. As shown on Figure 4.1, 38.8% of the customers responded that they are satisfied with the broadband internet service while 4.7% of them are highly satisfied. On the contrary, 16.6% are reported dissatisfied and only 3.5% are strongly dissatisfied. The rest 36.4% answered that they are neutral.

4.4 Pearson’s Correlations Between Constructs

Correlation coefficients are used in statistics to measure how strong a relationship is between two variables. The quantity r , called the linear correlation coefficient, measures the strength and the direction of a linear relationship between two variables. The linear correlation coefficient is sometimes referred to as the Pearson product moment correlation coefficient in honor of its developer Karl Pearson.

This Pearson correlation test analysis was conducted to determine the explanatory and predictive strengths of ethio telecom’s broadband service quality.

Table 4. 10 Pearson’s correlations coefficients (Perceived Service Quality)

Correlations - Perceived Service Quality						
Items		Tangible	Reliability	Responsiveness	Assurance	Empathy
Tangible	Pearson Correlation	1	.494**	.532**	.565**	.479**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	343	343	343	343	343
Reliability	Pearson Correlation		1	.686**	.625**	.644**
	Sig. (2-tailed)			.000	.000	.000
	N		343	343	343	343
Responsiveness	Pearson Correlation			1	.625**	.626**
	Sig. (2-tailed)				.000	.000
	N			343	343	343
Assurance	Pearson Correlation				1	.575**
	Sig. (2-tailed)					.000
	N				343	343
Empathy	Pearson Correlation					1
	Sig. (2-tailed)					
	N					343

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

Source: Own survey data, November 2017

The Table 4.10 evaluates the relationship between perceived quality variables. As the result shows, the coefficient indicates that the tangible co-efficient r on reliability is .494** while p-value is 0.000. Since the p-value is less than 0.05 ($0.000 < 0.05$), we accept that the tangibility has significant positive relationship with reliability. The tangible co-efficient r on responsiveness is .532** with p-value is 0.000. Since the p-value is less than 0.05 ($0.000 < 0.05$), we accept that the tangible has a significant positive relationship with responsiveness. The same is true for tangible with assurance and empathy. Their co-efficient .565** and .479** respectively shows positive relationship and their p-value is 0.000.

On the other hand, the reliability co-efficient r on responsiveness is .686** with p-value is 0.000. Since the p-value is less than 0.05 ($0.000 < 0.05$), we accept that the reliability has a significant positive relationship with responsiveness. And also, reliability has a positive relationship with assurance and empathy by co-efficient .625** and .644** respectively with p-value 0.000.

The responsiveness co-efficient r on assurance is .625** and the responsiveness co-efficient r on empathy is .626** with p-value for both 0.000. Since the p-values are less than 0.05 ($0.000 < 0.05$), we accept that the responsiveness has a significant positive relationship with assurance and empathy.

Lastly, the assurance co-efficient r on empathy is .575** with p-value is 0.000. Since the p-value is less than 0.05 ($0.000 < 0.05$), we accept that the assurance has a significant positive relationship with empathy.

Table 4. 11 Pearson’s correlations coefficients (Customer satisfaction)

Correlations - Customers Satisfaction								
Items		Tangible	Reliability	Responsiveness	Assurance	Empathy	Price	Overall Satisfaction
Tangible	Pearson Correlation	1	.594**	.491**	.645**	.662**	.067	.541**
	Sig. (2-tailed)		.000	.000	.000	.000	.218	.000
	N	343	343	343	343	343	343	343
Reliability	Pearson Correlation		1	.576**	.636**	.576**	.325**	.648**
	Sig. (2-tailed)			.000	.000	.000	.000	.000
	N		343	343	343	343	343	343

Correlations - Customers Satisfaction								
Items		Tangible	Reliability	Responsiveness	Assurance	Empathy	Price	Overall Satisfaction
Responsiveness	Pearson Correlation			1	.595**	.526**	.193**	.436**
	Sig. (2-tailed)				.000	.000	.000	.000
	N			343	343	343	343	343
Assurance	Pearson Correlation				1	.642**	.133*	.569**
	Sig. (2-tailed)					.000	.013	.000
	N				343	343	343	343
Empathy	Pearson Correlation					1	.133*	.575**
	Sig. (2-tailed)						.014	.000
	N					343	343	343
Price	Pearson Correlation						1	.265**
	Sig. (2-tailed)							.000
	N						343	343
Overall Satisfaction	Pearson Correlation							1
	Sig. (2-tailed)							
	N							343

** . Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).

Source: Own survey data, November 2017

Table 4.11 evaluates the relationship between customers' satisfaction and the five service quality dimensions (tangibles, reliability, responsiveness, assurance and empathy) in addition to price. As the result indicates, the coefficient shows that satisfaction on tangible co-efficient r on satisfaction on reliability is .594** while p-value is 0.000. Since the p-value is less than 0.05 (0.000<0.05), we accept that satisfaction on tangible has significant positive relationship with satisfaction on reliability. Satisfaction on tangible co-efficient r on satisfaction on responsiveness, assurance, empathy and overall satisfaction is .491**, .645**, .662** and 541** respectively while p-value is 0.000. Since the p-values are less than 0.05 (0.000<0.05), we accept that satisfaction on tangible has significant positive relationship with all four variables. Satisfaction on tangible and price are not related as it is not significant at 5% or 10%. The coefficient shows a very low, positive but not significant relationship between satisfaction on tangible and price, with r value of .067 while p-value is greater 10%. Since the p-value is greater

than 0.05 ($0.000 < 0.05$), we reject that satisfaction on tangible has significant relationship with price.

Satisfaction on reliability co-efficient r on satisfaction on responsiveness is $.576^{**}$ while p-value is 0.000. Since the p-value is less than 0.05 ($0.000 < 0.05$), we accept that satisfaction on reliability has significant positive relationship with satisfaction on responsiveness. Likewise, satisfaction on reliability and all the other variables, satisfaction on responsiveness, assurance, empathy, price and overall satisfaction have r value $.636^{**}$, $.576^{**}$, $.325^{**}$ and $.648^{**}$ respectively. As their p-value is 0.000, we accept that satisfaction on reliability has significant positive relationship with the variables.

The relationship of satisfaction on assurance with other variables read on the result as follows. Satisfaction on assurance co-efficient r on satisfaction on empathy is $.642^{**}$, on price is $.133^{**}$, and on overall satisfaction is $.569^{**}$, while their p-value is 0.000, 0.13 and 0.14 respectively. Since their p-value is less than 0.05 ($0.000 < 0.05$), we accept that satisfaction on assurance has significant positive relationship with the variables.

The last one is price and overall satisfaction. Price co-efficient r on overall satisfaction is $.265^{**}$ while p-value is 0.000. Since the p-value is less than 0.05 ($0.000 < 0.05$), we accept that price has significant positive relationship with overall satisfaction.

4.5 Liner Regression Analysis

4.5.1 Tests for the Classical Linear Regression Model (CLRM) Assumptions

In order to make the data ready for analysis and to get reliable results from the research, the model stated previously was tested for five multiple linear regression model assumptions.

The average value of the error is zero (Non-zero variance)

The predictors should have some variation in value different from zero (i.e. they should not have variances of 0). In the model the independent variables (the predictors) have constant terms which will prove that the line did not pass through the origin and the first assumption of CLRM is not violated.

No perfect multicollinearity

There should not be any perfect linear relationship between two or more of the predictors. So, the predictor variables should not correlate too highly as it becomes impossible to obtain unique estimates of the regression coefficients because there are an infinite number of combinations of coefficients that would work equally well. All the VIF value results of this study are less than 10 and multi-collinearity is not a concern as suggested by Myers (1990).

Homoscedasticity, linearity and normality tests

At each level of the predictor variable(s), the variance of the residual terms should be constant. This just means that the residuals at each level of the predictor(s) should have the same variance (homoscedasticity); when the variances are very unequal there is said to be heteroscedasticity and it can lead to the distortion of the findings and overall conclusion.

The researcher used SPSS statistical software scatter plots of residuals with independent variables are the method for examining this assumption (Keith, 2006).

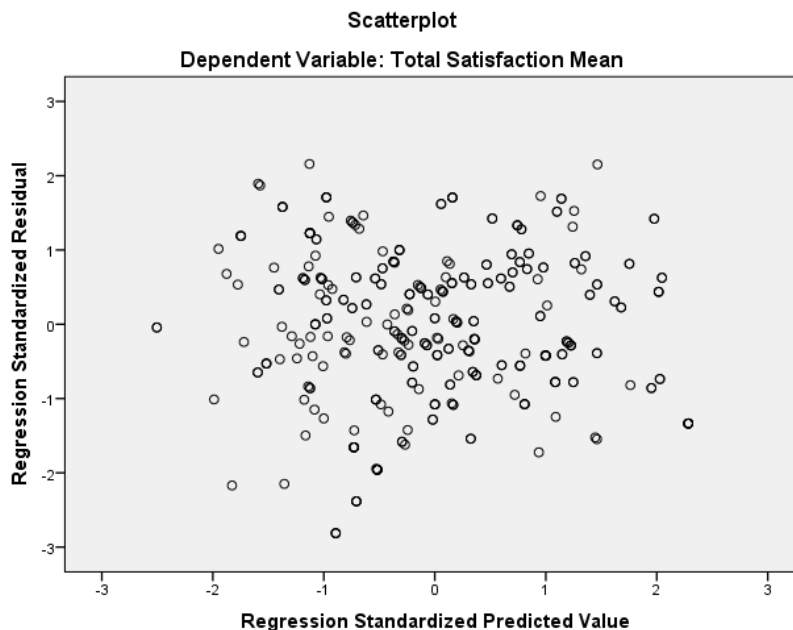


Figure 4. 2 Scatter Plots of the Residuals

Source: SPSS output

The scatter plot sub command to plot standard residuals by the predicted values show that residuals are saturated initially in a linear shape showing that they are relatively homogeneous. One can also recheck same results with a histogram depicted below.

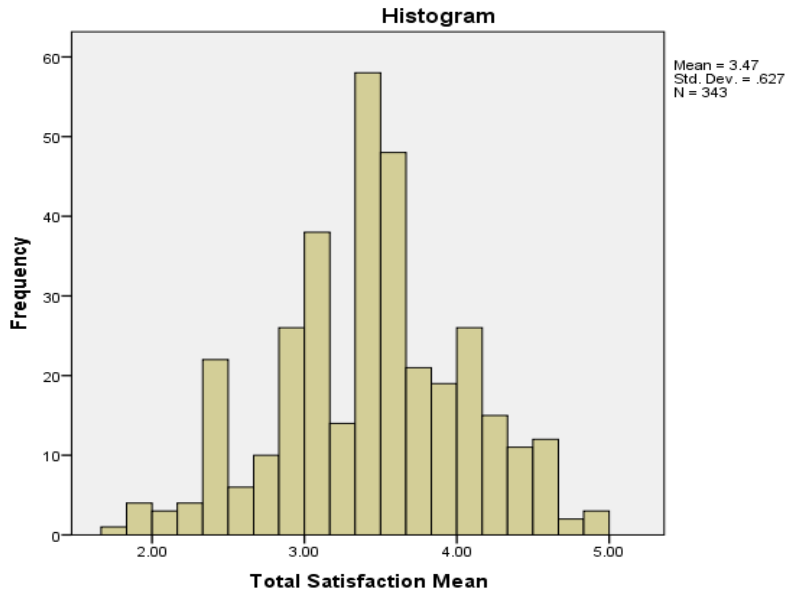


Figure 4. 3 Histogram to show normality test

Source: SPSS output

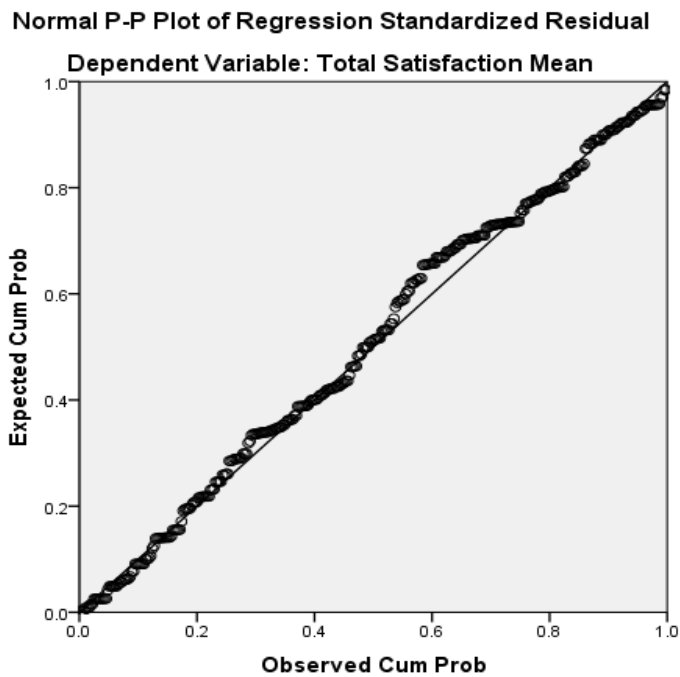


Figure 4. 4 P-P plot of normal distribution

Source: SPSS output

The straight line in the above plot represents a normal distribution of the residuals, and the points represent the observed residuals. Therefore, in a perfectly normally distributed data set, all points will lie on the line. Figure 4.2, 4.3 and 4.4 tell us that the three assumptions are well met.

4.5.2 Customer Satisfaction and Perceived Service Quality Dimensions

For the purpose of identifying the important variables influencing the dependent variable the researcher used the regression analysis. Regression analysis was used to investigate the impact of tangible, reliability, responsiveness, assurance and empathy on customer satisfaction.

Table 4. 12 Regression on Customer Satisfaction and Perceived Service Quality Dimensions

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.205	.120		1.705	.089
Tangible	.086	.033	.092	2.640	.009
Reliability	.139	.031	.186	4.424	.000
Responsiveness	-.026	.040	-.027	-.642	.521
Assurance	.489	.039	.501	12.635	.000
Empathy	.223	.033	.261	6.736	.000
R²	0.749				
Adjusted R²	0.745				
a. Dependent Variable: Customer Satisfaction					

Where $p < .001$, $F = 201.025$

Source: Own survey data, November 2017

(Landrum, Prybutok & Zhang, 2007) when predicting satisfaction, four dimensions: tangible, reliability, assurance, and empathy of SERVPERF were significant and the responsive dimension was not significant. Similarly, as the results reveal on Table 4.12 there is significant relationship at 95% confidence level between customer satisfaction and dimensions of perceived service quality (tangible, reliability, assurance and empathy). However, the relationship responsiveness has with customer satisfaction is not significant ($P > 0.05$).

Among the perceived service quality dimensions; assurance obtained the highest beta value of 0.489. This implies that if ethio telecom works on developing employees' knowledge and courtesy, it will have a great impact on Key Account customers' satisfaction. The other significant and influential service quality dimensions are empathy, reliability and tangible with beta value 0.223, 0.139 and 0.086 respectively.

The significant service quality factors have been included for the establishment of the function. The established regression function is:

$$CS = 0.205 + 0.086T + 0.139RL + (-0.026RS) + 0.489A + 0.223E$$

Where:

CS = Customer Satisfaction, T= Tangible, RL= Reliability, RS=Responsiveness, A=Assurance and E=Empathy

The regression model showed that 75% (Adjusted R² = 0.745) of the observed variability in customer satisfaction is explained by the perceived service quality variables. Moreover, the result indicates that all the perceived service quality items; tangible, reliability, assurance and empathy except responsiveness are good predictors of customer satisfaction.

4.5.3 Overall Customer Satisfaction and Price

Regression analysis was also used to investigate the impact of price on overall customer satisfaction.

Table 4. 13 Regression on Overall Customer Satisfaction and Price

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.706	.077		35.185	.000
Price	.267	.025	.503	10.755	.000
R2	0.253				
Adjusted R2	0.251				
a. Dependent Variable: Customer Satisfaction					

Where p<.001, F =115.664

Source: Own survey data, November 2017

Table 4.13 shows that the beta value of independent variable price is positive (0.267) with significance relationship with 95% confidence interval. Thus, improving price on subscription and monthly tariff will result increasing the satisfaction level of ethio telecom KACs. The regression model also indicates that 25.1% (Adjusted R2 = 0.251) of the observed variability in overall customer satisfaction is explained by price.

4.5.4 Customer Satisfaction and Perceived Service Quality

Table 4. 14 Regression on Overall Customer Satisfaction and Perceived Service Quality

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.464	.140		3.318	.001
Perceived Service Quality	.844	.039	.762	21.755	.000
R²	0.581				
Adjusted R²	0.580				
a. Dependent Variable: Customer Satisfaction					

Where $p < .001$, $F = 473.292$

Source: Own survey data, November 2017

Table 4.11 shows that the beta value of independent variable price is positive (0.844) with significance relationship with 95% confidence interval. The result indicates that the quality of service highly affects customers' satisfaction. Thus, enhancing service quality will improve the level of customer satisfaction. The regression model also indicates that 58% (Adjusted R² = 0.580) of the observed variability in overall customer satisfaction is explained by quality of service.

4.6 Hypothesis Testing

Hypothesis 1: High tangibility of broadband internet service positively affects customer satisfaction.

The results of multiple regressions, as presented in the table 4.12 revealed that tangibility has a positive and a significant effect on customers' satisfaction with a standardized coefficient beta value (0.092), at 95% confidence level. Therefore, this hypothesis is strongly supported by the research.

Hypothesis 2: Reliability of broadband internet service positively affects customer satisfaction.

The results of multiple regressions, as presented in the table 4.12 revealed that reliability has a positive and a significant effect on customers' satisfaction with a standardized coefficient beta

value (0.186), at 95% confidence level. Therefore, this hypothesis is strongly supported by the research.

Hypothesis 3: Responsiveness of personnel of broadband internet service positively affects customer satisfaction.

The results of multiple regressions, as presented in the table 4.12 revealed that responsiveness has a negative and insignificant effect on customers' satisfaction with a standardized coefficient beta value (-0.027), at $p < 0.05$. Therefore, this hypothesis is not supported by the research.

Hypothesis 4: Assurance of broadband internet service positively affects customer satisfaction.

The results of multiple regressions, as presented in the table 4.12 revealed that assurance has a positive and a significant effect on customers' satisfaction with a standardized coefficient beta value (0.501), at 95% confidence level. Therefore, this hypothesis is strongly supported by the research.

Hypothesis 5: Empathy of broadband internet service positively affects customer satisfaction.

The results of multiple regressions, as presented in the table 4.12 revealed that empathy has a positive and a significant effect on customers' satisfaction with a standardized coefficient beta value (0.261), at 95% confidence level. Therefore, this hypothesis is strongly supported by the research.

Hypothesis 6: Price of broadband internet service positively affects customer satisfaction.

The results of multiple regressions, as presented in the table 4.13 revealed that price has a positive and a significant effect on customers' satisfaction with a standardized coefficient beta value (0.265), at 95% confidence level. Therefore, this hypothesis is strongly supported by the research.

Hypothesis 7: Customer perceived service quality contributes positively to customer satisfaction.

The results of multiple regressions, as presented in the table 4.14 revealed that perceived service quality has a positive and a significant effect on customers' satisfaction with a standardized

coefficient beta value (0.762), at 95% confidence level. Therefore, this hypothesis is strongly supported by the research.

4.7 A Further Look at Broadband Internet Price and Bandwidth Rank in Some Sub-Sahara Africa Countries

On the previous discussion, the data collected from Ethio telecom KACs about their perceived broadband service quality and their satisfaction level has been shown. The researcher took the study further by comparing the bandwidth and price of ethio telecom with other Sub-Saharan African countries with similar economic level. The reason behind this analysis is to evaluate whether the responses given by the customers really indicates the telecoms' performance or is it because of their high expectation.

Table 4. 15 Broadband Internet Price and Bandwidth Rank

	Internet bandwidth kb/s/user (Global Rank/137)	GDP per capita (US\$)	Operator	Price of 1Mbps (US\$)	Price/Per Capita Income
Kenya	58	1,516.30	Safaricom	97.05	0.064
Zimbabwe	112	977.40	ZOL Zimbabwe	49.00	0.050
Cameroon	127	1,238.50	camtel	26.92	0.022
Ethiopia	130	795.20	Ethio telecom	71.54	0.090
Tanzania	131	970.20	TTCL	625.89	0.645
Mozambique	133	392.40	IS Mozambique	4.32	0.011

Source: The global competitiveness report 2017 and the telecom companies' website

Ethio telecom's bandwidth and price was compared with five other least developed countries as seen on Table 4.15. The bandwidth column shows that Ethiopia found on 130th with the least ranking countries on the global ranking of internet speed kilobyte per second per user out of 137 countries. Even if respondents gave 3.03 (Table 4.4) while requested about the broadband speed, the company has to work on improving the bandwidth to satisfy its customers better. Furthermore, as the demand for internet is getting higher because of globalization, there will be

fast growth on the number of users. Therefore, to address the customers demand and to give quality service the company shall consider improving the bandwidth.

Then again customers give 2.86 (Table 4.8) for the reasonability of the broadband service price of ethio telecom. This indicates that the customers are not satisfied. When we compare ethio telecom's internet price with the other countries by taking 1Mbps sample, it is higher (0.090) next to Tanzania. As Alex Twinomugisha stated on ictworks web page, two reasons were given by East and West African operators like Kenya. The main reason is fiber investment costs are very high and prices have to be high in order to recoup their investments and the other is because of high demand and low supply. In other countries like South Africa and Namibia, prices are high simply because of monopoly market structure. As the researcher found out from Marketing Division of Ethio telecom, broadband internet price was set using cost-based pricing system. Some of the costs are payments like international gateway (payment for international network providers), return on investments for expansion projects on network elements such as cable installations (optical fiber, secondary line), MSAG and MSAN boxes setup, power backup, operations and maintenance costs, administrative costs, etc. And also for further expansions, the company needs to have returns. So that, some profit margin needs to be considered. Hence, the system of pricing is similar with the reasons given by East and West African operators. In this particular study, customers are not satisfied with the broadband internet service price. Ethio telecom shall consider setting a reasonable price to satisfy its KACs.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides answers to our research questions by summarizing our findings from data analysis and interpretation chapter. It also covers recommendations forwarded for improvement in the service quality and price of ethio telecom broadband internet service.

5.2 Summary of the Study

The aim of this study was to assess the effect of broadband service quality and price on the satisfaction Key Account customers in Ethio telecom. The research was conducted using questionnaire that addressed the sample of 343 respondents.

As the demographic profile of the respondents indicates the data collection had addressed all types of companies under Key Account customer category with 25.1% from Federal Government office, 3.2% from Financial institutions and 19.8% from International Org., NGOs & Embassies followed by 15.7%, 19.8% and 16.3% from Production, Public and private enterprises respectively. The largest number of respondents were IT Manager/Expert (58.6%) that had positive effect on the response quality as they are the responsible individuals, commonly, in companies concerning broadband service. The results also show that most of the respondents (64.1%) are customers of broadband internet service for above 5 years and 15.2% are 1 - 3 years, 20.7% for 3 - 5 years.

The result of descriptive statistical analysis shows that there is a positive perception from customers in terms of the quality of the service especially on tangible, responsiveness and empathy dimensions. On the contrary, the result shows there is low perceived quality with stability of broadband internet service. And also, the reasonability of price was the one customers disagreed upon. On the satisfaction statistical analysis, the results were positive on all dimensions except reliability related with the inconsistency of speed. The higher satisfaction reflected on personnel willingness to support customers on responsiveness dimension and

personnel neat appearance on tangibles as well. The overall customer satisfaction scored 3.24, specifically 43.5% of customers are satisfied. 20.1% declared dissatisfaction while the remaining 36.4% claimed neutral.

The correlation result indicated that there is a positive and significant relationship between tangible, reliability, responsiveness, assurance and empathy. The highest relationship was found on reliability and responsiveness (0.686) while the lowest was on tangible and empathy (0.479). Also with the relationship evaluation of overall customer satisfaction and service quality dimensions, all was significant. The highest relationship of overall customer satisfaction was with reliability (0.648) while the lowest was with price (0.265).

The multiple regression result shows that all perceived service quality (tangible, reliability, assurance and empathy) except responsiveness have positive and significant effect on customer satisfaction. Likewise, price has a positive significant effect on overall customer satisfaction.

At last, with the further look of broadband internet bandwidth and price rank of Sub-Saharan Africa with ethio telecom, Ethiopia is found in the lowest rank in both dimensions. Customers also revealed their dissatisfaction on the price that matched with the ranking. On the satisfaction evaluation of ethio customers with the speed on the internet, even if they have reflected their satisfaction, ethio telecom is grouped with the least ranked countries in the globe.

5.3 Conclusions of the Study

The main objective of this study was to assess the effect of broadband service quality and price on the satisfaction of Key Account customers in Ethio telecom. Based on the analysis made the following conclusion is drawn.

The result revealed that all service quality dimensions which are tangibles, reliability, responsiveness, assurance and empathy positively affected customers' perception of broadband internet service quality. However, the contribution of reliability dimension specifically consistency and speed was low. Ethio telcom's global rank of bandwidth is related with the low speed of the broadband service. Customers also not agreed on the reasonability of the price for

broadband internet service. As per the reference of other countries performance with similar economic level, the price is still high.

There was also positive and significant relationship between the service quality dimensions and their relationship with customer satisfaction as well. When we see the dimensions' effect on customer satisfaction, except responsiveness, tangibles, reliability, assurance and empathy have positive significant effect. That means if the company works to improve the quality of these four dimensions, it would be able to increase the satisfaction level of the KACs.

5.4 Recommendations

Based on the findings of the study, the following recommendations are suggested to improve the service quality as well as the Key Account customers' satisfaction.

First, ethio telecom should focus on reducing the frequency of the broadband internet interruption and inconsistency of the speed by using more advanced technologies and network equipment. Involving in more expansion projects also help to increase the bandwidth of the overall internet capacity that will solve the issue with the speed.

Second, as we have seen in this study, the concern of customers on the price of broadband service expensiveness is supported by the secondary data of comparing with other counties. Thus, providing the service with more reasonable price not only will affect the satisfaction of customers but also will motivate them to subscribe more to benefit the company.

Another point to be considered will be the dimensions that customers are satisfied with but still needs follow up such as personnel performance, office layout and equipment. To give customers better quality service, competent employees play a strong role. Giving regular trainings and developing a good working culture in the company will enable employees to be active and deliver a better service. Consistent control on the dressing code of employees also would help to keep the good result observed on the study last longer. Modernizing the working tools and keeping the office layout attractive and comfortable to customers in a way that represents the company's vision will add to customers' satisfaction and company image.

Finally, further researches shall be done on this area as these Key Account customers are very important to the development of ethio telecom; and their day to day activity and productivity is becoming highly dependent on the quality of the broadband internet service.

REFERENCE

- Adebisi, S. O., Shitta, H. A., & Olonade, O. P. (2016). Determinants of Customer Preference and Satisfaction with Nigerian Mobile Telecommunication Services. *BVIMSR's Journal of Management Research*, 8, 10
- Ali-Aali A., Khurshid A. M., Nasir M. N. and Al-Aali H. (2011). Measuring the Service Quality of Mobile Phone Companies in Saudi Arabia, *J. King Saud University*, 22(2), 43-55
- Anderson, E., W., Fornell, C., Lehmann, D., R. (1994). Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *Journal of Marketing*, 58(3), 53-66
- Andreassen, T.W. (2000). Antecedents to satisfaction with service recovery. *European Journal of Marketing*, 34(1/2), 156-75
- Andy Field (2009). *Discovering Statistics Using SPSS: Third edition*,
- Babakus, E., & Boller, G. W. (1992). An empirical assessment of SERVQUAL scale. *Journal of Business Research*, 24(3), 253-268
- Bitner, M.J., B.H. Booms, and L.A. Mohr. (1994). Critical Service Encounters: The Employees Viewpoint. *Journal of Marketing*, 58,4, 95-106.
- Boulding, W., Kalra, A., Staeling, R., and Zeithaml, V. A. (1993). A Dynamic Process Model of Service Quality: From Expectation to Behavioral Intentions. *Journal of Marketing Research*, 30(1), 7-27.
- Carman, James M. (1990). Consumer Perceptions of Service Quality: An Assessment of the SERVQUAL Dimension. *Journal of Retailing*, 66 (1), 33-55
- Cavana RY, Corbett LM, Lo YL (2007). Developing zones of tolerance for managing passenger rail services quality. *Inter. J. Qual. Reliability. Manage.*, 24(1), 7-31
- Cronin, J. Joseph, Jr. and Steven A. Taylor (1992). Measuring Service Quality: A Reexamination and Extension. *Journal of Marketing*, 56(3), 55-68.

- Daniel T. (2015), Service Quality and Customer Satisfaction: The Case of Cellular Phone users of Ethio-Telecommunications in Ambo Town. *Global Journal of Management and Business Research: E Marketing*, 5(7), 0975-5853
- Ethio telecom (2016), Company profile, ethio telecom's Corporate Communication Department, p. 10
- Ethio telecom (2017), Number of Customers Per Section, Enterprise Division Week 31 Sales Performance Report, p. 13
- Ethio telecom, Personel Management Department (2013). Uniform and Dress Code Policy
- Fornell, C., Johnson, M., D., Anderson, E., W., Cha, J., and Bryant, B., E. (1996). The American Customer Satisfaction Index: Nature, Purpose, and Findings. *Journal of Marketing*, 60, 7-18.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th Ed.)*. Boston: Allyn & Bacon.
- Gitman, Lawrence J.; Carl D. McDaniel (2005). *The Future of Business: The Essentials*. Mason, Ohio: South-Western. ISBN 0-32432028-0.
- Grönroos, C. (1994). From marketing mix to relationship marketing: towards a paradigm shift in marketing. *Management Decision*, 32(2), 4-20.
- Gummesson, E., (1994). Service Management: An Evaluation and the Future. *International Journal of Service Industry Management*, 4(1), 77-96
- Hansemark, O. C. & Albinson, M. (2004). Customer Satisfaction and Retention: The Experiences of Individual Employees, *Managing Service Quality*, 14(1), 40-57
- Hashem, T. N., & Hamdan, F. I. (2017). Measuring Service Quality Level in The Jordanian Telecommunication Sector from Its Customers' Perspective Using The SERVPERF Scale. *European Journal of Business and Social Sciences*, 5(12), 15-27
- Hawkins, D., Mothersbaugh, D. and Best, R. (2003). *Consumer Behavior: Building Marketing Strategy (10th ed.)*, McGraw-Hill, New York, NY.

- Johns, N. (1999). What is this thing called service?. *European Journal of Marketing*, Vol. 33, Number 9/10, p.958-973.
- Johnson MD, Fornell C. (1991). A framework for comparing customer satisfaction across individuals and product categories. *Journal of Economics Psychology*, 12:267-286
- Kadasah, N., A (2014). An Evaluation of Service Quality of Mobily and STC Telecommunication Companies in Saudi Arabia. *British Journal of Economics, Management & Trade*, 4(10): 1599-1609
- Kim, M.K., Park, M.C., and Jeong, D.H (2004). The effects of customer satisfaction and switching barrier on customer loyalty in Korean mobile telecommunication services, *Telecommunication Policy*, 48,145-159.
- Kotler, P. and Keller, K. L. (2009). *Marketing management* (13th ed). New Jersey: Pearson Education Inc, Upper Saddle River (pp. 789)
- Kuo. YF (2003). A study on service quality of virtual community websites, *Total Quality Management & Business Excellence*, 13(4), 461-473
- Landrum, H., Prybutok, V., R., & Zhang X. (2007). A comparison of Magal's service quality instrument with SERVPERF, *Information and Management* 44, 104-113
- Negi, R. (2009). Determining customer satisfaction through perceived service quality: A study of Ethiopian mobile users. *International Journal of Mobile Marketing*; 4(1), 31-38
- Oliver RL. (1977). Effects of expectations and disconfirmation on post exposure product evaluation. *Journal of Applied Psychology*; 62:246–250.
- Oliver, R. (1980). Theoretical Bases of Consumer Satisfaction Research: Review, critique, and future direction. In C. Lamb & P. Dunne (Eds), *Theoretical Developments in Marketing* (pp.206-210). Chicago: American Marketing Association.
- Oliver, R.L. (1993). A conceptual model of service quality and service satisfaction: compatible goals, different concepts, in Swartz, T.A., Bowen, D.E. and Brown, S.W. (Eds), *Advances in Services Marketing and Management*, Vol. 2, JAI Press, Greenwich, CT, 65-85.

- Olu Ojo (2010). The Relationship Between Service Quality and Customer Satisfaction in the Telecommunication Industry: Evidence from Nigeria, BRAND. Broad Research in Accounting, Negotiation, and Distribution ISSN 2067-8177, 1(1), 91-99
- P. Theerthaana (2015). Antecedents of Customer Satisfaction and Retention: Validating Metrics of Mobile Phone Services through SERVPERF. *The International Journal of Business & Management* (ISSN 2321 - 8916)
- Parasuraman, A., Zeithaml, V., & Berry, L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49 (Fall) 41-50.
- Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: A Multi Item Scale for Measuring Consumer Perception of Service Quality. *Journal of Retailing*, 64 (Spring) 12-40
- Potluri, R. M., & Hailemichael, W. H., (2010). Assessment of after-sales service behaviors of Ethiopia Telecom customers. *African Journal of Economic and Management Studies*, 1(1), 75-90
- Potluri, R. M., & Mangnale, VS (2010). An Assessment of Ethiopian Telecom Customer Satisfaction. *Global Journal of Management And Business Research*, 10, 10-15.
- Rahman, H., Redwanuzzaman, Ul-Hasan, M., and Rahman, A. (2014). Factors Affecting Customer Satisfaction on Grameenphone users in Bangladesh. *Global Journal of Management and Business Research: E Marketing*, 14, 0975-5853
- Shemwell, D.J., Yavas, U., & Bilgin Z. (1998). Customer-service provider relationships: an empirical test of a model of service quality, satisfaction and relationship oriented outcome. *International Journal of Service Industry Management*, 9, 155-168
- Sivadas, Eugene; Baker-Prewitt, Jamie L (2000). An examination of the relationship between service quality, customer satisfaction, and store loyalty. *Journal of Retail & Distribution Management*, 28(2)73-82
- Spreng, R. A., & Mackoy, R. D. (1996). An empirical examination of a model of perceived service quality and satisfaction. *Journal of Retailing*, 72(2), 201-214

- Tse, D., & Wilton, P., (1988). Models of Customer Satisfaction Formation: An Extension. *Journal of Marketing Research*, 25(1), 204-212
- Wang, Y., Lo, H., & Yang Y. (2004). An Integrated Framework for Service Quality, Customer Value, Satisfaction: Evidence from China's Telecommunication Industry, *Information Systems Frontiers* 6(4), 325-340
- Wicks, A. M., & Roethlein, C. J. (2009). A Satisfaction-Based Definition of Quality. *Journal of Business & Economic Studies*, 15(1) 82-97.
- Yi Y. (1990). A critical review of consumer satisfaction, In: Zeithaml VA, ed., *Review of Marketing* Chicago: American Marketing Association, 68–123.
- Yoseph, M. (2013, September 29). ATM Woes: Blame falls at feet of ethio telecom, *Addis Fortune*, 14, 700, Retrived from <https://addisfortune.net/columns/atm-woesblame-falls-at-feet-of-ethio-telecom>
- Zeithaml, Valerie A. & Bitner, Mary J. (1996). *Services Marketing*, McGraw-Hill, New York, N.Y

APPENDICES

APPENDIX A: Questionnaire

St. MARY'S UNIVERSITY

Department of Marketing Management

Questionnaire for customers

Title: The Effect of Broadband Service Quality on Key Account Customers'

Satisfaction in Ethio telecom

Thank you in advance for your voluntary participation in completion of this questionnaire. I am doing a thesis on “the effect of broadband service quality on key account customers’ satisfaction in ethio telecom”.

The purpose of this questionnaire is to gather information about the Enterprise’s Key Account customers’ satisfaction on the service given by ethio telecom. Your contribution and honest responses are very important in the study and will help gain better understanding on how to improve customer satisfaction in the company. I assure you that your response will only be used for the research purpose and kept confidential.

Sincerely yours,

Tsegereda Getachew

0911509483

E-mail: tsegereda2008@gmail.com

PART I: BACKGROUND OF RESPONDENTS

Company Type:

- Federal government office Financial institution Embassy
 NGO Production enterprise Public enterprise Private enterprises

Your position in the company:

- Business Manager IT Manager/Expert Other (Please specify) _____

Educational Background:

- B.A MSC PhD Other (Please specify) _____

- Work Experience:** 1-3 years 3-5 years More than 5 years

- Gender:** Male Female

Broadband service customer for:

- 1-3 years 3-5 years More than 5 years

PART II: SERVICE QUALITY

Each statement relates to your feelings about ethio telecom’s broadband service quality. Express the rate of your evaluation by circling the pertinent number of the five alternatives. There may be no right or wrong answers - all we are interested in is a number that best shows your perceptions about how ethio telecom is serving you.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Ethio telecom has modern and standardized equipment such as modem that meets your expectations regarding quality and performance.	1	2	3	4	5
Physical layout of equipment and furniture are comfortable and conducive for customers interacting with staff.	1	2	3	4	5
Personnel in ethio telecom are well-dressed and appear neat.	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Materials associated with the ethio telecom's broadband service (such as pamphlets or statements) are visually appealing and understandable.	1	2	3	4	5
Ethio telecom delivers you the broadband service at the promised time. <i>*(Standard - 15 days)</i>	1	2	3	4	5
Ethio telecom provides you uninterrupted broadband service.	1	2	3	4	5
Ethio telecom gives quick maintenance service whenever your broadband service is down. <i>*(Standard - 7 days)</i>	1	2	3	4	5
Ethio telecom get things right the first time.	1	2	3	4	5
Ethio telecom delivers you a broadband speed which matches with what you subscribed for.	1	2	3	4	5
The personnel in ethio telecom tell you exactly when services will be performed.	1	2	3	4	5
Personnel in ethio telecom give you prompt service.	1	2	3	4	5
Forms and other required documents for new broadband service provisioning is easily to fill and understandable.	1	2	3	4	5
Ethio telecom's personnel are always willing to help you and respond to your requests on broadband service.	1	2	3	4	5
Ethio telecom's contact center (994/980) is easily reachable.	1	2	3	4	5
Ethio telecom personnel behavior and courteousness instills confidence in you.	1	2	3	4	5
You feel safe in your dealings with ethio telecom.	1	2	3	4	5
Engineers in ethio telecom have technical competence on broadband service to provide satisfactory support to customers.	1	2	3	4	5
Personnel in ethio telecom's front office and call center are knowledgeable on broadband service.	1	2	3	4	5
Personnel in ethio telecom help customers know about broadband service in a simply understandable manner.	1	2	3	4	5
Ethio telecom provides personal attention to your company.	1	2	3	4	5
Operating hours of ethio telecom shops are convenient to customers.	1	2	3	4	5

* The standard broadband subscription time line on customers' charter is 15 days.

* The standard broadband maintenance time line on customers' charter is 7 days.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Ethio telecom's operating hours for broadband installation and maintenance service is convenient.	1	2	3	4	5
Ethio telecom understands and prioritizes customers' best interest.	1	2	3	4	5
Ethio telecom provides broadband service at reasonable price.	1	2	3	4	5

PART II: CUSTOMER SATISFACTION

Each statement relates to your satisfaction level with ethio telecom's broadband service. Express the rate of your evaluation by circling the pertinent number of the five alternatives. There are no right or wrong answers - all we are interested in is a number that best shows your satisfaction level.

	Strongly Dissatisfied	Dissatisfied	Neutral	Satisfied	Strongly Satisfied
Rate your satisfaction level on ethio telecom's quality of equipment and appealing facilities (modem quality, shop layout, etc.)?	1	2	3	4	5
Rate your satisfaction level on ethio telecom personnel's neat appearance and presentability.	1	2	3	4	5
How do you rate your satisfaction level on ethio telecom's broadband service consistence and speed?	1	2	3	4	5
How do you rate your satisfaction on ethio telecom's timely delivery and maintenance service of broadband service?	1	2	3	4	5
How satisfied are you with ethio telecom personnel's willingness and prompt support?	1	2	3	4	5
How do you rate your satisfaction on ethio telecom personnel's knowledge and courteousness?	1	2	3	4	5
How do you rate your satisfaction on ethio telecom engineers' technical competence?	1	2	3	4	5
How satisfied are you with the convenience of ethio telecom's operating hours?	1	2	3	4	5

	Strongly Dissatisfied	Dissatisfied	Neutral	Satisfied	Strongly Satisfied
How do you rate your satisfaction level with ethio telecom's approach on giving individual attention to customers and prioritizing their best interest?	1	2	3	4	5
Overall, how satisfied are you with the broadband service provided by ethio telecom?	1	2	3	4	5

THANK YOU FOR YOUR TIME TO COMPLETE THIS QUESTIONNAIRE

APPENDIX B: SPSS Results

I. Frequency Table

Company Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Federal Government Office	86	25.1	25.1	25.1
	Financial Institution	11	3.2	3.2	28.3
	International Org., NGOs & Embassies	68	19.8	19.8	48.1
	Production Enterprise	54	15.7	15.7	63.8
	Public Enterprise	68	19.8	19.8	83.7
	Private Enterprise	56	16.3	16.3	100.0
	Total	343	100.0	100.0	

Position in the company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business Manager	71	20.7	20.7	20.7
	IT Manager/Expert	201	58.6	58.6	79.3
	Admin	60	17.5	17.5	96.8
	General Service	11	3.2	3.2	100.0
	Total	343	100.0	100.0	

Educational Background

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B.A	217	63.3	63.3	63.3
	MSC	90	26.2	26.2	89.5
	PhD	23	6.7	6.7	96.2
	BSC	10	2.9	2.9	99.1
	Diploma	3	.9	.9	100.0
	Total	343	100.0	100.0	

Work Experience					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 years	39	11.4	11.4	11.4
	3-5 years	66	19.2	19.2	30.6
	More than 5 years	238	69.4	69.4	100.0
	Total	343	100.0	100.0	

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	241	70.3	70.3	70.3
	Female	102	29.7	29.7	100.0
	Total	343	100.0	100.0	

Broadband service customer for					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 years	52	15.2	15.2	15.2
	3-5 years	71	20.7	20.7	35.9
	More than 5 years	220	64.1	64.1	100.0
	Total	343	100.0	100.0	

II. Reliability Statistics for the parameters used to measure service quality

1. Tangible Dimension

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.713	.710	4

2. Reliability

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.790	.793	5

3. Responsiveness

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.678	.690	5

4. Assurance

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.758	.757	5

5. Empathy

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.770	.770	4

6. Customer Satisfaction

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.908	.909	10

III. Score for SERVPERF Dimensions

1. Perceived Quality and Price

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Quality-Tangible (1)	342	1	5	3.27	1.043
Quality-Tangible (2)	341	1	5	3.73	.866
Quality-Tangible (3)	342	2	5	4.04	.784
Quality-Tangible (4)	343	1	5	3.71	.846
Quality-Reliability (1)	343	1	5	3.18	1.087
Quality-Reliability (2)	343	1	5	2.68	1.227
Quality-Reliability (3)	342	1	5	3.28	1.043
Quality-Reliability (4)	339	1	5	3.23	.965
Quality-Reliability (5)	342	1	5	3.03	1.220
Quality-Responsiveness (1)	343	1	5	3.50	.982
Quality-Responsiveness (2)	342	1	5	3.77	.939
Quality-Responsiveness (3)	343	1	5	3.82	.955
Quality-Responsiveness (4)	343	1	5	3.86	.792
Quality-Responsiveness (5)	342	1	5	3.51	1.140
Quality-Assurance (1)	342	1	5	3.75	.872
Quality-Assurance (2)	343	1	5	3.73	.902
Quality-Assurance (3)	343	1	5	3.60	.855
Quality-Assurance (4)	341	1	5	3.47	.938
Quality-Assurance (5)	343	1	5	3.74	.831
Quality-Empathy (1)	342	1	5	3.82	.825
Quality-Empathy (2)	343	1	5	3.96	.879
Quality-Empathy (3)	342	1	5	3.54	.982
Quality-Empathy (4)	342	1	5	3.47	1.029
Price	343	1	5	2.86	1.179
Valid N (listwise)	325				

2. Customer Satisfaction

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Satisfaction-Tangible (1)	343	1	5	3.44	1.033
Satisfaction-Tangible (2)	343	2	5	3.88	.838
Satisfaction-Reliability (1)	343	1	5	2.82	1.060
Satisfaction-Reliability (2)	343	1	5	3.16	1.032
Satisfaction-Responsiveness (1)	343	1	5	3.91	.808
Satisfaction-Assurance (1)	342	2	5	3.77	.778
Satisfaction-Assurance (2)	342	1	5	3.62	.823
Satisfaction-Empathy (1)	342	1	5	3.74	.843
Satisfaction-Empathy (2)	342	1	5	3.69	.902
Overall Satisfaction	343	1	5	3.24	.907
Valid N (listwise)	339				

IV. Person's Correlations

1. Perceived Service Quality

Correlations

		Tangible Mean	Reliability Mean	Responsiveness Mean	Assurance Mean	Empathy Mean
Tangible Mean	Pearson Correlation	1	.494**	.532**	.565**	.479**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	343	343	343	343	343
Reliability Mean	Pearson Correlation	.494**	1	.686**	.625**	.644**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	343	343	343	343	343
Responsiveness Mean	Pearson Correlation	.532**	.686**	1	.625**	.626**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	343	343	343	343	343
Assurance Mean	Pearson Correlation	.565**	.625**	.625**	1	.575**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	343	343	343	343	343
Empathy Mean	Pearson Correlation	.479**	.644**	.626**	.575**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	343	343	343	343	343

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

2. Customer satisfaction

Correlations

		S. Tangible Mean	S. Reliability Mean	Satisfaction-Responsiveness (1)	S. Assurance Mean	S. Empathy Mean	Price	Overall Satisfaction
S. Tangible Mean	Pearson Correlation	1	.594**	.491**	.645**	.662**	.067	.541**
	Sig. (2-tailed)		.000	.000	.000	.000	.218	.000
	N	343	343	343	343	343	343	343
S. Reliability Mean	Pearson Correlation	.594**	1	.576**	.636**	.576**	.325**	.648**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	343	343	343	343	343	343	343
Satisfaction-Responsiveness (1)	Pearson Correlation	.491**	.576**	1	.595**	.526**	.193**	.436**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	343	343	343	343	343	343	343
S. Assurance Mean	Pearson Correlation	.645**	.636**	.595**	1	.642**	.133	.569**
	Sig. (2-tailed)	.000	.000	.000		.000	.013	.000
	N	343	343	343	343	343	343	343
S. Empathy Mean	Pearson Correlation	.662**	.576**	.526**	.642**	1	.133	.575**
	Sig. (2-tailed)	.000	.000	.000	.000		.014	.000
	N	343	343	343	343	343	343	343
Price	Pearson Correlation	.067	.325**	.193**	.133	.133	1	.265**
	Sig. (2-tailed)	.218	.000	.000	.013	.014		.000
	N	343	343	343	343	343	343	343
Overall Satisfaction	Pearson Correlation	.541**	.648**	.436**	.569**	.575**	.265**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	343	343	343	343	343	343	343

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

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

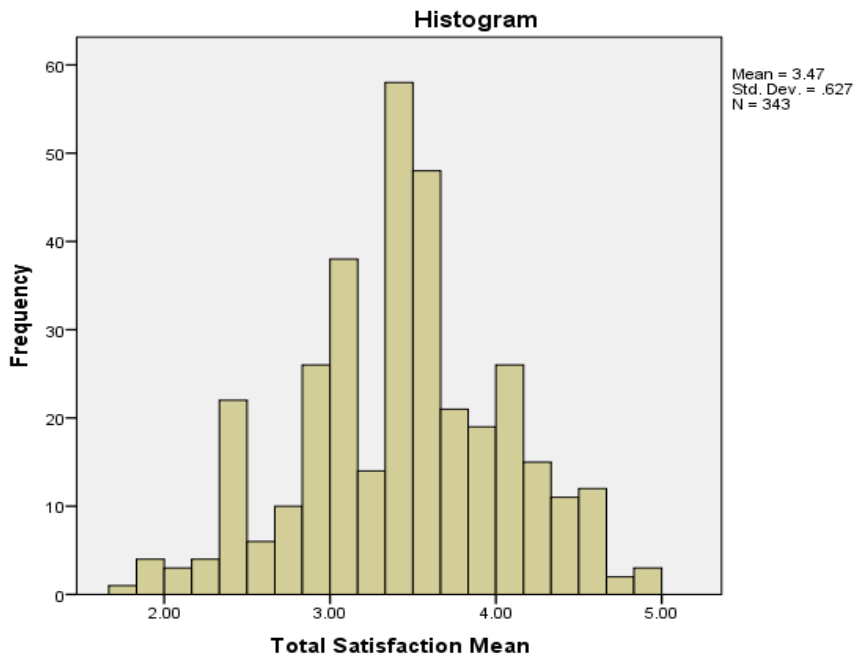
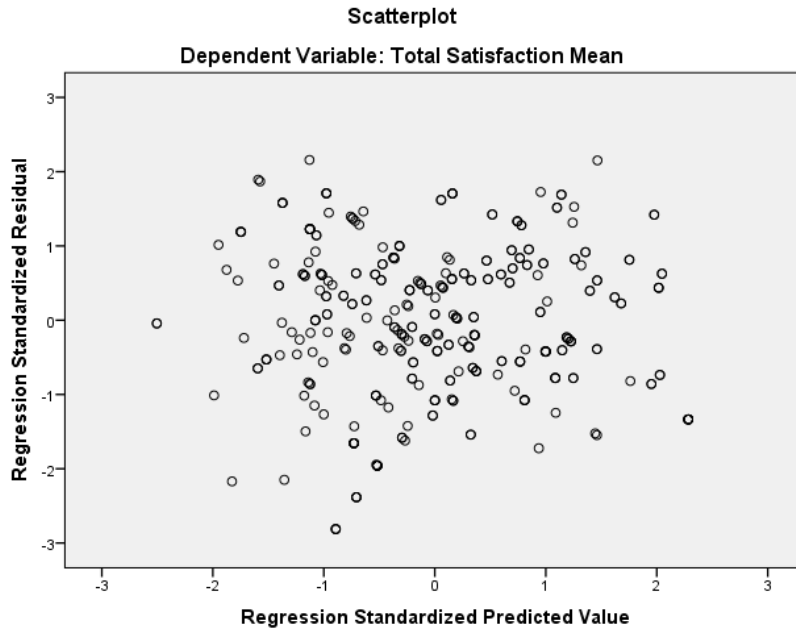
V. Liner Regression

1. Tests for the Classical Linear Regression Model (CLRM) Assumptions

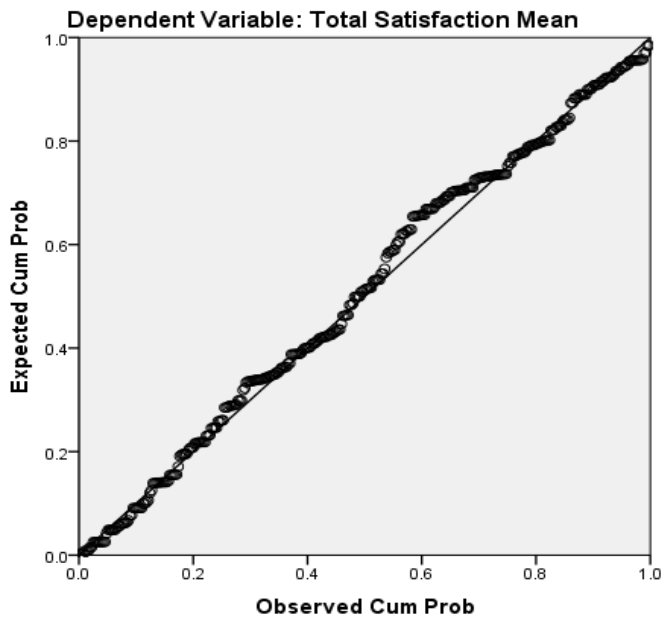
Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	Tangible Mean	Reliability Mean	Responsiveness Mean	Assurance Mean	Empathy Mean
1	1	5.913	1.000	.00	.00	.00	.00	.00	.00
	2	.036	12.781	.16	.04	.47	.00	.00	.00
	3	.016	19.096	.05	.49	.05	.01	.02	.52
	4	.014	20.916	.37	.38	.13	.04	.02	.45
	5	.011	23.107	.21	.10	.15	.00	.92	.00
	6	.010	24.278	.21	.00	.20	.95	.04	.02

a. Dependent Variable: Total Satisfaction Mean



Normal P-P Plot of Regression Standardized Residual



2. Customer Satisfaction and SERVPERF Dimensions

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865 ^a	.749	.745	.30905

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

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96.001	5	19.200	201.025	.000 ^b
	Residual	32.187	337	.096		
	Total	128.188	342			

a. Dependent Variable: Total Satisfaction Mean

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

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.205	.120		1.705	.089
	Tangible Mean	.086	.033	.092	2.640	.009
	Reliability Mean	.139	.031	.186	4.424	.000
	Responsiveness Mean	-.026	.040	-.027	-.642	.521
	Assurance Mean	.489	.039	.501	12.635	.000
	Empathy Mean	.223	.033	.261	6.736	.000

a. Dependent Variable: Total Satisfaction Mean

3. Overall customer satisfaction and Price

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.503 ^a	.253	.251	.54219

a. Predictors: (Constant), Price

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.002	1	34.002	115.664	.000 ^b
	Residual	100.244	341	.294		
	Total	134.246	342			

a. Dependent Variable: Total Satisfaction Mean

b. Predictors: (Constant), Price

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.706	.077		35.185	.000
	Price	.267	.025	.503	10.755	.000

a. Dependent Variable: Total Satisfaction Mean

4. Customer satisfaction and Perceived Service Quality

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.762 ^a	.581	.580	.40603

a. Predictors: (Constant), Total_Quality_Mean

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	78.028	1	78.028	473.292	.000 ^b
	Residual	56.218	341	.165		
	Total	134.246	342			

a. Dependent Variable: Total Satisfaction Mean

b. Predictors: (Constant), Total_Quality_Mean

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.464	.140		3.318	.001
	Total_Quality_Mean	.844	.039	.762	21.755	.000

a. Dependent Variable: Total Satisfaction Mean