RELATIONSHIP BETWEEN SERVICE QUALITY, PERCEIVED VALUE AND CUSTOMER SATISFACTION: THE CASE OF BROADBAND INTERNET SERVICE OF ETHIO TELECOM IN ADDIS ABABA

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ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE
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Letter of Certification

This is to certify that Bitadel Beressa carried out his project on the topic entitled **"Relationship between Service Quality, Perceived Value and Customer Satisfaction: The Case of Broadband Internet Service of Ethio telecom in Addis Ababa".** This work is original in nature and is suitable for submission for the award of Master Art in Marketing Management.

Dr. Rakshit Negi _____ _____

(The Research Advisor) **Signature** **Date**

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Approved by Board of Examiners

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Name of Internal Examiner	**Signature**
_____	_____
Name of External Examiner	**Signature**

Declaration

I, Bitadel Beressa, declare that this research entitled **"Relationship between Service Quality, Perceived Value and Customer Satisfaction: The Case of Broadband Internet Service of Ethio telecom in Addis Ababa"**, is the outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for the guidance and suggestion of the research advisor. This study has not been submitted for any degree in this university or any other university. It is offered for the partial fulfillment of the degree of MA in Marketing Management.

By: Bitadel Beressa (GSR/1690/06)

Signature_____

Date_____

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Acronyms and Abbreviations

ADSL: Asymmetric Digital Subscriber Line

CDMA: Code Division Multiple Access

ET: Ethio Telecom

ETC: Ethiopian Telecommunication Corporation

EVDO: Evolution Data Optimized

GPRS: General Packet Radio Service

ITU: International Telecommunication Union

NGN: Next Generation Network

PTO: Public Telecommunications Operator

SME: Small and Medium Enterprise

SPSS: Statistical Package for Social Science

TEP: Telephone Expansion program

TPO: Transformation Program Office

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Abstract

This study intends to find out the relationship between overall service quality, perceived value and customer satisfaction. The research design is quantitative, particularly, utilizing correlation and regression research methodology used to analyze the data. Questionnaires were distributed to 318 customers and 267 questionnaires were received back. The data gathered were analyzed with the help of Statistical Package for Social Science (SPSS version 20). Based on the research result majority of the respondents are dissatisfied with broadband overall service quality. Besides, there are significant and positive relationships between service quality dimensions and overall service quality, overall service quality and customer satisfaction and customer perceived value and customer satisfaction in Ethio telecom. Further the perceived value also mediate the relationship between overall service quality and customer satisfaction. The study suggests that reliability, network quality and assurance were important service dimensions of service quality which could contribute to raising the level of customer satisfaction. Thus, Ethio Telecom should try to make effort to prioritize important dimensions and consider the impact of customer value in its service delivery.

CHAPTER ONE: INTRODUCTION

This chapter consists of the background of the study, brief history of Ethio telecom, statement of the problem, research questions, objectives of the study, significance of the study, delimitations of the study, operational definitions and organization of the paper.

1.1 Background of the Study

Customer satisfaction and customer orientation have become an essential competitive advantage in all areas of production (Woodruff 1997; Kotler 2000). Customer satisfaction can be defined as when the customer's expectation of the services provided matches his perception of the actual services received (Parasuraman el al. 1985).

According to Asubonteng et al., (1996), due to intense competition and the hostility of environmental factors, service quality has become a cornerstone marketing strategy for companies. This highlights how important improving service quality is to organizations for their survival and growth since it could help them tackle these challenges they face in the competitive markets. This means that service based companies are compelled to provide excellent services to their customers in order to have a sustainable competitive advantage. There is however, a need for these organizations to understand what service quality is in order to attain their objectives.

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. According to Brown and Swartz (1989) customers prefer and value companies that provide high service quality. Thus, the attainment of quality in products and services has become a drive concern of the 1980s. Customers judge service quality relative to what they want by comparing their perceptions of service experiences with their expectations of what the service performance should be.

Customer perceived value is defined as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given" (Zeithaml, 1988). Two essential conceptions are established with customer perceived value (CPV). First, Customer Perceived value is a result from the consumer's pre-purchase perception (expectation), evaluation during the transaction (expectation versus received), and post-purchase (after-use) assessment (expectation versus received). Second, Customer Perceived Value involves a divergence between the benefits received and sacrifices given.

The benefits include customer's desired value like quality (Monroe, 1990). Sacrifices, on the other hand, include monetary (price) and non-monetary (time, effort) considerations (Cronin, *et al.*, 2000; Dodds, Monroe, & Grewal, 1991; Monroe, 1990). For a firm to maximize customer's perceived value, it must either increase the customer's perceived value like quality, and/or decrease their sacrifice, example price paid, time and effort to purchase.

The telecommunication industry is becoming one of the most important industries in the world and delivers voice communications, data, graphics, and video at ever increasing speeds. Telecommunication influences the world economy and the telecommunication industry's revenue. In order to obtain sustainable competitive advantage, telecom firms are forced to make innovation and do the best for customer satisfaction (Grönroos, 2004).

Background of Ethio telecom

The introduction of telecommunication services in Ethiopia dates back to 1884, seventeen years after the invention of telephone technology in the world. Ethiopian Telecommunications Corporation (ETC) is the oldest Public Telecommunications Operator (PTO) in Africa. It is a state owned enterprise and the sole telecom service provider in the country. The telecommunication services in Ethiopia have made rapid step both in quality and quantity. However, the users at large are found dissatisfied with quality and quantity of the services made available to them.

The process of technological sophistication has gained the momentum but the users are yet to get the quality and quantity of service (Tele Negarit, 2007).These days, Internet has a great role for socio-economic and political developments of nations.

Internet was introduced in Ethiopia in 1993 G.C and was commercialized in 1997G.C by sole government owned company Ethiopian Telecommunication Corporation (ETC); currently its name changed to Ethio-telecom (ET). It could be said that broadband services in Ethiopia are at infant stages; their coverage is limited to main cities.

Since its commercialization till the end of 2008 G.C the number of subscribers of the service has been growing by 41% annually however the number of internet users in Ethiopia was 0.17 persons per 100 inhabitants (Tele Negarit, 2008).

In Ethiopia there were 2590 internet users as of April 30, 2000. Further 360,000 people had internet access in 2009,a penetration rate of 0.4 percent(ITU 2009).However, at this time internet users are growing at a faster rate as a result of globalization, upgrading the telecom infrastructure, and reducing subscription fees and charges. Total number of broadband internet subscribers as of July 2004 was 13,115 in Ethiopia and 11,081 in Addis Ababa (Ministry of Infrastructure, 2004). The total numbers of internet subscribers were 148,217 and internet market penetration rate was 0.8% in Ethiopia (Ethio-telecom data base, September 2011).

In Ethiopia, like other nations of the world, the use of Internet is increased from time to time. However, unlike other technologically advanced countries, Internet connections exist only in urban locations. Likewise, the percentage of the citizenry having access to the Internet from home is minimal. Hence, majority of the people access internet from Internet café.

Telecom services in Ethiopia has counted over a century but the growth, penetration rate and quality of the telecom sector is still at a lower level stage compared to other countries. Accordingly, the Ethiopian government makes agreement with the world class telecom operator, France Telecom which has viable experience and capability in the sector so as to

render world standard telecom services. Currently, all the questions or complaints raised by Ethio-telecom customers are related to the quality of internet service. In the same way many scholars viewed service quality as a determinant of customer satisfaction.

1.2 Statement of the Problem

Drucker (1973) explained that customer satisfaction is the base for business success. Study made by Henkel *et al.* (2006) confirms that, satisfied customers of telecom sector have high extent of usage and intentions to repurchase in future like in other sectors. Besides, Kim *et al.* (2004) found that call quality, value added services and customer support play a significant role in building customer satisfaction for telecom service subscribers and they tend to keep using current service as the level of the customer satisfaction is high that leads to customer loyalty.

Internet has a great role for socio-economic and political developments of nations and broadband access no longer remains a luxury, but a necessity that will be crucial to every country's economic, social and political growth.

Currently Ethio-telecom made different vendor financing agreement with Chinese companies (ZTE and Huawei) to improve the network capacity. The company also made agreement with France Telecom (FT) to improve organizational administration and service quality by proposing different marketing strategies.

Even though the project aimed at increasing number of subscribers seems to be promising enough, the other side, quality problems remains highly controversial issues and need to be addressed.

According to the preliminary study made by the researcher on December 2014, regarding broadband internet satisfaction with selected users, it was found that, customers are not happy with the broadband internet service. The company tries to increase the infrastructure facilities through Next Generation Network (NGN) and Telephone Expansion Program (TEP) project to enhance the overall capacity of network. By doing this, Ethio-telecom only partially met the demand of increasing the network capacity customer base of the company and the quality of service is still not satisfactory.

Therefore, the researcher empirically investigates why despite ET efforts, there is a persistent service quality and customer satisfaction problem exist.

1.3 Research Questions

The research answers the following questions:

- ✓ What is the overall level of service quality for broadband ADSL service offered by Ethio telecom?
- ✓ Are customers satisfied with broadband ADSL service quality offered by Ethio telecom?
- ✓ Which service quality dimensions significantly contribute to the overall service quality?
- ✓ What role does customer perceived value play in the service quality-customer satisfaction relationship?

1.4 Research Objective

The general objective of this study was to assess the relationship between service quality, perceived value and customer satisfaction level with ADSL broadband internet service of Ethio telecom in Addis Ababa.

Specific Objectives:

- ✓ To assess the expectations and perceptions of customers on service quality of broadband internet.
- ✓ To identify which of the service quality dimensions significantly contribute to the overall service quality.
- ✓ To examine relationship, level of service quality and customer satisfaction.
- ✓ To assess the mediating role of perceived value in service quality-customer satisfaction relationship.

1.5 Significance of the Study

Researchers and interested people can use the information for further study and help to acquire broader knowledge about the subject matter under study. Besides, this study will create awareness for researchers and it will show the relative degrees of importance among the three constructs (Service Quality, Customer Satisfaction and Customer Value) of Ethio telecom ADSL broadband service.

Thus, managers and administrators could also investigate and improve on the factors that may have the least influence on the formation of customer satisfaction. The identification of the relative importance of the factors under investigation will allow management and administrators to have clearer understanding of further strategic actions.

1.6 Delimitation/Scope of the Study

Currently Ethio telecom delivered broadband internet service for residential, Small and Medium Enterprise customers (SME) and key account customers in different towns of Ethiopia, but the study will take SME customers in Addis Ababa as the scope of the study.

So residential broadband internet customers and key account customers will not be included due to time and cost constraints. Similarly Ethio telecom provides internet service in different packages like; leased line, mobile internet (GPRS), ADSL, EVDO and CDMA broadband internet service. But only ADSL broadband internet package will be studied in the research.

1.7 Operational Definitions

- **Service Quality:** The degree and direction of discrepancy between the consumers' perceptions and expectations, or the extent to which a service meets or exceeds customer expectations (Parasuraman, Zeithaml and Berry, 1988, P. 35-48.).

- **Customer Value:** It can be considered as a tradeoff between a customer's evaluation of the benefits of a service and its associated costs in money, time, and effort (Zeithmal's, 1988, P.2-22).

- **Customer Satisfaction:** Satisfaction can also be a person's feelings of pleasure or disappointment that results from comparing a product's perceived performance or outcome with their expectations (Kotler & Keller, 2009, p. 789).

1.8 Organization of the Paper

There are five chapters in this project work. Chapter one provides an introduction and brief background to the research including a statement of the research problem, research questions, and research objectives. Chapter two presents a literature review on service quality, perceived value 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: LITERATURE REVIEW

This chapter will give an overview of literature related to the study area and provide a theoretical framework of the study. This chapter also introduces the concepts and present empirical evidence on the relationship among customer satisfaction, service quality and customer perceived value in order to give a clear idea about the research area.

2.1Theoretical Literature

2.1.1 Service Quality

Service quality is considered an important tool for a firm's struggle to differentiate itself from its competitors (Ladhari, 2008). The relevance of service quality to companies is emphasized here especially the fact that it offers a competitive advantage to companies that strive to improve it and hence bring customer satisfaction.

Service quality has received a great deal of attention from both academicians and practitioners (Negi, 2009) and services marketing literature service quality is defined as the overall assessment of a service by the customer (Eshghi et al., 2008). Understanding service quality must involve acknowledging the characteristics of service which are intangibility, heterogeneity and inseparability, (Parasuraman et al., 1985 & Ladhari, 2008). In that way, service quality would be easily measured.

In this study, service quality can be defined as the difference between customer's expectation for service performance prior to the service encounter and their perception of the service received. Customer's expectation serves as a foundation for evaluating service quality because, quality is high when performance exceeds expectation and quality is low when performance does not meet their expectation (Asubonteng et al., (1996). Expectation is viewed in service quality literature as desires or wants of consumer and Perceived service is the outcome of the consumer's view of the service dimensions, which are both technical and functional in nature (Gronroos, 1984).

Technical quality refers to the result or the outcome of the service, while functional quality refers to the process or the way the service has been delivered.

2.1.2 Customers' Expectations compared to Perceptions

Gronroos, (1982); Parasuraman et al., (1985) have proposed that customer's perception of service quality is based on the comparison of their expectations (what they feel service providers should offer) with their perceptions of the performance of the service provider. It is important to understand and measure customer's expectations in order to identify any gaps in delivering services with quality that could ensure satisfaction (Negi, 2009). Perceptions of customers are based solely on what they receive from the service encounter (Douglas & Connor, 2003). My study is mainly based on this discrepancy of expected service and perceived service from the customer's perspective.

2.1.3 Service Quality Dimensions

Parasuraman et al., (1985) identified 10 determinants used in evaluating service quality; reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer, and tangibles. Subsequently, Parasuraman et al. (1988) reduced these 10 determinants to five. Reliability, tangibles and responsiveness remained distinct, but the remaining seven components collapsed into two aggregate dimensions, assurance and empathy.

Therefore, in the SERVQUAL scale, Parasuraman et al. (1988) identified five determinants of "tangibles", "reliability", "responsiveness", "assurance" and "empathy" as part of the 22-item SERVQUAL scale for measuring service quality. The instrument is administered twice in different forms, first to measure expectations and second to measure perceptions. The dimensions to be measured in this study are the five dimensions and one other added dimension (Network quality).

They are defined below as:

i) **Reliability:** This means that the service firm provides its customers with accurate service for the first time without making any mistakes and delivers what it has promised to do by the time that has been agreed upon. It is regarded as the most important determinant of perceptions of service quality (Parasuraman et al, 1988). Jamal and Naser (2002) advised that the reliability of the service delivered is interrelated with the satisfaction of customers with their experience of the service delivery process.

ii) **Responsiveness:** This means that the employees of a service firm are willing to help customers and respond to their requests as well as to inform customers when service will be provided, and then give prompt service (Malhotra, 2005). Customers will appreciate this factor when employees expressed a positive attitude toward their works and have ability to perform full service (Parasuraman et al, 1988, 1994, Meehan & Dawson, 2002), explain that responsiveness is accurately and insightfully giving customers what they need or want and doing so more quickly than anyone else.

iii) **Tangibles:** This determinant is related to the appeal of facilities, equipment and material used by a service firm as well as to the appearance of service employees (Parasuraman et al, 1988, 1994). In other words, the tangible dimension is about creating first hand impressions.

iv) **Assurance:** This means that employees' behavior will give customers confidence in the firm and that the firm makes customers feel safe. It also means that the employees are always courteous and have the necessary knowledge to respond to customers' questions (Parasuraman et al, 1988, 1994).

v) **Empathy:** This means that the firm understands customers' problems and performs in their best interests as well as giving customers individual personal attention and having convenient operating hours (Parasuraman et al., 1988).

vi) **Network Quality:** The availability of the network, speed of the internet and consistency of the speed of the broadband internet service (Negi, 2009; Wang & Lo, 2002).

2.1.4 Service Quality Models

Measuring service quality has been one of the most recurrent topics in management literature, Gronroos, (1984); this is because of the need to develop valid instruments for the systematic evaluation of firms' performance from the customer point of view which has led to the development of models for measuring service quality. Organizations analyses customer satisfaction with various customer satisfaction models. Different models clarify different theories of customer satisfaction.

2.1.4.1 SERVQUAL Scale

Clearly from a best value perspective the measurement of service quality in the service sector should take into account customer expectations of service as well as perceptions of service.

One service quality measurement model that has been extensively applied is the SERVQUAL model developed by Parasuraman et al. (1993, 1994). SERVQUAL represents service quality as the discrepancy between a customer's expectations for a service offering and the customer's perceptions of the service received, requiring respondents to answer questions about their expectations and their perceptions Parasuraman et al., (1988).

The SERVQUAL instrument has been the predominant method used to measure consumers' perception of service quality. It has five generic dimensions or factors which are stated as follows: tangibles, reliability, responsiveness, assurance, and empathy (Van Iwaarden et al., 2003).

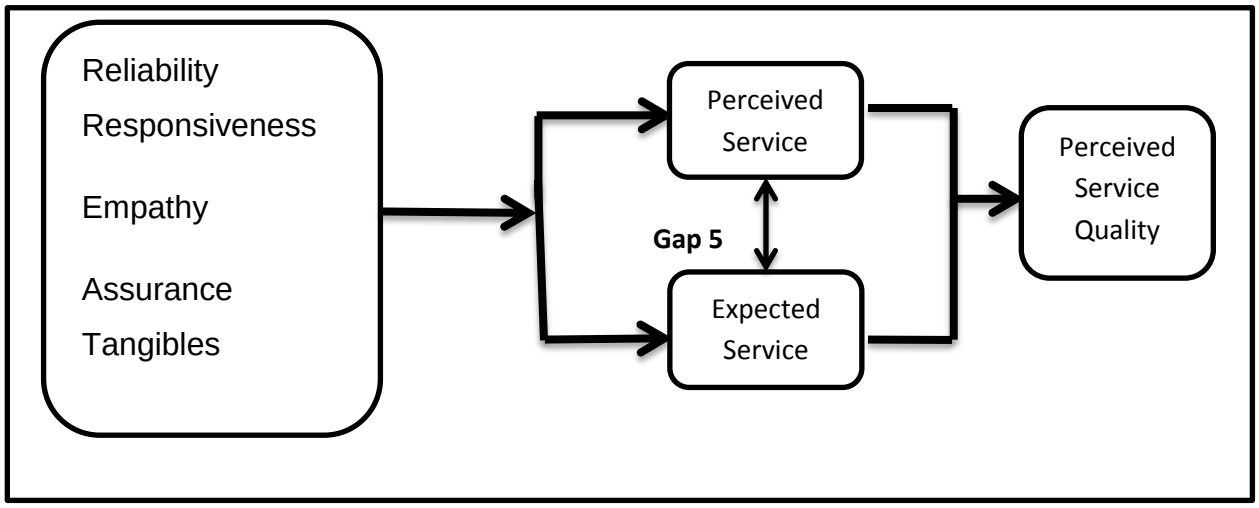

Figure 1: The SERVQUAL model (Source: Parasuraman et al., 1985)

The gap 5 on the diagram represents the difference between customers' expectations and customers' perceptions which is referred to as the perceived service quality (Parasuraman 2009). This study focuses on this gap, the difference between customers' expectations and perceptions of service.

SERVQUAL has been widely used in telecommunication industries in different cultural context with high reliability and validity (Tyran& Ross, 2006). In a study of mobile telecommunication in South Africa, Van der Wal et al., (2002) used SERVQUAL with some modifications.

The modified instrument resulted scale reliability of 0.95. In their study of service quality in telecommunication services, Ward and Mullee (1997) used reliability, availability, security, assurance, simplicity, and flexibility as criteria of service quality. They argued that, from customers' perspective, it is not appropriate to separate network quality from the other dimensions of quality.

$$\boldsymbol{SQ_i = \sum_{i=1}^{k} (P_i - E_i)}$$

Where: SQ = perceived service quality

k = number of service attributes/items

P = the perceived performance level relevant to the i^{th} statement

E = the expected performance level relevant to the i^{th} statement

From the above formula it can be observed that the five dimensions have an impact on both the expected and the perceived service, where the disconfirmation between the two constitute the level of perceived service quality in the given process.

2.1.4.2 Gap Model

The model is an extention of Parasuraman *et al.* (1985). There are five major gaps in the service quality concept, which are shown in Figure 2. According to the following explanation (ASI Quality Systems, 1992; Curry, 1999; Luk and Layton, 2002), the two important gaps, which are more associated with the external customers are Gap1 and Gap5; since they have a direct relationship with customers.

Gap1: Consumer expectation- management perception gap

Service firms may not always understand what features a service must have in order to meet consumer needs and what levels of performance on those features are needed to bring deliver high quality service. This is as a result of the lack of a marketing research orientation, inadequate upward communication and too many layers of management.

Gap 2: Management perception - service quality specification gap

As a result of inadequate commitment to service quality, a perception of unfeasibility, inadequate task standardization and an absence of goal setting.

Gap 3: Service quality specifications – service delivery gap

As a result of role ambiguity and conflict, poor employee-job fit and poor technology-job fit, inappropriate supervisory control systems, lack of perceived control and lack of teamwork.

Gap 4: Service delivery – external communications gap

External communications can affect not only consumer expectations of service but also consumer perceptions of the delivered service. Companies can neglect to inform consumers of special efforts to assure quality that are not visible to them and this could influence service quality perceptions by consumers.

Gap 5: Expected Service – perceived service gap

From their study, it showed that the key to ensuring good service quality is meeting or exceeding what consumers expect from the service and that judgement of high and low service quality depend on how consumers perceive the actual performance in the context of what they expected.

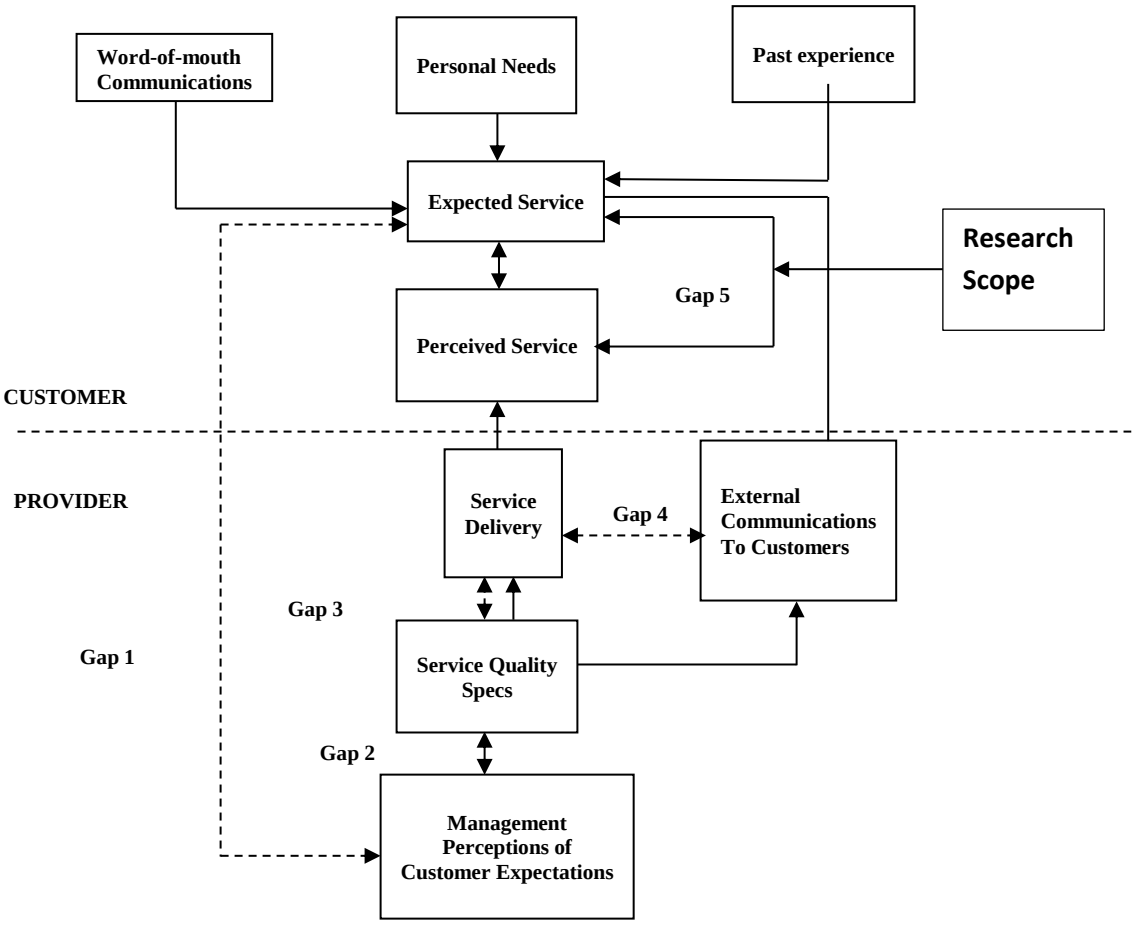

Figure 2: Gap Model of Service Quality (Source: Zeithaml and Bitner, 2003)

2.1.4.3 SERVPERF Scale

SERVQUAL formulation of service quality has received a great deal of criticism (Buttle, 1996; Smith, 1995). The main criticism of SERVQUAL has focused on the use of expectation as a comparison standard. It has been argued that expectation is dynamic in nature, and that it can therefore change according to customers' experiences and consumption situations. Thus conceptualisation of expectation as a comparison standard in the model is a difficult concept to quantify.

One of the main problems mentioned in the literature is the applicability of the five SERVQUAL dimensions to different service settings and replication studies done by other investigators failed to support the five-dimensional factor structure as was obtained by Parasuraman et al. in their development of SERVQUAL.

Respondent appear to be bored and sometimes confused by the administration of expectation and perception versions of SERVQUAL ,and this boredom and confusion will adversely affect data quality. Siu and Cheung also quoted that when people are asked to indicate the desired level of a service and the existing level of the service(perception),there is a psychological constraint that people always tend to rate the former higher than the latter(E>P).

Cronin and Taylor (1992) were amongst the researchers who leveled maximum attack on the SERVQUAL scale. They opined that expectation (E) component of SERVQUAL would be discarded and instead only performance (P) component of SERVQUAL would be used. They proposed what is referred to as the 'SERVPERF' scale.

The perceived quality model postulates that an individual's perception of the quality is only a function of its performance. A higher perceived performance implies higher service quality. In equation form, it can be expressed as:

$$SQ_i = \sum_{i=1}^{k} P_i$$

Where: SQ = perceived service quality

k = number of attributes/items

P = the perceived performance level relevant to the i^{th} statement

Therefore, the researcher adopts a modified SERVQUAL model with six dimensions; tangibles, reliability, responsiveness, assurance, empathy and network quality. The service quality gap is going to be measured using these customized six dimensions and three items for perceived value (see appendix one).

2.1.5 Customer Perceived Value

Value creation has gained much attention and it has been considered as a main part of every organization's mission and statement (Sweeney & Soutar, 2001). In particular, perceived value is seen by many marketers and practitioners as an imperative for a strategic management, prerequisite for a long-term success and a source of sustainable competitive advantage (Sweeney & Soutar, 2001).

Zeithmal's (1988) study suggests that service value can be considered as a tradeoff between a customer's evaluation of the benefits of a service and its associated costs in money, time, and effort. Similarly, perceived value is conceptualized as a consumer's overall evaluation of what is received compared with what is given up or paid out, and perceived it as a major determinant of customer loyalty in such settings as telephone services (Bolton and Drew, 1991).

Teas and Agarwal (2000) posit this as the tradeoff between perceived quality and perceived sacrifice, which results in a positive linkage with perceived quality and a negative linkage with perceived sacrifice.

Kotler and Keller (2012) define customer perceived value as "the difference between customer's evaluation of all the benefits and all the costs of an offering and the perceived alternatives".

They extend the concept by describing customer perceived value as the proportion between total customer value (a bundle of economic, functional and psychological benefits such as product, services, personnel, image value) and total customer costs (monetary, time, energy, psychic costs) (Kotler & Keller, 2012). According to Woodruff (1997:142), Customer value is a customer's perceived preference for and evaluation of those product attributes, attributing performances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in usage situations.

According to Parasuraman and Grewal 2000; perceived value might be separated into two parts: acquisition and transaction value.
Parasuraman and Grewal (2000) give the following explanation:

- *Acquisition value* is the benefit the buyer's belief they are getting when obtaining a product/service;
- *Transaction value* is the difference between the consumers' internal reference price and the price offered within the context of a special deal;

Price Perception is the monetary cost for a customer to buy products or services. It is the critical determinant that influences customer buying decision. Customers usually select their service providers strongly relying on perceived price. Higher pricing perceived by consumers might negatively influence their purchase probabilities (Peng and Wang, 2006).

Customers often switch mainly due to some pricing issues, for instance high price perceived, unfair or deceptive pricing practices (Peng and Wang, 2006). Therefore, in order to increase customer satisfaction, it is essential for service firms to actively manage their customers' price perceptions, like carrying out attractive pricing, offering reasonable prices mix, lower prices without decreasing quality.

Perceived value is customers' psychological assessment regarding the product and service about the utility of that product or service comparing with expectation. Recently value perceptions have been focused by marketing researchers and managers to explain customer satisfaction and loyalty (Lin and Wang, 2006).

According to all the definitions above, it is obvious that customer perceived value can be described as the difference between customers' perception of the benefits they believe they will derive from a purchase compared to the costs they will have to pay. This thesis uses the terms 'customer perceived value' and 'customer value' interchangeably. No particular differentiation is given to the meaning of both terms. Both terms are used as an expression of value as perceived by the customer.

2.1.6 Customer Satisfaction

Customer satisfaction is conceptualized has been transaction-specific meaning it is based on the customer's experience on a particular service encounter, (Cronin & Taylor, 1992) and also some think customer satisfaction is cumulative based on the overall evaluation of service experience (Jones & Suh, 2000). These highlight the fact that customer satisfaction is based on experience with service provider and also the outcome of service.

Fornell, (1992) clearly defines customer satisfaction as an overall post-purchase evaluation by the consumer and this is similar to that of Tse & Wilton, (1988) who defined customer satisfaction as the consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product or service as perceived after its consumption. These definitions consider satisfaction as a post purchase response.

Today, customer focus and satisfaction is a driving force for many companies and organizations. Measuring customer satisfaction provides an indication on how an organization is performing or providing products or services. Organizations that consistently satisfy their customers enjoy higher retention levels and greater profitability due to increased customers' loyalty, (Wicks & Roethlein, 2009).

This is why it is vital to keep consumers satisfied and this can be done in different ways and one way is by trying to know their expectations and perceptions of services offered by service providers. In this way, service quality could be assessed and thereby evaluating customer satisfaction.

Customer satisfaction is generally understood as the satisfaction that a customer feels when comparing his preliminary expectations with the actual quality of the service or product acquired. In other words, customers are typically concerned with the value and quality of the product or service they receive.

2.2 Empirical Review of Literature

2.2.1 Application of the SERVQUAL Model in Different Contexts

Kumar et al, (2009) used the SERVQUAL model in a research to determine the relative importance of critical factors in delivering service quality of banks in Malaysia. After they carried out their study they realized that there are four critical factors; tangibility, reliability, convenience and competence. These variables had significant differences between expectations and perceptions with tangibility having the smallest gap and convenience has the largest gap. They end up with the recommendation that banks need to be more competent in delivering their services and fulfilling the assurance of customers and providing the banking services more conveniently (Kumar et al, 2009).

Badri et al., (2005) made an assessment and application of the SERVQUAL model in measuring service quality in information technology center. Their findings showed that there was an inadequacy of dimensions for a perfect fit. On the other hand, based on their feedback, respondents felt that SERVQUAL is a useful indicator for IT center service quality in institutions of higher education.

Negi, (2009) used the model to determine customer satisfaction through perceived quality in the telecommunication industry and found out that reliability, empathy and network quality being significantly effective in determining overall service quality and overall customer satisfaction with mobile services. Akan, (1995) used the SERVQUAL model in the four stars hotels and found out that competence and courtesy combined with assurance where most important attributes influencing the perception of quality.

2.2.2 Customer Value versus Service Quality and Customer Satisfaction

Research on customer value often examines the relationships between service quality, price, customer satisfaction and purchase intentions (Bolton & Drew 1991; Tam 2004). However, the concept of customer value is often confused with other related concepts, especially the earlier concept of 'quality and satisfaction'. There have been several attempts made to explain the difference between these three concepts (quality, satisfaction and value).

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Spreng and Mackoy (1996) who illustrated that service quality perceptions were major determinants of customer satisfaction and that service quality leads to satisfaction. Anderson and Sullivan (1993) found the level of customer satisfaction increased with the level of perceived service quality. Bloemer et al. (1999) found significant influence of service quality dimensions on customers' willingness to recommend, repurchase intentions and price sensitivity.

Parasuraman et al., (1985) suggested that when perceived service quality is high, then it will lead to increase in customer satisfaction. He supports that fact that service quality leads to customer satisfaction and this is in line with Lee et al., (2000) who acknowledge that customer satisfaction is based upon the level of service quality provided by the service provider.

According to Negi, (2009), the idea of linking service quality and customer satisfaction has existed for a long time. He carried a study to investigate the relevance of customer perceived service quality in determining customer overall satisfaction in the context of mobile services (telecommunication) and he found out that reliability and network quality (an additional factor) are the key factors in evaluating overall service quality but also highlighted that tangibles, empathy and assurance should not be neglected when evaluating perceived service quality and customer satisfaction.

Su et al., (2002) carried a study to find out the link between service quality and customer satisfaction, from their study, they came up with the conclusion that, there exist a great dependency between both constructs and that an increase in one is likely to lead to an increase in another. A study carried out by Magi and Julander, (2009), showed that a positive relationship between perceived service quality, customer satisfaction and customer loyalty.

It was proven that customer satisfaction results from high perceived service quality and this makes the customer loyal. However, it could be possible that a satisfied customer must not necessarily become a loyal customer.

- **Relationship between Service Quality and Customer Value**

Monroe and Khrisnan (1985) confirmed that Service quality is purely an evaluative measure. The similarity between service quality and customer value is that both constructs are cognitive. However, the difference between service quality and value is that unlike service quality assessment (overall excellence), value requires a trade-off between benefits and sacrifices. Even though both service quality and customer value are cognitive (evaluative) constructs, the concept of value should be considered distinct from the concept of service quality (Cronin et al. 1997).

The study made by Woodruff; Cronin; Patterson & Spreng (1997), Customer value is the result of a cognitive comparison process. Customer value is categorized as a cognitive construct since it evaluates benefits and sacrifices. Fornell et al. (1996) investigate the impact of customer value and perceived quality on overall satisfaction in seven major economic sectors in the U.S (including the financial and insurance sector). Both value and perceived service quality have a positive effect on customers' overall satisfaction.

- **Relationship between Customer value and Customer satisfaction**

It is important to observe a distinction between customer value and customer satisfaction according to Goodstein and Butz (1998). They believe that even though the two are intertwine, they are distinct concepts. They argue that customer value is linked to and

predictive of customer behavior while customer satisfaction is about customer attitude. They explained that "Satisfaction measures indicate how customers feel about products and services, while measures of customer value are indices of how customers will act". Evans (2002) asserts that any customer satisfaction measurement that does not incorporate customer value is simplistic and likely to fail. Van der Haar (2001); Woodruff (1997) demonstrates that customer value is a precursor to customer satisfaction.

Yang and Peterson (2004) also found out customer satisfaction is influenced by customer perceived value. As Hallowell's (1996) empirical study showed that, "the service management literature argues that customer satisfaction is the result of a customer's perception of the value received in a transaction or relationship". Customer value is an antecedent to customer satisfaction and behavioural outcomes (Ulaga and Eggert, 2006), and has been recognized as being positively associated with customer satisfaction (Athanassopoulos, 2000). When the customer receive benefit greater than the cost (i.e., receiving added value) after the purchase, they become more satisfied, which in turn affects subsequent customer value expectations and overall customer satisfaction (Hellier et al., 2003; Woodruff, 1997).

Patterson and Spreng's (1997) empirical study, in the business-to-business services context in Australian, supported that customer value has a directly strong and significant impact on satisfaction and repeat purchase intentions. The more the customers perceive the quality of service exceeds the costs of obtaining the service, the higher their perceptions of the value of the service, which in turn results in greater satisfaction.

As Ravald and Gronroos (1996) noted, by adding more value to the core product or service, firms can improve customer satisfaction so that the bonds of relationship are strengthened and thereby customer loyalty achieved.

Customer value occurs at both the pre-purchase and post-purchase stages (Woodruff 1997; Eggert & Ulaga 2002). Nevertheless, satisfaction is commonly evaluated at the post-purchase transaction (Woodruff 1997; Sweeney & Soutar 2001; Eggert & Ulaga 2002).

Sweeney & Soutar (2001) empirically investigate that customer value may be created before a transaction, perception of value can occur without purchasing the products/services; as with satisfaction, customers must have experience of the products/services offered before expressing whether they are satisfied or dissatisfied.

2.2.3 Conceptual Framework

Based on the narrow down scope of literature review above, the relationship between service quality, perceived value and customer satisfaction can be shown in figure three. The five service quality dimensions have been selected from the SERVQUAL and one additional dimension is added (Network quality). Besides, perceived value is used as mediating variable between service quality and customer satisfaction. The conceptual framework which guided the formulation of this study's hypotheses and depicts both the direct and indirect relationships between service quality, perceived value as well as customer satisfaction. Customer satisfaction was conceptualized as the consequence of Service quality performance and perceived value.

Brady and Cronin (2001) emphasize that no generic service quality model is applicable without customization. For this reason the initial 22 items of SERVQUAL model are modified and additional items are included to measure the perceived service quality and customer satisfaction of Ethio telecom ADSL broadband service.

Based on the above theoretical and empirical literature, the following integrated frame work was developed and it shows the relationship between service quality, perceived value and customer satisfaction. Finally, hypothesis was derived from the research frame work and therefore, this frame work has been used as a point of reference in this thesis.

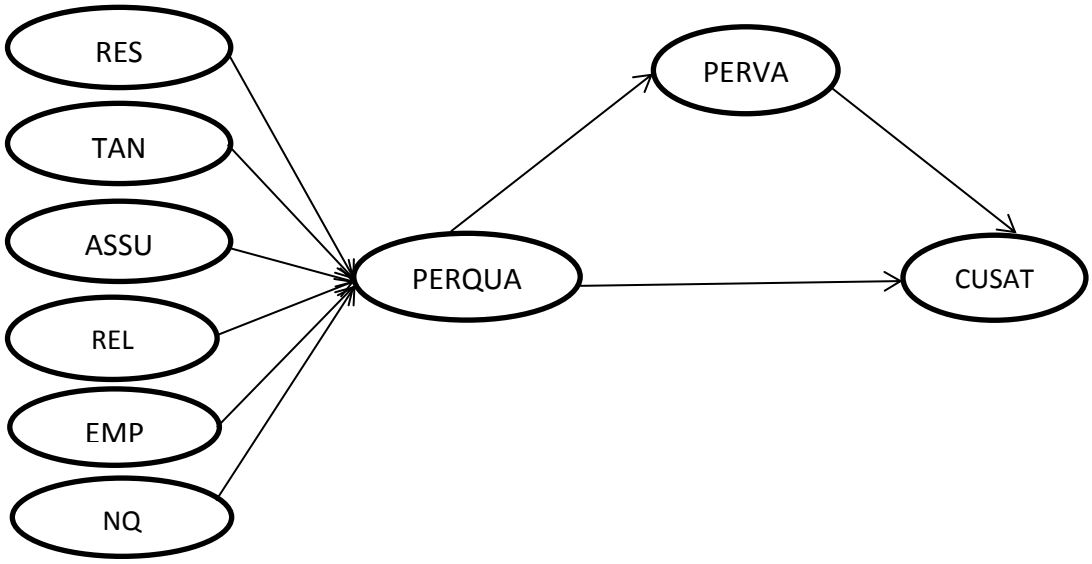

Figure 3: Research Frame Work: Relationship between Perceived Service Quality, Perceived Value and Customer Satisfaction

Source: Based on Conceptual model of Parasuraman et. al.1985) & Sobel 1982)

Where: PERQUA: Perceived Quality, ASSU: Assurance, NQ: Network Quality, TAN: Tangible, EMP: Empathy, REL: Reliability, RES: Responsiveness, PERVAL: Perceived Value, CUSAT: Customer Satisfaction.

2.2.4 Research Hypothesis

H_1: The service quality dimensions positively and significantly affect overall service quality.

H_2: Overall service quality affects positively and significantly the customer perceived value.

H_3: Overall service quality has a significant and positive effect on customer satisfaction.

H_4: Perceived value significantly mediates the relationship between service quality and customer satisfaction.

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter explains the research method used which covers, research design, source of data, population, sample and sampling method, research instrument, data collection procedure, and method of data analysis.

3.1 Research Design

The study used quantitative/empirical data. Particularly it utilizes inferential and descriptive statistics. The research design is created to assist the researcher in the conduct of the research to achieve certain objectives. Therefore, the purpose of the survey was used to see the correlation of service quality dimensions on overall service quality of Ethio telecom and empirically measure the impact of overall service quality as well as to see mediation value of perceived value.

3.2 Population and Sampling Techniques

According to Sekaran (2003), populations refer to the entire group of people, events, or things of interest that can be a focus for the researcher to investigate. For this research, the population covers only Small and Medium Enterprise customers that use ADSL broadband internet service in Addis Ababa. The total number of Small and Medium Enterprise customers of Ethio telecom as of December 2014 was 1848. The sample frame for this study was obtained from Ethio telecom Enterprise division data base as of December 2014.

A total sample size of 318 was drawn using stratified random sampling technique to collect data from respondents. This technique is used because Ethio telecom SME segment consists of various groups of enterprise customers and to increase representativeness of the sample.

The sample size was determined at 5 % margin of error and 95% confidence level using sample determination method developed by (Krejcie & Morgan, D. W. 1970).

These customers are selected from four major SME sub segments such as Small Business plc, Internet café, Hotel and Restaurant and Private Universities and in each category there are 250, 1296, 157, and 145 customers respectively. This sample size is selected proportionally from each stratum using simple random sampling.

Based on this 43, 223, 27 and 25 sample size was taken from Small Business plc, Internet café, Hotel and Restaurant and Private Universities respectively. From the total sample questionnaires distributed, 267 were received back having a response rate of 84%. (See Appendix 2.1)

3.3 Data Sources

The study was used primary, secondary and tertiary data. The primary data was collected through the distribution of questionnaires and secondary data was collected from ET brochure; bulletin and data base. Tertiary data was collected from books, research journals, thesis and articles.

3.4 Data Collection Tools

A questionnaire was used as the research instrument; the instrument was basically to identify ADSL broadband services quality and customer satisfaction in Addis Ababa. The reason for this choice of data capture instrument was it is the best way to collect quantitative data and it is economical.

Moreover, the questionnaire was adopted based upon SERVQUAL concepts, theories as well as the previous research information. Primarily, English questionnaire had been prepared and written, and then it was translated to Amharic language by Loza business center.

The questionnaire consists of three parts including part I: questions about company information, part II: asking questions related to service quality of ADSL broadband services which influence customers satisfaction, and part III: asking questions related to perceived value.

Respondents were requested to indicate their level of influence for each item in the questionnaire using a five-point Likert scale. The full format of questionnaires in English and Amharic versions of this study is shown in appendix one.

3.5 Data Collection Procedures

The data for this research were collected using a survey questionnaire. The survey was comprised of 29 questions, which were related to service quality, customer perceived value and customer satisfaction. After the advisor validated the questionnaire, it distributed to SME customers in Addis Ababa namely Small Business PLC, Internet café, Hotel and Restaurant, Private Universities. The researcher assured confidentiality of their survey sheets and gave people the option of being not mentioned their name. Participants were given time to fill the questioner and the researcher collected the surveys the next day.

Finally from the total 318 questionnaires distributed 267 filled questionnaires were returned with a response rate of 84%, which is highly appreciable. From the total 267 returned questionnaire 36 questionnaires from Small Business PLC, 187 questionnaires from Internet café, 23 questionnaires from Hotel and Restaurant and 21 questionnaires from Private Universities were collected.

3.6 Method of Data Analysis

This study used a quantitative data analysis method which was conducted using SPSS (Statistical Package for the Social Science) version 20 application program. The reason for this choice of analysis method was because the collected data was quantitative and to examine the relationship between customer satisfaction and service quality and perceived value with the five dimensions of SERVQUAL model and one additional dimension.

In doing so, the research tested the relationship between service quality, perceived value and customer satisfaction to accept or reject the hypotheses. In order to analyze the data of this study using quantitative analysis, the researcher used both descriptive and inferential statistics.

The reason for using descriptive statistics was to summarize the data collected in tables and graphs for better understanding for the reader and for me to easily examine the results. To present a descriptive statistics for this study, means, standard deviations, percentage values, bar graphs and pie charts were used.

Besides, inferential statistics was used because to generalize and make predictions from the results of the data. The reason for this choice of test was because of the nature of my data which is categorical data. Simple linear regression analysis or bivariate correlation was used to answer research questions and to test hypotheses.

3.7 Reliability and Validity

In order to obtain significant interpretations of data, the reliability and validity of the measuring instruments needs to be ensured (Gay, Mills & Airasian 2006).

Reliability: Reliability can be defined as the dependability or consistency of the measure of a variable. That is, the degree to which measures is free from error and therefore provides consistent results (Neuman 2006; Zikmund 2000).

This research used Cronach's coefficient alpha to measure reliability on page 31. The coefficient alpha is a commonly used method to examine reliability for multipoint-scaled items, and it can be considered a perfectly adequate index to test the consistency (Sekaran 2000). The coefficient alpha ranges from 0 to 1. A perfectly reliable test will have a reliability coefficient of 1.00 (Cronbach 1951; Gay, Mills & Airasian 2006). Where the coefficient alpha is greater than 0.7, this can be considered an acceptable level of reliability (Hair et al. 1998).

Validity: Validity can be defined as the accuracy of measurement used to measure what is supposed to be measured (Gay, Mills & Airasian 2006; Neuman 2006; Zikmund 2000). An assessment of content validity was undertaken in this research to ensure that the questionnaire measured an adequate and representative set of items that answer the research questions.

The scale was then tested on a group of respondents similar to the sample of this study. According to opinions and feedback from previous studies and the pre-test respondents, the measurements were finally modified. Consequently, a good degree of confidence of the content validity was achieved. Further details regarding the reliability and validity of the survey measures will be presented in Chapter four.

3.8 Ethical Considerations

All information gotten from the respondents were treated with confidentiality without disclosure of the respondents' identity. Moreover, no information was modified or changed, hence information gotten was presented as collected and all the literatures collected for the purpose of this study were acknowledge in the reference list.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION

This chapter describes data analysis and interpretation of the finding. It consists of reliability test for the scale used, customer profile, and descriptive statistics of all variables, paired sample T-Test, the finding of correlation result and multiple regression analysis.

4.1 Profile of the Respondents

Data collected from the respondents was obtained in the areas of different business organization and number of years in using broadband internet. The purpose of this profile was to obtain a visualization of the ET customers responding to the questionnaire.

Table 1: Profile of the Respondents

Variable	Description	Frequency	Percentage (%)
Customer Location	SWAAZ (Sarbet)	27	10.1
	WAAZ (Mesalemiya)	35	13.1
	NAAZ (Sidest Kilo)	38	14.2
	CAAZ (Leghar)	28	10.5
	EAAZ (Bole)	53	19.9
	SAAZ (Saris)	29	10.9
	TPO (Churchil road branch)	57	21.3
Customer category	Small Business PLC	36	13.5
	Internet café	187	70.0
	Hotel and Restaurant	23	8.6
	Private Universities	21	7.9
Years in broadband usage	Less than 1 year	26	9.7
	1-3 year	173	64.8
	4-5 years	50	18.5
	Above 5 years	18	7.0

(Source: Survey data, 2015)

Note: SWAAZ=South West Addis Ababa Zone, WAAZ=West Addis Ababa Zone, NAAZ=North Addis Ababa Zone, CAAZ=Central Addis Ababa, EAAZ=East Addis Ababa Zone, SAAZ=South Addis Ababa Zone, TPO= Transformation Program Office

As it is revealed in Table 1, the data provides profile of respondents by count and percent. The results reveal that out of the 267 respondents, 187 (70%) were internet cafés and 36 (14%) were small business plc. This shows significant majority of the respondents are internet café subscribers.

From the total 267 respondents, majority of them (21.3%) subscribed the service at enterprise office (TPO) which is located around Churchil Hotel. From the remaining respondents 19.9%, 14.2%, 13.1%, 10.9%, 10.5%, and 10.1% subscribed the service from Bole, Sidest Kilo, Mesalemeya, Saris, Leghar and Sarbet ET enterprise shop respectively.

Finally, based on the number of years in using broadband internet service, respondents using broadband for less than one year accounts 26(9.7%), a great majority of the respondents 173 (64.8%) have been using broadband from 1 to 3 years, 4 to 5 years, which are 50 (18.5%) and the remaining 18 (7%) for above five years.

4.2 Measurement of Reliability and Validity

The precision with which things are measured in a study is expressed in terms of validity and reliability (Hopkins, 2001). These two are related because if a measure is valid then it is reliable (Bryman & Bell 2003). Reliability refers to the extent to which the data collection techniques or analysis procedure will yield consistent findings and could be measured using Cronbach's alpha (Saunders, 2009, Bryman & Bell 2003).

Reliability of the instrument was assessed by using Cronbach's Alpha for the service quality constructs expectation and perception. The overall Cronbch's Alpha for the survey designed for this study is 0.857, which is well over the accepted limit of 0.70. As shown in table 2 below, Cronbach's alpha coefficients for expected and perceived service quality is greater than 0.70. These statistical results in table two showed that the measurement scales used in this study met the acceptable standard of reliability analysis. So it can be said that all the items in the questionnaire are highly reliable.

To assure the construct validity that is whether our measure adequately represents the underlying supposed to measure, theoretical assessment of validity was undertaken. Accordingly, the items were partially adopted from previous studies and partially based on the definition given by different researchers listed above. Besides, appropriate research procedures were applied to find the answers to the basic question. With this the construct validity is also measured.

Table 2: Measure of Internal Consistency (Reliability Test)

Dimensions	**Number of Items**	**Cronbach's Alpha**
E_Tangibles	4	0.74
E_Empathy	4	0.78
E_Assurance	4	0.78
E_Reliability	4	0.83
E_Responsiveness	4	0.75
E_Network Quality	3	0.71
P_Tangibles	4	0.78
P_Empathy	4	0.75
P_Assurance	4	0.79
P_Reliability	4	0.75
P_Responsiveness	4	0.79
P_Network Quality	3	0.77
P_Perceived Value	3	0.72
Overall Reliability	52	0.857

(Source: Survey data, 2015)

Note: E= Expected, P=Perceived

4.3 Descriptive Analysis

Data collected from different branches of Ethio telecom and from different customers category. The Purpose of this profile was to obtain a visualization of the ET customers responding to the questionnaire.

4.3.1 Comparison between Expectations and Perceptions of SERVQUAL Dimensions

Table 3 is presented to describe the perceptions and expectations of respondents on each dimension of ET broadband services quality.

Table 3: Mean Expectations, Mean Perceptions and Gap score

SERVQUAL Dimensions	Item	Mean Expectation	Mean Perception	Gap score (P-E)
Tangibility	TG1	4.39	4.04	-0.34
	TG2	4.35	4.02	-0.33
	TG3	4.42	3.96	-0.46
	TG4	4.39	3.85	-0.54
Empathy	EM1	4.28	3.41	-0.87
	EM2	4.29	3.4	-0.89
	EM3	4.33	3.18	-1.15
	EM4	4.37	4.16	-0.2
Assurance	A1	4.4	3.94	-0.46
	A2	4.44	3.48	-0.96
	A3	4.34	3.35	-0.99
	A4	4.22	3.16	-1.06
Reliability	RE1	4.38	3.19	-1.19
	RE2	4.4	2.76	-1.64
	RE3	4.31	3.36	-0.95
	RE4	4.43	2.7	-1.73
Responsiveness	RS1	4.36	3.1	-1.25
	RS2	4.24	3.65	-0.59
	RS3	4.28	3.18	-1.1
	RS4	4.25	3.57	-0.68
Network Quality	NQ1	3.34	2.42	-0.92
	NQ2	4.54	2.45	-2.09
	NQ3	4.41	2.98	-1.43

(Source: Survey data, 2015)

As indicated in the table 3, the mean range for expectation was from 4.10 to 4.39 on a five-point Likert scale. Respondent reported with the greatest mean expectation of tangibility aspect (X=4.39) followed by reliability (X=4.38), assurance (X=4.35), empathy (X=4.32), responsiveness (X=4.28) and network quality (X=4.10) respectively.

The range for mean perceptions was from 2.62 to 3.97. It was observed from the study that ET performed best in tangibles dimension (X=3.97). In contrast, ET has the worst performance in the dimension of network quality aspect (X=2.62). The study indicated that there is no service quality gap which shows positive and this means there is no dimension in which all customers or most customers whose perceptions are equal to or greater than expectation.

As suggested by Parasuraman et al. (1994) the gap analysis is accurate in identifying service short falls in an operation. This will help ET to identify which dimension need an improvement and which one is in a good position and need to maintain or keep up.

4.3.2 Gap Scores Analysis using Paired Sample T-Test

Gap analysis was done for six dimensions of service quality between customer expectation and perception score. The significance level of the gap between expectation and perception should be tested. The following table also tests the difference between perception and expectation score using paired sample t-test.

Table 4: Gap Analysis Results

Dimensions		Mean	Mean difference	t	Sig.(2-tailed)
Tangibles	Perception	3.97	-0.42	-9.955	.000
	Expectation	4.39			
Empathy	Perception	3.54	-0.78	-16.449	.000
	Expectation	4.32			
Assurance	Perception	3.48	-0.87	-19.174	.000
	Expectation	4.35			
Reliability	Perception	3.00	-1.38	-20.723	.000
	Expectation	4.38			
Responsiveness	Perception	3.38	-0.91	-19.690	.000
	Expectation	4.28			
Network Quality	Perception	2.62	-1.48	-24.134	.000
	Expectation	4.10			

(Source: Survey data, 2015)

Based on paired sample t-test results, the comparison between expectations and perceptions rated by participants on all six service quality dimensions (tangibility, responsiveness, assurance, empathy, reliability and network quality) delivered by ET indicated the significant gaps ($p<0.01$).

As shown in the table 4, the largest mean difference between expectations and perceptions of service were noted from the network quality perspective (mean difference= -1.48) followed by reliability perspective and the responsiveness perspective (mean difference= -1.38 and -0.91 respectively). On the other hand, the smallest mean difference between expectations and perceptions of the services were identified from the tangibility perspective (mean difference = -0.42).

Generally, the mean of expectation of customers towards ADSL service is more than the mean of perceptions and it shows that the ADSL users are getting inferior service quality i.e. (E>P) (Parsuraman 1988). That means expectations are not getting matched with the perceptions and as a result the perceived quality of ADSL users has also got affected.

4.3.3 Overall Service Quality

To analyze the service quality of broadband internet service of Ethio telecom, descriptive frequency statistics was applied. Service quality was measured on a five point Likert scale with a single item that asked respondents to rate the acceptability of the standard of quality. Responses ranged from the lower worst to the higher excellent that the standard of quality was acceptable.

Overall Service Quality of ADSL broadband internet

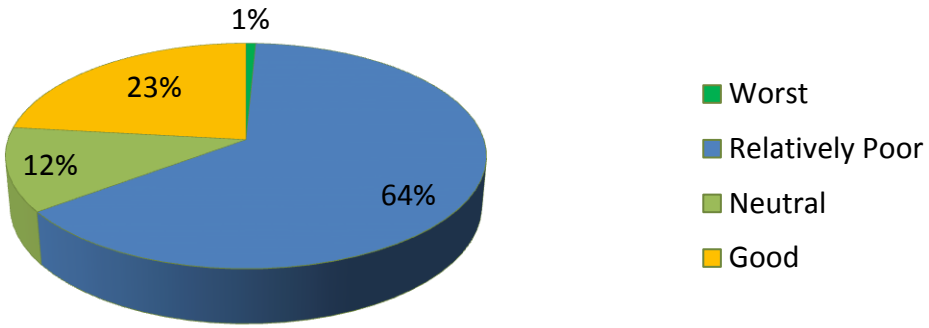

Figure 4: Overall Service Quality of ADSL Internet service

(Source: Survey data, 2015)

As shown in the above Pie-chart, 1% (2) respondents said the broadband internet of Ethio telecom is worst, 64% (171) respondents said relatively poor, 12% (32) respondents remained neutral, 23% (62) respondents said good. According to the finding a total of 65% of respondents said there is poor broadband internet service quality provided by Ethio telecom. (Please see appendix 2.5 for full statistical result).

It is apparent that broadband internet users view that overall service quality is low with mean of 2.82. So from this we can infer that ET has a weakness on providing proper service to its customers and majority of the respondents 65% are dissatisfied with the broadband internet service.

4.3.4 Overall Customer Satisfaction

The dependent variable customer satisfaction was analyzed with the descriptive statistics (frequency distribution). The customer satisfaction level was classified in to five points Likert scale: ranges from the lower extremely highly dissatisfied to the higher highly satisfied.

As it is revealed in figure 5, majority of the respondents 51% are dissatisfied with the broadband internet service, 6% of respondents rated as highly dissatisfied, 25% of the respondents are satisfied, about 18% of the respondents evaluated their level of satisfaction with broadband internet as being moderate and none of the respondents are highly satisfied with the overall customer service delivery of ET. Overall, majority of the respondents are dissatisfied with the service provided.

Overall Satisfaction

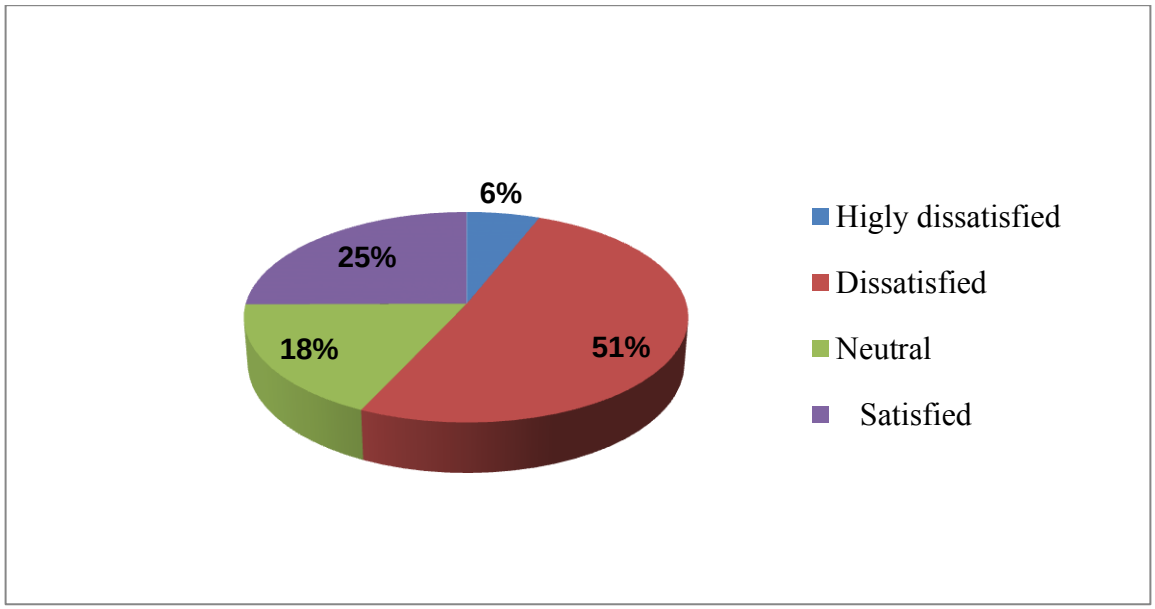

Figure 5: Overall Satisfaction

(Source: Survey data, 2015)

4.4 Correlation Analysis between Service Quality Dimensions and Service Quality

To explore the relationship between service quality and its key dimensions, Pearson correlation was first investigated. The six dimensions of quality were taken as independent variables and overall service quality for the Ethio telecom services used as a dependent variable in this study.

Table 5: Correlation between Service Quality Dimensions and overall Service Quality

	OSQ	TG	EMP	ASSU	REL	RS	NQ
Overall Service Quality	1						
Tangibles	.253**	1					
Empathy	.279**	.381**	1				
Assurance	.369**	.370**	.495**	1			
Reliability	.418**	.361**	.538**	.589**	1		
Responsiveness	.381**	.287**	.419**	.460**	.551**	1	
Network Quality	.320**	.027	.032	.237**	.344**	.286**	1

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

(Source: Survey data, 2015)

Correlation in table 5 showed that all service quality dimensions have a strong positive association with the overall perceived service quality. Reliability is found to be significantly and positively correlated with overall service quality ($r=0.418$, $p<0.01$). Responsiveness and assurance have strong and significant correlation with overall service quality ($r=0.381$, $p<0.01$ and $r=0.369$, $p<0.01$ respectively). Besides, network quality, empathy, and tangibles are significantly correlated with overall service quality($r=0.320$, $r=0.279$ and $r=0.253$ respectively at $p<0.01$).

Before proceeding to the multiple regression analysis, the researcher tested the existence of multicollinearity problem. In regression it occurs when independent variables in the regression model are more highly correlated with each other than with the dependent variable. That means when the independent variables in this model are highly correlated with one another (greater than 0.70), they are basically measuring the same thing or they both convey essentially the same information.

Based on the above correlation analysis there is no strong correlation coefficient among the predictors variables which is not greater than 0.70 and this clearly shows there is no multicollinearity problem in this model. The researcher also checked multicollinearity problem using Variance Inflation Factor (VIF), Tolerance and Durbin-Watson value which are under normal range. (Please see appendix 2.9 for full statistical result). This implies that the data is suitable for conducting multiple regression analysis.

4.5 Regression Analysis

In order to investigate the impact of SERVQUAL dimensions on overall service quality, overall service quality score was regressed against SERVQUAL dimensions. To investigate this relationship, multiple linear regression analysis was applied. The aim of this regression analysis was to see the extent to which overall service quality affected by SERVQUAL dimensions, testing **H1.**

As can be inferred from the model summary, overall service quality is explained by service quality dimensions which include the variables of Empathy, Assurance, Reliability, Responsiveness, Network Quality and Tangibles. In this case the R^2 value is 0.689 which is expressed by a percentage. This means that the model (which includes Empathy, Assurance, Reliability, Responsiveness, Network Quality and Tangibles) explains 68.9% of the variance in the overall service quality perception (F=115.89, p<0.05), thereby confirming the fitness of the model. (See appendix 2.9).

Table 6: Multiple Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.643	.201		3.204	.002		
Empathy	.146	.050	.159	2.938	.004	.901	1.109
Assurance	.221	.033	.241	6.594	.000	.667	1.498
Reliability	.386	.048	.443	8.074	.000	.709	1.411
Responsiveness	.127	.031	.152	4.061	.000	.623	1.605
Network Quality	.317	.068	.299	4.652	.000	.713	1.403
Tangibles	.083	.055	.097	1.516	.131	.823	1.215

a. Dependent Variable: Overall Service Quality

R Square=.689

$p<0.05$

(Source: Survey data, 2015)

It is shown in the table that all of the independent variables included in the model contributed to the prediction of the dependent variable except tangibility which was unexpected. Since the study is interested in comparing the contribution of each independent SERVQUAL variable; therefore beta values are used for the comparison.

From all the six predictors, the multiple regression analysis reached at five significant factors (reliability, network quality, assurance, empathy and responsiveness at $p<0.05$ significance level) which were determinants of overall service quality. The β value for reliability is ($\beta=0.443$, $p<.05$); for network quality ($\beta=0.299$, $p<.05$); for assurance ($\beta=0.241$, $p<.05$); for empathy ($\beta=0.159$, $p<.05$); and for responsiveness ($\beta=0.152$, $p<.05$). This means that each independent variable has its own unique contribution to explaining the dependent variable-overall service quality. Therefore, hypotheses **H1** is supported.

This finding has confirmed a significant positive relationship between all dimensions and overall service quality except in the area of tangibility or physical aspects. This implies that customers seemed to emphasize less on the appearance of the physical aspects provided by the Ethio telecom rather customers need consistent network quality, appropriate tariff, consistent service performance, provide the service at promised time and interest on solving customer compliant.

Further, the results of the regression analysis highlighted the priority areas of service improvement and revealed that not all the dimensions contribute equally to the SME customers' perceptions of service quality in ADSL broadband internet of Ethio telecom. The finding indicated that among the various service quality dimensions, reliability and network quality are the first two dimensions with the largest β value of 0.443 and 0.299 respectively. Therefore, superior performance on the most important dimension may be helpful in providing enhanced quality of service and customer satisfaction.

4.6 The Mediating Effect of Customer Value

A mediator is a variable that exists between the independent variable and dependent variable (Baron & Kenny 1986; Mackinnon et al. 1995). The mediation analysis in this section involves the examination of direct and indirect relationships among the constructs. The direct effect involves directional relation between two constructs. On the other hand, the indirect effect is the effect of an independent variable on a dependent variable through one or more mediating variables (Hoyle 1995). Therefore, in addition to the direct effects, this thesis also argues for the existence of indirect effects across the three key constructs (overall service quality, overall perceived value and customer satisfaction).

There are three requirements highlighted by Baron and Kenny (1986) to test the mediation effect:

- First the independent variable (IV) must affect the mediating variable (M);
- Second the independent variable (IV) must affect the dependent variable (DV); and
- Finally the mediating variable (M) must affect the dependent variable (DV).

If independent variable is no longer significant when mediating variable is controlled the finding supports full mediation. If independent variable is still significant (i.e. both IV and M both significantly predict DV), the finding supports partial mediation. Based on this assumption, IV become overall service quality, M becomes perceived value and DV become overall customer satisfaction.

The results of testing mediating model using a stepwise regression analysis are shown in the following tables.

Table 7: Regression Analyses (Overall service quality and overall perceived value)

Model		R Square	Unstandardized Coefficients		Standardized Coefficients	t	F	Sig.
			B	Std. Error	Beta			
1	(Constant)	.136	1.772	.172		10.31	41.5	.000
	OQ		.373	.058	.368	6.45		.000

a. Dependent Variable: OPV=Overall perceived value
Note: OQ=Overall service quality

(Source: Survey data, 2015)

Table 7 explained the direct impact of overall service quality on customer perceived value. The results showed that overall service quality explained 13.6% variance and positive impact (β=0.368, p=0.000) on customer perceived value, therefore **H2** is supported.

Table 8: Regression Analyses (Overall Service Quality & Customer Satisfaction)

Model		R Square	Unstandardized Coefficients		Standardized Coefficients	t	F	Sig.
			B	Std. Error	Beta			
1	(Constant)	.213	1.532	.168		9.10	71.6	.000
	OQ		.480	.057	.461	8.46		.000

a. Dependent Variable: Overall satisfaction
Note: OQ=Overall service quality

Table 8 reflected the direct impact of overall service quality on customer satisfaction. The results showed that overall service quality had explained only 21.3% of the variance in dependent variable with positive impact (β=0.461, p=0.000), therefore **H3** is supported. Therefore, SME customer satisfaction towards ADSL broadband internet service of Ethio telecom will increase when the overall quality of the service increases.

Table 9: Mediating Regression Analysis (Overall Service Quality, Customer Perceived value & Customer Satisfaction)

Model	R Square	Unstandardized Coefficients		Standardized Coefficients	t	F	Sig.
		B	Std. Error	Beta			
(Constant)	.327	.871	.185		4.72	64.12	.000
OQ		.341	.057	.327	6.03		.000
OPV		.373	.056	.363	6.69		.000

a. Dependent Variable: OS=Overall customer satisfaction
Note: OQ= Overall service quality, OPV=Overall perceived value

Based on the above table 9, the relationship between perceived service quality and customer satisfaction was significant (β=.363, p<0.001) when perceived value was included in the analysis. Specifically, the addition of perceived value in the analysis had provided implication that the previous significant relationship between perceived service quality and customer satisfaction (table 8: β=0.461, p<0.001) did not change to non significant (table 9: β=0.327, p<0.001), but the effect size of such relationships was decreased.

In terms of explanatory power, the addition of perceived value in table 9 had explained 32.7% of the variance in dependent variable (customer satisfaction) as compared to 21.3% previously. Statistically, these results showed that after the addition of perceived value in the analysis, the strength of relationship between perceived service quality and customer satisfaction has increased, indicating that perceived value does act as a partial mediating variable in the relationship between perceived service quality and customer satisfaction.

Partial mediation further endorsed by Sobel test of mediation significance. That means once the regression coefficient and standard error for the indirect effect is calculated (Sa=0.373, Std. Error=0.058 and Sb=0.497, Std. Error=0.055), it needs to be tested for significance using Sobel test online calculator. Based on this calculation the result confirmed that customer perceived value mediate partially between overall service quality and customer satisfaction (*Sobel test*= 5.23, p = 0.00), therefore **H4** is supported

4.7 Result of Hypotheses Testing

The results of the analyses were used to answer the hypotheses formulated for this research and the table below shows the summary of the hypotheses and the results.

Table 10: Summary of Hypothesis Testing

Hypothesis	**Statistical test**	**Remark**
H_1: The service quality dimensions positively and significantly affect overall service quality.	Regression	Supported except tangibles
H_2: Overall service quality affects positively and significantly the customer perceived value.	Regression	Supported
H_3: Overall service quality has a significant and positive effect on customer satisfaction.	Regression	Supported
H_4: Perceived value significantly mediates the relationship between service quality and customer satisfaction.	Regression	Supported

(Source: Survey data, 2015)

The preliminary analysis provides evidence that all service quality dimensions have positive and significant relationship except tangible with overall service quality, therefore H1 is supported. This implies that Customers are mostly concerned and focused on the quality of internet signal, which is intangible, rather than on physical facilities, equipment, or the personal appearance of staff. Hypothesis 2, 3 and 4 are supported based on the regression analysis result.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMANDATIONS

This chapter includes summary of findings, conclusions, recommendations of the study, and limitation and implications for further research.

5.1 Summary of Findings

The respondent profile indicated that majority of ADSL internet subscribers are internet café which account for 70% of the total population. Out of 318 set of questionnaires, 267 were returned with complete information, yielding a 84% of response rate and majority of the respondents (21.3%) subscribed the service at enterprise office which is located around Churchil Hotel. The year of experience respondents' have ADSL internet service was classified in to four. That is, less than one year, 1-3 years, 4-5 years and above 5 years which are 26, 173, 50 and 18 respondents. Based on the study, most of the respondents (64.8%) had been using internet broadband service for the past three years and it can be considered that broadband internet service still found at introductory stage.

The main objective of this study is to find out the relationship between overall service quality, perceived value and customer satisfaction. In addition to this, to assess the expectations and perceptions of customers as well as identifying which of the service quality dimensions significantly contribute to the overall service quality.

Data were collected using a questionnaire with five point Likert scale. Both descriptive and inferential statistical techniques were used to analyze the effects of independent service quality dimensions on overall service quality, overall service quality on customer satisfaction and the role of mediating variable (i.e. perceived value).

From the gap score analysis carried out, it was found that the ET service quality is low as perceived by customers. Customers have higher expectations than what they actually receive from ET. The perceived service quality is low as expectations exceed perceptions meaning customers desired more than what was offered to them.

As a result of this gap, it is clear that customers are not satisfied. Among all dimensions the greatest mean expectation was tangibility (X=4.39) followed by reliability (X=4.38) and assurance (X=4.35).

Broadband ADSL customers agree that Ethio telecom have up to date equipment, appealing physical facilities and neat appearance of employees. Customers' perception of tangible was rated high comparatively (X=3.97). This implies that the appearance of the environment is less concern for customers rather they are concerned for dimensions like network quality, consistent service delivery. But still there is a gap on each item of tangible dimensions of service quality. Based on paired sample t-test results, the comparison between expectations and perceptions rated by participants on all four items of tangible dimensions delivered by ET indicated a significant gap on average.

The perception of network quality was the lowest among the six service quality dimensions (X=2.62). This implies that customers' dissatisfied with service disruption, inconsistent internet speed and the speed is very low. Respondents perceptions' about service disruption (service down) and consistent internet speed is low (X=2.42 & X=2.45 respectively). When customers asked if they were receiving the speed ET promised, they did not get the actual speed. Network quality is the most important factor for ET to create customer satisfaction. In other words, customers' level of satisfaction tends to be based on the levels of network quality.

Reliability perception result also the lowest (X=3.00) next to network quality as compared to the rest of service quality dimensions. This reflects the consistency and dependability of ET performance in providing service as promised and by the time that has been agree upon shows weakness.

Customers are also dissatisfied with responsiveness aspect of broadband service quality which has a negative mean difference (X=-0.91). This indicates that customers agree with the assertion that ET is not capable of providing prompt service to the customers and employees are not willing to help customers within reasonable time.

Employees of ET also did not inform customers exactly when the service will be performed and customers take longer waiting time to inform their compliant.

Base on paired sample t-test, assurance and empathy dimensions have a negative mean difference (X=-0.87 and X=-0.78 respectively). This shows customers have neutral opinion about the service quality of ET service quality related to these two dimensions. As compared to other service, majority of customers agree with ET working hours (X=4.16).

Zeithmal's (1988) study suggests that perceived value can be considered as a trade off between a customer's evaluation of the benefits of a service and its associated costs in money, time, and effort. All items under perceived value have lower mean value and the respective standard deviation is far from the mean. Based on the finding ET customers did not get that much benefit from the service as compared to money, time and effort they scarified. (See appendix 2.11).

Processing of the data is using multiple regression analysis and descriptive data analysis was used to see the impact of each dimensions. Based on multiple regression analysis result reliability, responsiveness, assurance, network quality and empathy had significant relationships with overall service quality. Based on the findings, all service quality dimensions explain 68.9% (R^2=0.689) of the variance in the overall service quality perception. The study also analyze the contribution of each independent SERVQUAL variables and five predictors have significant impact on overall service quality at $p<0.05$ significance level.

Based on the path coefficients as shown in table 6, this thesis identified that all of the five dimensions (reliability, responsiveness, assurance, network quality and empathy) are positively associated with service quality. Reliability is considered to have the highest path coefficient among the dimensions of service quality, followed in order by network quality, assurance, empathy, responsiveness. Among the various service quality dimensions, reliability and network quality are the first two dimensions with largest β value of 0.443 and 0.299 respectively.

This implies that reliability and network quality are the strongest dimensions to reflect service quality in Ethio telecom as perceived by SME customers. As a consequence, managers could respond accordingly, by focusing firstly on reliability and network quality and later on other dimensions.

As noted in the analysis tangibility did not significantly influence overall service quality. This can be explained by the fact that high-speed internet is primarily an intangible service. Customers are mostly concerned and focused on the quality of internet signal, which is intangible, rather than on physical facilities, equipment, or the personal appearance of staff. The speed and quality of the internet signal can obviously be measured and evaluated by customers. Internet users are able to tell how fast/slow, strong, stable and reliable the signal is when they use the internet.

Stepwise regression analysis also used to examine the effect of the mediating variable (i.e. perceived value) on customer satisfaction. The results showed that regression coefficients of service quality to satisfaction is $\beta=0.461$ with a p-value 0.000 ($p<0.05$). Regression coefficient of the service quality to customer value is $\beta=0.368$ with a p-value 0.000($p<0.05$). Regression coefficient for customer value to customer satisfaction is $\beta=0.484$ with a p-value0.000 ($p<0.05$). (See appendix 2.10).

One of the major outcomes of this thesis has been the incorporation of customer value in service quality and satisfaction relationship model. The findings highlighted the dominant role of customer value in the conceptual model. The significance of mediating variables (customer value) in the service quality and customer satisfaction relationships has the importance of considering indirect relationships in the service sector. This will provide better information on the nature of the relationships because considering the direct effects will likely only result in incomplete assessments of the basis of these decisions. This implies that even though it is well known that perceived service quality has a significant impact on customer satisfaction, the impact could be stronger if mediating variables (customer value) are added.

Therefore, regression coefficient of overall service quality and customer value to customer satisfaction simultaneously are 0.327 with p-value 0.000 for effect of service quality to customer satisfaction, and 0.363 for effect of customer value to satisfaction with p value 0.000 ($p<0.05$). In terms of explanatory power, the addition of perceived value had explained 32.7% of the variance in dependent variable (customer satisfaction) as compared to 21.3% explained by overall service quality previously. The regression coefficients show that after addition of perceived value in the analysis, the strength of relationship between perceived service quality and customer satisfaction has increased, indicating that perceived value does act as a partial mediating variable in the relationship between perceived service quality and customer satisfaction. This implies that ET should consider perceived value as one factor in customers' evaluation of satisfaction in addition to service quality.

Generally, there are significant and positive relationships between service quality and customer perceived value, service quality and customer satisfaction and customer perceived value and customer satisfaction of ET.

5.2 Conclusion

The main focus of this research was to explore the relationship between overall service quality, perceived value and customer satisfaction. In addition to this, to assess the expectations and perceptions of customers as well as identifying which of the service quality dimensions significantly contribute to the overall service quality.

It is evident from analysis that that the quality of service offered by ET is poor due to a bigger proportion of small and medium enterprise customers (65%) disagree with the performance of ET and as result of this about 57% the customers are dissatisfied with the broadband internet services of Ethio telecom. Analysis shows that mean value of overall service quality and customer satisfaction is low and which shows that the level of service they receive is lower than what they expect. Overall it can be concluded that, respondents do have a negative view towards the overall service quality broadband internet ET is providing and this is a wakeup call for ET.

From the research result, this study can conclude that there is no service quality gap which shows positive result. this means customers' expectations of service quality is higher than their perceptions of service quality at ET, therefore this proves that customer expectation of service quality is not in line with the acceptable levels of service quality in ET. Paired sample T-test revealed that gap exist in every dimension of the service quality of ET broadband ADSL internet service.

The largest mean difference between expectations and perceptions of service were noted from the network quality perspective followed by reliability and responsiveness respectively. On the other hand, the smallest mean difference between expectations and perceptions of the services were identified from the tangibility perspective. As a result of this gap customer being dissatisfied and may stop using the service. Evidence from the study show that, ET has to improve performance on all the dimensions of service quality in order to increase customer satisfaction since customers expect more than what is been offered by ET.

The study identified that significant relationship between service quality and service quality dimensions. Reliability, responsiveness, assurance, empathy and network quality are all factors having direct influence on overall service quality of broadband ADSL. It was found that Reliability is the strongest predictor of service quality followed by network quality and assurance while there was no significant relationship between tangible and overall service quality. This implies that the appearance of the environment is less concern for customers rather they give emphasis for service items like internet speed, service disruption, and consistent service delivery.

Spreng and Mackoy (1996) who illustrated that service quality perceptions were major determinants of customer satisfaction and that service quality leads to satisfaction. Findings also revealed that overall quality of service has significant relationship with customer satisfaction and an increase in service quality will lead to an increase in customer satisfaction.

Yang and Peterson (2004) also found out customer satisfaction is influenced by customer perceived value. That means perceived value has indirect (mediation) effect on customer satisfaction. It can be concluded that customer perceived value has a partial mediation effect between service quality and customer satisfaction. Based on stepwise regression analysis result perceived value mediate the relationship between overall service quality and customer satisfaction.

The statistic results showed that after the addition of perceived value in the analysis, the strength of relationship between perceived service quality and customer satisfaction was increased. This will provide better information on the nature of the relationships because considering the direct effects will likely only result in incomplete assessment and lead to wrong generalization. The study conclude that the third variables exist between overall service quality and the dependent variable (customer satisfaction) which implies that there are other variables that influence the relationship and determine whether relationship is significant or not.

5.3 Recommendations

The following recommendations can be forwarded based on the analysis and conclusions made.

- The study also suggests that reliability was important service dimension of service quality which could contribute to raising the level of customer satisfaction. To be more reliable, ET must ensure that its internet signal is available for their subscribers at all times by installing high capacity uninterruptible power supply device(UPS) which is main factor for internet availability. High-speed internet providers should also provide a technical support call center which is able to solve problems for customers daily, so customers can feel safe and have someone to rely on when any unexpected problem regarding the service occurs. In cases when customers cannot solve problems by themselves, there should be technician available that can come to help customers at their place. ET must give adequate notice to customers of any change, delay or outage of their service and should be able to tell when the service will get back on track.

- According to the finding, network quality is one of the main points that ET should take into a consideration when it wants to improve its service quality. Despite ET expands its network capacity, it only partially met the demand of increasing number of customer base of the company. The study recommends that ET should invest more funds into network expansion and maintenance in order to ensure reliable ADSL connection services at all times without disruption.

- This study finds that responsiveness has significant influence on overall service quality. Management must ensure that services are offered and delivered in a responsive and timely manner. Therefore, all managers make sure that their staff is prompt and shows a willingness to serve the customers' needs. Management should make sure that there are always enough staff and should provide a consistent service at all times.

- The findings of this study indicate that assurance has an important influence on customer satisfaction. ET should bear in mind that the high-speed internet is a new market which is still in the growth stage and the majority of customers do not have much knowledge about the products and services. Hence, employees' knowledge and confidence is imperative to increase customer confidence in the service in order to promote customer satisfaction. It would be wise if ET set up professional training programs to teach and train its employees about the internet services and equipment. This is especially important for front-line staff who need to serve and interact with customers such as staff in sales, marketing, and technical support departments. To provide superior customer service quality, employees in all customer-contact points need to have considerable skills in informing customers about the specific services offered by the company. Management should make these key performers aware of their role and provide them with adequate training in order for them to offer a consistently high standard of service delivery and to minimize fail points in customer encounters. These steps will increase customers' confidence in the company and will result in a positive experience and strong customer referrals. ET should focus on quality technologies, quality employees and quality maintenance to achieve customer satisfaction.

- According to the result obtained from the analysis, perceived value influences customer satisfaction. As compared to neighboring countries particularly Kenya, ET charges high tariff and not consider the income level of majority of the population. Thus, ET should revise its tariff for ADSL broadband service and make affordable for its customers. Besides, customers sacrifice their time and effort to get the service, so ET should deliver prompt service and consider their effort.

- Currently customers experience service disruption (ADSL service down) and they reported at 994 daily or less frequently. Thus, ET needs to work more on complaint resolution systems to make their services more reliable. Based on my observation, Currently ET compliant handling procedure and resolution is very poor. So it is better to introduce and implement Operation Level Agreement (OLA) among division/department/section. This will clearly put all stakeholders responsibility within an organization and it will helps the management to identify which division/department/ section does not perform well and to take corrective actions.

- Currently there is a power problem all over the country and ADSL broadband service mainly depends on electric power, as a result of this customers can not access the service when the power is down. Even if ET already installed Uninterruptible Power Supply (UPS) device as a backup, they have poor quality and melted easily by the heat generated from the device itself. Therefore, Ethio telecom should installed high capacity and durable UPS device as a backup. By so doing, ET ensures consistent internet connection even if there is an extended power failure.

5.4 Limitations and Direction for Future Research

My study has some limitations that offer opportunities for future researchers. Since the scope of the study is limited to Small and Medium Enterprise customers that subscribe ADSL broadband internet service of Ethio telecom in Addis Ababa. So it is difficult to generalize the finding to other Ethio telecom service package users like residential and key account customers in Addis Ababa and outside the main city. This study contained only one mediating variable and researchers should add additional mediating variables for more detailed results. Hence future research should enlarge the scope of study by examining the different factors that could bring effects to customers' satisfaction level of broadband service. Time and resources constraint are another limitation that faced during this study.

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APPENDIX

1. **QUESTIONNAIRE**
2. **STATISTICAL OUTPUT**

1. QUESTIONNAIRE

1.1English Version

ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE

MASTER OF ARTS IN MARKETING MANAGEMENT

RELATIONSHIP BETWEEN SERVICE QUALITY, PERCEIVED VALUE AND CUSTOMER SATISFACTION:

(The Case of Broadband Internet Service of Ethio telecom in Addis Ababa)

This survey is to be conducted as part of a research project which shall be submitted in partial fulfillment of Masters of Art Degree in Marketing Management. The overall purpose of this study is to examine the relationship between Service Quality, Perceived Value and customer satisfaction.

This questionnaire is designed to know your expectation and perception in relation to the quality of broadband internet service rendered to you by Ethio telecom. The results from the study will be used only for academic purpose and the information you provide will be treated with utmost confidentiality.

Thank you very much for your time and assistance!

Bitadel Beressa

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Section A: Company Information

1. **Please indicate (✓) your company basic information in the following question.**
   - ❖ Small Business PLC ☐
   - ❖ Internet café ☐
   - ❖ Hotel and Restaurant ☐
   - ❖ Private Universities ☐
2. **Please indicate (✓) in following question where this service was subscribed.**

- ➢ South West Addis Ababa Zone (**Sarebet**) ☐
- ➢ West Addis Ababa Zone (**Mesalemiya**) ☐
- ➢ North Addis Ababa Zone (**Sidest Kilo**) ☐
- ➢ Central Addis Ababa Zone (**Leghar**) ☐
- ➢ East Addis Ababa Zone (**Bole**) ☐
- ➢ South Addis Ababa Zone (**Saris**) ☐
- ➢ Enterprise shop (**Churchil road branch**) ☐

3. **For how long have you been a customer in Ethio telecom broadband ADSL service? (✓)**

Less than 1 year	☐	1-3 year	☐
4-5 years	☐	Above 5 years	☐

Section B: Service Quality

Below is a set of statements that refer to your expectations and perceptions or opinions about the quality dimensions of Ethio telecom broadband internet service. Please indicate the extent to which you agree or disagree with the following statements by ***circling*** the associated number. The scales are to be interpreted as:

1-Strongly disagree 2-Disagree 3-Neutral 4- Agree 5- Strongly agree

Service Quality Dimensions		**Expectation**	**Perception**
		What are your expectations of Ethio telecom's broadband service?	How do you feel that Ethio telecom's Broadband internet services (level of satisfaction)?
		Strongly disagree Strongly agree	Strongly disagree Strongly agree
No.	**Tangibles**		
TG1	The physical facilities (such as office layout, furniture) at Enterprise business center of the service provider office will be modern and visually appealing	1 2 3 4 5	1 2 3 4 5
TG2	Ethio telecom employees are well dressed and neat appearing	1 2 3 4 5	1 2 3 4 5
TG3	Ethio telecom's has up-to-date equipment.	1 2 3 4 5	1 2 3 4 5
TG4	The appearance of the physical facilities of Ethio telecom is in line with the type of services provided.	1 2 3 4 5	1 2 3 4 5
	Empathy		
EM1	Employees (front line and sales personnel) of service provider will give customer individual attention.	1 2 3 4 5	1 2 3 4 5
EM2	Ethio telecom's has its customer best interest at heart.	1 2 3 4 5	1 2 3 4 5
EM3	Employees of Ethio telecom understand your specific needs	1 2 3 4 5	1 2 3 4 5

EM4	Ethio telecom has operating hours convenient to all its customers	1 2 3 4 5	1 2 3 4 5
	Assurance		
A1	Employees like front line, sales persons and technical persons of Ethio telecom are polite and courteous	1 2 3 4 5	1 2 3 4 5
A2	Employees of Ethio telecom have the knowledge and skill to answer your questions	1 2 3 4 5	1 2 3 4 5
A3	The behavior of employees at Ethio telecom will instill confidence in customers	1 2 3 4 5	1 2 3 4 5
A4	Customers will feel safe that service requests are properly followed up.	1 2 3 4 5	1 2 3 4 5
	Reliability		
RE1	Ethio telecom employees consistently perform their service correctly	1 2 3 4 5	1 2 3 4 5
RE2	Ethio telecom provides the services at the time it promise to do so	1 2 3 4 5	1 2 3 4 5
RE3	Ehio telecom employees show sincere interest in solving customer compliant	1 2 3 4 5	1 2 3 4 5
RE4	Ethio telecom employees consistently respond within promised timeframe for customer compliant	1 2 3 4 5	1 2 3 4 5
	Responsiveness		
RS1	Employees of Ethio telecom give you prompt service	1 2 3 4 5	1 2 3 4 5
RS2	Ethio telecom employees (sales and technical persons) are always willing to help you	1 2 3 4 5	1 2 3 4 5
RS3	Employees of Ethio telecom are never too busy to respond to your requests	1 2 3 4 5	1 2 3 4 5
RS4	Employees of Ethio telecom will tell customers exactly	1 2 3 4 5	1 2 3 4 5

	when services will be performed.		
	Network Quality		
NQ1	Ethio telecom has good network coverage	1 2 3 4 5	1 2 3 4 5
NQ2	Ethio telecom has consistent speed of broadband internet service.	1 2 3 4 5	1 2 3 4 5
NQ3	Service provider's broadband internet speed is high.	1 2 3 4 5	1 2 3 4 5

Section C: Perceived Value

Below is a set of statements that refer to your perceptions about perceived value obtained from Ethio telecom ADSL broadband internet service where you are currently subscribing? Please indicate the extent to which you agree or disagree with the following statements by ***circling*** the associated number. The scales are to be interpreted as:

1-Strongly disagree 2-Disagree 3-Neutral 4- Agree 5- Strongly agree

PV1	I am getting good internet connection speed service for a reasonable price(the trade-offs between service quality and cost)	1 2 3 4 5
PV2	As compared to the time and effort I sacrifice, I get reasonable quality of internet connection.	1 2 3 4 5
PV3	As compared to the total cost incurred, I get good profit by having broadband service.	1 2 3 4 5

Overall Quality

How would you rate the overall quality of broadband ADSL internet service provided by Ethio telecom?

1-Worst 2-Relatively Poor 3-Neutral 4-Good 5- excellent

Overall Satisfaction

Overall, how satisfied are you with broadband ADSL internet services?

1-Higly dissatisfied 2-Dissatisfied 3-Neutral 4-Satisfied 5-Highly satisfied

Overall Perceived Value

How do you rate the overall level of perceived value of broadband ADSL internet service provided by Ethio telecom?

1- Very low 2-Low 3-Neutral 4-High 5-Very high

THANK YOU!

1.2 Amharic Version

መጠይቅ

የኢትዮ ቴሌኮም የብሮድባንድ ADSL አገልግሎት ጥራትና የደንበኞች እርካታ ጥናት

በአዲስ አበባ ዩኒቨርስቲ ንግድ ሥራ ት/ቤት በማርኬቲንግ ማኔጅመንት የድህረ ምረቃ ተማሪ ስሆን በአሁኑ ሰዓት የመመረቂያ ጹሁፌን በመስራት ላይ እገኛለሁ፡፡ የጥናቴ ዋና ርዕሰ ጉዳይ ኢትዮ ቴሌኮም የሚያቀርበው ADSL ብሮድባንድ አገልግሎት ጥራትና አጠቃላይ የደንበኞች እርካታ ምን እንደሚስል ለማወቅ ነው፡፡

መጠይቆቹ የተዘጋጁት ስለ ኢትዮ ቴሌኮም ብሮድባንድ ኢንተርኔት አገልግሎት ጥራት ያለዎትን ቅድመ ግምትና ድህረ ግምት እንዲገልፁ ታስቦ ነው፡፡ ከመጠየቁ ያገኘሁት ውጤት ለትምህርት አላማ ብቻ የምጠቀምበት ሲሆን መልስዎም ሚስጢርነታቸው የተጠበቀ ነው፡፡ ማንኛውም አይነት ጥያቄ ካለዎት በ0911 50 98 63 ይደውሉ፡፡ ለምታደርጉልኝ ትብብር ሁሉ በቅድሚያ ከልብ አመሰግናለሁ፡፡

ቢታደል በሬሣ

ኢ.ሜ.ል፡- bitadel.berissa@gmail.com

ክፍል አንድ፡ የኩባንያው ዓይነት መግለጫ

1. የእርስዎ ድርጅት ከሚከተሉት ውስጥ ከየትኛው ይመደባል?

- ❖ አነስተኛ የቢዝነስ P.L.C ☐
- ❖ ኢንተርኔት ካፌ ☐
- ❖ ሆቴልና ሬስቶራንት ☐
- ❖ የግል ዩኒቨርስቲ ☐

2.እባክዎትን የብሮድባንድ ADSL ኢንተርኔት አገልግሎት ከየትኛው የኢትዮ ቴሌኮም ቢሮ እንደገዙት ይግለፁ፡፡

- ➢ ደቡብ ምዕራብ አዲስ አበባ ዞን (ሳር ቤት) ☐
- ➢ ምዕራብ አዲስ አበባ ዞን (መሳለሚያ) ☐
- ➢ ሰሜን አዲስ አበባ ዞን (ስድስት ኮሎ) ☐
- ➢ ሴንትራል አዲስ አበባ ዞን (ለገሀር) ☐
- ➢ ምስራቅ አዲስ አበባ ዞን (ቦሌ) ☐
- ➢ ደቡብ አዲስ አበባ ዞን (ሳሪስ) ☐
- ➢ ኢንተርፕራይዝ ቢሮ (ቸርችል) ☐

3. ለስንት አመት የብሮድባንድ ADSL ኢንተርኔት አገልግሎት ደንበኛ ሆነው ቆይተዋል?

- ከ1 አመት በታች ☐
- ከ1-3 ዓመት ☐
- ከ4-5 ዓመት ☐
- ከ5 ዓመት በላይ ☐

ክፍል ሁለት፡ የአገልግሎት ጥራት

ኢትዮ ቴሌኮም ስለሚሰጠው የብሮድባድ ADSL ኢንተርኔት አገልግሎት ጥራት ያለዎትን ቅድመ ግምትና በተጨባጭ ያገኙት አገልግሎት ምን እንደሚመስል ልምዶዎትን በመጠቀም አስተያየቶትን የሚገልፀው ትክክለኛ መመዘኛ ቁጥር ያክብቡ፡፡ "5"ትን ማክበብ እርስዎ የኢትዮ ቴሌኮም ብሮድባንድ አገልግሎት ጥራት በጣም ከፍተኛ በመሆኑ የተነሳ **በጣም እስማማለሁ** ማለት ሲሆን ፣ "1"ን ማክበብ ደግሞ በአርፍተ ነገሩ በተገለፀው መሰረት ያለው እምነት ዝቅተኛና **በጣም አልስማማም** ማለት ነው፡፡ እያንዳንዱ መግለጫ እንደሚከተለው ደረጃ ተሰጥቶታል፡፡

1-በጣም አልስማማም 2-አልስማማም 3-መሀል 4- እስማማለሁ 5-በጣም እስማማለሁ

የአገልግሎት ጥራት መግለጫዎች		Expectation	Perception
		ስለ ኢትዮቴሌኮም ብሮድባንድ አገልግሎት ያለዎት ቅድመ ግምት ምንድነው?(expectation)	የኢትዮቴሌኮም ብሮድባንድ አገልግሎት ከተጠቀሙ በኋላ ያለዎት ግንዛቤ (perception)
		በጣም አልስማማም	በጣም እስማማለሁ
ተ.ቁ	**ተጨባጭ ሁኔታዎች (Tangible)**		
TG1	አገልግሎቱ በሚሰጥባቸው ቦታዎች ያሉ አቅርቦቶች ለምሳሌ የቢሮ አቀማመጥ፣መቀመጫ ወንበሮች፣የቢሮ ዕቃዎች ለዓይን ሳቢና ማራኪ ናቸው	1 2 3 4 5	1 2 3 4 5
TG2	አገልግሎቱ የሚሰጡ ሠራተኞች ጥሩ ልብስ ለብሰውና ንፁህ ሆነው ይቀርባሉ	1 2 3 4 5	1 2 3 4 5
TG3	ኢትዮ ቴሌኮም ዘመናዊ የአገልግሎት መስጫ መሣሪያዎች አሉት	1 2 3 4 5	1 2 3 4 5
TG4	ኢቴ ለስራ የሚያገለግሉ ማቴሪያሎች ከሚቀርቡት አገልግሎቶች ዓይነት ጋር አብሮ ይሄዳል፡፡	1 2 3 4 5	1 2 3 4 5
	ችግርን መረዳት (Empathy)		
EM1	የኢቴ ሠራተኞች ለደንበኛ በግል ደረጃ ትኩረት ይሰጣሉ፡፡.	1 2 3 4 5	1 2 3 4 5
EM2	ሠራተኞች የደንበኞችን ትክክለኛ የልባቸው ፍላጎት ተቀብለው ያሥተናግዳሉ፡፡	1 2 3 4 5	1 2 3 4 5
EM3	ሠራተኞች የደንበኞችን ልዩ ፍላጎት ይረዳሉ፡፡	1 2 3 4 5	1 2 3 4 5

EM4	አገልግሎት የሚሰጥባቸው የስራ ሰዓቶች ለሁሉም ደንበኛ ተስማሚ ናቸው።	1 2 3 4 5	1 2 3 4 5
	ማረጋገጫ(Assurance)		
A1	ሠራተኞች ለምሳሌ (front line, sales Person & technical persons) በትህትና ለደንበኞች መልካም አገልግሎት ይሰጣሉ።	1 2 3 4 5	1 2 3 4 5
A2	የኢቴ ሠራተኞች የደንበኛ ችግር ለመፍታት እውቀቱና ክህሎቱ አላቸው	1 2 3 4 5	1 2 3 4 5
A3	የሰራተኞች መልካም ባህሪ በደንበኞች ውስጥ እምነት እንዲኖር ያደርጋል።	1 2 3 4 5	1 2 3 4 5
A4	ደንበኞች ለጠየቁት አገልግሎት ክትትል እየተደረገላቸው መሆኑ መተማመንን ያሳድርባቸዋል።	1 2 3 4 5	1 2 3 4 5
	ታማኝ መሆን (Reliability)		
RE1	የኢቴ ሠራተኞች አስተማማኝ የደንበኛ አገልግሎት ይሰጣሉ።	1 2 3 4 5	1 2 3 4 5
RE2	ኢቴ ቃል በገባው መሰረት አግልግሎት ያቀርባል።	1 2 3 4 5	1 2 3 4 5
RE3	የደንበኛ ቅሬታ (ችግር) ለመፍታት ሠራተኛው ከልብ የመነጨ ፍላጎት ያላቸው መሆናቸውን ያሳያሉ።	1 2 3 4 5	1 2 3 4 5
RE4	ሠራተኞች ቃል በገቡት የሰዓት ገደብ ለቀረበው ቅሬታ ምላሽ ይሰጣሉ።	1 2 3 4 5	1 2 3 4 5
	ምላሽ መስጠት (Responsiveness)		
RS1	ኢቴ ፈጣን አገልግሎት ለደንበኞቸች ይሰጣል፡	1 2 3 4 5	1 2 3 5
RS2	የኢቴ ሠራተኞች ደንበኛን ለመርዳት ፈቃደኛ ናቸው።	1 2 3 4 5	1 2 3 4 5
RS3	ሠራተኞች ለደንበኛ ጥያቄ መልስ ለመስጠት የስራ መብዛት አያግዳቸውም።	1 2 3 4 5	1 2 3 4 5
RS4	የኢቴ ሠራተኞች አገልግሎት የሚሰጥበት ጊዜ ለደንበኞች ያሳውቃሉ።	1 2 3 4 5	1 2 3 4 5
	የኔት ወርክ ጥራት (Network Quality)		
NQ_1	ኢቴ ጥሩ የኔት ወርክ ሽፋን አለው።	1 2 3 4 5	1 2 3 4 5
NQ_2	ኢቴ ፍትነቱ ወጥ የሆነ የብሮድባንድ ኢንተርኔት አገልግሎት ይሰጣል።	1 2 3 4 5	1 2 3 4 5
NQ3	የሚጠቀመበት የብሮድባንድ ኢንተርኔት ፍጥነቱ ጥሩ ነው	1 2 3 4 5	1 2 3 4 5

ክፍል ሦስት፡ ያገኙትን አገልግሎት መመዘን

በሚቀጥለው አርፍተ ነገር ለመግለፅ የተሞከረው ስላገኙት አገልግሎት እና ጠቅላላ ስላወጡት ወጪ ያለዎትን አሳብ እንዲገልፁ ነው። እያንዳንዱ መግለጫ እንደሚከተለው ደረጃ ተሰጥቶታል። 1-በጣም አልስማማም 2-አልስማማም 3-መሀል 4- እስማማለሁ 5-በጣም እስማማለሁ

PV1	ተመጣጣኝ በሆነ ክፍያ ጥሩ የሆነ የኢንተርኔት አገልግሎት አግኝተዋል?	1 2 3 4 5
PV2	አገልግሎቱ ለማግኘት ላጠፋሁት ጊዜ እና ድካም ተመጣጣኝ የሆነ የኢንተርኔት አገልግሎት አግኝተዋል?	1 2 3 4 5
PV3	ካወጣሁት ወጪ ጋር ሳነጻፅረው ትርፋማ ሆኛለሁ ብለው ያስባሉ?	1 2 3 4 5

<u>አጠቃላይ የአገልግሎት ጥራት (Overall Quality)</u>

- **የኢቴ ብሮድባድ ኢንተርኔት አገልግሎት አጠቃላይ ጥራት እንዴት ይገልፁታል?**

1-በጣም መጥፎ 2- መጥፎ 3-መሀል 4- ጥሩ 5-በጣም ጥሩ

- **በአጠቃላይ በኢቴ የብሮድባንድ አገልግሎት ምን ያህል ረክተዋል?**

1-በጣም አረካሁም 2-አረካሁም 3-መሀል 4-ረክቻለሁ 5-በጣም ረክቻለሁ

<u>በአጠቃላይ ስለአገልግሎቱ ያለዎት ግምት (over all perceived value)</u>

- **በአጠቃላይ ኢትዮ ቴሌኮም ያቀረበሎዎት ብሮድባንድ አገልግሎት ካወጡት ጊዜ፣ ድካም እና ገንዘብ ጋር ሲነፃፅር እንዴት ይገልፁታል?**

1-በጣም ዝቅተኛ ነው 2-ዝቅተኛ 3- መሀል 4-ከፍተኛ 5-በጣም ከፍተኛ

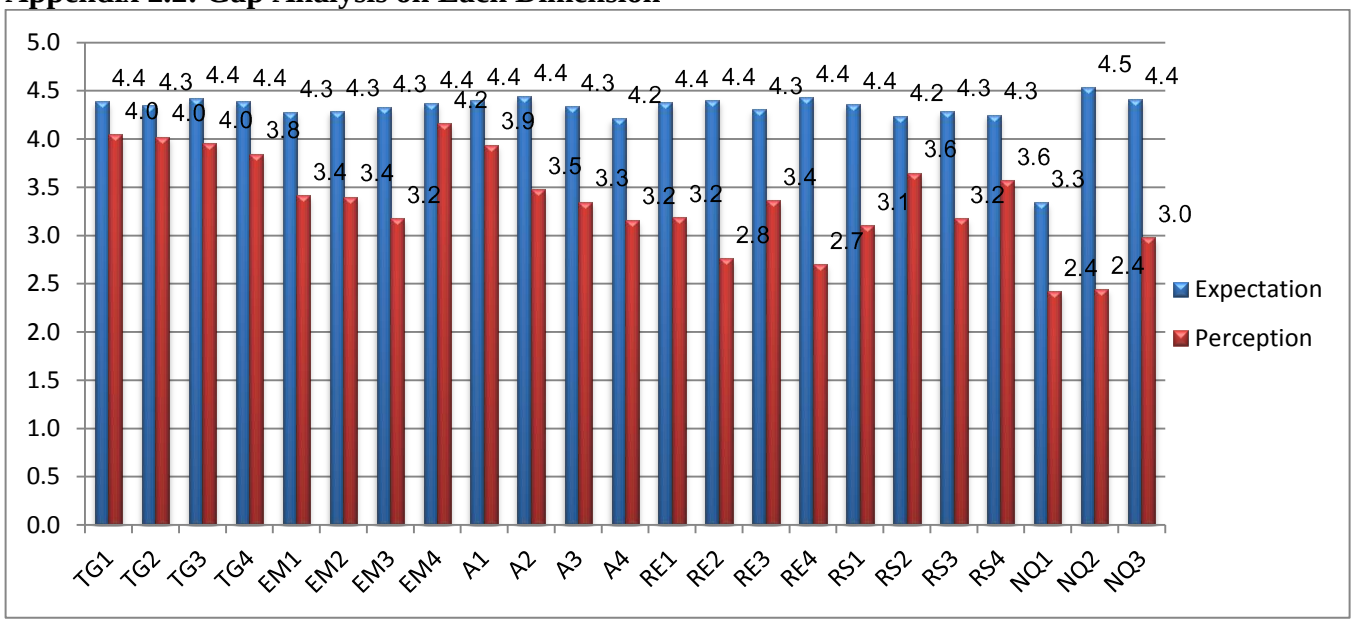
አመሰግናለሁ!

2. STATISTICAL OUTPUT

Appendix 2.1: Response rate

Customer Category	Number of customers	Number of sample	Response rate	% of response rate
Small Business PLC	250	43	36	83.7
Internet café	1296	223	187	83.8
Hotel and Restaurant	157	27	23	85.2
Private University	145	25	21	84
Total	**1848**	**318**	**267**	**83.9**

Appendix 2.2: Gap Analysis on Each Dimension



Appendix 2.3: Mean and Standard Deviation of the Service Quality Dimensions

Paired T-Test		Mean	Std. Deviation	Std. Error Mean
Pair 1	P_TG	3.97	.570	.035
	E_TG	4.39	.405	.025
Pair 2	P_EMPA	3.54	.679	.042
	E_EMPA	4.32	.425	.026
Pair 3	P_ASSU	3.48	.599	.037
	E_ASSU	4.35	.412	.025
Pair 4	P_REL	3.00	.854	.052
	E_REL	4.38	.495	.030
Pair 5	P_RS	3.38	.625	.038
	E_RS	4.28	.410	.025
Pair 6	P_NQ	2.62	.767	.047
	E_NQ	4.10	.608	.037

Note: E_TG =Expected Tangibles, P_TG= Perceived Tangibles, E_EMPA= Expected Empathy, P_EMPA=Empathy, E_ASSU=Expected Assurance, P_ASSU=Perceived Assurance, E_REL= Expected Reliability, P_REL=Perceived Reliability, E_RS=Expected Responsiveness, P_RS=Perceived Responsiveness, E_NQ=Expected Network Quality, P_NQ=Perceived Network Quality.

Appendix 2.4: Paired Sample T-Tests

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
P_TG - E_TG	-.419	.687	.042	-.501	-.336	-9.95	266	.000
P_EMPA - E_EMPA	-.778	.773	.047	-.871	-.685	-16.45	266	.000
P_ASSU - E_ASSU	-.868	.740	.045	-.957	-.779	-19.17	266	.000
P_REL - E_REL	-1.378	1.087	.067	-1.509	-1.247	-20.72	266	.000
P_RS - E_RS	-.905	.751	.046	-.996	-.815	-19.69	266	.000
P_NQ - E_NQ	-1.481	1.002	.061	-1.601	-1.360	-24.13	266	.000

Appendix 2.5: Overall Service Quality

Variables	**Frequency**	**Percent**
Worst	2	1
Relatively Poor	171	64
Neutral	32	12
Good	62	23
Total	**267**	**100**

Appendix 2.6: Overall Satisfaction

Satisfaction Level	**Frequency**	**percent**
Highly dissatisfied	16	6
Dissatisfied	136	51
Neutral	48	18
Satisfied	67	25
Total	**267**	**100**

Appendix 2.7: Mean and Standard Deviation of overall service quality and customer satisfaction

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
OQ	267	1	4	2.82	.938	.319	.149	-1.691	.297
OS	267	1	4	2.88	.976	-.009	.149	-1.528	.297
Valid N (listwise)	267								

Appendix 2.8: Correlation and Regression of All Dimensions with Overall Service Quality

SERVQUAL Dimensions	**OQ**	**TG**	**EMPA**	**ASSU**	**REL**	**RS**	**NQ**
Overall Service Quality	1	.253**	.279**	.369**	.418**	.381**	.320**
Tangibles	.253**	1	.381**	.370**	.361**	.287**	.027
Empathy	.279**	.381**	1	.495**	.538**	.419**	.032
Assurance	.369**	.370**	.495**	1	.589**	.460**	.237**
Reliability	.418**	.361**	.538**	.589**	1	.551**	.344**
Responsiveness	.381**	.287**	.419**	.460**	.551**	1	.286**
Network Quality	.320**	.027	.032	.237**	.344**	.286**	1

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

Appendix 2.9: Multiple Regression (SERVQUL dimensions vs Overall service Quality)

Model Summary

Model	R	R Square	Adjusted R Square	F	Sig.	Durbin-Watson
1	.830[a]	.689	.684	115.898	.000b	1.245

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.643	.201		3.20	.002		
Emp	.146	.050	.159	2.94	.004	.901	1.109
Assu	.221	.033	.241	6.59	.000	.667	1.498
Rel	.386	.048	.443	8.07	.000	.709	1.411
Res	.127	.031	.152	4.06	.000	.623	1.605
NQ	.317	.068	.299	4.65	.000	.713	1.403
Tan	.083	.055	.097	1.52	.131	.823	1.215

Note: Emp=Empathy, Assu=Assurance,REL=Reliability, Res=Responsiveness, NQ= Network Quality

Appendix 2.10: Mediating Regression Analysis (overall service quality, perceived value and customer satisfaction)

A) Relationship between Overall service quality and overall perceived value Regression

Model Summary

Model	R	R Square	Adjusted R Square	F	Sig.
1	.368[a]	.136	.132	41.54	.000[b]

a. Predictors: (Constant), OQ=Overall Service Quality

B)Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.772	.172		10.31	.000
	OQ	.373	.058	.368	6.45	.000

a. Dependent Variable: OPV=Overall Perceived Value

Note: OQ=Overall Service Quality

Relationship between Overall Service Quality and Customer Satisfaction

C) Model Summary

Model	R	R Square	Adjusted R Square	F	Sig.
1	.461[a]	.213	.210	71.6	.000[b]

a. Predictors: (Constant), OQ=Overall Service Quality

D) Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.532	.168		9.101	.000
OQ	.480	.057	.461	8.462	.000

a. Dependent Variable: OS= =Overall Customer Satisfaction

Note: OQ=Overall Service Quality

Relationship between Overall Perceived Value and customer satisfaction

E) Model Summary

Model	R	R Square	Adjusted R Square	F	Sig.
1	.484[a]	.234	.231	81.10	.000[b]

a. Predictors: (Constant), OPV=Overall Perceived Value

F) Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.482	.164		9.016	.000
	OPV	.497	.055	.484	9.004	.000

a. Dependent Variable: OS=Overall Customer Satisfaction

Relationship between Overall Service Quality, Overall Perceived Value and Customer Satisfaction

G) Model Summary

Model	R	R Square	Adjusted R Square	F	Sig.
1	.572[a]	.327	.322	64.118	.000[b]

a. Predictors: (Constant), OPV=Overall Perceived Value, OQ=Overall Service Quality

H) Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.871	.185		4.720	.000
	OQ	.341	.057	.327	6.029	.000
	OPV	.373	.056	.363	6.693	.000

a. Dependent Variable: OS=Overall Customer Satisfaction

2.11: Perceived value Mean and Std.Deviation

Perceived Value	Minimum	Maximum	Mean	Std. Deviation
PV1	1	4	2.63	1.097
PV2	1	4	2.71	.951
PV3	1	5	2.66	1.131

PV1: I am getting good internet connection speed service for a reasonable price (the trade-offs between service quality and cost)

PV2: As compared to the time and effort I sacrifice, I get reasonable quality of internet connection.

PV3: As compared to the total cost incurred, I get good profit by having broadband service.