



**ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF MARKETING MANAGEMENT**

**THE EFFECT OF SERVICE QUALITY ON CUSTOMER
SATISFACTION- THE CASE OF ETHIOTELECOM**

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DECLARATION

I, the under signed, hereby declare that this thesis is my original work, prepared under the guidance of Mulugeta G/Medhin (PHD) All sources of materials used while working on this thesis have been duly acknowledged. I 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 type of degree.

Name

Signature

Date

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LIST OF ABBREVIATIONS / ACRONYMS

- **QOS**- Quality of Service
- **WLAN** -Wireless Local Area Network
- **DSL**-Digital Subscriber Line
- **CX**-Customer Experience
- **SERVQUAL** - Service Quality

ABSTRACT

Telecommunication is a communication of data or voice over a distance. There exist many telecommunication technologies from the legacy networks to emerging all IP networks. The quality of service (QoS) concept is becoming an ever more important issue in telecommunication. This thesis focuses on the QoS notion and concept to identify its impacts in customer satisfaction of the existing Ethio telecom 4G (LTE) mobile network. It first defines quality of services (QoS) and then outlines an analytical framework and criteria to evaluate the impact on customer satisfaction. The purpose of the study was to measure the effect of service quality dimensions on customer satisfaction. The relationship between the five service quality dimensions, which are tangibles, reliability, responsiveness, assurance and reliability with customer satisfaction, is assessed. Differences in the perception of service quality, customer satisfaction and importance rating among different customer group are discussed and SPSS versions 25 was used to analyze data and the relationship between dependent & independent variables. A total of 384 set of questionnaires distributed to Ethio telecom enterprise customers. The number of questionnaires used for data analysis was 327 representing. The research design for this study use both explanatory and descriptive research designs. Pearson's correlation coefficient (r), and regression analysis. The findings on the relationship between service quality dimensions and customer satisfaction and showed all service quality dimensions are strongly or moderately and highly significantly related customer satisfaction.

Keywords—*Quality of Service, Customer Satisfaction*

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

An organization that consistently satisfies its customers, enjoy higher retention levels and greater profitability due to increase customer loyalty (Wicks &Roethlein, 2009). In the service rendering companies, success and sustainability depends on various factors such as accountability, quality service and changes in technology (Hossan, 2012). The highest profit making firms are not necessarily the most powerful ones. Consequently, this is because profit is just one achievement of a firm (Karim, 2014). Therefore companies should keep in mind not to focus on shareholders alone but also the customers and the quality of service they offer them. Customers' satisfaction will affect the overall performance of the companies in the long run. Today's economy is about maintaining old customers and attracting new customers to thrive in the market (Ramzi, 2010).

There are many decisive factors which determine customer satisfaction level of a specific organization. Service quality in addition to other elements such as product quality, price and others, determine customer satisfaction (Wilson A., Zeithaml V.A., BitnerM.J.andGremler D.D., 2008). Many other literatures and studies also supports that service quality has an effect on the level of customer satisfaction. Rust and Oliver (1994) stated that quality is one dimension on which satisfaction is based. According to Shemwell, Yavas and Bilgin (2008), 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.

The whole service provision and consumption process of service rendering companies requires an interaction between the service providing company and the consumer. And the interaction starts from the point customers approach to the company in order to purchase and deliver products and services respectively for the first time. To this end, Commercial Nominees branches acts as a door to the company and customers make their first contact to the company through a total of 41 branches available across the county.

According to Parasuraman et al (1988), the larger the gap between a company's and customer's perceptions concerning both service products and service delivery, the smaller the probability of satisfying the customers. This indicates that service rendering companies should have more profound understanding of their customer's needs. This study also investigates the effect of service quality on customer satisfaction in Ethiotelecom.

The introduction of telecommunication in Ethiopia dates back to 1894. Ethiopian Telecommunications Corporation is the oldest public telecommunications operator in Africa. Telecommunications service was introduced in Ethiopia by Emperor Menelik II in 1894 when the construction of the telephone line from Harar to the capital city, Addis Ababa, was commenced. Then the interurban network was continued to expand satisfactorily in all other directions from the capital. In those years, the technological scheme contributed to the integration of the Ethiopian society when the extensive open wire line system was laid out linking the capital with all the important administrative cities of the country. After the end of the war against Italy, during which telecommunication network was destroyed, Ethiopia reorganized the Telephone, Telegraph and Postal services in 1941.

Wireless mobile Internet is migrating toward an integrated system of Internet and telecommunications technologies in order to fulfill the future telecommunications requirement: ubiquitous communication, where mobile users move freely almost anywhere and communicate with anyone, anytime with any device using the best service available. This demands a rapid progress in telecommunications and the Internet technologies. Today end users just need an IP access connection, e.g. via a Wireless Local Area Network (WLAN) hotspot, a Digital Subscriber Line (DSL) connection or a GPRS / UMTS network to have access to these services. The success of Skype and other VoIP / Multimedia over IP providers in face of dropping IP connectivity prices is providing evidence for this view. With the progress of this IP networks, the competition on IP-based (telecommunication) services is growing, and we can witness a Changing value chain in which connectivity charging decreases in favor for applications and content charging. This heterogeneous all IP telecommunications trends demands outstanding Provision of Quality of Service, and motivates the provision of service experience to users, in order to fulfill their expectations motivating them to use it more and recommend it to friends.

4G is a fourth generation of mobile phone communications standards. It is a successor of the 3G and provides ultra-broadband internet access for mobile devices. The high data transfer rates make 4G networks to use USB wireless modems for laptops and even home internet access. Ethio Telecom has paid 173 million Birr for Chinese company Huawei Technologies Co., Ltd to install the project.

The LTE Advanced mobile internet service is available in areas around Bole Airport, Bole Friendship, Bole Medhanialem, Bole Atlas, Meskel Square, Stadium, Ethio Telecom Headquarters, Kazanchis, 4 Kilo (Unity Park), 6 Kilo, Lideta (ECX), African Union, and Old Airport based on the high level of internet usage trend,

LTE Advanced mobile internet service provides reliable connection enriching customers experience with exceptional speed to download or upload large-size data, high-definition multimedia, live streaming, and real-time video conferencing. Customer satisfaction is a measure of how happy a customer is with business, a product, or the overall experience. It is most often measured through customer satisfaction surveys with an ultimate goal of finding out how customers feel about a brand.

Every business either it is service provider or producer need its customers satisfaction for a successful business life. In the case of Ethio Telecom the organization is only that the customer use. For that reason the customers couldn't have a chance to choose or to compare. Measure the effects of service quality dimensions in overall service quality and customer satisfaction. The relationship between service quality dimensions on the service quality and customer satisfaction will be assessed. The variables under the study were customer satisfaction as dependent variable and tangibles, reliability, responsiveness, assurance, empathy, as independent variables.

Although telecommunications industry has seen massive change around the world, but the impact of service quality dimensions still needs further emphasis in this field. Dabhade, N. et al. (2013) studied the impact of quality of service on customer satisfaction of mobile users by considering the case of Airtel, identified the factors that affect quality of services and also analyzed improvements and measures which were followed up by the Airtel to enhance satisfaction level of their customers.

Ethio-telecom conducted vast reform activities and advancements to attain its set strategic objectives- preparing for the upcoming competitive market, enhancing customer experience and satisfaction through ensuring operational excellence; deploying new and enhancement of infrastructure and systems, service availability, quality, and affordability; effective resource utilization and enhancing financial capacity. Leadership and staff capacity building and empowerment; building reputable brand were among the priorities.

1.2. Statement of the Problem

Customer Satisfaction has been a central concept in marketing literature and is an important goal of all business activities. Today, companies face their toughest competition, because they move from a product and sales philosophy to a marketing philosophy, which gives a company a better chance of outperforming competition (Kotler, 2000).Satisfying a customer is a difficult task, especially when it comes to services, since studies have shown that consumers'level of satisfaction is generally lower for services than products (Andresen & Best, 1977).

Particularly in the case of telecom service, where there is frequent service failure, related with network problem and others, occurred. Many customers are dissatisfied with Ethio telecoms internet service because of its poor service quality in terms of speed and stability also they have complained on service recovery after it fails. According to Selamawit (2015) Ethio telecom is the sole telecom service provider in the country, losing customers will not be an issue to the organization for failure in service recovery.

Rather customers' dissatisfaction, decline of customers' confidence on the company, hinder customers interest to purchase other related services and negative word of mouth will be effect of poor quality of service. Based on customer feedback Ethio telecom has initiated strategies to provide solutions to its customers and enhance satisfaction, especially to key account customer.

The strategies include revise tariff, price discount, new promotion strategy, new product and services, new service delivery process and so on however, there is still problem related with broadband internet service as the public opinion and as the researchers conducted in various services customers are dissatisfied with the service performance of Ethio telecom. But still there is dissatisfaction and negative feedback from broadband internet users. Additionally, due to the

nobility of 4G (LTE) mobile network, there is a research gap to be filled since there are no studies conducted on the subject as far as the researcher knowledge is concerned.

The problem of this study is primarily observed by the fact that majority of previous researches or empirical documentation in the area of customer satisfaction and service quality regarding the focused on service delivery performance and customer satisfaction at company level in general. However, specific services such as 4G (LTE) mobile network and the quality of services provided and customers' satisfaction is not studied. Moreover, Service quality and customer satisfaction have been proven from past researches to be positively related (Kuo, 2003, Baker-Prewitt, 2000, Gera, 2011) but no study had tested the service quality dimensions directly to see if it is related to customer satisfaction, thus, there is a need to test the direct relationship between each of the service quality dimensions and customer satisfaction.

Therefore, in order to fill this gap, 4G (LTE) mobile network and the quality of services provided and customers' satisfaction the main intention of this research is to find out those unanswered expectation of customers and identify the effect of Service Quality on customer's satisfaction.

1.3. Research Questions

This Research tries to answer the following research questions.

- How does tangible affect customers' satisfaction at Ethio Telecom Service 4G (LTE) mobile network?
- To what extent does empathy affect customers' satisfaction at Ethio Telecom Service 4G (LTE) mobile network?
- How does assurance affect customers' satisfaction at Ethio Telecom Service 4G (LTE) mobile network?
- How does responsiveness affect customers' satisfaction at Ethio Telecom Service 4G (LTE) mobile network?
- To what extent does reliability affect customers' satisfaction at Ethio Telecom Service 4G (LTE) mobile network?

1.4. Objectives of the Study

1.3.1. General Objective

The main objective of this research was to identify effect of service quality on customers satisfaction in case of Ethio telecom provides specifically on the new technology 4G (LTE) mobile networks.

1.3.2. Specific Objectives

This research work has the following specific objectives

- To examine the effect of tangibles on customers' satisfaction at Ethio Telecom.
- To determine the effect of empathy on customers' satisfaction at Ethio Telecom.
- To evaluate the effect of assurance on customers' satisfaction at Ethio Telecom.
- To examine the effect of responsiveness on customers' satisfaction at Ethio Telecom.
- To determine the effect of reliability on customers' satisfaction at Ethio Telecom

1.5. Significance of the Study

This study has a great significant in the following regards.

- It helps Ethio telecom to develop and implement effective service quality improvement initiatives.
- This study provides empirical support for management strategic decision.
- It provide to the public better understanding of the organization in terms of its services quality to customers.

The study findings also are relevant input to the management of EthioTelecom in identifying the existing strength and/or weakness of service quality delivery and level of customers satisfaction experienced by customers. Also, it insists the importance of the Company to communicate with present and potential stakeholder and the general public. Furthermore, it is hoped that the finding of the study might stimulate further study on other aspects concerning relationship between service quality and customer satisfaction.

1.6. Scope of the study

Geographically, this study was delimited to assess effect of Service Quality on customer satisfaction of Ethio telecom Addis Ababa district Mexico area. Sample is taken from Ethio tele's sale centers Around Mexico customers is selected.

Moreover, conceptually, this study is delimited to studying service quality in terms of the five SERVQUAL model dimensions such as tangibles, empathy, assurance, responsiveness and reliability. SERVQUAL is one of the tools used in measuring the quality of services. According to Buttle (1996), SERVQUAL is for the measuring and managing the quality of service. Asubonteng et al (1996) also intimate that the model is used to measure the quality of services from the customer's point of view. The originators of the model are Parasuraman, Zeithaml and Berry. It was developed in 1985 but was polished or refined in their subsequent articles (Parasuraman et al 1988).

Methodologically, this study is sampled only those customers with sufficient health conductin to fill the questionnaires and above the age of 18 years.

1.7. Limitation of the study

Like any other researches, the research has some speculated shortcomings. To be more specific lack of well-organized secondary data on Ethio telecom sites with regard to significance the quality of data is collected. And the pandemic is a short coming & limitation because of these reasons the study is limited. Therefore, these limitations may challenge the researcher; however, various approaches will be implemented to minimize these problems.

1.8. Definition of Terms in the Study

SERVQUAL: A model used for measuring service quality developed by Parasuraman et al. (1988).

Reliability: The ability to perform the promised service dependably and accurately.

Assurance: Knowledge and courtesy of employees and their ability to inspire trust and confidence.

Responsiveness: The willingness to help customers and to provide prompt service.

Empathy: Caring and individualized attention that the firm (service provider) provides to its customers.

Tangibles: Physical facilities, equipment, appearance of personnel and communication materials.

Network quality: The ability of service provider to provide high network availability, high and consistence speed.

Convenience: The availability of offices near to customer, toll-free numbers, websites, easy to get cards or to pay bills and so on.⁸

Service Quality: - is defined as the difference between customer' s expectations for the service encounter and the perceptions of the service received.

Service Quality Dimensions: is a model as the main framework for analyzing service quality by the variables of Reliability, Assurance, Responsiveness, Empathy, Tangibles, Network aspects (Parasuraman et al., 1988)

Customers Satisfaction: - is stated that a person' s feeling of pleasure or disappointment resulting from comparing a product' s outcome (perceived performance) in relation to his or her expectation.

1.9. Organization of the study

The Research is organized with the view to provide readers with consistent information on the study conducted. Accordingly, the paper is organized from five main chapters.

The first chapter is the introduction part of the study which contains; background of the study, problem statement, research questions, objective of the study, significance and scope of the study, the extent to which the study was undertaken or (delimitation of the study) and with its potential problems or limitations that come across while the study is conducted. Chapter two presents a literature review on service quality and customer satisfaction. Chapter three explains the research method used in the study. In chapter four, analysis is applied as well as findings are discussed. Finally, in chapter five general conclusions are drawn, possible recommendations to the problems are suggested. In addition, limitation and direction of future research are shown.

CHAPTER TWO

2. REVIEW OF LITERATURE

2.1. Definitions of Service

Different scholars define service and its feature in different ways some of these are: Services: are deeds, performances and processes provided or coproduced by one entity or person for and with another entity or person (Zeithaml , 2009).Service includes core service, products and product-service bundles provided a more inclusive definition of service with the derived service perspective, suggesting that all products and physical goods are valued for the inherent service (value derived) they provide not the goods itself. Services differ from product due to their intangibility, heterogeneity, simultaneous production and consumption and perish ability (Zeithaml , 2009), (Vargo and Lusch, 2004).

- It should precisely distinguish them on the basis of their attributes a good is a tangible physical object or product that can be created and transferred; it has existence over time and thus can be created and used later. A service is intangible and perishable. It is an occurrence or process that is created and used simultaneously while the customer can't retain. (Earl,Poul , and Daryl WyCkoff, 1978).

But, majority of them are agreed that service is a serious of activities of more or less intangible nature that normally but not necessarily take place in interaction between customers and service employees and, or physical resource or goods and, or system of the service provider which are provided as solution to customer problems “most authorities consider the services sector to include all economic activities whose output is not physical product or construction is generally consumed at the time it is produced and provides added value in the form of continence, amusement, timelines, comfort which are basically intangible concerns of its purchaser.”(James Brain. Quinn, Jordan . Bruch, Penny, Cushma1987).

2.2. Service Quality

Service quality is made during the service delivery process. Each customer contact is referred to as a moment of truth, an opportunity to satisfy or dissatisfy the customer. Customer satisfaction with a service can be defined by comparing perception of service perceived with expectations of service desired. When expectations are exceeded, service is perceived to be of expectations are confirmed by perceived service, quality is satisfactory (Powell, 1995). In today's increasingly

competitive business environment, service quality is essential for the success of any organization. Service quality is important aspect that affects the competitiveness of business.

The challenge in defining quality is that it is a subjective concept, like beauty. Everyone has a different definition based on their personal experiences.

Service quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001).

There are many researchers who have defined service quality in different ways. For instance, Bitner, Booms and Mohr (1994, p. 97) define service quality as 'the consumer's overall impression of the relative inferiority / superiority of the organization and its services'. While other researchers (e.g. Cronin and Taylor, 1994; Taylor and Cronin, 1994) view service quality as a form of attitude representing a long-run overall evaluation. Roest and Pieters' (1997) defined that service quality is a relativistic and cognitive discrepancy between experience-based norms and performances concerning service benefits. Crosby (1979) defined service quality as "Conformance to requirements". This definition implies that organizations must establish requirements and specifications. Once these specifications are established, the quality goal of the various functions of an organization is to comply strictly with them.

As described by Lewis and Booms (1983) giving quality service implies meeting the requirements to customer expectations regularly. Also Parasuraman, et al (1985) defined service quality as "the degree and direction of discrepancy between consumer's perceptions and expectations in terms of different but relatively important dimensions of the service quality, which can affect their future purchasing behavior." This definition clearly shows that service quality is what customers' assess through their expectations and perceptions of a service experience. Customers' perceptions of service quality result from a comparison of their before-service expectations with their actual service experience.

Service quality has been increasingly recognized as a critical factor in the success of any business (Parasuraman, Zeithaml & Berry, 1988). Ladhari (2008) also supported the role of service quality and stated that it is considered as an important tool for a firm's struggle to differentiate itself from its competitors (Ladhari, 2008).

The service will be considered excellent, if perceptions exceed expectations; it will be regarded as good or adequate, if it only equals the expectations; the service will be classed as bad, poor or deficient, if it does not meet them (Vázquez et al., 2001). "The cumulative customer satisfaction

is seen to be based on the total purchase and consumption experience with a good or service over time and as such, is a more fundamental indicator of the firms past, current and future performance.”(Anderson; 2003:53) Quality evaluations derive from the service process as well as the service outcome. “A vague exhortation to customer contact employees to “improve quality” may have each employee acting on his/her notion of what quality is. It is likely to be much more effective to tell a service contact employee what specific attributes service quality includes, such as responsiveness. Management can say, if we can improve our responsiveness, quality will increase”(Asubonteng et al; 1996:63).

In an effort to conceptualize service quality (by taking in to account all the aspects of customer perceived service quality, including those already addressed in the existing instruments and those that are left out in the empirical service quality literature), Sureshchander et al. (2001 cited in Dehghan, (2006)) identified five factors of service quality as critical from the customers’ point of view.

These factors are:

- I. Core service or service product
- II. Human element of service delivery
- III. Systematization of service delivery: non-human element;
- IV. Tangibles of service – services capers
- V. Social responsibility

2.3. Service quality models

There are many service quality models developed by different researchers over years. Selected service quality models are reviewed below.

I. Technical and functional quality model:

According to (Grönroos 1984), a firm in order to compete successfully must have an understanding of consumer perception of the quality and the way service quality is influenced. Seth, Deshmukh&Vrat (2004) reviewed this model and explained that Managing perceived service quality means that the firm has to match the expected service and perceived service to

each other so that consumer satisfaction is achieved. Service quality has three components, namely: technical quality; functional quality; and image (Grönroos 1984): Technical quality is the quality of what consumer actually receives as a result of his/her interaction with the service firm and is important to him/her and to his/her evaluation of the quality of service.

Functional quality is how he/she gets the technical outcome. This is important to him and to his/her views of service he/she has received.

Image is very important to service firms and this can be expected to build up mainly by technical and functional quality of service including the other factors (tradition, ideology, word of mouth, pricing and public relations).

Service quality is a function of the differences between expectation and performance along the quality dimensions (Parasuraman et al. 1985). They developed a service quality model based on gap analysis.

GAP model:

The various gaps visualized in the model are:

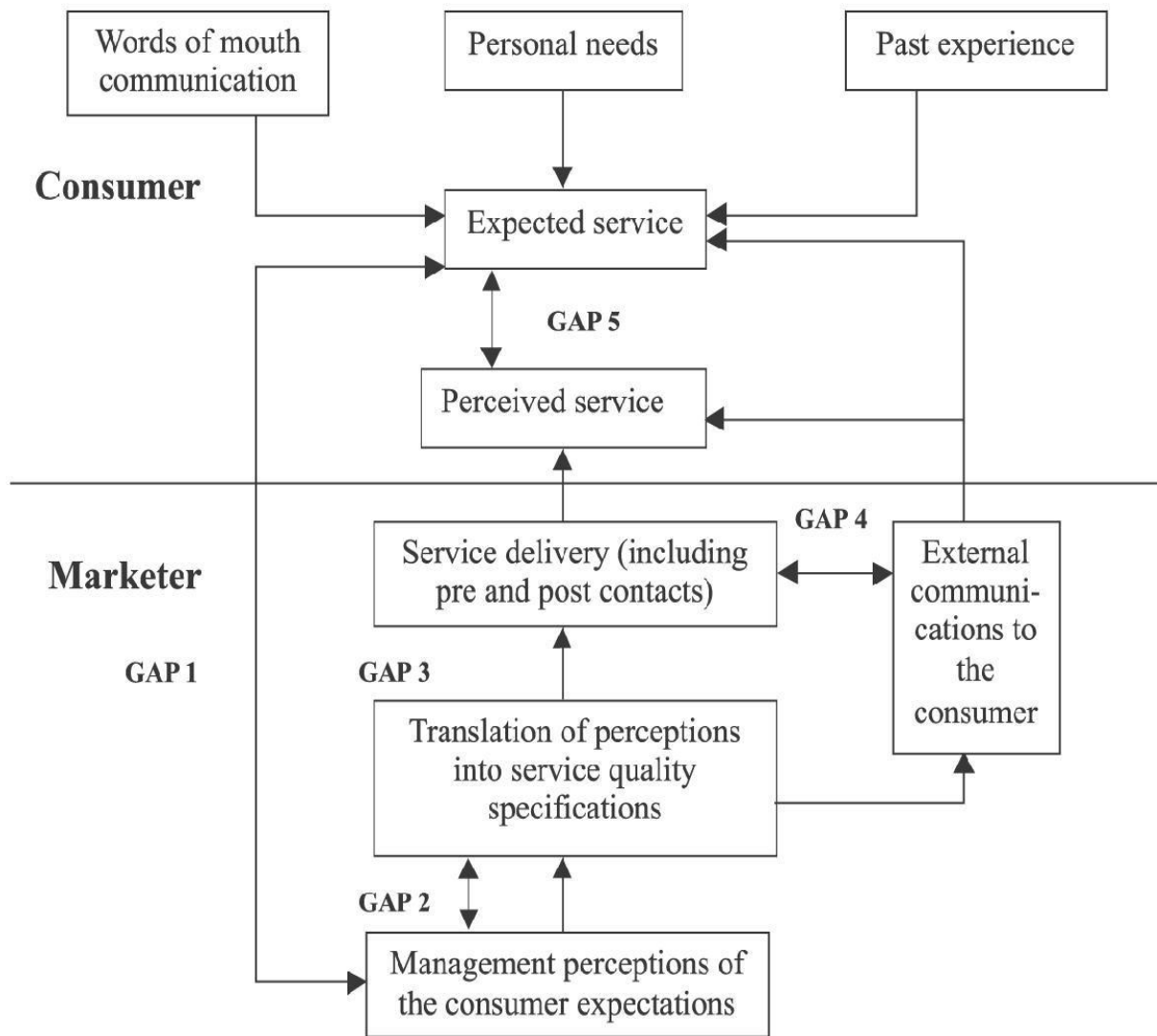
Gap 1: Gap between consumer expectation and management perception: This gap arises when the management or service provider does not correctly perceive what the customer wants or needs. I.e. Difference between consumers' expectation and management's perceptions of those expectations.

Gap 2: Gap between management's perceptions of consumer's expectation and service quality specification: This is when the management or service provider might correctly perceive what the customer wants, but may not set a performance standard. I.e. improper service-quality standards.

Gap 3: Gap between service quality specifications and service actually delivered. I.e. the service performance gap. This gap may arise in situations pertaining to the service personnel.

Gap 4: Gap between service delivery and external communication: Consumer expectations are highly influenced by statements made by company representatives and advertisements. The gap arises when these assumed expectations are not fulfilled at the time of delivery of the service.

Gap 5: Gap between expected service and experienced service: This gap arises when the consumer misinterprets the service quality. This gap depends on size and direction of the four



Source: Parasuraman *et al.* (1985)
gaps associated with the delivery of service quality on the marketer's side.

Figure 2.1 GAP service quality model

2.1. Service quality measurement

Many researchers have struggled with the issue of how to measure service quality. Perhaps the most widely used measure is based on a set of five dimensions which have been consistently

ranked by customers to be most important for service quality, regardless of service industry. These dimensions defined by the SERVQUAL measurement instrument are as follows:

Tangibles: appearance of physical facilities, equipment, personnel, and communication materials;

Reliability: ability to perform the promised service dependably and accurately;

Responsiveness: willingness to help customers and provide prompt service;

Assurance: knowledge and courtesy of employees and their ability to convey trust and confidence; and

Empathy: the caring, individualized attention the firm provides its customers.

These five SERVQUAL dimensions are used to measure the gap between customers' expectation for excellence and their perception of actual service delivered. The SERVQUAL instrument, when applied over time, helps service providers understand both customer expectations, perceptions of specific services, and areas of needed quality improvements. SERVQUAL has been used in many ways, such as identifying specific service elements requiring improvement, and targeting training opportunities for service staff. Proper development of items used in the SERVQUAL instrument provides rich item-level information that leads to practical implications for a service manager.

2.1.1. The SERVQUAL and the SERVPERF Models

The most widely used models in measuring quality in the service industry in general and in the banking sector in particular are the SERVQUAL and the SERVPERF models. Since the SERVPERF was curled out of the SERVQUAL, the literature on both models are reviewed.

2.1.1.1. The SERVQUAL Model

SERVQUAL is one of the tools used in measuring the quality of services. According to Buttle (1996), SERVQUAL is for the measuring and managing the quality of service. Asubonteng et al (1996) also intimate that the model is used to measure the quality of services from the customer's point of view. The originators of the model are Parasuraman, Zeithaml and Berry. It was developed in 1985 but was polished or refined in their subsequent articles (Parasuraman et al 1988).

The main aim of SERVQUAL is to have a standard and a reliable tool that can be used to measure the quality of services in different service sectors, (Curry and Sinclair, 2002). Originally, those who developed SERVQUAL introduced ten service quality dimensions or attributes. These are: tangibles, reliability, responsiveness, competency, courtesy, communication, credibility, security, access and understanding the customer. However in the 1988 article, these were pruned to five (Parasuraman et al 1988). These are; tangibles, reliability, responsiveness, assurance and empathy. Tangibility refers to the physical environment in which the service provider operates. It comprises the physical facilities available, workers, and equipment and communication materials. Reliability concerns the ability with which the service organization can deliver the service dependably and accurately. Empathy on the other hand, is about the special care and attention given to individual customers when being served. Responsiveness is also the preparedness of the service provider to assist customers and render as quick or prompt service as possible.

Assurance too is in connection with the knowledge and the courteous attitude of staff and their ability to instill trust and confidence in customers. Based on the five service quality dimensions, two sets of twenty-two statements or questionnaire are developed, (Donnelly et al 1995 and Iwaarden et al, 2003). The questionnaires are a seven-point likert scale. Robinson (1999) also explains that one set is about customers expectations (expectation of service quality before using the service) and the other set measures customer perceptions (perceptions of quality after using the service). The difference between the two; perceptions (P) and expectations (E) constitute the service quality gap. The quality gaps according to Parasuraman (2004) and Tahir and Bakar (2007) are five. These are:

Gap 1: The difference between what customers really (actually) expect and what management think (perceptions) of customers expectations. Donnelly et al (1995) are of the view that the gap occurs because management did not undertake in-depth studies about customers' needs. Also there are poor internal communication and insufficient management structures. This gap is referred to as the understanding or knowledge gap.

Gap 2: Is what is called the standard gap. It is the difference between management perceptions of customer service quality expectations and service quality specifications.

Gap 3: This gap is also known as the delivery gap. The difference between service quality specifications and the actual service quality delivered. This means the failure to ensure that

service performance conforms to specifications. Donnelly et al (1995) contend that the failure emanates from absence of commitment and motivation, insufficient quality control systems and insufficient staff training.

Gap 4: This gap too is termed as the communication gap. It is the difference between the delivery of service and the external information (communication) regarding promises made to customers or implied. Examples of medium used for the external communication are media and customer contracts, (Donnelly et al 1995).

Gap 5: Is the difference between customers' expectation of service quality and the actual service received.

However a limitation of the model is that the five service quality dimensions are not universal and cannot be applied in all service industries, (Ladhari 2009, Saurina Canals 1997, Buttle 1996 and Robinson 1999). They contended that it depends on the context in which the dimensions are applied since the definitions and the number differ. For instance, the results of the study of Babakus and Boller (1992) on an electric and gas utility company using SERVQUAL suggest that the dimension of this industry is one and not five. This has been confirmed by the study of Mels et al (1997). In their case only two dimensions were found. In the same vein, Cronin and Taylor cited in Jun and Cai (2001:278) conducted an investigation into the banking, pest control and dry cleaning and fast food industries and found that, there was no evidence of the five dimensions. Also, the study of, Johnston (1995) and Joseph et al (1999) in the banking industry did not support the five dimensions. The study of the former unveiled 18 service quality attributes whilst that of the latter found six dimensions.

Buttle (1996) opines that there is but a little proof that customers evaluate the quality of service on the basis of the difference between perceptions and expectations. Alluding to this, Ladhari (2009) intimates that researcher's advance that the difference scores do not give any additional information beyond that already existed in the perceptions' items. This has been supported by the study of Babakus and Boller (1992). The results showed that the perceptions' score was the dominant contributor to the gap scores. Buttle (1996) further posit that the model dwells on the process delivery but not on the outcome of the service encounter. Buttle again punched holes in the likert-scale. He contended that, it is defective or flawed whilst the use of the two sets of questionnaire are tired-some and confusing. Though credited with the fact that it furnishes

information concerning the gaps between perceptions and expectations of the quality of service, it fails to provide clues to the closure of these gaps, (Tan and Pawitra, 2001).

Gilmore cited in Kumar et al (2009: 213) put forward that, the five service quality dimensions are highly inter-correlated or related. Ladhari (2009) accentuate that the factor-loading pattern of the model unearths some weaknesses in the convergent validity in some studies. Thus, most of the SERVQUAL's 22 items have higher loadings on dimensions that are different from those suggested by those who developed the model. For example, the study of Engelland et al (2000) show that there was an excessive cross-loading as three items belonging to the assurance dimension loaded on the empathy dimension. In the same vein, only one item from the tangibles dimension loaded on the tangibles dimension. The results of the research of Lam (1997) also reveal that items belonging to the assurance, responsiveness and empathy dimensions tended to load in an unstable manner.

In spite of the numerous criticisms, SERVQUAL has been adopted for conducting many studies. It is therefore held in high esteem (Buttle 1996). Other points in favor of SERVQUAL as enumerated by Tan and Pawitra (2001) are given below. The model in general lays bare the strengths and weaknesses of the quality of service provided by organizations. In this way, areas of weaknesses can be prioritized by the organization. Another important merit of the model is that it serves as the standard for organizations to measure the quality of service in the same industry. Apart from this, it serves as a signal to management to take into consideration the perceptions of both management and customers. It also helps management to know customers' impressions about the service purchased. The analysis of the quality gaps assist management immensely to draw their strategies to meet customers' expectations.

2.1.1.2. The SERVPERF Model

The SERVPERF model was carved out of SERVQUAL by Cronin and Taylor in 1992. SERVPERF measures service quality by using the perceptions of customers. Cronin and Taylor argued that only perception was sufficient for measuring service quality and therefore expectations should not be included as suggested by SERVQUAL (Baumann et al, 2007).

Studies conducted by researchers like Babakus and Boller, Brady et al., Brown et al., and Zhou cited in Carrillat et al (2007:473) have supported that of Cronin and Taylor. Therefore, advocates of SERVPERF hold the view that it is a better alternative to SERVQUAL.

SERVPERF however has suffered a setback. According to Gilmore and McMullan (2009), Taylor and Cronin's examined the psychometric properties of the SERVPERF scale and the results of a multi-industry study in 1994 suggested that SERVPERF lacks consistency and a generalized factor structure. As a result of that, the following recommendations were made:

Practitioners should adapt the factor structure of the service quality data for specific or different settings.

Academic researchers should revisit their research objectives so that a reliable and valid multidimensional scale of service quality that could be generalized across service settings should be applied.

Sight must not be lost on the fact that, whilst SERVQUAL measures the quality of service via the difference between the perceptions and expectations (P-E) of customers, SERVPERF only uses perceptions. Again, SERVPERF adopts the five dimensions of SERVQUAL and the 22-item scale in measuring the service quality. Based on the above, Cronin and Taylor cannot claim to have developed a new model (SERVPERF). In fact it was more or less a suggestion they made.

2.4. Definition of Customer Satisfaction

Several definitions have been offered for customer satisfaction over the past three decades. (Anderson, (1994) suggested two definitions of customer satisfaction, in accordance with the two broad classes of customer experiences identified by the literature - transaction specific experiences and cumulative experiences (Mittal , 1999 cited in Zeithaml , 2009).

2.5. Satisfaction and Quality

Customer satisfaction is the outcome felt by buyers who have experienced a company performance that has fulfilled expectations are met and delighted when their expectations are exceeded "recently, discussion arose regarding whether satisfaction leads to quality or, whether quality results in satisfaction. Many authors posit very clearly that service quality is as

antecedent of satisfaction. So, the satisfaction judgment is base on service quality. Others conclude that the two concepts resemble each other quiet closely.

2.6. Empirical Review

According to YISAK H/MARIAM (2016) “The Research result shows there is a different in the rating between different customer segments , accordingly financial institution , international organizations & embassies and service enterprise were dissatisfied with ethio telecom service but Government organizations and production & industries organization have slightly better satisfaction for both overall service quality and customer satisfaction. This is may be due to their dependence on ethio telecom offer to deliver high quality of service to their customers. ⊗ Significant differences among different segments of enterprise customers were found concerning customer satisfaction. Tangibility compared to other service quality dimensions, was reported to have moderately significant difference. Moreover, customer perceived performance is significantly lower than customer perceived importance for all six service quality dimensions. Ordered by need of improvement the dimensions (based on gap analysis) are: 1) network quality, 2) reliability, 3) responsiveness, 4) assurance, 5) empathy, 6) tangibles. These findings provide useful directions and clear indications where Ethio telecom should focus their efforts in order to improve customer satisfaction”

Eccles& Durand (1997) in their study entitled "Improving service quality: lessons and practice from the hotel sector" stated that it Seeks to review recent practice undertaken within the UK hotel sector to improve customer service, and suggests ideas that could be implemented within service industries. At a time of increasing competition, hotel firms are aiming to use service enhancement as a means to gain competitive advantage, and therefore developing a range of techniques to measure levels of service quality improvement.

Garavan (1997) in his study entitled "Interpersonal skills training for quality service interactions" stated that achieving improvements in customer service is now recognised as a major challenge facing manufacturing and service industries throughout the world. This challenge is particularly pertinent to the tourism and hospitality sector. Notions of quality in the tourism and hospitality sector have changed dramatically in the past 25 years: it was once synonymous with luxury and

personalised service; it now counts at all levels of price. Service quality is often presented in the literature as primarily a marketing-oriented concept; however, it has major implications for the quality of human resources and specifically for training and development activities. Focuses on the human resource dimension, specifically the behaviours which hinder and facilitate transactions between people in a service environment.

Aman, (2008) for instance conscious the impacts of service delivery process and service quality on customer satisfaction: a contextual investigation of EEPCO, North Western district, Bahir Dar town customer service focuses". The fundamental motivation behind the investigation is to analyze the impact of service delivery process and service quality on satisfaction of customers of EEPCO with the accompanying explicit destinations: To look at the impact of service delivery process and service quality on customer satisfaction and to understand genuine circumstance on how EEPCO handle its customers.

On the connection between customer satisfaction and service quality. Exploration was directed in a bank in Tehran, Iran by Osman Mahamad, et.al (2010) uncovered that service quality would be one of the determinants of satisfaction. The finding that almost 43% of customer's satisfaction changes is clarified by service quality.

On the connection between Bank Service Quality, Customer Satisfaction in Ethiopian Banking Sector, Messay (2012) inferred that all service quality measurements are decidedly associated with customer satisfaction demonstrating 90.7% of the fluctuation in customer satisfaction can be anticipated by the service quality offered by the private banks. Furthermore, consequences of this exploration show that there is a positive huge connection between customer satisfaction and dedication, and clarify 62% of the difference.

On the connection between Service quality, satisfaction, seen esteem among customers in business banking in Nakuru Municipality, Kenya, Daniel O. Auka (2012) presumed that service quality and customer satisfaction were emphatically and altogether related showing 19.8% of the change in customer satisfaction can be anticipated by the service quality offered by the business banks.

Leste&Wanderley (1997) in their study entitled “The Interactive Approach to Service Quality and Management” reported the customers usually did not possess sufficient information for the available products and terms of insurance policies. They didn’t usually trust insurers and their agents and brokers. The insurance companies didn’t appear interested in improving and maintaining the various relations that support their operation. The gaps between the expected and actual results in quality improvement programs are due to the absence of a service-oriented culture in insurance companies that are not involved in the maintenance of satisfaction of their customers.

Based on the conceptual framework the following research hypotheses are formulated to be tested.

2.7. Conceptual Framework

The conceptual framework relationships among schematically presented in the following conceptual framework.

The conceptual framework of the study proposes a model of the relationship between service quality and customer satisfaction. The two concepts of the framework are service quality dimensions (independent variable) and customer satisfaction (dependent variable). These concepts, as indicated in the literature review, are related to each other; service quality as an antecedent construct and customer satisfaction as an outcome variable. Service quality has a direct effect on customer satisfaction (Cronin & Taylor, 1992).

Among a number of service quality models, SERVQUAL and SERVPERF are the widely used models to measure service quality in service sectors (Sindwani and Goel, 2012). Both SERVQUAL and SERVPERF models are grounded on the fact that service quality is an attitude towards the service delivered, resulting from customers comparison of expectations and perceptions of service. However their main difference lies on; SERVQUAL measures service quality as the calculated difference between expectations and perceptions of service while in the SERVPERF model service quality is measures by directly capturing customers’ perceptions of the service delivered (Culiberg and Rojsek, 2010).SERVPERF argues that customers evaluation of the perception already considered the personal past expectation of the service. In other words, expectation dimensions proposed by SERVQUAL become double, (first, implicitly done by people in their mind, and second, explicitly done by SERVQUAL model).Cronin and Taylor

(1992)'s argument on the superiority of SERVPERF over SERVQUAL is built by empirical findings that disclosed SERVPERF as a better predictor of overall service quality than SERVQUAL (Ling, 2008). In support of Cronin and Taylor, other empirical findings also confirmed that SERVPERF scale is superior not only as the efficient scale but also more efficient in reducing the number of items to be measured by 50% (Hartline and Ferrell, 1996; Babakus and Boller, 1992; Bolton and Drew, 1991, all cited in Mesay,2012).

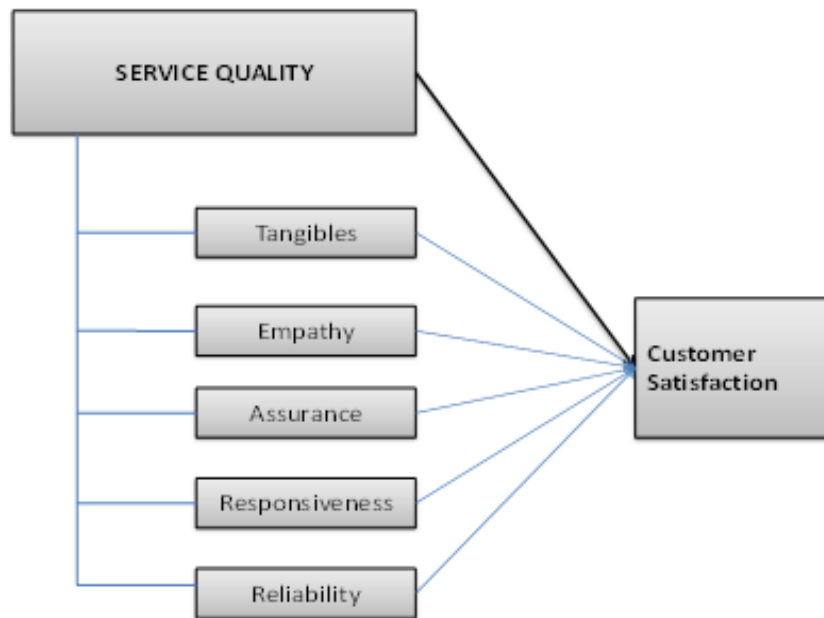


Figure Conceptual Framework (Source Oliver, 1980; Parasuraman et al., 1985)

H1: Tangible has a positive and significant effect on customers' satisfaction at Ethio Telecom.

H2: Empathy has a positive and significant effect on customers' satisfaction at Ethio Telecom.

H3: Assurance has a positive and significant effect on customers' satisfaction at Ethio Telecom.

H4: Responsiveness has a positive and significant effect on customers' satisfaction at Ethio Telecom.

H5: Reliability has a positive and significant effect on customers' satisfaction at Ethio Telecom.

CHAPTER THREE

3. METHODOLOGY

3.1. Research Area

The research methodology requires gathering relevant data from the specified documents in order to arrive at a more complete understanding of the problem. The use of data recorded by Ethio Telecom's Optimization & marketing department Office may expose the level of LTE 4G network coverage penetration of the study area. Further material from books, reports and valuable resources to be used to propose an alternate solution of the problem.

This research work applies the following methodologies to accomplish the research in a way it meets the research objectives. Data Collection: Included data sourced from both primary and secondary sources and data analysis combination of quantitative and qualitative techniques such as the use of summary statistics and explanations to organize the gathered data

3.2. Research Approach

In this research the approach will be used both qualitative & quantitative techniques. According to Jennifer Wisdom (2013) the term approach refers to an emergent methodology of research that advances the systematic integration, or mixing, of quantitative and qualitative data within a single investigation or sustained program of inquiry. The basic premise of this methodology is that such integration permits a more complete and synergistic utilization of data than do separate quantitative and qualitative data collection and analysis.

Therefore, this study uses this mixed approach to integrate both quantifiable and qualitative data on this study.

3.3. Research Design

Research methodology is a way to systematically solve the research problem and research methodology shall identify the research basis, research hypothesis or questions, research design and research analysis (Kothari, 2004). The research design for this study use both explanatory and descriptive research designs. The descriptive design is used to assess the current service

quality and satisfaction level while the explanatory research design is used to investigate the effect of service quality dimensions on the customers' satisfaction.

The study is focused at examining customer's satisfaction in one of Ethio telecom service 4G LTE mobile networks and how the costumers have responded. Therefore, to achieve this goal, the qualitative data, which is used to gather information on the relations between various variables of the study and further present some data in form of statistics and aggregated ones, is collected via questionnaire. The research design also utilizes both quantitative and qualitative techniques.

3.4. Population & Sampling

This sampling method is selected is because some data shows that there are about 2 million people in Addis use wireless mobile and as per the study area is around Mexico sale center the samples are selected randomly from the center

3.4.1.Target Population

As there is no census data on Ethio telecom, the study targets population consisting Ethio telecoms customers whose there mobile network is upgraded to 4G LTE mobile network in the capital of Africa, Addis Ababa, Mexico area.

3.4.2.Sampling Technique

There are two main types of sampling: probability and non-probability sampling. Random Sampling Technique to select the specific cases or data sources that is especially informative. This sampling technique is enabling the researcher to give equal opportunity for the target population to be selected.

3.4.3.Sampling Size

From these customers, the sample size will be determined by using the statistical formula by Yamane (1967). Based on the assumption of 95% confidence level and $P = .05$. . Therefore; the sample size will be 384.

$$n = \frac{z^2 \times (P \times q)}{e^2}$$

$$n = \frac{1.96^2 \times (0.5 \times 0.5)}{0.05^2}$$

$$\underline{n = 384}$$

3.5. Data Type and Data Collection Methods

Data is obtained from primary sources through direct interaction and interview schedules with various respondents; and secondary sources mainly from books, research dissertations, Publications of Telenegarrit, journals, other documents on Ethio telecom and related literature. In this research process, questionnaire is the main method used to collect primary data.

A questioner will be used as an instrument for data collection. It consisted two parts: 1st Demographic questions those are Gender, Age, Marital status & educational level. 2nd includes factors according to SERVQUAL dimensions based on customer's satisfaction.

3.6. Data Analysis

After the questioner will be collecting researcher will explore the level of customer's satisfaction towards service quality of Ethio telecom in the dimensions tangibility, reliability, responsiveness, assurance, empathy, and network. The frequencies and percentages used for collecting & analyzing the data to the personal data in part 1. Based using descriptive statistics of means and standard deviations, comparing means between statements analyzed using SPSS 25 program (Statistical software package)

3.7. Reliability Test

Mathematically, reliability is defined as the proportion of the variability in the responses to be survey that is the result of differences in the respondents. Thus, to evaluate the internal consistency of the service quality dimensions, the variables are subjected to reliability test.

3.8. Model Specification

The empirical model along with the estimation of the multiple regression equation to be tested is specified in this section. The dependent variable (customers' satisfaction) and the independent variables based on Njenga, et al., (2015) and Nanzushi (2015) as follow.

$$Cs = C + B_1T + B_2E + B_3A + B_4RES + B_5REL + e$$

Where:

T= tangibles

E= empathy

A= assurance

RES = responsiveness

REL = reliability

C= Constant

e= Error

3.9. Ethical Consideration

This section considers ethical issue that needs special attention while conducting the research.

- Voluntary participation of respondents in the research is guaranteed.
- Respondents will participate on the basis of informed consent.
- The use of offensive, discriminatory, or other unacceptable language needs to be avoided in the formulation of Questionnaire.
- Privacy and anonymity of respondents is of a paramount importance.
- Adequate level of confidentiality of the research data should be ensured.
- The research is independent and impartial

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1. Introduction

In this chapter, the collected data has been analyzed and interpreted. The chapter consists of introduction, respondents' demographic characteristics, the relationship between service quality dimensions and customer satisfaction. Items of the questionnaire on service quality were likert scaled using five points ranging between 1=Strongly Agree to 5=Strongly Disagree. In addition, some demographic descriptions of the respondents are collected.

4.2. Reliability of the questionnaire

Table 4.1 Reliability Results

Sub scales	Number of items	Cronbach's Alpha
Tangibility	4	.823
Reliability	5	.869
Responsiveness	4	.839
Assurance	3	.702
Empathy	5	.891
Employees' Satisfaction	5	.827
Entire scale	26	.873

(Source: Own Survey, 2021)

As it is indicated on the above table Cronbach's coefficient alpha was calculated for each field of the questionnaire and the entire questionnaire. The values of Cronbach's Alpha showed that all of the results are more than acceptable, which fall in the range between 0.7 and 0.95. The resulting range is considered high as the result ensures the reliability of each field of the questionnaire. More over Cronbach's Alpha for the entire questionnaire shows the value of .873 which falls in an excellent range and it indicates reliability of the entire questionnaire. Therefore, based on the test, the results for the items are reliable and acceptable.

4.3. Demographic Characteristics of Respondents

Service quality and customer satisfaction survey was handed out to the customers of the organization. In this section, the researcher described respondents profile in terms of age, gender, educational level, and occupation. For collecting these data 384 questioners were distributed and 327 were filled correctly & collected. These responses were analyzed using frequencies and percentage distributions below.

Table 4.2 Demographic Characteristics of Respondents

Variables		Frequency	Percentage
Age	Below 30 years	78	23.9%
	Between 31 – 40	197	60.2%
	Between 41 – 50	24	7.3%
	Above 50	28	8.6%
Gender	Male	262	80.1%
	Female	65	19.9%
Qualification	High school and below	26	8.0%
	Diploma	223	68.2%
	First Degree	26	8.0%
	Master’s Degree and above	52	15.9%
Occupation	Student	26	8.0%
	Self-employed	117	35.8%
	Public employee	52	15.9%
	Private employee	119	36.4%
	Unemployed	13	4.0%
Total		327	100%

Source: Own Survey, 2021

Concerning age categories of the respondents, 60.2% of the respondents are between 31 to 40 years old whereas 23.9% were in the age range below 30 years old, the remaining 8.6% and 7.3% were in the age range between above 50 and 41 – 50 years respectively. The result shows that majority of the 4G LTE service users were 31-40 age groups and this reflects that service users of the company were youth and adults.

Regarding the majority 80.1% of respondents were males, and 19.9% of the respondents were female. This data implies that more male participated in the study than female respondents as well as it reflects the male dominance in the 4G LTE service of Ethio Telecom.

With regard to educational level of respondents, more than half of the respondents 68.2% were diploma holders, followed by 15.9% who were Master's Degree and above, while the remaining were high school and degree holders consisting of 8.0% of the total respondents each. The compositions of the respondents' educational background showed that the participants' are well educated and presents an opportunity to obtain accurate response for the study questions.

Lastly, regarding the occupation of respondents, private employees' made up the largest group with 36.4% of the respondents, followed by self-employed respondents which covered 35.8% of the respondents. On the other hand, unemployed, student, and public employee make 8.0%, 15.9%, and 4.0% of the total respondents. This result implies the majority of 4G LTE network users were private employees' and self-employed individuals.

4.4. Descriptive Analysis of Service Quality Measurement

In this part descriptive statistics in the form of mean and standard deviation were presented to illustrate the level of agreement of the respondents with their implications of the company. The responses of the respondents for the variables indicated below were measured on five point Likert scale with: 1= strongly disagree, 2= disagree, 3 = neutral, 4= agree and 5= strongly agree. However, while making interpretation of the results of mean the scales were reassigned as follows to make the interpretation easy and clear.

This formula is adapted from (Vichea, 2005), with 5 point scales, the interval for breaking the range in measuring each variable is calculated by $5-1/5= 0.8$. It means items with scores fall between the ranges of: 4.20 – 5.00 are considered as strongly agreed; 3.40 – 4.09 as agreed; 2.60 – 3.39 as Neutral; 1.08 – 2.59 as disagree and 1.00 – 1.79 strongly disagree.

Interview results are also presented along with the results of the questionnaire. Data from questionnaires were processed by SPSS program in terms of frequency, mean, and standard deviation (Descriptive statistics).

1.1.1 Tangibility

In order to measure the tangibility of service quality, the following items were presented for respondents and the following descriptive result found.

Table 4.3 Tangibility

Items	N	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
The office has up to date equipment	327	3.5443	1.47277	-.780	.135
The office facilities are visually attractive	327	3.5749	1.40105	-.700	.135
The office has office at convenient location to its customer	327	3.3364	1.53187	-.461	.135
Staffs of the office at the front line position are well dressed and appear neat.	327	3.7462	1.28695	-1.081	.135

Source: Own Survey, 2021

Based on the result presented in the above table, the results of the items fall in the agreed range for items such as: whether the office has up to date equipment (mean = 3.54 and SD = 1.47), whether The office facilities are visually attractive (mean = 3.57 and SD = 1.40), and whether Staffs of the office at the front line position are well dressed and appear neat (mean = 3.74 and SD = 1.28). However, the item which asks about whether the office has office at convenient location to its customer (mean = 3.33 and SD = 1.53) fall in neutral response range since mean value is < 3.4.

This result implies that based on the assessment of customers of the office have up-to-date working apparatus and equipment, visually attractive and pleasing working environment as well as materials associated with the service (such as pamphlets, brochures etc.). However, the location of the office was not found convenient for customers.

1.1.2 Reliability

So as to measure the reliability dimension of service quality, the subsequent items were presented for respondents and the following descriptive result found.

Table 4.4 Reliability

Items	N	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
The office provide services as promised	327	3.8960	1.24149	-1.234	.135
When you have problem, the office shows a sincere interest in solving it	327	3.8899	1.34305	-1.067	.135
The office performs the service right the first time	327	3.4495	1.53179	-.631	.135
The office provides its service at the time it promises to do so	327	3.6881	1.27768	-.855	.135
The office insists on error free records	327	3.5015	1.37210	-.663	.135

Source: Own Survey, 2021

Based on the results on reliability dimension, the above table showed that all the items responses fall in the agreement range since the mean of the items 3.40 – 4.09 are considered as agreed. This item include; whether the office provide services as promised; whether when customers have problem, the office shows a sincere interest in solving it, whether the office performs the service right the first time, whether the office provides its service at the time it promises to do so and whether the office insists on error free records.

This result implies that the office make available services based on their promise have genuine interest in solving customers’ problems, provides on time delivery of their service as well as present miscalculation free records. This includes the company employees’ ability to provide services accurately, on time, and credibly. This requires consistency in the implementation of services and respects commitments as well as keeps promises to customers.

1.1.3 Responsiveness

Table 4.4 Responsiveness

Items	N	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Employees provide punctual service	327	3.9297	1.17147	-1.475	.135
Employees willingness to help customers	327	3.4067	1.56152	-.565	.135
Employees are never busy to respond to customer request	327	3.5046	1.60878	-.509	.135
Employees give quick response when ether is problem	327	3.6483	1.69496	-.723	.135

Source: Own Survey, 2021

Concerning responsiveness, all the above items fall in the agreement range. These items assessed whether employees provide punctual service (mean =3.92, SD=1.17), whether employees willingness to help customers (mean = 3.40, SD= 1.56), whether employees are never busy to respond to customer request (mean = 3.50, SD= 1.60), and whether employees give quick response when ether is problem (mean = 3.64, SD= 1.69).

This descriptive result implies that the office for 4G LTE employees provide adequate information on their work to customers, provide on time service to customers, willing to provide professional assistance to customers in need of aid, as well as always respond to the needs of customers. This result showed that the office for 4G LTE’s ability to solve the problem fast, deal with customers’ complaint effectively and the willing to help customers as well as meet the

customers' requirements. In other words, responsiveness is the feedback from the office for 4G LTE to what customers want.

1.1.4 Assurance

Table 4.5 Assurance

Items	N	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Personal behavior of the staffs are excellent that the customer can trust	327	3.8899	1.34305	-1.067	.135
The staffs are polite	327	2.8165	1.57919	.296	.135
The staffs have adequate knowledge to serve customer	327	2.9419	1.70519	.024	.135

Source: Own Survey, 2021

Regarding assurance, the items fall in the neutral range for item such as whether the staffs are polite (mean =2.81, SD=1.34) and whether the staffs have adequate knowledge to serve customer (mean =2.94, SD= 1.70). On the contrary, the item which asks whether the personal behavior of the staffs are excellent that the customer can trust (mean =3.88, SD= 1.34).

It implies that it the office creates credibility and trust for customers, which is considered through professional services, excellent technical knowledge, attitude courtesy, and good communication skills, so that customers can believe in the quality of firm's services. However, the staff members sometimes exhibit inadequacy of knowledge to serve clients as well as lack of politeness.

1.1.5 Empathy

Regarding the last dimension of service quality dimension, the following items were presented for these research participants.

Table 4.6 Empathy

Items	N	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
The staff know what customers' needs are	327	3.7156	1.39296	-.783	.135
Staffs are give customers individual attention	327	3.7095	1.47307	-.671	.135
The office and its employees give do consideration for customers property	327	3.6789	1.38936	-.723	.135
Staffs give orientation about the new service and the cost related with the service	327	3.3731	1.44901	-.293	.135
The office has convenient working hours to all its customers	327	3.5168	1.46917	-.404	.135

Source: Own Survey, 2021

According to the result whether the office staffs know what customers' needs are, whether Staffs are give customers individual attention, whether the office and its employees give do consideration for customers property, whether staffs give orientation about the new service and the cost related with the service and whether the office has convenient working hours to all its customers.

Therefore, it is logical to conclude the company's employees are caring, consideration, and the best preparation for customers, so that they can feel as 'guests' of the firm and are always welcome at any times. Since these human factors are the core of this success and the more caring, gives to customers, the more customer understanding increases.

1.2 Descriptive Summary of Variables

Table 4.7 Descriptive Summary of Variables

Service Quality Variables	N	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Tangibles	327	3.5505	1.15254	-.302	.135
Reliability	327	3.6850	1.09880	-.266	.135
Responsiveness	327	3.6223	1.25013	-.584	.135
Assurance	327	3.2783	1.12358	.134	.135
Empathy	327	3.5988	1.19744	-.097	.135

Source: Own Survey, 2021

Among the service quality variables, Reliability and Responsiveness were found to be the highest service quality dimensions with a mean value of 3.6850 and 3.6223 each. While the lowest service quality dimension was found to be assurance with a mean value of 3.2783. This indicates the office have some visible weaknesses regarding the assurance dimension of its service.

4.5. Multiple Regression Result

The following regression analysis is used for estimating the relationships among variables. It enables to determine the strength of the relationship between variables and the predictive power of the independent variables on the dependent variable. In short, regression helps a researcher understand to what extent the change of the value of the dependent variable causes the change in the value of the independent variables, while other independent variables are held unchanged. Regression analysis is a way of statistically sorting out the variables that have indeed an impact. While there are many types of regression analysis, at their core they all examine the influence of one or more independent variables on a dependent variable.

Before moving on conducting a regression analysis, the basic assumption tests for the model must be carried out. This is a compulsory precondition in explaining the relationships between dependent and explanatory variables. Four major assumptions namely, Linearity Test,

Homoscedasticity Test, Auto Correlation (Durbin Watson Test), and Normality Test checked and proved to be met reasonably well. Each test is explained below:

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1. Linearity Test

The linearity of associations between the dependent and independent variables can be tested by looking at the P-P plot for the model. The closer the dots lie to the diagonal line, the closer to normal the residuals are distributed. As depicted in the below graph, the visual inspections of the p-p plot revealed that there exist linear relationship between the dependent and independent variables.

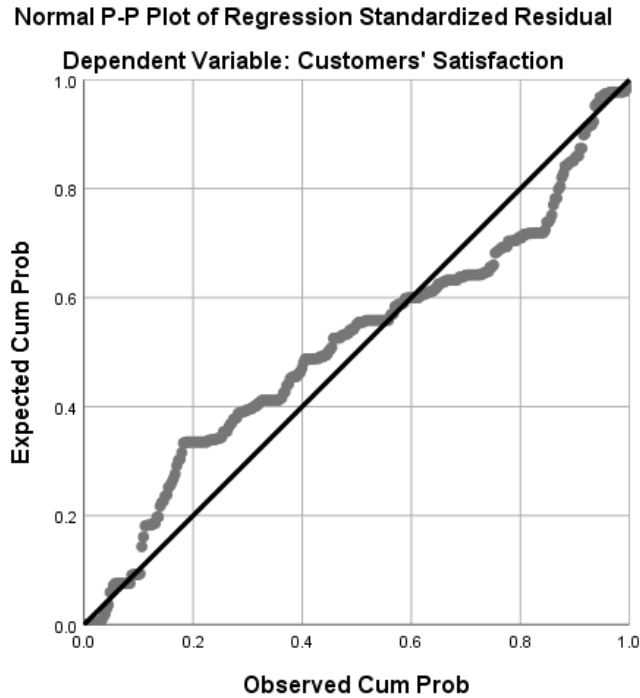


Fig 4.1: P-P Plot of Regression Standardized Residual

2. Homoscedasticity Test

The assumption of homoscedasticity refers to equal variance of errors across all levels of the independent variables (Osborne & Waters, 2002). This implies it requires even distribution of residual terms or homogeneity of error terms throughout the data. Homoscedasticity can be checked by visual examination of a plot of the standardized residuals by the regression standardized predicted value (Osborne & Waters, 2002). If the error terms are distributed randomly with no certain pattern, the problem is not detrimental for analysis. The scatterplot in fig 4.2 shows that the standardized residuals in this research are distributed evenly which shows that no violation of homoscedasticity.

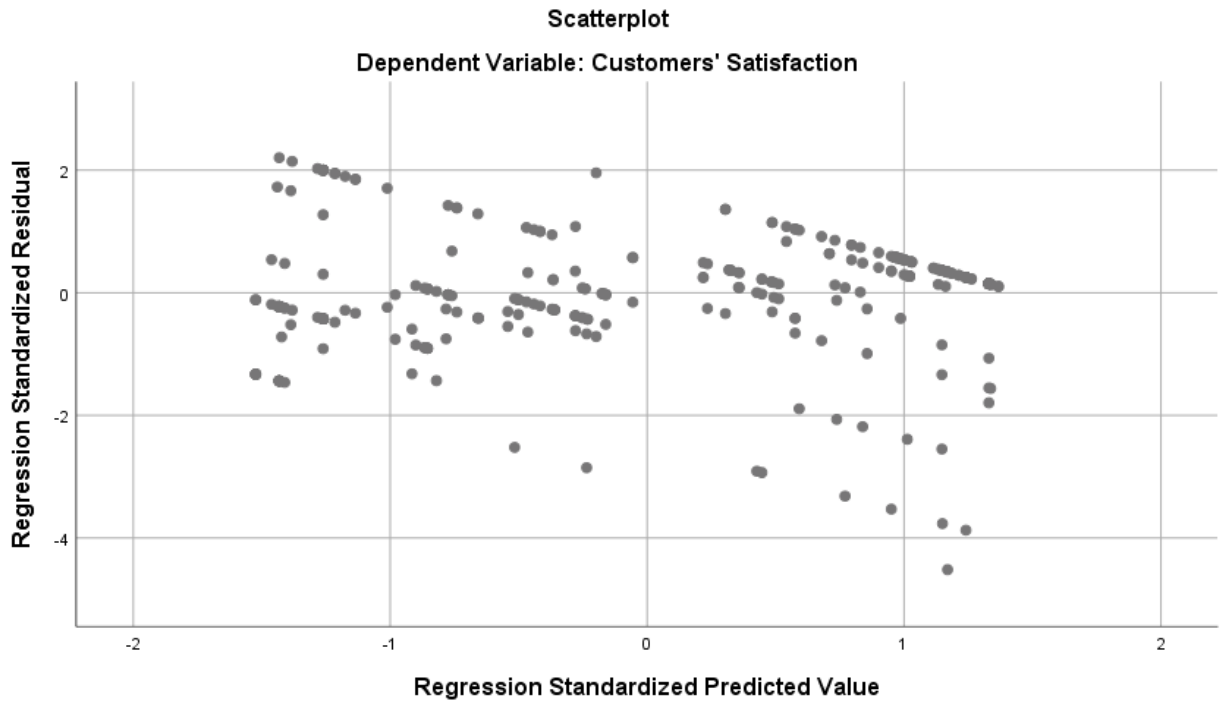


Fig 4.2: Scatterplot of standardized residuals

3. Auto Correlation (Durbin Watson Test)

Autocorrelation or independence of errors refers to the assumption that errors are independent of one another, implying that subjects are responding independently Stevens (2009). Durbin-Watson statistic can be used to test the assumption that our residuals are independent (or uncorrelated). This statistic can vary from 0 to 4. For this assumption to be met, the Durbin-Watson value needs to be close to 2 (Field, 2006). Values below 1 and above 3 are problematic and causes for concern. To check this assumption we need to look at the Model Summary box presented below.

Table 4.8: Durbin Watson statistics

Model	Std. Error of the Estimate	Durbin-Watson
1	.82419	2.011
a. Predictors: (Constant), Empathy, Assurance, Tangibles, Responsiveness, Reliability		
b. Dependent Variable: customers' Satisfaction		

The above reveals that errors are responding independently and autocorrelation is not a concern with Durbin-Watson value of 2.011. Therefore, it is possible to say the auto-correlation test has been met.

4. Normality Test

Multiple regressions require the independent variables to be normally distributed. This means that errors are normally distributed, and that a plot of the values of the residuals will approximate a normal curve (Keith, 2006).

Frequency distribution comes in many different shapes and sizes. Therefore, it is quite important, to have some general description for common types of distributions. In an ideal world our data would be distributed symmetrically around the center of all scores. As such, if we draw a vertical line through the center of the distribution then it should look the same on both sides. This is known as a normal distribution and is characterized by bell-shaped curve. This shape basically implies that the majority of scores lie around the center of the distribution (Field, 2006). The normal distribution graph was shown on fig 4.3 below and revealed that the assumption of normality of has been met.

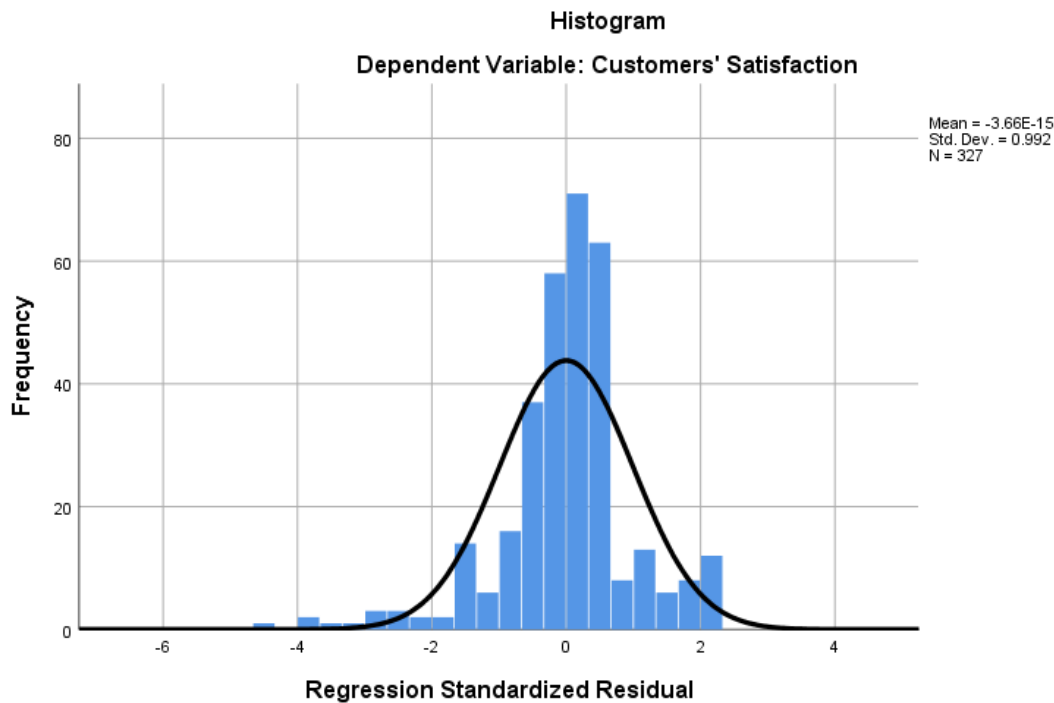


Fig 4.3 Normality Histogram

Table 4.9 the regression model statistics

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.766 ^a	.587	.581	.82419		
a. Predictors: (Constant), Empathy, Assurance, Tangibles, Responsiveness, Reliability						
b. Dependent Variable: customers' Satisfaction						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	310.237	5	62.047	91.342	.000 ^b
	Residual	218.052	321	.679		
	Total	528.290	326			
a. Dependent Variable: Customers' Satisfaction						
b. Predictors: (Constant), Empathy, Assurance, Tangibles, Responsiveness, Reliability						

Source: Own Survey, 2021

The above model also showed that the model is significant in predicting Customers' Satisfaction and it is interpreted as 58.7% of variance in Customers' Satisfaction is due to service quality dimensions (Empathy, Assurance, Tangibles, Responsiveness, and Reliability) (p value < 0.05). Whereas the remaining variability was unexplained and it can be explained by adding other variables that is not included in this model. Therefore, p-value test table shows that model is working well.

Table 4.10 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.494	.161		3.076	.002
	Tangibles	.157	.087	.142	1.792	.074
	Reliability	.035	.128	-.030	.274	.784
	Responsiveness	.036	.073	-.036	.494	.622
	Assurance	.178	.078	.157	2.282	.023
	Empathy	.613	.085	.577	7.235	.000
a. Dependent Variable: Customers' Satisfaction						

Source: Own Survey, 2021

According to table above tangibles, reliability and responsiveness were statistically insignificant (B= 0.157, P=.074), (B= 0.035, P= 0.784) and (B= 0.036, P=0.622) respectively. On the contrary, Assurance and Empathy were statistically significant (B=0.178, P= 0.023) and (B=0.613, P=0.000).

The model shows that, as assurance level of the office improved by one unit customer satisfaction will also improve by 0.178. Similarly the model shows that, as empathy dimension of the office improved by one unit its customer satisfaction also will be improved by 0.613 at 5% level of significance or 95% level of confidence.

4.6. Discussion of Results

This research has found the following results summarized in a table which shows the results of each hypothesis; generally, this study has found that service quality has an impact on customers' satisfaction at Ethio Telecom. This finding is similar with other studies such as; The first work is MBA thesis done by (Aman, 2008) who found service delivery process have a significant impact on service quality on customer satisfaction in a case study of EEPCO, North Western region, Bahir Dar town customer service centers. Another research was conducted in a bank in Tehran, Iran by Osman Mahamad, et.al (2010) revealed that service quality is one of the determinants of satisfaction. Additionally, Messay (2012) concluded that all service quality dimensions are

positively correlated with customer satisfaction indicating 90.7% of the variance in customer satisfaction can be predicted by the service quality offered by the private banks.

H1: Tangibles has a positive and significant effect on customers' satisfaction at Ethio Telecom.

Based on the results of this study tangibles were not found to customers' satisfaction at Ethio Telecom ($B= 0.157$, $P=.004$). The results of multiple regressions, revealed that tangibility have a positive and significant effect on customer satisfaction with a standardize coefficient beta value, (0.157), at 95% confidence level. Therefore, the researcher may accept the null hypothesis. Since, tangibly have a positive and significant effect on customer satisfaction at Ethio Telecom.

H2: Empathy has a positive and significant effect on customers' satisfaction at Ethio Telecom.

The results of multiple regressions, revealed that empathy has a positive and significant effect on customer satisfaction with an unstandardized coefficient beta value (0.613), at 95% confidence level. Therefore, the researcher may accept the null hypothesis. Since, reliability have a positive and significant effect on customer satisfaction at Ethio Telecom.

H3: Assurance has a positive and significant effect on customers' satisfaction at Ethio Telecom.

The results of multiple regressions also showed that assurance has a positive and significant effect on customer satisfaction with an unstandardized coefficient beta value (0.178), at 95% confidence level. Therefore, the researcher may accept the null hypothesis. Subsequently, assurance has a positive and significant effect on customer satisfaction at Ethio Telecom.

H4: Responsiveness has a positive and significant effect on customers' satisfaction at Ethio Telecom.

The result showed that responsiveness was statistically *insignificant* at 95% confidence level. Therefore, the researcher may reject the null hypothesis. Consequently, responsiveness has no significant effect on customer satisfaction at Ethio Telecom.

H5: Reliability has a positive and significant effect on customers' satisfaction at Ethio Telecom.

The result showed that reliability was statistically *insignificant* at 95% confidence level. Therefore, the researcher may reject the null hypothesis. Accordingly, reliability has no significant effect on customer satisfaction at Ethio Telecom.

However, the above findings of the insignificant results of responsiveness and reliability dimensions of service quality was inconsistent with Betelhem Tesfaye (2015) who found Empathy, Assurance, Tangibles, Responsiveness, Reliability was positively and significantly affect customer satisfaction in Commercial Bank of Ethiopia.

CHAPTER FIVE

5. CONCLUSION AND RECOMMENDATION

5.1. Major Findings

The major findings of the study are summarized as follows:

Descriptive statistics

□ Tangibles has a positive and significant effect on customers' satisfaction at Ethio Telecom. Based on the results of this study tangibles were not found to customers' satisfaction at Ethio Telecom (B= 0.157, P=.004).

□ Empathy has a positive and significant effect on customers' satisfaction at Ethio Telecom. The results of multiple regressions revealed that empathy has a positive and significant effect on customer satisfaction with an unstandardized coefficient beta value (0.613), at 95% confidence level. Therefore, the researcher may accept the null hypothesis.

□ Assurance has a positive and significant effect on customers' satisfaction at Ethio Telecom. The results of multiple regressions also showed that assurance has a positive and significant effect on customer satisfaction with an unstandardized coefficient beta value (0.178), at 95% confidence level.

□ From These five SERVQUAL dimensions Empathy, Assurance, & Tangibles, positively Perceived by respondents.

□ The result showed that reliability was statistically *insignificant* at 95% confidence level.

□ The result showed that responsiveness was statistically *insignificant* at 95% confidence level.

5.2. Conclusion

The objective of this study is to examine the impact of service quality on customer satisfaction. On the bases of the analysis given in the previous chapter, the following conclusion is drawn.

- ✓ This study has found that the office have up-to-date working apparatus and equipment, visually attractive and pleasing working environment as well as materials associated with the service (such as pamphlets, brochures etc.).
- ✓ The study also showed that the company made available services based on their promise, has genuine interest in solving customers' problems, provides on time delivery of their service as well as present miscalculation free records. This includes its employees' ability to provide services accurately, on time, and credibly. This requires consistency in the implementation of services and respects commitments as well as keeps promises to customers.
- ✓ Based on the descriptive results of the study, the company's employees provide adequate information on their work to customers, provide on time service to customers, willing to provide professional assistance to customers in need of aid, as well as always respond to the needs of customers. This result showed that the company's ability to solve the problem fast, deal with customers' complaint effectively and the willing to help customers as well as meet the customers' requirements. In other words, responsiveness is the feedback from the company to what customers want.
- ✓ Based on regression analyses, 58.7% of variance in Customers' Satisfaction is due to service quality dimensions (Empathy, Assurance, Tangibles, Responsiveness, and Reliability) (p value < 0.05). Therefore, service quality has a positive and significant effect on customer satisfaction.

5.3. Recommendation

Based on the findings and conclusions of the study, the researcher forwards the following recommendations.

- ✓ The result showed that the offices' tangibles were relatively good; the staffs were good in dressing well and appear neat, up to date equipment, visually attractive and safety of the company. However, there is a need for improvement for future customer requirements. Therefore, there is a need for management bodies to evaluate their status constantly and work for continuous improvements.
- ✓ Managers of the company should be aware that, among the various dimensions of service quality, Assurance and empathy were especially significant in predicting customers' satisfaction. It is apparent that focusing on delivering high quality services and improve

service quality effectively is critical for customer satisfaction. Therefore, managers should work towards maximizing, reliability, responsiveness, and assurance in order to improve the satisfaction of customer.

- ✓ Based on the result the company's employees provide adequate information on their work to customers, provide on time service to customers, willing to provide professional assistance to customers in need of aid, as well as always respond to the needs of customers. This result showed that the company's ability to solve the problem fast, deal with customers' complaint effectively and the willing to help customers as well as meet.

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Appendix 1: Questionnaire Sample

St. Mary University School of Graduate Studies

Dear Respondents

I would like to extend my deep gratitude in advance for volunteering to devote your valuable time to fill this questionnaire. The main objective of the study is to the effect of service quality on customer satisfaction on the case of ethiotelecom is conducted in partial fulfillment for Masters of marketing management. To this end questionnaire is used to gather data from customer of Ethio telecom Addis Ababa district Mexico area. Thus I kindly request your assistance in responding to the questions listed below. Any information you present will be kept utterly confidential and will be used only for academic purpose. I thank you very much for your willingness to spare 10 minutes of your precious time to complete the questioner. Your cooperation and prompt response will be highly appreciated.

**Contact Address: - Martha Wondwesen Dessalegn e-mail:-Marthawonde22@gmail.com
Tel +251-920739867**

General Instruction

- **Writing your name is not necessary**
- **Put “√” for your choice in the box provided**

Thank You in advance!

Part 1: Socio- Demographic Information

1. Sex

Male

Female

2. Age

A) 20-30 years

- B) 31 – 40years
- C) 41 – 50 years
- D) Above 50 years

3. Educational background

- High school and below
- Diploma
- First Degree
- Master’s Degree and above

4. Occupation

- Student
- Self-employed
- Public employee
- Private employee
- Unemployed

Part 2: For the following Likert scale questions:-

Tick (√) or check the appropriate cell by expressing your opinion on the following 5-points scale shown below to the best of your knowledge.

Rating Scale: 1=Strongly Disagree (SD); 2= Disagree (DA); 3=Neutral (N); 4= Agree (A); 5=Strongly Agree (SA).

No	Tangibility	Responses				
		5	4	3	2	1
1.	The office has up to date equipment					
2.	The office facilities are visually attractive					
3.	The office has office at convenient location to its customer					
4.	Staff of the office at the front line position are well dressed and appear neat.					
Responsiveness		5	4	3	2	1

5.	Employees provide punctual service					
6.	Employees willingness to help customers					
7.	Employees are never busy to respond to customer request					
8.	Employees give quick response when there is a problem					
Reliability		5	4	3	2	1
9.	The office provides services as promised					
10.	When you have a problem, the office shows a sincere interest in solving it					
11.	The office performs the service right the first time					
12.	The office provides its service at the time it promises to do so					
13.	The office insists on error-free records					
Assurance		5	4	3	2	1
14.	Personal behavior of the staffs are excellent that the customer can trust					
15.	The staffs are polite					
16.	The staffs have adequate knowledge to serve customer					
Empathy		5	4	3	2	1
17.	The staff know what customers' needs are					
18.	Staffs give customers individual attention					
19.	The office and its employees give due consideration for customers' property					
20.	Staffs give orientation about the new service and the cost related with the service					
21.	The office has convenient working hours to all its customers					
Customer satisfaction		5	4	3	2	1
22.	I am satisfied with the security of the office services.					

23.	I am satisfied with respectful behavior of the office staffs					
24.	I am satisfied with the communicative ability of the employee of the office					
25.	I am satisfied with the performance of the employee of the office.					
26.	I am satisfied with various rang of service of office					

Thank you for your participation again!