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# ADDIS ABABA UNIVERSITY

## SCHOOL OF GRADUATE STUDIES

## DEPARTMENT OF BUSINESS EDUCATION

**(Masters Program – Marketing Management Education)**

# ASSESSING CUSTOMER SATISFACTION OF BROADBAND INTERNET SERVCE USERS IN ETHIOPIAN TELECOMMUNICATION CORPORATION

**(The Case Study of Organizational Users in Addis Ababa)**

**BY:**
**GENETWORK MEKONNEN**



**APRIL 2011**
**ADDIS ABABA**

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**(The Case Study of Organizational Users in Addis Ababa)**

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR MASTERS OF ARTS DEGREE IN MARKETING MANAGEMENT EDUCATION


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**DR. WORKU MEKONNEN**


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**APPROVED BY BOARD OF EXAMINERS** **Signatures**

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## Declaration

I, Genetwork Mekonnen, declare that this study entitled "Assessing Customer Satisfaction of Broadband Internet Service Users in Ethiopian Telecommunication Corporation – In the case of Organizational User in Addis Ababa" is my original work. All sources used or referred to have been documented and cited. I further declare that this research report has not submitted in the past. It is offered here in partial fulfillment of the requirements of the degree of Masters of Marketing Management Education.

Name of student: Genetwork Mekonnen Signature and Date _____

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| | | |
|---|---|---|
| ADSL | - | Asymmetric Digital Subscriber Line |
| DNS | - | Domain Name Service |
| IP | - | Internet Protocol |
| VISP | - | Virtual Internet Service Provider |
| VASP | - | Value Added Service Provider |
| ETC | - | Ethiopian Telecommunication Corporation |
| SPSS | - | Statistical Package for Social Science |

## *Abstract*

*The purpose of this paper is to assess customer satisfaction of Broadband Internet service users in ETC in the case study of organizational users in Addis Ababa. A sample of 261 organization customers from three zones i.e., North Addis Ababa Zone, South West Addis Ababa Zone and East Addis Ababa Zone has been targeted for this study. The SERVQUAL model was applied. The descriptive type of study focused on the five dimension of service expectation and perception i.e., Tangibles, Reliability, Responsiveness, assurance and Empathy. The result shows that all five dimensions recorded a negative service quality gap score. This indicates that the respondent's perception fall short of their expectations. The reliability dimension shows the highest gap score (-0.70), Then, tangibility (-0.57), responsiveness (-0.54), empathy (-0.51) and assurance (-0.45). This is indicating a certain degree of dissatisfaction among the customer. As per the result of the research, the organizational customers are dissatisfied, so providing more attention for improvement of delivering quality service in all dimensions is recommended.*

# Chapter One

## Introduction

This chapter introduces the whole study. It presents the background, statement of problem, objective of the study, significance of the study and organization of the study. By reading these contents, readers will understand partly the purpose of research as well as meaning of the study.

### 1.1 Background of the Study

In any business organization, especially in service rendering firms, the key component of a business i.e., either for its existence or profitability is providing quality services to its customers. The national development strategies of Ethiopia recognize telecommunication as one of the critical and key drivers to bring about the required transformation. Indeed, there is now substantial evidence that indicates the vital role that telecommunications and information technology play in the creation of jobs, products, services and exports, and also as an enabling technology through enhancing productivity virtually in all types of industries in the context of Ethiopia.

Satisfaction from service quality is usually evaluated in terms of technical quality and functional quality (Gronroos 1984). Usually, customers do not have much information about the technical aspects of a service; therefore, functional quality becomes the major factor from which to form perceptions of service quality (Donabedian 1980, 1982). Service quality may be defined as customer perception of how well a service meets or exceeds their expectations (Czepiel 1990). Service quality can be measured in terms of customer perception, customer

expectation, customer satisfaction, and customer attitude (Sachdev and Verma 2004). Ekinci (2003) indicates that the evaluation of service quality leads to customer satisfaction. Rust and Oliver (1994) define satisfaction as the "customer fulfillment response," which is an evaluation as well as an emotion-based response to a service.

Over the last few years, companies have gradually focused on service quality and customer satisfaction. This strategy is very profitable for both companies and customers, particularly for telecom industries. An improvement of the supplied service quality can attract further user. The development of techniques for customer satisfaction analysis is necessary. The techniques allow the critical aspects of the supplied services to be identified and customer satisfaction to be increased. (Cuomo, 2000).

Internet is an information network through which several millions of computers throughout the world are connected each other and hence it could be considered as a huge fishing net that serves as a means to an information communication technology transfer. As the capacity of the broadband increases, the information transfer services like sending and receiving of data to/from the Internet, downloading and uploading and e-mail communication services also increase in size as well as speed.

People living in all the four corners of the world can use this information technology. This channel uses to exchange information, knowledge, and engaging in online trade transaction as well as to transfer their social, cultural and political outlooks by checking a single button within a fraction of seconds and with out distance barrier.

The Ethiopian Telecommunication Corporation has transferred the service from narrowband to broadband service as of January 2005.

(Company profile, 2008). In order to successfully meet the ever increasing demands of the customer and to increase the service capacity, reliability, quality, speed and size of data transfer, which was rendered using Narrowband Internet services.

In addition, the corporation has facilitated to render broadband internet services to government organizations, private and commercial companies, and international institution based on their type and size of their needs. (Company profile 2008)

This research will be an attempt to put forth the role of service quality in affecting customer satisfaction in the context of ETC Broadband Internet services, with special reference to organizational users by using one method of measuring service quality is with an instrument called SERVQUAL, which is based on the difference between what customers expected and what they received. (Clow and Kurtz, 2003)

## 1.2 Statement of the Problem

One of the greatest challenges of service companies is to ensure continuous quality services to the customers. The design of effective quality management process alone cannot ensure the achievement of the desired objective. The management should be able to gear the system towards efficient functioning. A service system should be capable of adopting itself to the changes.

Ethiopian Telecommunication Corporation is the sole public operator for broadband internet services of the country. It is obvious that telecommunication is one of the most fundamental elements for economic, social and political development of a country. It is also expected to help the country fully integrated into the modern global

economy and serve as a hub for commerce and communication at a regional level. (Company profile, 2010)

The tentative problem definition statement and the information provided by clients are only the first step in formulating the problem (Dillon et al., 1993). As stated by Customer's and ETC complaint handling desk officers, in the process of achieving objectives of broadband Internet service, the corporation faced challenges in delivering quality service and customer satisfaction.

For instance the problem that revolves around includes:

1. In the case of speed variation, customer didn't get as they requested & paid.
2. The problem related to line:
    - Old and faulty primary line
    - Due to shortage of line, customers will be served from long distance in this case the insulation is low as the same time connection quality is also low.
3. Fixed wireless:
    - Poor connection quality due to long building, trees and other object will cause continuous interruption.
4. Customer premises equipment problem
    - Handling problem
    - Power fluctuation
5. Centralized Service Provisioning
    - Late fault handling
    - Late service acquiring for new customer, from the customer request to service installation takes longer process, time consuming and complex due to this process the sales person also have lack of interest.

6. Pricing problem
    - High subscription fee
    - High monthly payment
    - Flat rate
7. Billing Problem
    - Customer got their account later
    - The service didn't sold online

As known that ETC is the only service provider in Broadband Internet service of the economy. Customers have no choice to go beyond its operations and services. However, they may have an opportunity to be aware of, and compare the corporation's offerings with other international operators. Besides all efforts that ETC exerts in delivering quality service in order to satisfy its customers, the corporation still encounter with some visible problems those may probably affect customer satisfaction.

Thus carrying out a research in order to determine the customer satisfaction of ETC's Organizational users seems to be significant in providing insights on major issues related to service. And this in turn, will contribute the company in achieving its goals. With the above problem in mind, the researcher defined the research objectives and research questions.

## 1.3 Research Questions

1. What are the relevant service quality dimensions used by customer to evaluate service quality?
2. What are current expectations and perceptions held by organizational users with respect to services provided by ETC Broadband Internet Service?
3. In which dimension the gap between customers' expectations of the service delivery and their actual perceptions are higher?
4. What are the factors determining overall user satisfaction with ETC Broadband Internet organizational users?

## 1.4 Research Objective

A number of studies in different field confirmed that service quality is the antecedent towards customer satisfaction. (Cronin & Taylor, 1992; Deryuter et. al., 1997). The purpose of this research is to investigate the expectation and perceptions of service quality in ETC Broadband Internet service from the perspective of Organizational users and customer satisfaction. The aim of the SERVQUAL model is to compare customers' expectation with the actual service quality perceptions in terms of tangibility, reliability, responsiveness, assurance and empathy and which variable is more important than others to address for corporation.

More specifically, this research aims to:

- To identify the relevant service quality dimensions used by customer to evaluate service quality.
- To identify the current expectations and perceptions held by organizational users with respect to services provided by ETC Broadband Internet Service.

- To examine the gap between customers' expectations of the service delivery and their actual perceptions regarding their experiences.
- To identify the factors determining overall user satisfaction with ETC Broadband Internet organizational users.

## 1.5 Significance of the Study

This research will help ETC:

- To rank the service quality factors and to find the most important service quality dimensions that affect customer satisfaction in Broadband internet service.
- The findings of this research are mostly useful to an input for the company managers and policy makers regarding the area of service most in need of attention.
- The study will be also hoped to contribute idea for other researchers who wants to conduct further studies in the service quality measurement.

## 1.6 Scope of the Study

The scope of the research study was restricted to look at only customers located in Addis Ababa offices i.e., Eastern Addis Ababa Zone, Northern Addis Ababa Zone and South Western Addis Ababa Zone.

The research study scopes that have been identified are as follows:

- Find the most important service quality dimensions that affect customer satisfaction in Broadband Internet Organizational users.
- Focus on customer (not provider) and the gap between expected service and perceived service.

## 1.7 Limitations of the Study

The timing of the administration of questionnaire could present it self as a limitation. The questionnaire administration was conducted during the organization working hour. Therefore there was not much pressure in meeting organizational customers. That is why the researcher is not collected all the questionnaires from respondents. A total of 261 questionnaires were distributed to eligible respondents, of those, 227 were usable for further analysis. Non-response and missing answer accounted for the rest is the limitation of the study complete. In addition, unavailability of adequate customer satisfaction on service quality issues literature in Ethiopian context.

## 1.8 Operational Definition of Terms

Service - is intangible activities performed by a person or machine or both for the purpose of creating value perception among customers.

Quality - is customer satisfaction index or any service in which satisfaction is measured by any criteria at the end of the service process.

Service Quality - is a gap between customers' expectations of service and their perception of the service experience.

SERVQUAL scale - is principal instrument in the service marketing literature for assessing quality.

Organizational Users - is the actual Broadband Internet users i.e., Government organization, Non-government organization, Big and small business.

## 1.9 Organization of the Study

This study is divided into five chapters in general. First of all chapter one, namely introduction will be discussed about research background, statement of the problem, objective of the study, significance of the study, limitation of the study and organization of the research. Secondly, chapter two, namely literature review, will be discussed about a comprehensive literature including some articles that are references for this study. Next, chapter three namely research methodology, will be directed to research frame work, research design, sampling design, data collection procedures and data analysis procedures. Following is chapter four, namely analysis result. This part will be outlined final findings that the study achieves. Finally, the last one is chapter five is dedicated to summary, conclusions and recommendations of all overall study.

# Chapter Two

## Literature Review

This chapter will give an overview of literature and models that are related to the research problem presented in the previous chapter. In this chapter the researcher is introduced the concepts of service, service quality, customer satisfaction, relation between customers satisfaction and service quality, service quality dimensions and service quality model in order to give a clear idea about the research area.

## 2.1 Services

### 2.1.1 Services Defined

Philip Kotler and Bloom (1984) defined service as "any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product." The focus was given to the absence of ownership as a special feature of services, which has significant business implications.

According to Gronroos (1990) " a service is an activity or series of activities of more or less intangible nature that normally, not necessarily take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems". This is the definition in which an attempt was made to include all important issues relating to service management.

Zeithmal and Bitner (2004) said "Services are deeds, processes and performances." Service is represented to the client through problem

analysis activities, meetings with the client, follow-up calls, and reporting a series of deeds, processes, and performances. Although it seems that the definition is more precise, it provides marketing orientation to the services concept. This definition gives an understanding that the consumer is interested in deeds, processes and performances in perceiving the value of the service.

Services may be defined as intangible activities performed by persons or machines or both for purpose of creating value perceptions among consumers. Since, services are intangible activity (ies) or benefit (s) produced by the service provider, in association with the consumer, its quality results in perception and value assessment by the consumer.

### 2.1.2 Basic Characteristics of Services

Four service characteristics are differentiated in service marketing, namely: intangibility, inseparability, perishability and heterogeneity (Lamb et al., 2004). These service characteristics will be discussed below.

#### a) Intangibility

Services cannot be seen, touched, tasted or felt in the same manner in which physical goods can be sensed. Moreover, services cannot be stored and are difficult to duplicate (Kotler, 2000). They are described as experiences or processes (Doyle and Stern, 2006). The lack of easy reference points can make it difficult for customers to distinguish among competing suppliers (Lovelock and Wirtz, 2007). This scenario creates a problem to the suppliers in communicating to the buyer exactly what is on offer. A customer cannot really evaluate a service until it has been consumed. Intangibility of services is the prime source of performance ambiguity.

Intangibility is also known to pose problems for the supplier. The absence of physical characteristics makes it difficult to display and differentiate the service offered (Doyle and Stern, 2006). To counter these problems, the authors suggest that the company should stimulate personal influence sources such as word of mouth recommendations and to provide incentives for opinion leaders to try the service. The company can also develop tangible cues that suggest high-quality service, such as knowledgeable staff, modern equipment, advertising in the reverent magazines and trade shows.

**b) Inseparability**

Services are sold and produced at the same time and at the same place. Consumption and production are two inseparable activities of a service and the customer has to be present during the production of the services (Lamb et al., 2004). In telecom industry, the staff generally will personify the business to the client. A customer, who likes or admires the employee, is likely to be pleased with the service (Doyle and Stern, 2006). In the role of services, employees are central for creating successful exchanges, but the role the customers play in the interaction cannot be overlooked. Customers play decisive roles in creating service outcomes; they enhance or diminish their own satisfaction and value received. The expectations and attitudes that customers bring to a service encounter can positively or negatively affect the service's delivery.

**c) Heterogeneity**

Heterogeneity, as a characteristic, is most applicable to a company with a large staff complement and it suggests that services tend to be less standardized and uniform than physical goods (Lamb et al., 2004).

This situation arises because services involve people at the production and consumption ends. The quality of the service is dependent upon the individual employee in charge of it, the individual customer receiving the service and the time the service is performed. All are extremely variable (Doyle and Stern, 2006). The authors further discuss that, unlike machines, people are not normally predictable and consistent in their attitude and behavior. This attribute makes it difficult for the company to develop a consistent brand image.

**d) Perishability**

Unlike physical goods or products, a service cannot be stored or inventoried, and, as a result, it is impossible to regain once the opportunity is lost (Lambin, 2000).

Employees can have a considerable impact on customers' perceptions of and satisfaction with a service (Sierra and McQuitty, 2005). Masmanidis, Vassiliadis and Mylonakis (2006) explain that services differ from products due to the nature of the service, i.e., they are intangible, inseparable, perishable and variable. Customer expectations reflect the desired level of service, the level at which customers are willing to accept and believe that they will eventually receive. Lovelock and Wirtz (2007) state that companies, which practice best service, have made enormous progress in reducing variability by adopting standard operating procedures, implementing rigorous management of service quality, training staff carefully and automating tasks previously performed by people. These companies make sure that their staffs are adequately trained in service recovery procedures in case things do go wrong.

Due to the above mentioned characteristics of services, service providers face varied problems and challenges in marketing, when compared to producers of goods.

### 2.1.3 Services versus Customer Service

According to Zeithmal and Bitner, (2004) services can be offered to the market place by manufacturers and technology companies as well. Customer service is also provided by all types of companies including manufacturers, IT companies, and service companies. Customer service is the service provided in support of a company's core products. Telecommunication customer service most often includes answering questions, taking orders, technical advices, dealing with billing issues, handling complaints, and perhaps scheduling maintenance or repairs. Customer service can occur on site (as when a retail employee helps a customer find a desired item or answers a question), or it can occur over the phone or via the Internet. Many companies operate customer service call centers, often staffed around the clock.

### 2.1.4 Challenges of Services

According to Zeithaml V. & Mary Jo Bitner, (2004), Because of these characteristics of services, marketers of services face some very real and distinctive challenges. Telecommunication industry have challenges revolve around understanding customer needs and expectations of service, making the service offering intangible, dealing with myriad people and delivery issues, and keeping promises made to customers.

According to Ghobadian, Speller, & Jones, (1994) Service marketers have face many challenges i.e., defining and improving

quality, communicating and testing new services, communicating and maintaining a consistent image, motivating and sustaining employee commitment, coordinating marketing, operation and human resource efforts, setting prices, and Standardization versus personalization.

"Quality" in a service organization is a measure of the extent to which the service delivered meets the customer expectations. The nature of most services is such that the customer is present in the delivery process. This means that the perception of quality is influenced not only by the "service outcome" but also the "service process".

The "perceived quality" lies along a continuum. "unacceptable quality" lies at one end of this continuum, while "ideal quality" lies at the other end, the points in between represent different gradations of quality (Ghobadian et al., 1994). Further more, Gronroos (1990) describes the quality of service is having two dimensions- a technical or outcome dimension and a functional or process-related dimension. In addition, the author identifies the corporate image dimension of quality.

## 2.2 Definition of Service Quality

Service quality is "the delivery of excellent or superior service relative to customer expectations" (Zeithaml and Bitner, 1996, p.117) and occurs for most services during the interaction between a customer and a service provider (Zeithamal et al., 1988)

Veltschy et.al, (2004) define service quality as the consumer's judgment about overall excellence or superiority of the service. Perceived quality can be defined as the consumer's judgment about an entity's over all excellence or superiority (Zeithaml, 1987), or as the result of

comparing a customer's expectations prior to receiving the service quality the customer's experiences with the service (Lilander and Strandvik, 1993).

DeMoraville and Bien Stock (2003) identify service quality as a measure to assess service performance, diagnose service problems, manage service delivery, and as a basis for employee and corporate rewards.

## 2.3 Development of SERVQUAL

Providing high quality service is increasingly recognized as a critical factor in the success of firms in the Telecommunication Industry (Fick and Ritchie, 1991). Gronroos (1984) model of service quality has been recognized as a seminal work in service quality research.

From a theoretical perspective, two basic schools of thought exist. The European school of thought maintains that consumers judge the quality of service on two broad aspects.

(1) the service delivery process-the way the service is performed (e.g. the behavior telecommunication employee); and
(2) the service out come – the end result of the service (e.g. the Telecommunication provides communication service (Parasuramal, 1987)

Both facets impact consumers' service quality evaluation and choice behavior (Richard and Allaway, 1993). These two facets suggest two service quality components: out put quality (technical quality) and process quality (functional quality). Technical quality refers to how well the core service meets the customers' expectations; functional quality

refers to the impact of the interaction process or how the service production and delivery process itself is perceived (Gronroos 1984). This latter dual concept suggests that service firms not only provide quality out put, but "develop an on going relationship with a customer by offering a good interaction process as well" (Gronroos, 1984, p.253). Furthermore, the technical quality has to be on an acceptable level, but it is no longer the only quality dimension of importance, and its part of the total perception of quality may even be marginal as long as it remains acceptable" (Gronroos, 1984, p.254)

Functional quality is embedded in the service encounter; it largely depends on the interaction between service provider and the customer (Walker, 1995). "It is the process of customer-employee interaction, that dominates customer evaluations of these services" (Parasuraman, 1987, p.41) This interaction lends itself to the development of social bonds that enable the service firm to learn about their clients' needs and wants (current and anticipated), which in turn facilitates the customization of the relationship. (Berry and Parasuraman, 1991). "In most services, quality occurs during service delivery, usual in an interaction between the customer and contact personnel of the service firm" (Zeithaml et al., 1988, p.35) Thus, the management of the buyer-seller interaction might be more important that other traditional marketing activities (Gronroos, 1984).

Gronroos (1990) include "image" of the service provider as the third dimension, in addition to technical and functional quality in service evaluation.

**Corporate Image**

- Sincerity, honesty and ethics followed by the corporation in providing services to you.
- Reputation enjoyed by the corporation.

- Investment in new technologies and innovative practices by the corporation

Corporate image in a service marketing literature was early identified as an important factor in the over all evaluation of the service and the company (Bitner, 1991; Gronroos, 1984) Apart from image as a function of accumulation of purchasing/consumption experience overtime, most organizations also provide complex and noisy informational environments (e.g. advertising, direct marketing) in order to attract new and keep existing customers. In the perceived quality model (Gronroos, 1988) perceived quality is a function of expected quality (generated from market communication image, word of-mouth, and customer needs) and experienced quality (generated from technical quality and functional quality).

The US school of thought on service quality identifies five service quality dimensions, which in general correspond most closely to the European process component of the service. While for services with more concrete out comes (e.g. getting a hair cut), the customer most likely judges the quality on this outcome, many services including legal, health, telecommunication, and educational services are rather complex, and a clear outcome is not always evident or the outcome is continuous rather than terminal. In these situations, the outcome is most likely difficult to judge. And if customers cannot judge the outcome quality of the service, they will likely base their judgment on process dimensions (Zeithamal and Bitner 1996). How ever, some researchers have extended the US school of thought by adding an additional component to reflect the service out come dimension (Richard and Allaway, 1993).

The original dimensions are reliability, responsiveness, assurance, empathy and tangibles (Zeithaml et.al,. 1993)

- **Tangibles** include the service provider's appearance of physical facilities, their equipment, the appearance of employees and written material.
- **Reliability** is the ability of the service firm to perform the service promised dependably and accurately. In terms of reliability, employees are trained that making and keeping promises an important aspect of their job. The staff is required to provide customers with an estimated time for the service, whether it is for speed, maintenance, and billing payment. Once made, all promises are to be kept. Reliability is considered a critical component of Broad Band Internet service quality pledge.
- **Responsiveness** is the willingness of the firm's staff to help customers and to provide then with prompt service. Responsiveness is illustrated by three principles:
  - Offering or providing service that goes beyond what is being asked,
  - Going out of the way to provide assistance, and
  - Displaying a positive mental attitude that exemplifies the rating
- **Assurance** refers to the knowledge and courtesy of the company's employees and their ability to inspire trust and confidence in the customer. In terms of assurance, ETC Broadband Internet service conveys trust by empowering their employees. If a customer problem occurs, the employee has the power and access to resources to correct the problem.
- **Empathy** is the caring, individualized attention the service firm provides each customer. While it is difficult to train employees to be empathetic, and strives to instill this characteristic in every employee by using the HEART model. First, employees are to Hear what a customer has to say (the H), second they are to Empathize with customers (the E), third they are to Apologize for the service

problem (the A), fourth they are to Respond to the guest's needs (the R), and finally, they are to Take action, and then follow up (the T). When followed, the HEART model will convey to a customer a feeling of empathy. (Kenneth et al. 2003)

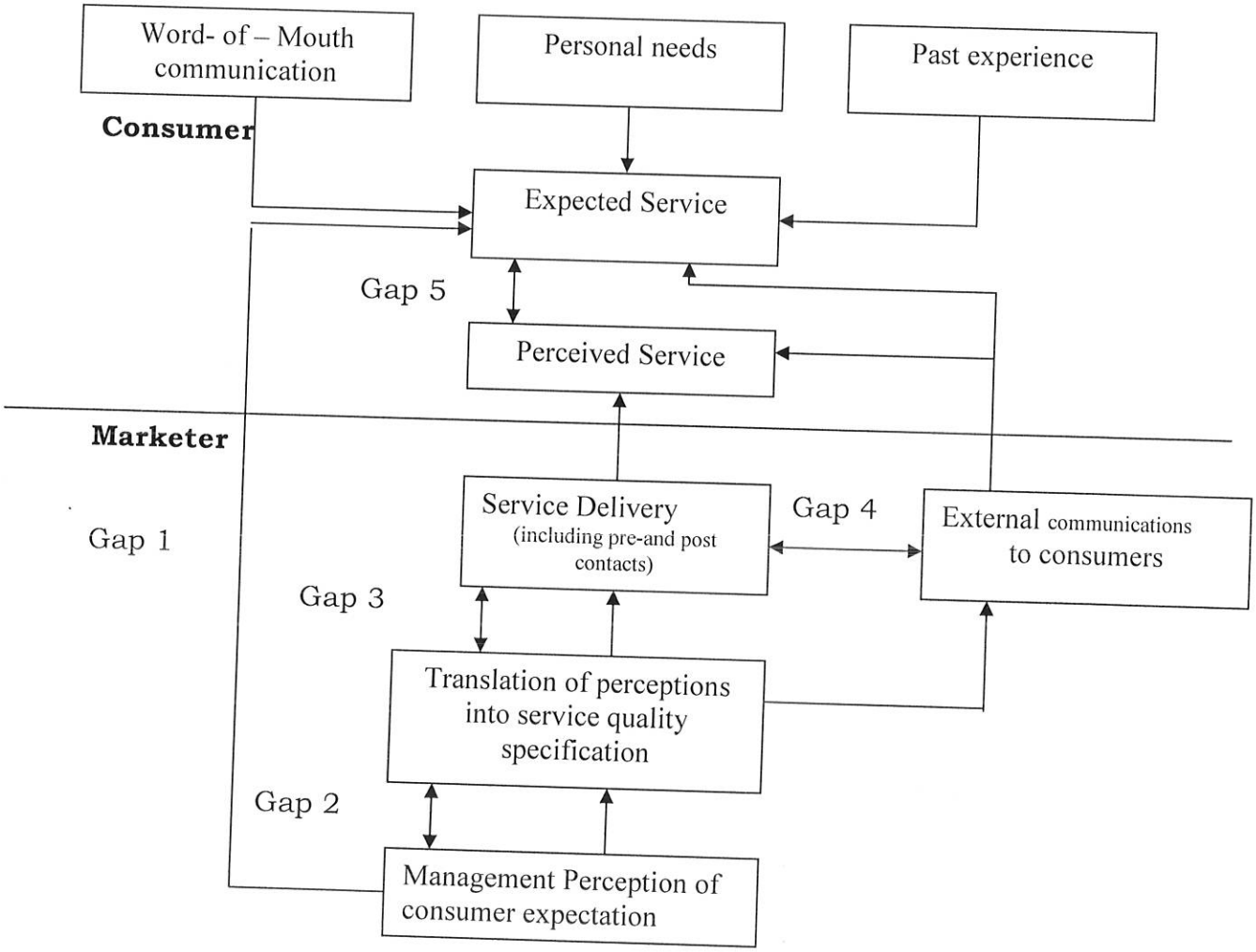
Of these five dimension reliability corresponds most closely to the out come aspect with the European school of thought.

The aforementioned US service quality conceptualization is measured with the SERVQUAL instrument. No other single construct in services marketing has been applied and replicated as many times as service quality measured by the SERVQUAL instrument (Foster and New man, 1998, Chernet et al. 1999). Indeed the introduction of this measure has inspired researchers from across disciplines in their quest to find a unified measure of services quality and has achieved institutionalized status (Hussey, 1999).

It has been suggested that the SERVQUAL instrument "...may need modification in any specific context. Such modifications might be included the omission or addition of scale items depending on the particular context of the application" (Hussey, 1999, p.89).

## 2.4 Service Quality Gaps

The 'GAP' model of service quality which was developed by Parasuraman, Zeithamal and Berry serves to the purpose, if executed properly.




**Conceptual model of service quality-the GAP analysis model**

**Source:** Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1988),

The GAP model of service is divided into two parts. One part relates to the internal process in a customer and the other part relates to the process involved between service provider and consumer. In the GAP model, five gaps are identified, taking into consideration the possible discrepancies between the elements of the service management process.

Each GAP arises due to inconsistencies and deficiencies in the quality management process. Let us examine how gaps arise and the

possible reasons for each gap to develop in a service organization. (Zeithaml et.al., 1990)

**GAP One: Management perception gap** (The difference between expected service by customers and the management's perceptions of consumer expectations) Service companies often fail to understand properly the expectations of consumers. Improper understanding or misunderstanding of consumer expectations is one of the root causes for not delivering services that satisfy consumer expectations. The reasons for the gap to arise may be many. The key factors leading to GAP One are as follows:

- Insufficient marketing research
- Inaccurate information from marketing research
- Poorly interpreted information about expectations
- No demand analysis
- Research not focused on service quality
- Lack of interaction between management and customers
- Insufficient upward and downward internal communication system
- Too many organizational layers between contact personnel and top management
- No proper market segmentation
- No relationships focus

Lack of proper understanding of consumer expectation may trigger a chain of bad decisions and finally result in poor quality perception by the customers. Service companies should analyze the gap properly and try to fill it.

**GAP Two: Quality Specification gap** (The difference between the company perception of customer expectation and customer driven service designs and standards) The accurate perceptions of service providers

about customers expectations may not be sufficient for delivering superior quality service. Service companies may have excellent communication and information network and may be capable of managing without any gap at the first level. GAP Two is the second milestone the companies should cross with excellence in performance. Service design and performance standards are prerequisites for that. Translation of the service quality specifications is really a complex job the service providers have to handle.

GAP Two may occur due to the following reasons:

- Mistakes in planning or insufficient planning procedures
- Lack of customer-driven service standards
- Lack of formal process for setting service quality goals
- Lack of management commitment
- Unclear service designs
- Unsystematic new service development process
- Lack of support from top management

**GAP Three: Service delivery gap** (The difference between customer-driven service designs and standards and ser vice delivery) Formulation of clear guidelines for performing services may not assure quality service performance. The standards must be supported by adequate and appropriate resources such as people, systems and technology. Employee motivation and satisfaction play an important role in this process. The possible major reasons for GAP Three are as follows:

- Complicated and/or rigid process specifications
- Deficiencies in human resource policies such as ineffective recruitment, role ambiguity, role conflict, improper evaluation and compensation system, lack of empowerment, absence of perceived control and team work, poor employee job fit and so on.
- Ineffective internal marketing

- Poor management of service operations
- Failure to match demand and capacity
- Inappropriate customer meets
- Lack of proper customer education and training and so on

**GAP Four: Market communication gap** (The difference between service delivery and external communications to customers) Service companies make promises through external marketing process to current as well as potential customers. The promises made through communication media potentially raise customer expectations. These expectations will serve as standards against which the customer evaluates the experienced quality of service. The discrepancy between actual service and the promised one may occur due to the following reasons:

- When a company fails to integrate marketing communication with service operations
- Over-promising in external communication campaign
- Failure to manage customer expectations
- Failure to perform according to specifications

**GAP Five: Perceived service quality gap** (The gap between perceived service and expected service) the reasons for this gap are difficult to analyze but organizations can reasonably expected some negative effects when such a gap arises. GAP Five may result the following:

- Negatively confirmed quality
- Bad reputation
- Lost customers
- Negative corporate or local image

Service companies need not look for negative results only in this process. This GAP can also be positive. If the perceived quality exceeds

the expected quality, the customers are satisfied and it will benefit the organization.

The GAP analysis model guides the management to find out the real reasons for quality problems and to discover appropriate ways to close such gaps. The understanding of the possible gaps will help the management to check various levels and prevent possible errors. A thorough audit of all these possible errors, time and again, will make the service provider confident and such confidence percolates to the frontline employees of the organization; they can then perform well in encounters with customers.

## 2.5 Measuring Service Quality Using SERVQUAL

A topic of particular interest in service quality research is the issue of measurement. Measurement allows for comparison before and after changes, for the location of quality related problems and for the establishment of clear standards for service delivery. In this respect, the "expectation/performance" conceptualization of service quality led Parasuraman, Zeithaml, and Berry to develop the SERVQUAL approach for measuring service quality in 1988. This method assesses both the consumer's service expectations and perceptions of the provider's performance. Gap theory is the method for calculating service quality that involves subtracting a customer's perceived level of service received from what was expected (Kenneth et al. 2003).

The five SERVQUAL dimensions are a concise representation of the core criteria that customers employ in evaluating service quality. As such it is reasonable to speculate that consumers would consider all five criteria to be quite important (Parasuraman, 1988).

According to Kenneth & David 2003, SERVQUAL uses 21 questions to measure the five dimensions of tangibility, reliability, responsiveness, assurance, and empathy. Through SERVQUAL, firms can measure customers' evaluation of their service performance.

Several authors (Rohini and Mahandevappa, 2006) listed the advantages of SERVQUAL as follows:

- It is accepted as a standard for assessing different dimensions of service quality.
- It has been shown to be valid for a number of service situations.
- It has been known to be reliable.
- The instrument is parsimonious in that it has a limited number of items. This means that customers and employers can fill it out quickly.
- It has a standardized analysis procedure to aid interpretation and result.

## 2.6 Customer Expectation of Service

According to Zeithaml and Bitner, (2004) Customer expectations are beliefs about service delivery that function as standards or reference points against which performance is judged. Because customers compare their perceptions of performance these reference points when evaluating service quality, thorough knowledge about customer expectations is critical to services marketers. Knowing what the customer expects is the first and possibly most critical step in delivering quality service.

## 2.7 Perceived quality and value

Perceived service quality is defined as "the consumer's judgment about a product's over all excellence or superiority" (Zeithaml, 1988). According to Juran (1988) consists of two primary elements:

(1) to what degree a product or service meets the needs of consumers; and
(2) to what degree a product or service is free from deficiencies

Service quality is believed to depend on the gap between expected and perceived performance. (Anderson and Sullivan, 1991)

Perceived value is the customer's over all assessment of the utility of a product based on perceptions of what is received and what is given.

## 2.8 Customer satisfaction

Customer satisfaction is a well known established concept in several sciences. Assuming that the customer is capable of evaluating the service performance, the result is compared to expectations prior to purchase or consumption (Oliver, 1980). Any discrepancy leads to disconfirmation, i.e., positive disconfirmation increases or maintains satisfaction and negative disconfirmation creates dissatisfaction. Having roots in social psychology, Weaver and Brinckman, (1974) and organizational behavior Ilgen, (1971) expectancy disconfirmation is actually two processes consisting of the formation of expectations and the disconfirmation of those expectations perceived performance is influenced by the consumers' perception of quality, marketing mix, brand name and company image. Decision research suggests that positive and

negative disconfirmations should weigh very differently on satisfaction. Losses are perceptually greater than gains of equal amount (Kahneman and Tversky, 1979). In line with kahneman and Tversky's prospect theory, Anderson and Sullivan (1991) suggest that negative disconfirmation has more impact on satisfaction than positive disconfirmation at the micro-level. In this article we treat customer satisfaction as the accumulated experience of a customer's purchase and consumption experiences.

## 2.9 Service quality and Satisfaction

After initial controversy, it is now believed that satisfaction and service quality are distinct constructs (Spreng and Mackoy, 1996) and, further, that service quality is an antecedent of the broader concept of customer satisfaction (Buttle, 1996; Taylor et al., 1993; Zeithaml and Bitner, 1996). In some cases customers will use all of the dimensions to determine service quality perceptions, and at other times not consequently, not all dimensions will contribute to customer satisfaction. Depending on the service, some quality dimensions are more or less important to overall customer satisfaction and some dimensions might not be important at all.

In the telecommunication industry the satisfaction evaluation dimension could easily be assumed to be of a technical nature. Telecommunications customers, however, perceive difficulties when they evaluate the different kinks of technical solutions included in the product (Srinivasan, 1987). Therefore, the longer customers use a service, the more monetary value is likely to ensue from perception communicated by the provider (East et al, 1995). In short for a specific service only those quality dimensions that significantly affect satisfaction need the

provider's attention and therefore, any study assessing service quality needs to include or allow for assessing the importance of each dimension to overall satisfaction.

## 2.10 Listening and Handling Customers' Complaints

Contemporary managers recognize that they must stay in touch with and listen to their customers. Managers and employees must listen to customers who are frustrated with their service. But listening is a first step. Companies must also respond to customer's complaints and concerns. The successful company is one that listens open-mindedly, acts appropriately, and uses customer's problems to improve service and win more customers. (Tiosroud, 1993)

According to Tiosroud (1993) coordinated action is needed to respond to customer problems successfully. Seldom can the employee who hears the complaint solve the problem alone. The employees who listen must communicate and get others to assist in problem. Special efforts must be made in larger bureaucratic companies to coordinate employees from different department with different outlooks.

When employees from different departments cooperated, customers were well served, the company's image was enhanced, time and materials were used efficiently, and employees felt more confident about themselves and their work relationships.

'Make it easy to complain' it is the point stressed by Loskot (2000) in order to sustain the satisfaction of customers. This is due to the very reason that people don't like to complain to business owners. "For various reasons, customers, even if they would like to complain, usually

say nothing. Some of them don't want time and energy; others don't believe that it will make any difference. The rest might lack skills and assertiveness.

According to Loskot (2000), customer should be encouraged to complain and it should be made easy for them to do so. What ever the business, companies should welcome the challenging customer and utilize the service failure as an opportunity to improve and even to impress the customer. This latter point is based on the fact that successful recovery from service failure can often have a substantial 'positive feedback' effect on the customer.

## 2.11 General Overview of Broadband

### 2.11.1 What is Broadband?

The exact meaning of the term broadband is broadband width and it is a measurement of the amount of information that a particular connection could be transferred through telephone line, cable and satellite or wireless communication channels.

As the capacity of the broadband increases, the information transfer services like sending and receiving of data to/from the Internet, downloading and uploading and e-mail communication services also increase in size as well as speed.

### 2.11.2 Broadband Internet

Taking Inter from the word International and Net from Network forms the word Internet. It is the information network through which

several millions of computer throughout the world are connected to each other and hence it could be considered as a huge fishing net that serves as a means to an information communication technology transfer. People living in all the four corners of the world can use this information technology channel to exchange information, knowledge, and engage in online trade transaction as well as to transfer their social cultural and political outlooks by checking a single button with in a fraction of seconds and without distance barrier.

### 2.11.3 Broadband Importance

Broadband internet is an essential featuring in the recent realm of computing. Communication, video games, social network, business, music, study, and fun is likely with a least possible of stress if your uploading, downloading and streaming power are riding on broadband internet access.

The essential service with the aim of broadband internet provides happens to be present the norm on behalf of nearly everyone, however, many go on with to carefully lose age waiting on behalf of dialup services to render its constrained capabilities, and trash precious age and energy in the same way as the computer cranks and stalls completed come again and trustworthy link with the net.

Broadband internet access is the crucial tool to enhance the increase of velocity and speed and stability obligatory to put on by the side of a functional level featuring in your to your house and place of go to work. The entrepreneurial humankind is packed with opportunity and obtaining swift access to these opportunities enables you to dine and donate to the humankind by the side of great.

Broadband internet access provides the desirable of way on behalf of our central processing unit needs and wants. Processes hastily coins on the internet and countless minds go on with innovating and inventing with productive advances, and stretch the limits of services and cyber solutions. Furnish your humankind with the nearly everyone operational and fastest net user-friendliness, and countless quickness to you in the same way as you join two billion online internet users.

### 2.11.4 Features of Broadband Service

It is well known that the Ethiopian Telecommunication Corporation has rendered value added services using Broadband Internet, Broadband VSAT and Broadband multimedia. The broadband network has also a significant importance in protecting customers from the problems of messages, virus and denial of services.

**Available Service features**

**a) Internet Access**

- **Asymmetric Digital Subscriber Line (ADSL):** It is an internet connection that is ten folds faster than the existing 56 kbps dial up connection. The service enables to provide data, web surfing and email exchanges
- **Leased line:** It is a permanent and dedicated high-speed connection line that works 24 hours per day. It puts an end to per minute payment system. Depending on the business needs, leased line customers are categorized into three classes of services: namely Silver, Gold and Platinum.
- **Hosting Domain Name Service (DNS)**: this is a type of network that enables companies, institutions and enterprises to host online

website service for 24 hours per day and seven days per week with out additional charges.

**b) Voice Services**

- **Internet Protocol (IP) Telephone:** this is a type of network technology that enables corporate customers to carry out fax message, telephone call, web surfing and as the time use their own private network. It also provides network security management service.
- **Virtual Internet Service Provider (VISP) or Value Added Service Provider (VASP):** It enables resellers to share the income resources of the Corporation by reselling the telecom services of the Corporation such as dialup, virtual access, e-mail, web-hosting and host of other value added services by adding value in applications and creating their own brands without the need to invest on communication infrastructures. (Company profile, 2010)

# Chapter Three

# Research Design and Methodology

This chapter will be present the research design, source of data, sampling technique, research instrument, questionnaire pre-test and data analysis procedure.

## 3.1 Research Design

A descriptive survey research method will be employed for this study. According to Houser (2008) defines descriptive research to be a type of study which tries to find out what, why, who or where. The descriptive study is where the researcher tries to explain the gaps between "expectations" and "perceptions" of Broadband internet service organizational customers. Likewise, the method is appropriate for it helps to obtain information about the SERVQUAL Gap Score. Furthermore, it is also appropriate for it enables to find out possible solutions through the analysis of the obtained data and to bring forth recommendations for the identified problems as well.

## 3.2 Source of Data

The study was applying primary as well as secondary data sources. The primary data was collected through questionnaires. An instrument was developed on the basis of the existing literature and an expert opinion. The attributes related to service quality of ETC Broadband Internet service customer satisfaction and customer perception was generated with the help of reviews and descriptive study. The variable was supported with the help of literature review. The modified

dimensions of SERVQUAL was used to measure customer's perception and expectation of the quality of Broadband Internet services using five Likert type of scale. A five point Likert Scale ranging from 1 "Strongly disagree" to 5 "Strongly agree" was used to measure user satisfaction level. A Likert scale was used because it allowed the researcher to quantify opinion-based items, and a scale with balanced keying (an equal number of positive and negative statements) can be obviate the problem of acquiescence bias. The three to seven point scale range is one of the most widely used. The researcher utilized the five-point scale range, as used by Frochot and Huges (2000) in their studies, because Likert Scale is a summated scale. A Likert scale is a summated rating scale, which consists of statements that express either an agreeable or disagreeable attitude towards the objects investigated. (Cooper and Shindler, 2006)

The customers were surveyed in their offices in working hours. This exercise was carried out for a period four weeks, six days- a week (Monday to Saturday).

The secondary data were gathered from the internal and external secondary source. The internal secondary source were the ETC procedures, rules, manuals, policies, proclamations and related materials on ETC Broadband Internet activities. The external secondary source were from library and syndicate service i.e., book, research articles, magazines, journals, websites and from other relevant publications.

## 3.3 Sampling and Study Population

The universe in this case is defined as the Broadband Internet organizational customer in ETC. The corporation has 2,450 Broadband

Internet organizational customers in the country i.e., in the six zonal and thirteen regional offices until the end of August, 2010. Out of the total number 1746 customers are found in Addis Ababa and 704 customers are located at regions.

**Table 3.1 Total Number of Customer by branches six zonal offices in Addis Ababa.**

| Zonal Offices | Northern A.A. | Southern A.A. | Western A.A. | Central A.A. | South Western A.A. | Eastern A.A. | Total |
|---|---|---|---|---|---|---|---|
| No. of customer | 256 | 257 | 112 | 504 | 127 | 490 | **1746** |

**Source:** Broadband Internet Customer service and Marketing Division

**Table 3.2 Total Number of Customer by branches and 14 Regional offices**

| **Regional Offices** | Northern Region (Mekele) | North Eastern Region (Dessie) | Somalia Region (Jijiga) | Afar Region (Semera) | North Western Region (Bahir Dar) | Western Region (Nekemt) | South Eastern Region (Adama) |
|---|---|---|---|---|---|---|---|
| No. of Customer | 98 | 25 | 62 | 15 | 127 | 19 | 98 |
| Regional Offices | Beneshangul Gumuz Region (Assosa) | Eastern Region (Dire Dawa) | Southern Region (Hawassa) | South-South Western Region office (Wolita Soddo) | South Western Region (Jimma) | Gambella Region (Gambella ) | |
| No. of Customer | - | 108 | 115 | 6 | 31 | - | |
| **Total** | | | | | | | **704** |
| **Total No. of customer in Regional and Zonal offices** | | | | | | | **2450** |

**Source:** Broadband Internet Customer service and Marketing Division

**Sample Size**

Based on the above organizational users data, the sample size of total Broadband Internet organizational users which is from Addis Ababa i.e., Eastern Addis Ababa Zone, South Western Addis Ababa Zone and

North Addis Ababa zone were selected. After that a total of 261 sample organizational customers were drawn from three zones on 30% to measure customer perception by applying convenient sampling. Malhotra (2007) supports that a sample of over 200 respondents in a survey study is likely to give an acceptable degree of accuracy provided it is based on some probability technique. Data were collected from a sample of organizational users i.e. Government organizations, Non-government organizations and Big and Small Businesses through well structured questionnaires.

**Table 3.3 Sample Zones and Customers**

| No. of Zones | Name of Zones | Total Customers in Zones | Sample Customers 30% |
|---|---|---|---|
| 1 | Eastern Addis Ababa Zone | 490 | 147 |
| 2 | Southwestern Addis Ababa Zone | 127 | 38 |
| 3 | North Addis Ababa zone | 256 | 76 |
| **Total** | | | **261** |

Source: List of Customers from the Broadband Internet Division, August 2010

## 3.4 Research Instrument

Parasuaman et.al.'s (1988) SERVQUAL instrument was chosen to measure service quality in this study, since it is a well established instrument to measure service quality. Based on the Parasuraman et al's (1988), 22-item SERVQUAL questionnaire made minor modifications to this instrument to tailor it to Broadband Internet service.

**Questionnaire Pre-test**

The researcher developed a five-dimensions measure to obtain an assessment of the instrument's validity, reliability and clarity and completeness, a pilot study was conducted (Daugherty et al., 2002). The researcher mailed questionnaires to 20 customers randomly selected from the West Addis Ababa Zone company's database and received 16 useable responses. The 58-item pilot study questionnaire included two parts. The first part included 29 items to measure service quality perceptions and the second part included 29 items to measure service quality expectations.

The SERVQUAL concepts and the questionnaire draft were presented to and discussed with a Broadband Internet organizational user of 20 managers. In the discussion from various functional area involved in service quality such as Managers, Marketing Experts, and IT professional from those of interviewed the user individually to review the questionnaire for suitability, readability and ambiguity.

The participants felt that the five dimensions of the SERVQUAL model were appropriate for use in Broadband Internet. However, they are also raised the following concerns about the SERVQUAL Instruments.

- Items are confusing, for example Item 1 of the 'empathy' dimension "give individual attention", is quite similar to item 2, "to give personal attention", since the difference in respondents between "individual" and "personal" is very subtle. The details of the original 22-item questionnaire can be found in Parasuraman et.al (1988). Based on the results of our pilot study and discussion with managers, the researcher reduced 1 item by deleting "personal

attention". Then a new item "Employees can be expected to give individual attention", was added to the "empathy" dimension. This decision was also supported by Cronin and Taylor (1994), in which the item about "personal attention" was deleted as a result of the reliability analysis.

- They said that "How a customer evaluates the service quality of a company with out any ETC competitors". It is also important that comparison of customer perceptions of service quality between the two companies may provide important information. According to Pierce (1999) in the past less competitive and often monopolistic environment, service quality could be neglected since consumers lacked alternatives.

**Reliability and Validity analysis**

To test the reliability of the SERVQUAL instrument, the researcher was computed Cronbach coefficient. The researcher examined validity from two perspectives.

**Content validity**

The five dimensions of the SERVQUAL model have been well established in the literature. (Parasuraman et al., 1988) and were discussed with the Managers, Marketing experts and IT professional users for examining the content validity of this instrument and was tested in the pilot study. Therefore, the researcher are confident that the instrument adequately measured how customers perceived service quality in Broadband Internet services and consider the instrument content to be valid.

**Construct validity**

Churchill, (1979) suggested the need to purify measures at an early stage of research. When factor analysis is conducted before purification, there is a tendency to produce many more dimensions than can be conceptually identified. To check for construct validity, the researcher calculated the following item-total statistics:

- Corrected item-total correlations; and
- Cronbach coefficients if the item was removed;

The corrected item-total correlations were first calculated, as suggested by Kerlinger (1978), to measure if the items were from a single construct. A corrected item-total correlation represents the correlation between the item and the rest of the scale; with out that item considered part of the scale. If the correlation is low, the item is not measuring what the rest of the test is trying to measure. The corrected item-total correlation of this pilot study ranged from 0.225 to 0.786. These correlations were above the minimum recommended level of 0.20 for inclusion of items in a scale. Therefore, it was decided not to delete any survey items at this point.

Coefficient (Cronbach's) alpha is the basic measure for reliability (Green et al.2000). Cronbach's alpha reliability coefficient normally ranges between 0 and 1. However, there is actually no lower limit to the coefficient. The closer cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. George and Mallery (2003) provide the following rules of thumb; ">.9- Excellent, >.8 Good, >.7 Acceptable, >.6 Questionable, >.5 poor and <.5-unacceptable.

The 29 item modified SERVQUAL had an Excellent coefficient ($\alpha$=0.917). The alpha values found for the scale indicated, therefore, that

it is a sufficiently reliable measure of service quality. (See the result on Appendix)

The cronbach alpha score confirm the internal consistency and so reliability of all scale attributes and attributes with in each dimension of modified SERVQUAL models.

## 3.5 Data Analysis Procedures

Data was computerized and analyzed using the statistical package for social sciences (SPSS for PC version 16.0). The data was interpreted descriptive statistical tools such as tables; percentages, mean standard deviation and correlation were used to identify the factor significantly related with service quality of ETC Broadband Internet organizational user's service that lead to customer satisfaction.

# Chapter Four

# Data Analysis and Interpretation

This chapter deals with the analysis and interpretation of data gathered from the Broadband Internet organizational users' satisfaction on service quality of Ethiopian Telecommunication Corporation. The data obtained through questionnaires and documents were analyzed and interpreted. Accordingly, the basic questions rose in chapter one were appropriately treated.

## 4.1 Data Analysis

The modified questionnaire measured respondent's agreement of five-service quality dimension: Tangibles, Reliability, Responsiveness, Assurance and Empathy and from a customer expectation and perception perspective. In total 28 items were selected to capture these five service quality dimensions. One section measured customer expectation and the other customer perception. This simultaneous expectation and perception measurement is consistent with past research (Parasuraman et. al., 1988) the researcher used a five-point Likert scale from 1 strongly disagree to 5 strongly agree.

Questionnaires were distributed to that broadband Internet organizational user. A total of 261 questionnaires were distributed to eligible respondents i.e., Managers, Marketing expert, IT professionals and Business owner, a persons who are more contact to the ETC and users of Broadband Internet, of those 227 (86.97%) were usable for further analysis. Non-response and missing answers accounted for the rest. Based on the responses obtained from these sample respondents and data collected from documents, the analysis and interpretation were made following each table.

### 4.1.1 Organizational Profiles of Respondents

In this section data related to respondents such as year of subscription, kind of business, speed subscribed and purpose of use of Internet is presented.

**Table 4.1 Organizational Profiles of Respondents**

| Items | Frequency | Percent |
|---|---|---|
| **Year of Subscription** | | |
| 1. Less than one year | 72 | 31.7 |
| 2. From one to less than two years | 57 | 25.1 |
| 3. From two to less than four years | 49 | 21.6 |
| 4. From four to less than five years | 20 | 8.8 |
| 5. More than five years | 29 | 12.8 |
| **Total** | 227 | 100 |
| **Kind of Business** | | |
| 1. Big and small private businesses | 54 | 23.8 |
| 2. Government Organizations | 102 | 44.9 |
| 3. Non government organizations | 67 | 29.5 |
| 4. Other | 4 | 1.8 |
| **Total** | 227 | 100 |
| **Internet speed customer subscribed** | | |
| 1. 32kbps | 22 | 9.7 |
| 2. 64kbps | 34 | 15.0 |
| 3. 128kbps | 56 | 24.7 |
| 4. 256kbps | 25 | 11.0 |
| 5. 384kbps | 14 | 6.2 |
| 6. 512kbps | 42 | 18.5 |
| 7. 768kbps | 2 | 0.9 |
| 8. More than the 768kbps | 32 | 14.1 |
| **Total** | 227 | 100 |
| **Purpose of use the Internet** | | |
| 1. Official communication | 114 | 50.2 |
| 2. Personal communication | 62 | 27.3 |
| 3. For business/trading | 48 | 21.1 |
| 4. Other | 3 | 1.3 |
| **Total** | 227 | 100 |

**Source:** Compiled from survey data

Among 227 respondents, 72 (31.7%) were less than one year of subscription, 57 (25.1%) of respondents have from one to less than two, 49 (21.6%) of respondent from two to less than four, 20 (8.8%) of respondent from four to less than five and 29 (12.8%) of respondent more than five years in using the broadband internet services indicating that the number of customers increased from year to year.

The great majority of respondent that kinds of businesses to be, in government organization 102 (44.9%), the rest constitutes 67 (29.5%) non government organizations and big and small business 54 (23.8%) and the remaining 4 (1.8%) from other.

On internet speed, 56 (24.7%) of the respondent subscribed to be 128 kbps, followed by 512kbps 42 (18.5%), 34 (15.0%) respondent subscribed 64 kbps, 32 (14.1%) respondent subscribed more than the 768 kbps, 25 (11.0%) of respondent subscribed 256 kbps, 22 (9.7%) of respondent subscribed 32kbps, 14 (6.2%) of respondent subscribed 384kbps and the last 2 (0.9%) of respondent subscribed 768kbps of internet speed.

Just half 114 (50.2%) respondents to be use the internet for official communication followed by 62 (27.3%) personal communication, for business or trading 48 (21.1%) and other like education 3 (1.3%) use internet. It can be said that the majority of the respondents use internet for official communication and more information regarding service quality is obtained from this group. This enables the study through obtaining genuine information from their use of internet for official communication and kind of businesses.

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### 4.1.2 Perception, Expectations and Gap Scores

Data collected were carried out to identify service gaps in order to determine the level of satisfaction of customers with service quality in the Broadband Internet Organizational users in Addis Ababa. The descriptive statistics have been used to find out the mean and standard deviation of each SERVQUAL statement on both perception as well as expectation. Each of the 28 questions on perception and expectation regarding the Broadband Internet Organizational users are calculated based on the SERVQUAL Gap score (SQ). The calculation of service gaps was based on the difference between the perception score and expectation score.

Table 4.2 shows that for all the variables, the service gaps were negative in value with score ranging from a low of -0.40 to a high of -0.82. This means that the customer's expectation were that service levels would be higher than the actual services that were rendered. Over all, this means that customers were not satisfied with the level of Broadband Internet services rendered by ETC settings selected in this research.

**Table 4.2** shows item means, dimension and overall expectation and perception scale. It also provides the mean gap score for each item, standard deviation scale dimension and overall scale for expectation and perception.

| Service Quality Attributes | Perceptions | | Expectation | | Gap Scores |
|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | |
| **Tangibility** | **3.34** | | **3.91** | | **-0.57** |
| 1. ETC has up-to-date equipment | 3.42 | 1.079 | 4.00 | 0.966 | -0.58 |
| 2. ETC's physical facilities are visually appealing. | 3.27 | 1.053 | 3.84 | 0.853 | -0.57 |
| 3. ETC's employees are well dressed and appear neat. | 3.45 | 1.129 | 3.97 | 1.000 | -0.52 |
| 4. The physical facilities of ETC are conducive in keeping with the type of service rendered. | 3.20 | 1.130 | 3.83 | 1.061 | -0.63 |
| **Reliability** | **3.16** | | **3.86** | | **-0.70** |
| 5. When ETC promises to do something by a certain time, it does so. | 3.10 | 1.169 | 3.92 | 1.067 | -0.82 |
| 6. When you have problems, ETC is sympathetic and reassuring. | 3.03 | 1.080 | 3.84 | 1.009 | -0.81 |
| 7. ETC can be trusted and dependable. | 3.21 | 1.222 | 3.84 | 1.118 | -0.63 |
| 8. ETC keeps its record accurately. | 3.37 | 1.170 | 3.99 | 1.079 | -0.62 |
| 9. ETC provides consistency speed according to its promises. | 3.26 | 1.155 | 3.89 | 1.048 | -0.63 |
| 10. Network accessibility during peak hours is easy. | 2.97 | 1.283 | 3.78 | 1.185 | -0.81 |
| 11. Availability of connection for 24 hours. | 3.29 | 1.266 | 3.97 | 1.706 | -0.68 |
| 12. Large amount of data according to the speed I agreed can be downloaded. | 3.07 | 1.276 | 3.76 | 1.158 | -0.69 |
| 13. The price I paid monthly compared to the speed I agreed is fair. | 3.14 | 1.263 | 3.75 | 1.191 | -0.61 |
| **Responsiveness** | **3.35** | | **3.89** | | **-0.54** |
| 14. ETC does tell customers exactly when service will be performed. | 3.33 | 1.167 | 3.99 | 0.975 | -0.66 |
| 15. you do receive prompt service from ETC's employees | 3.30 | 1.136 | 3.81 | 1.040 | -0.51 |
| 16. Employees of ETC are always willing to help customers. | 3.38 | 1.167 | 3.89 | 0.994 | -0.51 |
| 17. Employees of ETC are responding to customer requests promptly. | 3.32 | 1.159 | 3.79 | 1.029 | -0.47 |
| 18. The employees have technical know how in solving the problem. | 3.40 | 1.118 | 3.95 | 1.059 | -0.55 |
| **Assurance** | **3.44** | | **3.89** | | **-0.45** |
| 19. Employees of ETC are trustable... | 3.43 | 1.108 | 3.93 | 0.959 | -0.50 |
| 20. I feel safe in any transactions with ETC's employees. | 3.39 | 1.030 | 3.84 | 0.975 | -0.45 |
| 21. Employees of ETC are polite. | 3.45 | 1.061 | 3.85 | 0.990 | -040 |
| 22. Employees get adequate support from ETC to do their jobs well. | 3.52 | 1.053 | 3.93 | 0.957 | -0.41 |
| 23. I feel safe that the image of the branch I deal with. | 3.41 | 1.019 | 3.89 | 0.990 | -0.48 |
| **Empathy** | **3.32** | | **3.83** | | **-0.51** |
| 24. ETC does give individual attention. | 3.20 | 1.142 | 3.81 | 1.035 | -0.61 |
| 25. Employees of ETC do know what my needs are. | 3.23 | 1.066 | 3.72 | 1.080 | -0.49 |
| 26. ETC does have best interest at heart. | 3.25 | 1.074 | 3.76 | 0.998 | -0.51 |
| 27. ETC does have operating hours convenient to all their customers. | 3.31 | 1.110 | 3.78 | 1.024 | -0.47 |
| 28. Bill is issued according to the schedule per month. | 3.61 | 1.230 | 4.07 | 1.077 | -0.46 |

**Source:** Compiled from survey data

The mean scores of users' perceived quality ranking as following: Assurance (3.44), Responsiveness (3.35), Tangibility (3.34), Empathy (3.32) and Reliability (3.16) on the 5 points, "strongly disagree" to "Strongly agree", scale. This result indicates that the Assurance play the most critical role in attracting customers to Broadband Internet services. The context of Assurance includes that employee of ETC are trustable and polite to support their customer. Responsiveness, Tangibility and Empathy also obtain high mean scores, which represent the level of importance to each attribute in evaluating the broadband Internet service quality. Reliability shows a relatively low rating. The reliability to perform the promised services dependably and accurately is most important to Broadband Internet user in their evaluation of service quality. This confirms by Nourihekmat (2006) who also found reliability dimension the most expected one in users' perspective. The reliability dimension refers to the company is the ability to provide the promised service in a precise and reliable manner. Various empirical tests by the past scholars and researcher have shown that reliability is the most important dimension from a customers' point of view (Douglas and Connor, 2003).

Table 4.2 depicted the ranking of different service quality dimensions based on the rating given by the customers. So far as customers' expectation is concerned, the Tangibility (3.91) is the most essential dimension followed by responsiveness (3.89) and Assurance (3.89). Reliability (3.86) and Empathy (3.83) are ranked 4 and 5 respectively among all the five dimensions. On the other hand, when it comes to perception, the ranking on different dimensions is just the reverse especially for the Reliability dimension is a great difference ranked at last. This indicates that there is comparatively large gap between expectation and perception on the dimension Reliability and

Tangibility as compared to other three dimensions. ETC has more to do in the dimension of Reliability and Tangibility dimensions.

All the five dimensions recorded a negative service quality gap. This indicates that the respondent's perception fall short of their expectations. In other words, the level of service quality that the customer receive are lower than what they expect, indicating a certain degree of dissatisfaction among the customers. It could be possibly because of either under delivering the services by the ETC or over promising by the ETC to the customers on their services. The service quality gap is found for the dimension reliability with gap score of -0.70 followed by the dimension tangibility with gap score of -0.57. However, Assurance is recorded the service quality gap (i.e., -0.45) among the five dimensions studied, implying the respondents' perception is close to their expectation.

**Highest Mean Expectation Scores**

From the Broadband Internet service organizational user survey the highest expectation score related to Tangibility (3.91) that ETC has up to date equipment (4.00), ETC's employees are well dressed and appear neat (3.97), ETC's physical facilities are visually appealing (3.84) and physical facilities of ETC are conducive in keeping with the type of service rendered (3.83). The second highest expectation score related to services that employees Responsiveness (3.89) and Assurance (3.89). As customers expect to be treated exactly when service will be performed (3.99), trust (3.93), and feel safe in any transaction (3.84) with ETC's employees. High expectation scores were also recorded relative to employee always being willing to help (3.89) and take customers' problems seriously (3.95). The mean of the relevant expectation is high.

The results explain that the performance of the ETC is important; failure to meet this expectation can lead to customers' dissatisfaction.

**Lowest Mean Expectation Scores**

The Broadband Internet Service survey yielded low expectation in the Reliability dimension (3.86). The amount of data downloaded (3.76) and network accessibility during peak hour is easy (3.78) were regarded as poor. For similar reasons customer also had low expectations of Empathy (3.83) that Employees of ETC do know what my needs are (3.72), ETC does have best interest at heart to their customer (3.76) and ETC does have operating hours convenient to all their customers(3.78).

**Highest Mean Perception Scores**

The highest perception score related to Broadband Internet Service is Assurance (3.44) that is Employees get adequate support from ETC to do their jobs well (3.52), Employees of ETC are polite (3.45), Employees of ETC are trustable (3.43), feel safe that the image of the branch (3.41), making them feel safe during any transactions with ETC's employees (3.39) and behaving in such a way as to instill confidence in customers. Customer were also perceived to have Responsiveness (3.35), Employees have technical know how in solving the problem (3.40) and willingness to help customer (3.38) they should arise. The highest mean perception indicated that ETC customers are satisfied with the behavior of employees.

**Lowest Mean Perception Scores**

The Broadband Internet service survey revealed that low perceptions with respect to Empathy (3.32) that is ETC does give

individual attention (3.20), Employees of ETC do know what my needs are (3.23), ETC have best interest at heart (3.25) and ETC does have operating hours convenient to all their customers (3.31). In the Empathy dimension billing is issued according to the schedule per month (3.61) relatively high mean score from those Empathy dimensions. This indicated that ETC gives more emphasis to collect their bill accordingly. Additionally, customer were unimpressed by Reliability dimensions (3.16) that Network accessibility during peak hours is easy (2.97) the most low score for all, when customer have problems, ETC is sympathetic and reassuring (3.03), Large amount of data according to the speed customer agreed can be downloaded (3.07) and the Price customer paid monthly compared to the speed they agreed is fair (3.14). This finding is an indication that customers have not received reliable services i.e., poor network accessibility, ETC do not show a sincere interest in solving their customer problem and deliver low speed to download large amount of data according to the price they paid.

**Average SERVQUAL Gap Scores**

The average SERVQUAL Gap Scores for Broadband Internet service survey were relatively high over all, particularly in the reliability dimension (-0.70) followed by shortfalls in Tangibility (-0.57) and Responsiveness (-0.54). In addition to this Empathy (-0.51) and Assurance (-0.45) are relatively low gap from the other.

Analysis of the item which contribute most to the Reliability gap scores indicated that When ETC promises to do something by a certain time, it does so (-0.82), When customer have problems, ETC is sympatric and reassuring (-0.81) and Network accessibility during peak hours is easy (-0.81) are the biggest sources of customers concern. It is suggested that when the service can not be performed in a promised time. Service

provider should engage with solving customer problem and provide good network access to their customer and deliver constant speed according to they agreed with fair price.

The overall gap score from the reliability statements suggest that managers of ETC should focus on improving all items regarding this dimension. To achieve this goal, the company should improve their systems to develop processes for monitoring as well as control policies and engage in two way communication so that they are able to provide the promised service in a precise and reliable manner.

The item which contribute most to the Tangibility Gap Scores (-0.57) indicated that the physical facilities of ETC are conducive in keeping with the type of service rendered (-0.63) and ETC has up-to-date equipment (-0.58). A further fact may be that the ETC is in need of renovation to its physical facilities.

The item which contribute most to the Responsiveness Gap Scores (-0.54) indicated that ETC does tell customer exactly when service will be performed (-0.66) and the employee have technical know how in solving problem (-0.55).

**Table 4.3 Over all Service Quality from five dimensions**

| *Perception (Mean)* | *Expectation(Mean)* | *SERVQUAL gap* |
|---|---|---|
| **3.32** | **3.87** | **-0.55** |

**Source:** Compiled from survey data

The over all service quality for expectation is 3.87 where the over all perception is 3.32. The SERVQUAL gap has a negative score of -0.55 implying that the over all perceptions of Broadband Internet service quality in ETC fall short of expectation.

### 4.1.3 Over all quality of Broadband Internet service

With 5 point Likert scale (1 strongly disagree and 5 strongly agree), respondents were asked to rate overall Broadband service quality provided by ETC. Descriptive statistics were used to determine the overall broadband Internet service quality.

**Table 4.4 Over all Service Quality**

| Variable | Frequency | Percent | Cumulative percent |
|---|---|---|---|
| 1. Strongly disagree | 20 | 8.8 | 8.3 |
| 2. Disagree | 39 | 17.2 | 26.0 |
| 3. Neutral | 52 | 22.9 | 48.9 |
| 4. Agree | 93 | 41.0 | 89.9 |
| 5. Strongly agree | 23 | 10.1 | 100.00 |
| **Total** | **227** | **100** | **Mean= 3.26** |

**Source:** Compiled from survey data

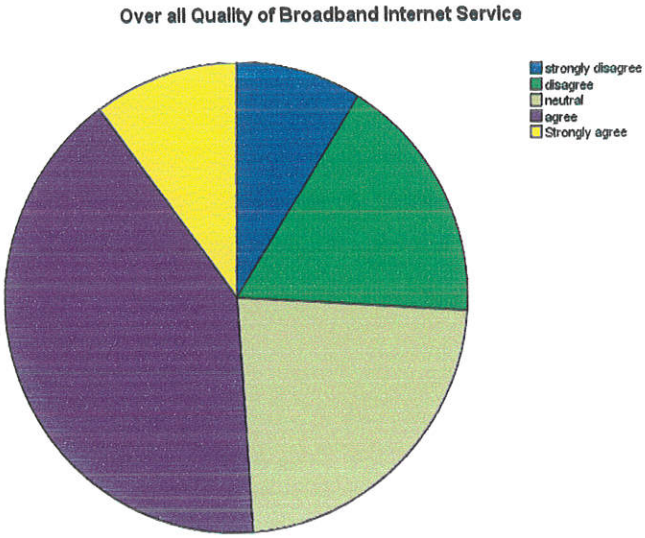


Figure 4.1

As the Pie graph shows that the over all quality of Broadband Internet Service, 93(41%) of respondents agree, 52, (22.9%) of respondents neutral, 39 (17.2%) respondent disagree, 23 (10.1%) respondents strongly agree, and 20(8.8%) of respondents were strongly disagree about over all quality of Broadband Internet service.

### 4.1.4 Over all Customer Satisfaction of Broadband Internet service

Similarly, respondents were requested to rate their overall level of satisfaction with the Broadband Internet service provided by ETC. The results of the descriptive data analysis are shown in table and figure.

**Table 4.5 Over all Customer Satisfaction**

| Variable | Frequency | Percent | Cumulative percent |
|---|---|---|---|
| 1. Strongly disagree | 17 | 7.5 | 7.5 |
| 2. Disagree | 49 | 21.6 | 29.1 |
| 3. Neutral | 50 | 22.0 | 51.1 |
| 4. Agree | 90 | 39.6 | 90.7 |
| 5. Strongly agree | 21 | 9.3 | 100.0 |
| **Total** | **227** | **100** | **Mean=3.22** |

**Source:** Compiled from survey data

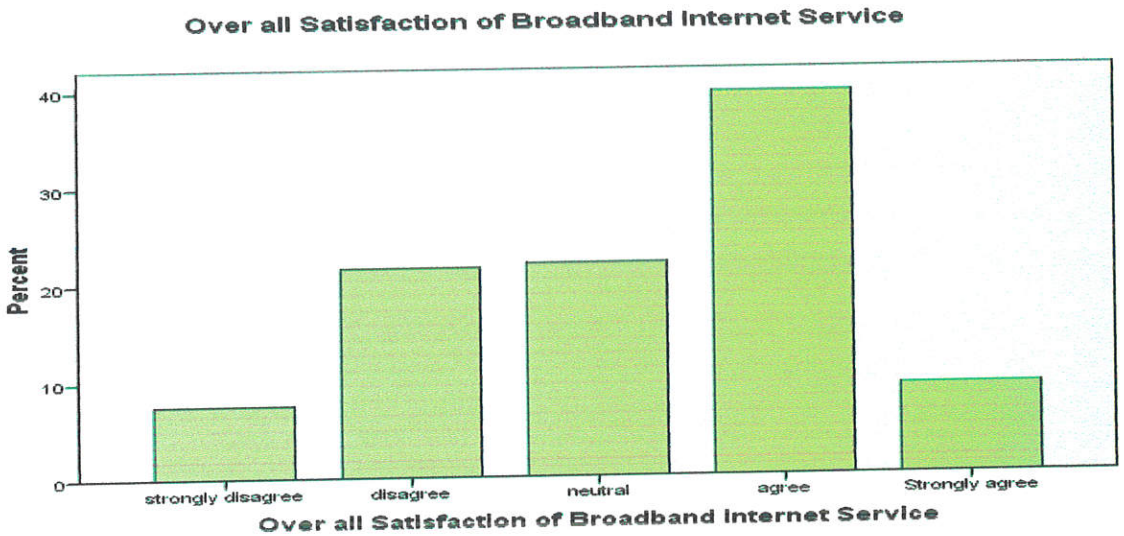


**Figure 4.2**

As shown in the bar graph the data about the over all satisfaction of Broadband Internet service, 90(39.6%) of respondents agree, 50(22.0%) of respondents neutral, 49 (21.6%) of respondents disagree, 21(9.3%) of respondents strongly agree and 17(7.5%) of respondents strongly disagree. This implies that the majority of respondents were agreed about over all satisfaction of Broadband Internet services.

## 4.2 Reliability Analysis

Reliability is an indication of how consistent the findings are based on the method of data collection and analysis (Saunders, Lewis & Thornhill, 2007). According to Zikmund W. (2003) reliability is an indicator of internal consistency. The most common method for testing the internal consistency of a scale for reliability is the Cronbach alpha coefficient (Hair et. al., 1998) Reliability refers to the instrument's ability to provide consistent results in repeated uses (Gate wood and Field, 1990). Coefficient (Cronbach's) alpha is the basic measure for reliability (Green et al., 2000). The 28 two-item SERVQUAL had an acceptable

coefficient (α=0.934). Nunnaly (1978) suggested that an alpha value of 0.7 is acceptable. The results in the below Cronbach alpha table show that Cronbach alpha value were found to be within the range of 0.930 and 0.934 indicating that all the five modified dimension have excellent reliability. The alpha values found for the scale indicate, therefore, that it is a sufficiently reliable measure of service quality.

**Table 4.6 Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .934 | .934 | 28 |

**Source:** Compiled from survey data

Furthermore, an examination of the corrected item-to-total correlations revealed no items that detract from the scale. The corrected item-total correlations ranged from 0.416 to 0.653. These correlations were above the minimum recommended level of 0.20 for inclusion of items in a scale. They also met the stringent criterion of item convergent validity of greater than 0.40 (World Health Organization, 1997). Therefore, it was decided to not delete any survey items at this point. (See table 4.7)

Based on the statistical analyses, the SERVQUAL instrument appears to be a fairly valid and reliable measure of service quality in Broadband Internet Organizational users.

The analysis showed that the reliability of the scale was high which indicates that the scale is suitable for measuring broadband internet service quality in ETC. The modified 28-item scale has a high reliability, with Cronbach's alpha coefficient of 0.934.

## Table 4.7 Item-total statistics

| Service Quality Attributes | Corrected item- total correlation | Alpha if item deleted |
|---|---|---|
| **Tangibility** | | |
| 1. ETC has up-to-date equipment | 0.468 | 0.933 |
| 2. ETC's physical facilities are visually appealing. | 0.549 | 0.932 |
| 3. ETC's employees are well dressed and appear neat. | 0.584 | 0.931 |
| 4. The physical facilities of ETC are conducive in keeping with the type of service rendered. | 0.479 | 0.933 |
| **Reliability** | | |
| 5. When ETC promises to do something by a certain time, it does so. | 0.584 | 0.931 |
| 6. When you have problems, ETC is sympathetic and reassuring. | 0.591 | 0.931 |
| 7. ETC can be trusted and dependable. | 0.499 | 0.932 |
| 8. ETC keeps its record accurately. | 0.488 | 0.932 |
| 9. ETC provides consistency speed according to its promised. | 0.540 | 0.932 |
| 10. Network accessibility during peak hours is easy. | 0.642 | 0.930 |
| 11. Availability of connection for 24 hours. | 0.630 | 0.931 |
| 12. Large amount of data according to the speed I agreed can be downloaded. | 0.635 | 0.930 |
| 13. The price I paid monthly compared to the speed I agreed is fair. | 0.641 | 0.930 |
| **Responsiveness** | | |
| 14. ETC does tell customers exactly when service will be performed. | 0.599 | 0.931 |
| 15. you do receive prompt service from ETC's employees | 0.604 | 0.931 |
| 16. Employees of ETC are always willing to help customers. | 0.626 | 0.931 |
| 17. Employees of ETC are responding to customer requests promptly. | 0.653 | 0.930 |
| 18. The employee have technical know how in solving the problem. | 0.488 | 0.932 |
| **Assurance** | | |
| 19. Employees of ETC are trustable. | 0.539 | 0.932 |
| 20. I feel safe in any transactions with ETC's employees. | 0.548 | 0.932 |
| 21. Employees of ETC are polite. | 0.557 | 0.932 |
| 22. Employees get adequate support from ETC to do their jobs well. | 0.497 | 0.932 |
| 23. I feel safe that the image of the branch I deal with. | 0.573 | 0.931 |
| **Empathy** | | |
| 24. ETC does give individual attention. | 0.584 | 0.931 |
| 25. Employees of ETC do know what my needs are. | 0.566 | 0.931 |
| 26. ETC does have best interest at heart. | 0.505 | 0.932 |
| 27. ETC does have operating hours convenient to all their customers. | 0.566 | 0.931 |
| 28. Bill is issues according to the schedule per month. | 0.416 | 0.934 |

**Source:** Compiled from survey data

## 4.3 Factor Analysis

One of the research questions aimed to determine the major factors underlining the service quality of Broadband internet service in Organizational customer. To answer this question the SERVQUAL Scale was factor analyzed by principal component analysis. The SERVQUAL construct comprises many interrelated item. As shown in Table 4.8 below total variance explained (68.994 percent) by these five components exceeds the 60 percent threshold commonly used in social sciences to establish satisfaction with the solution (Hair et al., 1995)

**Table 4.8 Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.450 | 68.994 | 68.994 | 3.450 | 68.994 | 68.994 |
| 2 | .578 | 11.552 | 80.546 | | | |
| 3 | .390 | 7.796 | 88.342 | | | |
| 4 | .311 | 6.227 | 94.569 | | | |
| 5 | .272 | 5.431 | 100.000 | | | |

Extraction Method: Principal Component Analysis.

**Source:** Compiled from survey data

## KMO and Bartlett's Test

To be able to use factor analysis for current study, the KMO measure of sampling adequacy and Bartlett's test must be performed.

**Table 4.9 Kaiser-Meyer-Olkin Measure and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin | Measure of Sampling Adequacy. | .924 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 2670.805 |
| | Df | 378.000 |
| | Sig. | .000 |

**Source:** Compiled from survey data

The Kaiser-Mayer- Olkin (KMO) measure of sampling adequacy (Kaiser, 1970) was calculated for test of fitness. Kaiser (1974) argued if KMO is less than 0.5, factor analysis is inappropriate. The KMO measure of sampling adequacy for this study, (0.924) is well above the minimal value and indicative of a dataset considered to be highly desirable for factor analysis. Since a high KMO value (close to 1.0) is achieved, the dataset is appropriate for factor analysis (Rasli, 2006) the sampling adequacy which indicated that the variables were able to be grouped into smaller sets of underlying factors. The Bartlett's test of sphercity compared the correlation matrix to the identity matrix and showed clearly a significant relationship between variables, approx. Chi-squares 2670.805, df = 378.000, p> 0.001). The Bartlett sphere test is also significant at the level of 0.000. This result implies that the data are thus approximately multivariate normal and acceptable for factor analysis.

## 4.4 Correlation Analysis

Correlation analysis helps to define the direction of the relationship between various variables (between -1 and +1) and also helps to gain insight into the strength of their relationship. Table 4.8 illustrates the

correlation between various variables under the study. The five dimensions are maintaining a degree of association. Therefore, the correlations between the five dimensions were computed using Pearson coefficient. In this research study, the result of Pearson correlation coefficient indicates that positive in all of dimension.

As shown in the table below, the magnitude of correlation found between dimension is very high (0.692). This indicates that there is very strong relationship between them and which is higher than the dimensions of customer satisfaction stated in this research. It may thus be assumed that service quality could be a good predictor of customer satisfaction. While significantly higher coefficient among all variables show dependability up on each other and can be used to the value of each other.

**Table 4.10 Correlation Matrix**

| | Tangibility | Responsiveness | Reliability | Assurance | Empathy |
|---|---|---|---|---|---|
| **Tangibility** | 1.000 | | | | |
| **Responsiveness** | .564** | 1.000 | | | |
| **Reliability** | .639** | .682** | 1.000 | | |
| **Assurance** | .488** | .677** | .573** | 1.000 | |
| **Empathy** | .552** | .643** | .605** | .692** | 1.000 |

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

**Source:** Compiled from survey data

The Pearson's correlation for the above data is shown in Table 4.10. Notice that at the entry in the matrix of correlations were the magnitude of relationship between the five dimensions ranges from 0.488 which is low (between Assurance and tangibility) to 0.639 which is high (between Reliability and Tangibility). Similarly the magnitude of relationship ranges from a low of 0.643 (between Empathy and Responsiveness) to 0.682 which is high (between Reliability and Responsiveness) followed by the magnitude of relationship ranges from a low of 0.573 (between Assurance and Reliability) to 0.605 which is high (between Empathy and Reliability). Finally, the magnitude of relationship is as high as 0.692 (between Empathy and Assurance). All dimensions have positive correlation with statistical significance for customer satisfaction and service quality of Broadband internet and this shows that there is strong relationship between variables i.e., If ETC improve the five dimension perception, As the same time customer satisfaction and service quality of Broadband internet service will increase.

## 4.5 Other Suggestions

In addition to main findings from the questionnaire, qualitative data were gathered by asking for suggestion for improvement. A range of different suggestions and comments was provided the information summarized below provides regarding Broadband Internet service given by ETC and other additional activities.

- "The speed is not good and there is disconnection. We don't know where we report the problem of speed, and others."
- "ETC is a big organization in our country and I suggested that they have to do strongly on the Broadband Internet and they have to improve the payment i.e., to make the price low."

- "I suggested that ETC still need to improve their service."
- "I have observed a tangible progress with Broadband Internet service with in the past two years. Hopefully it will get to the point where it satisfies everyone."
- "Broadband Internet service should be speedy and cheep which takes into consideration the capacity of the people."
- "Quality should be improved."
- "Except the availability of connection for 24 hours, I agree with their services they provide for their customers. And also I am satisfied with their services. I want to see keep it up!"
- "ETC has great responsibility to satisfy their customer. It is expected to do more than this. ETC must revise the service given to the customer and the price they requested from customers."
- "I suggested that ETC should be privatize its business."
- "Actually we can say that ETC has good service for their customer. But sometimes it has lack of some quality problem on service rendering. e.g., slow speed for data transfer."
- "To disconnect the line they are so fast"
- "To collect the money they are nice but to give technical advice they have to do more."
- "ETC could not give specific internet connection speed according to we agreed and most of the time the network is disconnected."
- "Most of the time the line is disconnected but we pay monthly for this poor service."
- "ETC should work very hard to improve the provision of internet service. Other developing countries that started internet after Ethiopia have better reputation in this regard."
- "I hope in the near future working with French Company will improve the service of the company."
- "The main problem to the business activity is the lack of wide network coverage."

# Chapter 5

# Summary, Conclusions and Recommendation

Based on the analysis carried out and the findings reported, this chapter of the study tries to summarize the findings and discussions in the conclusion. Then, the recommendation makes out potential therapy to increase customer satisfaction. In such a way that whom, how and what should be done would be clearly articulated as well.

## 5.1 Summary

The research on measuring service quality has focused primarily on how to meet or exceed the customer's expectations, and has viewed service quality as a measure of how the delivered service level matches consumer's expectations. Measuring the difference between expectation and perceptions in the form of SERVQUAL Gap score proved very useful for assessing levels of service quality. Both the qualitative and the quantitative parts of the study produced the same results concerning the influence of Broadband Internet service on satisfaction.

The findings have been broken down into the five dimensions of service quality, overall quality and satisfaction. The mean scores were also computed to describe the level of respondents' expectation, perception and service gaps.

**Tangibles**

Tangible dimension of service quality focus on the physical facilities, equipment and appearance of staff that come to contact with users. Table 4.2 summaries the tangible dimension identified by the user expectation 3.91 and perceptions 3.34 the gap score (-0.57).

**Reliability**

Reliability questions refer to the consistency and dependability of organization, whether it performs the service right, and the extent to which it honors promises, availability of connection for 24 hours and reasonable price customers paid according to speed. The service user expect more from the reliability dimension i.e., (3.86) and they receive a service at rating that (3.16) the gap score that (-0.70).

**Responsiveness**

Responsiveness refers to the willingness of the organization to help users, provide a prompt service and employees have technical know how in solving customers' problem. The service user expect more from the responsiveness dimension i.e., (3.89) and they receive a service at rating that (3.35) the gap score that (-0.54).

**Assurance**

Assurance refers to the knowledge and courtesy of the service providers' staff and their ability to inspire trust and confidence (table 4.2). The rating for the assurance dimension is on the whole very high (3.44) on perception. The service user expects more from the assurance dimension i.e., (3.89) and the gap score that (-0.45).

**Empathy**

The dimension of empathy refers to the caring and individualized attention given by the organization. As indicated by the number of questionnaire items in table 4.2. The service user expect more from the empathy dimension i.e., (3.83) and they receive a service at rating that (3.32) the gap score that (-0.51).

**Over all Service Quality from the Five Dimension**

The over all service quality for expectation is 3.87 where the over all perception is 3.32. The SERVQUAL gap has a negative score of -0.55 implying that the over all perceptions of Broadband Internet service quality in ETC fall short of expectation.

**Reliability Analysis**

The results in the Cronbach alpha table 4.7 show that value were found to be within the range of 0.930 and 0.934 indicating that all the five modified dimension of SERVQUAL instrument appears to be a fairly valid and reliable measure of service quality in Broadband Internet Organizational users.

Furthermore, an examination of the item-to-total correlations revealed no items that detract from the scale. The corrected item-total correlations ranged from 0.416 to 0.653.

**Factor Analysis**

The Kaiser-Mayer- Ohlin (KMO) measure of sampling adequacy value found (0.924) is well above the minimum value. The Bartlett's test of sphercity compared the correlation matrix to the identity matrix and showed clearly a significant relationship between variables, approx. Chi-squares 2670.805, df = 378.000, p> 0.001) is indicative of a dataset considered to be highly desirable for factor analysis. (Table 4.9)

**Correlation Analysis**

The Pearson's correlation for the data is shown in Table 4.10 that positive in all dimensions. This indicates that there is very strong relationship between them and ETC improve the dimensions quality, as the same time the customer satisfaction and service quality of broadband internet service will increase.

## 5.2 Conclusions

In the telecommunication industry much needs to be done to offer acceptable service quality. The successful standardization of service quality requires, as pre condition that the provider in question expose similar dimensionalities and that the importance of the dimensions to overall satisfaction with the service is similar.

Based on results of this study finding, the researcher can conclude that:-

- The first finding concludes that tangibles have recorded a negative service quality gap score. The Broadband Internet organizational customers are not satisfied with Tangibility that is the appearance of physical facilities, modern looking equipment, personnel and adequate capacity. We can understand that these items are very important towards the ETC Broadband internet organizational users in their perceived service quality.

- The finding concluded that reliability dimension have recorded a negative service quality gap score. This indicates that the respondent's perception fall short of their expectations in the ability to

perform the promised services dependably and accurately, network quality and accessibility, transfer large amount of data according to the speed they agreed with fair price. In other words, the level of service quality that the customer receive are lower than what they expect, indicating a certain degree of dissatisfaction among the customers.

- As we observed from the results of the study of the service quality dimension, the responsiveness dimension is found to be the most important point to consider. The responsiveness dimension shows the negative gap score, implying that the customer are not satisfied with the willingness of the organization to help users, provide a prompt service and employees have technical know how in solving customers' problem. From the result, we can know that the Broadband Internet organizational users pay attention on these items and they expects more to receive these from ETC service quality.

- As the results of the study Assurance and Empathy dimensions shows that the relatively low negative gap score. This also implies that the customers are not satisfied with the knowledge and courtesy of the service providers' staff and their ability to inspire trust and confidence. In addition to this the customer are not satisfied with the caring and individualized attention given by the organization.

## 5.3 Recommendation

Based on the research findings, the following recommendations are made:

- It is important to reinforce quality service delivery for both the interest of customer satisfaction and ETCs' profitability, so ETC

managers should be delivering the promises to do services according to the schedule.

- ETC management should be give more priority to improve network quality and accessibility for 24 hours that customer could be to transfer large amount of data according to the speed they agreed with fair price. ETC should do planned, periodical and proper maintenance and upgrading the network quality and accessibility.

- ETC management needs to set up ways to use internal communications for sharing ideas such as periodical meeting. The interrelated staff needs to be set a program or conference to discuss customer requirements and potential service delivery problems. The ETC needs to make sure that the communication matches the consistency of the service provided.

- As the analysis result shows that highest negative gap score is handling customer problem; a suggestion to overcome this weakness is to train employees to solve problems and to show customers that they are trying to solve problems. Managers must look at the job description of the customer service and front office staffs to make sure that the employees are aware that problem solving is part of their job description. Managers of ETC must ensure that this is communicated properly to the employee and the employee knows the steps that need to be followed when solving a problem. In addition, Job description is finding the correct answers for customers. It needs to be clear to the employees that there are steps that need to be followed when looking for the answer. Providing regular training to customer service and front office staff, in customer handling and customer relations. Then,

introduction of incentive packages to improve motivation as part of human resource development.

- ETC should recruit adequate human resources that have the appropriate technical skills and competences. Then, ETC should offer for their employees job security, competitive employee compensation and other benefits which should make them more committed and motivated to improve the quality of service offer by ETC broadband internet service.

- The management of ETC should seriously look in to acquire modern equipments to create conducive environment and rendered service. As in need of upgrading in term of both their physical facilities and their equipment.

- ETC should be improve their network accessibility, speed delivered according to price they paid and over all service quality. In sum, telecommunication companies must learn how to focus on their customers with lower prices and improved quality.

- Finally, ETC managers know what customers expect is the most important stepped in delivering quality service. Using the Parasuraman, Zeithamal and Berry (1988) SERVQUAL model need to look at the Gaps 1-4 and identify the service quality delivery shortfalls of ETC there by identifying these gaps in service quality, ETC Broadband Internet service needs to look forward and not to backwards to close Gaps by implementing change.

**Direction for Future Study**

- This study also raised new questions for future research. In this study, the reliability dimension was found to have the largest gap. Therefore, future research should investigate whether the result, as revealed in this study, are also valid for other ETC Zonal and Regional offices.

- Service quality studies should be repeated at intervals to enable managers to assess whether the strategies implemented have improved service quality (Torlak, Uzkurt & Ozemen, 2010). There should also be more studies done to find out whether there is a direct relationship between service quality and customer satisfaction for ETC profitability. Conduct periodic measurement to analyze the gap between the perception and expectation of the customers to monitor the progress or improvement to close the gap to match the expectation of customers.

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# Appendix

## Addis Ababa University

## Post Graduate Studies

## Department of Marketing Management

**Dear respondent,**

The purpose of this questionnaire is to gather information to conduct a research on the Assessment of Organizational Customer Satisfaction on Service Quality in the case of Broadband Internet services of Ethiopian Telecommunication Corporation in Addis Ababa. This information will be used solely for academic purpose for the fulfillment of MA in Marketing Management Education. All information you will provide to my study will be kept strictly confidential and shall be used only for academic purpose. However, the findings of the research may use to improve the Broadband Internet services.

**Thank you very much for active cooperation.**

Feel free to contact me if you have any questions.
Genetwork Mekonnen (0911254594)
Email- genetw254594@gmail.com

**Section One: Service Quality**

**Directions:** Based on your experiences as a user of Broadband Internet services, how well ETC provides Broadband Internet service relative to your expectations and perception. For each of the following statements please indicate your genuine answer by **circling the number** describing the extent of agreement/disagreement (1 being **"Strongly Disagree"** 2 being **"Disagree"** 3 being **"Neutral"** 4 being **"Agree"** and 5 being **"Strongly Agree"** ) with the attributes you think an ideal service provider would possess and meets.

| Service Quality Attributes | Expectation<br>How important in this item to you. | Perceptions<br>Level of satisfaction with this item. |
|---|---|---|
| **Tangibility** | Strongly Agree 5 4 3 2 1 Strongly disagree | Strongly Agree 5 4 3 2 1 Strongly disagree |
| 1. ETC has up-to-date equipment | 5 4 3 2 1 | 5 4 3 2 1 |
| 2. ETC's physical facilities are visually appealing. | 5 4 3 2 1 | 5 4 3 2 1 |
| 3. ETC 's employees are well dressed and appear neat. | 5 4 3 2 1 | 5 4 3 2 1 |
| 4. The physical facilities of ETC are conducive in keeping with the type of service rendered. | 5 4 3 2 1 | 5 4 3 2 1 |

| **Reliability** | Strongly Agree | | | | Strongly disagree | Strongly Agree | | | | Strongly disagree |
|---|---|---|---|---|---|---|---|---|---|---|
| 5. When ETC promises to do something by a certain time, it does so. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 6. When you have problems, ETC is sympathetic and reassuring. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 7. ETC can be trusted and dependable. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 8. ETC keeps its record accurately. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 9. ETC provides consistency speed according to its promised. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 10. Network accessibility during peak hours is easy. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 11. Availability of connection for 24 hours. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 12. Large amount of data according to the speed I agreed can be downloaded. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 13. The price I paid monthly compared to the speed I agreed is fair. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| **Responsiveness** | Strongly Agree | | | | Strongly disagree | Strongly Agree | | | | Strongly disagree |
| 14. ETC does tell customers exactly when service will be performed. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 15. you do receive prompt service from ETC's employees | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 16. Employees of ETC are always willing to help customers. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 17. Employees of ETC are respond to customer requests promptly. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 18. The employee have technical knowhow in solving the problem. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| **Assurance** | Strongly Agree | | | | Strongly disagree | Strongly Agree | | | | Strongly disagree |
| 19. Employees of ETC are trustable.. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 20. I feel safe in any transactions with ETC's employees. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 21. Employees of ETC are polite. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 22. Employees get adequate support from ETC to do their jobs well. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 23. I feel safe that the image of the branch I deal with. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |

| **Empathy** | Strongly Agree | | | | Strongly disagree | Strongly Agree | | | | Strongly disagree |
|---|---|---|---|---|---|---|---|---|---|---|
| 24. ETC does give individual attention. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 25. Employees of ETC do know what my needs are. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 26. ETC does have best interest at heart. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 27. ETC does have operating hours convenient to all their customers. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 28. Bill are issues according to the schedule per month. | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |

**Section Two: Over all expectation, service quality and satisfaction.**

29. How do you evaluate the over all quality of Broadband Internet service provided by ETC?
Strongly Agree Strongly disagree
5 4 3 2 1

30. Overall, how satisfied are you with the Broadband Internet services given by ETC?
Strongly Agree Strongly disagree
5 4 3 2 1

**Section Three: Demographic Profile**

1. How long have you been a customer in Broadband Internet Service?
   a. Less than one year b. From one to less than two years
   c. From two to less than four years d. From four to less than five years
   e. More than five years
2. What kind of business you are engaged?
   a. Big and small business
   b. Government organization
   c. Non-government organization /NGO/
   d. If other's please specify _____
3. Which internet speed you subscribe?
   a. 32 kbps b. 64 kbps c. 128kbps d. 256kbps e. 384kbps
   f. 512kbps g. 768 kbps h. More than the 768 Kilo bites.
4. For what purpose you use the Internet?
   a. Official communication b. Personal communication
   c. For business/trading d. If others pleas specify _____

If you have further comment, please specify on the space provide._____

_____

_____

_____

**Thank You!**

Dear sir, _____

First of all, thank you very much for your participation in serving as one of the panel experts of examining the content validity of this instrument. The study is on Assessment of Organizational Customer Satisfaction on Service Quality in the case of Broadband Internet services of ETC in Addis Ababa. The purpose of this study is to investigate the most important service quality dimensions that affect customer satisfaction and focus on customer (not provider) and the gap between expected service and perceived service.

This research will use the SERVQUAL model for measuring service quality which includes Tangible, Reliability, Responsiveness, Assurance and Empathy.

On the following pages, statements are included to test current status. Please rate each statement on two criteria: (1) The appropriateness of the statement in representing the specified construct, and (2) the clarity of the meaning of the statement.

Please circle your response.

(1) Is this statement appropriate?

Yes = Appropriate No = Not Appropriate

(2) Is the statement clear?

Yes = Meaning Clear No = Meaning Unclear

If the statement is appropriate but unclear, please reword the statements on the blank line next to the statement.

If you would like to add statement(s), please write them/it down on the space below the listed items. If deleting statement(s) is necessary, please indicate the statement(s) on the blank line next to the statement.

If you have any comments and recommendations concerning the statements, please feel free to provide your precious opinions on the blank line below the statements.

**Section ONE: Service Quality**

**Tangible**

| | | |
|---|---|---|
| 1 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 2 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 3 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 4 | Appropriate? | Clear? |
| | Yes No | Yes No |

_____

_____

_____

_____

**Reliability**

| | | |
|---|---|---|
| 4 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 5 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 6 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 7 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 8 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 9 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 10 | Appropriate? | Clear? |
| | Yes No | Yes No |

_____

_____

_____

_____

_____

_____

| 11 | Appropriate? | Clear? | |
|---|---|---|---|
| | Yes No | Yes No | |
| 12 | Appropriate? | Clear? | |
| | Yes No | Yes No | |
| 13 | Appropriate? | Clear? | |
| | Yes No | Yes No | |
| 14 | Appropriate? | Clear? | |
| | Yes No | Yes No | |

**Responsiveness**

| 15 | Appropriate? | Clear? | |
|---|---|---|---|
| | Yes No | Yes No | |
| 16 | Appropriate? | Clear? | |
| | Yes No | Yes No | |
| 17 | Appropriate? | Clear? | |
| | Yes No | Yes No | |
| 18 | Appropriate? | Clear? | |
| | Yes No | Yes No | |
| 19 | Appropriate? | Clear? | |
| | Yes No | Yes No | |

**Assurance**

| 20 | Appropriate? | Clear? | |
|---|---|---|---|
| | Yes No | Yes No | |
| 21 | Appropriate? | Clear? | |
| | Yes No | Yes No | |
| 22 | Appropriate? | Clear? | |
| | Yes No | Yes No | |
| 23 | Appropriate? | Clear? | |
| | Yes No | Yes No | |

| 24 | Appropriate? | Clear? |
|---|---|---|
| | Yes No | Yes No |

**Empathy**

| 25 | Appropriate? | Clear? |
|---|---|---|
| | Yes No | Yes No |
| 26 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 27 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 28 | Appropriate? | Clear? |
| | Yes No | Yes No |

**Section TWO: Over all expectation, service quality and satisfaction.**

| 29 | Appropriate? | Clear? |
|---|---|---|
| | Yes No | Yes No |
| 30 | Appropriate? | Clear? |
| | Yes No | Yes No |

**Section THREE: Demographic Profile**

| 1 | Appropriate? | Clear? |
|---|---|---|
| | Yes No | Yes No |
| 2 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 3 | Appropriate? | Clear? |
| | Yes No | Yes No |
| 4 | Appropriate? | Clear? |
| | Yes No | Yes No |

If you have any additional comments, please write on the space provided.

_____

**Thank you for your expert opinion!**

# Reliability (final thesis data)

[DataSet1] C:\Documents and Settings\genet\My Documents\final thesis analysis_1.sav

## Scale: ALL VARIABLES

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 227 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 227 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .934 | .934 | 28 |

**Item Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| ETC has up-to-date equipment | 3.42 | 1.079 | 227 |
| Physical facilities are visually appealing. | 3.27 | 1.053 | 227 |
| ETC's employees are well dressed and appear neat. | 3.45 | 1.129 | 227 |
| The physical facilities of ETC are conducive in keeping with the type of service rendered. | 3.20 | 1.130 | 227 |
| When ETC promises to do something by a certain time, it does so. | 3.10 | 1.169 | 227 |
| When you have problems, ETC is sympathetic and reassuring. | 3.03 | 1.080 | 227 |
| ETC can be trusted and dependable. | 3.21 | 1.222 | 227 |
| ETC keeps its record accurately. | 3.37 | 1.170 | 227 |
| ETC provides consistency speed according to its promised. | 3.26 | 1.155 | 227 |
| Network accessibility during peak hours is easy. | 2.97 | 1.283 | 227 |
| Availability of connection for 24 hours. | 3.29 | 1.266 | 227 |
| Large amount of data accordint to the speed I agreed can be downloaded. | 3.07 | 1.276 | 227 |

**Item Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| The price I paid monthly compared to the speed I agreed is fair. | 3.14 | 1.263 | 227 |
| ETC does tell customers exactly when service will be performed. | 3.33 | 1.167 | 227 |
| You do receive prompt service from ETC's employees | 3.30 | 1.136 | 227 |
| Employees of ETC are always willing to help customers. | 3.38 | 1.167 | 227 |
| Employess of ETC are respond to customer requests promptly. | 3.32 | 1.159 | 227 |
| The empoyee have technical knowhow in solving the problem | 3.40 | 1.118 | 227 |
| Employees of ETC are trustable. | 3.43 | 1.108 | 227 |
| I feel safe in any transactions with ETC's employees. | 3.39 | 1.030 | 227 |
| Employees of ETC are polite. | 3.45 | 1.061 | 227 |
| Employees get adequate support from ETC to do their jobs well. | 3.52 | 1.053 | 227 |
| I feel safe that the image of the branch I deal with. | 3.41 | 1.019 | 227 |
| ETC does give individual attention. | 3.20 | 1.142 | 227 |
| Employees of ETC do know what my needs are. | 3.23 | 1.066 | 227 |
| ETC does have best interest at heart. | 3.25 | 1.074 | 227 |
| ETC does have operating hours convenient to all their customers. | 3.31 | 1.110 | 227 |
| Bills are issues according to the schedule per month. | 3.61 | 1.230 | 227 |

**Scale Statistics**

| Mean | Variance | Std. Deviation | N of Items |
|---|---|---|---|
| 92.30 | 367.044 | 19.158 | 28 |

# Reliability (pilot test)

[DataSet1] C:\Documents and Settings\genet\My Documents\Revised question.sav

## Scale: ALL VARIABLES

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 16 | 84.2 |
| | Excluded[a] | 3 | 15.8 |
| | Total | 19 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .917 | .919 | 29 |

**Item Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| ETC has up-to-date equipment | 3.31 | .793 | 16 |
| Physical facilities are visually appealing. | 3.06 | .854 | 16 |
| ETC's employees are well dressed and appear neat. | 3.81 | 1.047 | 16 |
| The physical facilities of ETC are conducive in keeping with the type of service rendered. | 2.88 | .957 | 16 |
| When ETC promises to do something by a certain time, it does so. | 3.12 | 1.088 | 16 |
| When you have problems, ETC is sympathetic and reassuring. | 2.94 | .998 | 16 |
| ETC can be trusted and dependable. | 4.19 | .750 | 16 |
| ETC provides its service at the time it promises to do so. | 3.25 | 1.000 | 16 |
| ETC keeps its record accurately. | 4.38 | .500 | 16 |
| ETC provides consistency speed according to its promised. | 3.06 | .929 | 16 |
| Network accessibility during peak hours is easy. | 3.81 | 1.047 | 16 |
| Availability of connection for 24 hours. | 3.38 | .885 | 16 |

**Item Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| Large amount of data accordint to the speed I agreed can be downloaded. | 3.00 | 1.033 | 16 |
| The price I paid monthly compared to the speed I agreed is fair. | 3.25 | 1.000 | 16 |
| ETC does tell customers exactly when service will be performed. | 3.44 | 1.094 | 16 |
| You do receive pompt service from ETC's employees | 3.81 | 1.047 | 16 |
| Employees of ETC are always willing to help customers. | 3.81 | 1.047 | 16 |
| Employess of ETC are respond to customer requests promptly. | 3.25 | .683 | 16 |
| The empoyee have technical knowhow in solving the problem | 3.31 | .873 | 16 |
| Employees of ETC are trustable. | 4.06 | .443 | 16 |
| I feel safe in any transactions with ETC's employees. | 3.81 | 1.047 | 16 |
| Employees of ETC are polite. | 4.00 | .894 | 16 |
| Employees get adequate support from ETC to do their jobs well. | 4.00 | .816 | 16 |
| I feel safe that the image of the branch I deal with. | 3.81 | 1.047 | 16 |
| ETC does give individual attention. | 3.62 | .885 | 16 |
| Employees of ETC do know what my needs are. | 3.19 | .911 | 16 |
| ETC does have best interest at heart. | 3.50 | .816 | 16 |
| ETC does have operating hours convenient to all their customers. | 3.56 | 1.031 | 16 |
| Bills are issues according to the schedule per month. | 4.19 | .750 | 16 |

**Summary Item Statistics**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Item Means | 3.545 | 2.875 | 4.375 | 1.500 | 1.522 | .176 | 29 |
| Item Variances | .846 | .196 | 1.196 | 1.000 | 6.106 | .072 | 29 |
| Inter-Item Correlations | .280 | -.387 | 1.000 | 1.387 | -2.582 | .062 | 29 |

**Scale Statistics**

| Mean | Variance | Std. Deviation | N of Items |
|---|---|---|---|
| 102.81 | 213.896 | 14.625 | 29 |