Assessment of Service Quality and Customer satisfaction towards the Mobile Services of Ethiopian Telecommunications Corporation; the case of Addis Ababa

By

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"Assessment of Service Quality and Customer Satisfaction towards the Mobile Services of Ethiopian Telecommunications Corporation; the case of Addis Ababa"

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Letter of Certification

This is to certify that Mussie Desta carried out his project on the topic entitled "***Assessment of Service Quality and Customer Satisfaction towards the Mobile Services of Ethiopian Telecommunications Corporation; a case of Addis Ababa***". This work is original in nature and is suitable for submission for the award of Master of Marketing Management Education.

Bose.K

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Declaration

I, Mussie Desta declare that this research entitled "***Assessment of Service Quality and Customer Satisfaction towards the Mobile Services of Ethiopian Telecommunications Corporation; the case of Addis Ababa***", is the outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for the guidance and suggestion of the Research Advisor.

This study has not been submitted for any degree in this University or any other University. It is offered for the partial fulfillment of the degree of MA in Marketing Management Education.

By: Mussie Desta (GSR/1403/01)

Signature _____

Date 15/07/2010

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My father and my mother, here I go with what you really expected from me. The restricted environment I grow up helped me to become very serious and focused, thank you for everything you did for me, I love you!

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Abstract

The study focused on the assessment of service quality and customer satisfaction of mobile service users of Ethiopian Telecommunication Corporation in Addis Ababa. The original five SERVQUAL dimensions developed by Parasuraman et al (1988) and additional two dimensions specific to telecom sector were used to assess the customer satisfaction. A sample of 400 respondents was selected using a purposive approach among which 379 were collected. The finding shows that the majority (59.1%) of respondents were dissatisfied. The study also indicated that responsiveness is the most important dimension which can influence the overall satisfaction of the customers followed by assurance, tangibles and network quality. Generally the study implies that ETC has to do a lot of work to satisfy its customers. Customers are more demanding for a good customer care service than the network quality, which may take some investment. If ETC works better with what it has and make its philosophy customer-centric, there could be more satisfied customers. And the requirement for this is management and employees commitment to meet and exceed customers' needs and expectations.

Chapter One

Introduction

This chapter presents an overview of the entire thesis. It covers the background of the study, background and status of telecommunications in Ethiopia, statement of the problem, research questions, conceptual frame work, objectives of the study, statement of hypothesis, significance of the study, delimitations of the study, and structure of the study.

1.1. Background of the Study

The conditions for doing business are changing rapidly. These days organizations, both private and public, are realizing the significance of customer-centered philosophies. In last few years the mobile telecom market has witnessed a substantial growth and rapid changes globally as well as domestically. Customer satisfaction is a critical issue in the success of any business system, hence; one key challenges of this market is how they satisfy and retain their customers and also manage service quality, which holds a significant importance to customer satisfaction and their perceived performance.

Service quality has been a difficult-to-define concept that has aroused considerable interest and debate in the research literature. This is because the meaning of quality can be referred to in many attributes such as the experience of the service encounters, or "moment of truth", the evidence of service; image, price, and so on. These form the consumer's overall perceptions of quality, satisfaction and value (Zeithaml and Bitner, 1996; Wisniewski, 2001). One definition that is commonly used defines service quality as the extent to which a service meets customers' needs or expectations (Zeithaml and Bitner, 1996).

Service quality (SQ) has become an important research topic because of its apparent relationship to cost, profitability, customer satisfaction and customer retention (Setayesh Sattari, 2007).

Satisfaction is a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations. If the performance falls short of expectations, the customer is dissatisfied. If the performance matches

the expectations, the customer is satisfied. If the performance exceeds expectations, the customer is highly satisfied or delighted (Kotler and Keller, 2006).

Customers develop expectations from different sources. Those sources can be the previous experience of the customer him/her self, from other customers' experience (by word of mouth), from the company's advertising campaign and so on. On the other hand, customers experience what actually they get from the service provider irrespective of the developed expectations. The experienced service can be measured by using SERVQUAL dimensions. SERVQUAL revolve around the idea that it is the result of the comparison that customers make between their expectations about a service and their perception of the way the service has been performed (Parasuraman et al., 1985, 1988, 1991, 1994).

In Ethiopia, the use of mobile telephones was started in 1999. When mobile service begun to operate, it was ETC that sold mobiles under the name "Ethiomobile". The company initially underestimated the market for mobile service and there were more customers than could be handled. At that time the network capacity was supporting only 36,000 subscribers. Now it has more than 4.2 million (September, 2009 data) subscribers of mobile service throughout the country, and planned to support more than 10 million at the beginning of 2010 (ETC's Strategic Plan, 2009).

Appreciating the attempt of ETC to upgrade its infrastructure to 3G (third generation) and increasing network coverage to the nation as a whole, the assessment of the quality of service it gives is necessary. And this research will try to get a better understanding of the service quality dimensions that affect customer satisfaction from customer perspective.

1.2. Background and status of telecommunications in Ethiopia

1.2.1. Brief Background

Established over a century ago, the Ethiopian Telecommunication Corporation (ETC) is the oldest public telecommunication operator (PTO) in Africa. Although initially private, the company was placed under government control at the beginning of the twentieth century, and was later brought under the control of the Ministry of Post and Communications. In 1952, telecommunication services were separated from the postal administration, and fell under the Ministry of Transport and Communications.

The first long-distance telephone line in Ethiopia was established in 1894 between Addis Abeba and Harar. The network began to expand from then on, extending to other cities in Ethiopia. After the end of the war against Italy, Ethiopia established the Imperial Board of Telecommunications, whose activity was funded from domestic sources and from the World Bank. The Board had full financial and administrative autonomy and was in charge of the provision and the expansion of telecommunication services in Ethiopia. Today, the backbone network is constituted from a variety of microwave, satellite and also fiber optic links. International access is provided by satellite and the PANAFTEL terrestrial microwave network, connecting Ethiopia to other Southern and Eastern African countries via links to some neighboring countries.

The Imperial Telecommunication Board, which became the Ethiopian Telecommunication Authority in 1981, was placed in charge of both the operation and regulation of telecommunication services. In 1996, in the wake of the market reforms, the Government created a new separate regulatory body by Proclamation 49/1996, establishing the Ethiopian Telecommunication Agency (ETA), which has the objective of promoting the development of "high quality, efficient, reliable and affordable telecommunication services".

The same year, by Regulation 10/1996, the Council of Ministers set up the Ethiopian Telecommunications Corporation (ETC), to which all the rights and obligations of the former Ethiopian Telecommunication Authority were transferred. ETC would operate as a public enterprise under the authority/supervision of the ETA, with the principal duty of maintaining and expanding telecommunication services in the country and providing domestic and international telephone, telex, telefax and other communication services. In this respect, it is currently deemed by the Regulation to be the only operator of any telecommunication related service, including the provision of the Internet and public phones (ITU, 2002).

The current Ethiopian government has made the development of information and communications technology (ICT) one of its strategic priorities. This ICT policy is a demonstration of its commitment to the development of ICT both as an industry and as an enabler of socio-economic transformation. The policy stems from the recognition by the government that ICT as the key driver and facilitator for transforming Ethiopia's predominantly subsistence-agriculture economy and society into an information and knowledge-based economy and society, effectively integrated into the global economy (www.ethionet.et).

1.2.2. Current Status

ETC since its establishment has been providing various and distinct telecommunication services. Currently (as of April 22, 2010), ETC has more than 778, 928 fixed telephone customers, 4, 781,733 mobile customers, over 35,988 Internet users [both broadband (3,383) and dial-up (32,605)], more than 92 DDN (digital data networks) users, more than 1,045 e-mail users, more than 1,273 VSAT users , and more than 56,162 prepaid CDMA users.

Among these services the mobile wing, since its establishment in April 1999, has been growing very fast, and the number of mobile subscribers surpasses the fixed-line telephone customers of ETC. The mobile service has given a complement to fixed services by adding value for customers with mobility, flexibility features and at the same time supporting international roaming allowing users to cross borders and continue to use their telephones. In addition to this, 2nd generation mobile network brought a simple but popular application called SMS. This allows text messages to be sent and received.

Moreover, the existing network infrastructure and capacity also enables ETC to give the 2.5 generation network application; namely- General Package Radio Service (GPRS). GPRS involves a packet based air interface on the existing circuit switched GSM network by providing users with packet data services. It is dominant in nearly 100 countries, including most European countries.

GPRS appeal to a broad base of mobile subscribers by providing a wide range of applications, like Communication (e-mail, /intranet access), Value added services (information system, games), E-commerce ...etc. On the other hand it is also very important to broaden the revenue spectrum for an operator like ETC. That is it averts a progressive decline of consumption per line as customers number grow by incorporating new subscribers who are more concerned about the cost of the network.

As it is clearly seen in developing countries, which is quite true in Ethiopia, instead of waiting for years for a fixed line service, and sometimes paying high line installation fees, citizens in many developing countries prefer to subscribe for a mobile connection on demand and need only to pay for the SIM card that activates their handset. So it is very important to utilize this communication sector for further upgrade (ETC's strategic plan, 2009 and GPRS updated, 2006).

1.2.3. Future plan

The government has envisioned of establishing a "vigorous, cogent and competent" internationally recognized World-class ICT infrastructure and new telecom service provider. In order to achieve the establishment of the "**World-class New Telecom Company**" the government through the Ethiopian Telecommunications Corporation has formed and financed a Transformation Program Office (TPO) and required to go through a series of transformation and development programs.

The basis for the corporate transformation efforts and creation of new entity is the existing services and facilities of ETC and the level of the existing customer satisfaction and expectation vis-à-vis the overall Government of the Federal Democratic Republic of Ethiopia (FDRE) development goals and envisaged business mission.

Transformation Program Office (TPO) and the Project Coordination and Supervision Office (PCSO) were established to facilitate creation of new company, implementation of transformation processes and manage the vendor financed projects. TPO and PCSO are the main interventions meant for a radical corporate transformation program, creation of a "**New Telecom Company**" being the main purpose, which has far reaching implications on the country's capacity in the expansion of new and existing telecom services and infrastructure with World-class speed, efficiency and quality.

The overall goal is to serve approximately 15 million mobile subscribers, 5 million fixed line subscribers in a looped national optical transmission, IP connectivity and an automated applications support services by 2010. With this view, the creation of new company, business strategy and process design, alignment of services to customer requirements by deployment of Next Generation technology, workforce and processes is taking place. In its endeavors to create a "New World Class Telecom Company" the Ethiopian Government embarked three mission critical initiatives. These are:

1. Create a "New World Class Telecom Company" with industry standard business processes;

2. Introduce state of the art ICT-infrastructure, well-matched to industry standard processes, across the nation to support voice, data and video services that is reliable, secure and available at affordable prices; and

3. Train and develop the workforce to manage the operations of the "New World Class Company". (Proposal for TPO and PCSO, 2009)

Now the planned work is in progress. The plan developed for TPO has been successfully completed and the infrastructure development is around 92% completed. The government has entered in to management contract with 'French Telecom' and will start the 'new telecom company' on August of 2010 (proposal for TPO and PCSO, 2009).

1.3. Statement of the problem

Over the last few years, the number of mobile phones in the world has increased at an exponential rate with many developed countries reaching 60% ownership rates. The reasons for this are numerous, however low prices and the availability of new technology mean that even children now own and regularly use mobile phones. Furthermore, the number of mobile phones in the world has already passed the number of fixed land lines and the revenue from mobiles phones will soon exceed that of fixed land lines (ITU 2001).

In this 21st century the digital revolution has transformed the economy in to a new economy which empowered the customer with new set of capabilities such as;

1. Access to greater amount of information,

2. Wider variety of available good and services,

3. Greater ease of interacting with the service provider.

This new capability in the new economy led the customer to market the marketing and plays a very vital role in the growth of the market. It is essential in the service industry in particular, to place greater emphasis on the enablers leading to customer satisfaction and customer retention. In this context, it is very important to understand the customer requirements to provide value-(QSP - Quality, Service and Price) and track and manage the customer satisfaction for retention and creation of new customers (Madhukar Reddy, 2005).

There are several ways to increase the profit of a company. Within a service company, the main aspects that customers look at when determining the quality are the service, quick response, delivery times and cost. Quality of service is becoming important among all the people that want

fast, cheap and great care of their valuable thing (M.Gonzalez Vega and J.Santamaria Garcia, 2008).

Customer Satisfaction is one of the topics very related with the Quality, The ultimate measurement of quality is customer service. The customer wants his needs fulfilled. The main question about quality service is what the customer expects to get from the service. Knowing the customer- their needs, expectations, price and wants- helps the company succeed. It is the customer who judges the quality of goods and service (M.González Vega and J.Santamaria Garcia, 2008).

In view of the above, the main problem of this study is: Are customers satisfied by the service quality delivered by Ethiopian Telecommunication Corporation and Which SERVQUAL dimensions are important for customer satisfaction?

For the above identified research problem, the main purpose of this study is to assess service quality and customer satisfaction of Mobile Services in Ethiopia (Addis Ababa).

1.4. Research Questions

For the above stated problem, the study seeks to answer the following specific research questions:

1. What are the service quality dimensions in Ethiopian Mobile service operations
2. How do SERVQUAL dimensions affect customer satisfaction?
3. Which dimensions of service quality are customers satisfied or dissatisfied with in Ethiopian Mobile Telecommunication?
4. Which dimensions of service quality are important to customers of Ethiopian Mobile Telecommunication?

1.5. Conceptual Frame work

1.5.1. Service quality

Service quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001). Definition of service quality revolves around the idea that it is the result of comparison that customers make between their expectations about

a service and their perception of the way the service has been performed. Service quality can thus be defined as the difference between customer expectations of service and perceived service performance. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Parasuraman et al., 1985; Ali Dehghan, 2006)

Service quality is a measure of how well the services (as received) match expectations (as preconceived). The notion of service quality involves more than the outcome quality; the methods and manner by which the service is delivered are of great importance. The quest for service quality has been an essential strategic component for firms attempting to succeed or survive in today's competitive environment (Jayaraman Munusamy and Vong Oi Fong, 2008).

1.5.2. Customer Satisfaction

Customer satisfaction can be defined as when the customer's expectation of the service provided matches his perception of the actual service received (Parasuraman et al.1985). Customers judge the services provided or the product delivered by making a very subjective value judgment which may not reflect reality. The current stiff competition and sophisticated marketing environment has urged service organizations to shift focus from profitability to customer satisfaction. Better service will assure customer satisfaction. Delighted customers will stay loyal and in return it will increase revenue.

The concept of customer satisfaction has attracted much attention in recent years. Satisfaction could be defined as a customer's post-purchase evaluation of a product or service. A key motivation for the growing emphasis on customer satisfaction is that higher customer satisfaction can lead to a stronger competitive position resulting in higher market share and profit, reduce price elasticity, lower business cost, reduce failure cost, and reduce the cost of attracting new customers. Customer satisfaction is also generally assumed to be a significant determinant of repeat sales, positive word-of-mouth, and customer loyalty (CL). Satisfied customers return and buy more, and they tell other people about their experiences (Fornell et al., 1996).

Satisfaction is the state felt by a person who has experienced a performance or outcome that has fulfilled his or her expectations. Satisfaction is thus a function of relative levels of expectation and perceived performance. Expectations are formed on the basis of past experiences with the

same or similar situations, statements made by friends and other associates, and statements made by the supplying organization (Kotler et al., 1999).

1.5.3. The relationship between service quality and customer satisfaction

Relationship between satisfaction and service quality is the key to measure user satisfaction (Pitt et al., 1995). In businesses where services are part of the business, the services are visible to the customer. Therefore, it would be quite natural that such services would have a major impact on the customer satisfaction. In the context of the mobile telecommunications network, this is more important. Service quality can be explained as perceived performance from the customer's perspective.

The service quality impacts customer satisfaction in many organizations and maintaining customer satisfaction is the key to retaining customers and profitability. Therefore, the study on customer satisfaction has become a paramount aspect. Customer satisfaction is found to be an important tool to create and maintain loyal customers. These loyal customers contribute towards high repeated purchases (Arturo J. Ferna´ndez-Gonza´lez and J. Carlos Prado Prado, 2007).

1.5.4. Models for Customer Satisfaction

The study of "Measurement and analysis of customer satisfaction: company practices in Spain and Portugal" which discussed about different models of measuring customer satisfaction by referring various literatures is conducted by Arturo J. Fernandez-Gonzalez and J. Carlos Prado Prado in 2007. According to them, customer satisfaction can be measured by SERVQUAL Model (Parasuraman, A. et al.,1988), Expectancy-Disconfirmation Model (Reisiq & Chandek, 2001), Performance Only Model (SERVPERF) (Al-Hawari & Ward, 2006; Kandumpully, 2002; Kurtenbasch, 2000), Attribute Importance Model (Tontini & Silveira, 2007; Kim, Lee & Yun, 2004), Norms Model (Fecikova, 2004), Attribution Model (Casado & Ruiz, 2002), Affective Model (Vinhars & Sharifah, 2006), Multiple Process Model (Bauner et al., 2002), Equity Model (Atilgan et al.,2005), European Customer Satisfaction Index (Vilares & Coelho, 2001) and Customer Loyalty Model (Zins, 2001).

Among all these models, the SEVQUAL Model is still the most robust in measuring customer satisfaction in many organizations. Since the aim of this study is to assess service quality dimensions impact on customer satisfaction, the focus will be on SERVQUAL model.

1.5.5. Measuring Service Quality (SERVQUAL)

SERVQUAL is founded on the view that the customer's assessment of service quality is paramount. This assessment is conceptualized as a gap between what the customer expects by way of service quality from a class of service providers, and their evaluations of the performance of a particular service provider. Service quality is viewed as a multi-dimensional concept. Consumers assess and evaluate a number of factors or dimensions. Quality gave rise to SERVQUAL, a self-administered questionnaire purported to be a generic measure of service quality. In their original formulation Parasuraman *et al.* (1985) identified ten components of service quality:

(1) Reliability;

(2) Responsiveness;

(3) Competence;

(4) Access;

(5) Courtesy;

(6) Communication;

(7) Credibility;

(8) Security;

(9) Understanding/knowing the customer;

(10) Tangibles.

In their 1988 work these components were collapsed into five dimensions: reliability, assurance, tangibles, empathy and responsiveness. Reliability, tangibles and responsiveness remained distinct, but the remaining seven components collapsed into two aggregate dimensions, assurance and empathy. Parasuraman *et al.* developed a 22-item instrument with which to measure customers' expectations and perceptions (E and P) of the five rater dimensions. The instrument is administered twice in different forms, first to measure expectations and second to measure perceptions. The dimensions to be measured in this study are the later developed five

The specific objectives of the study are:

1. To investigate the overall customer satisfaction of mobile service in Ethiopia (Addis Ababa).
2. To investigate the link between certain demographic variables (gender, age, occupation, income, and educational level) and mobile apparatus and customer satisfaction.
3. To study the influence of SERVQUAL dimensions on customer satisfaction
4. To determine the relative importance of each of the service dimensions when users assess the service quality of the Mobile service.
5. To determine users' expectations and perceptions of the current level of Mobile services along different service dimensions.
6. To develop a model predicting overall customer satisfaction using modified SERVQUAL dimensions.

1.7. Statement of Hypothesis

As for the relationship between service quality and customer satisfaction, service quality would be antecedent to customer satisfaction regardless of whether these constructs were measured for a given experience or over time. Up to now, there are already some other researchers who have found empirical support for the view of point mentioned above, where in customer satisfaction is a consequence of service delivery (yonggui Wang and Hing-PoLo, 2002).

From the above idea, the researcher develops the proposition; all the seven service related factors have significantly positive influence on customer satisfaction. And the hypotheses are:

H_1: Customers are satisfied with Ethiopian mobile service

H_2: Customer satisfaction differs among various groups of the demographic variables (gender, age, occupation, income, and educational level) and mobile apparatus

H_3: The tangibles have significant positive influence on customer satisfaction.

H_4: Reliability has significant positive impact on customer satisfaction.

H_5: Responsiveness has significant positive effect on customer satisfaction

H_6: Assurance has significant positive impact on customer satisfaction

H_7: Empathy has significant positive link with customer satisfaction

H_8: Network quality has significant positive influence on customer satisfaction

H_9: Convenience has significant positive effect on customer satisfaction

H_{10}: Overall Service quality has a significantly positive effect on user satisfaction

The hypothesis from H_3 to H_8 are adopted from the five dimensions of service quality used in the SERVQUAL Model which was developed by Parasuraman et al. (1988) for measurement of service quality. Those are tangibility, reliability, responsiveness, assurance and empathy. The other two service related factors (H_8 and H_9) are adopted from different literatures which was used specifically for telecommunication industry [Yonggui Wang and Hing-PoLo, 2002 (network quality); Fujun Lai and Joe Hutchinson, 2007 (convenience); Rakshit Negi, 2009 (network aspect and convenience)]. And; hence, this study will use a modified SERVQUAL dimensions.

1.8. Significance of the study

The study will have the following importance:

- To assess the relationship between quality Service and customer satisfaction.
- To provide a more reliable measure and perspective for describing and evaluating the level of ETC's customer satisfaction with the mobile services it delivers. And to report the findings and results of this study to the management of ETC (Mobile service) for detail information.
- To provide additional information to existing literature on customer satisfaction and service quality dimensions and became a base for another researcher
- It also draws attention of other business organizations on what to do to satisfy their customers and apply SERVQUAL to measure the satisfaction.

1.9. Delimitations of the study

The study is limited to only Addis Ababa, but in fact Ethiopian Telecommunication Corporation is a nationwide corporation. Customers in this study are limited to only individuals, and not institutions who are also consumers of significance in considering overall customer satisfaction

Chapter Two

Review of Related Literature

An effort has been made to review relevant literature. This chapter demonstrates an introduction, determinants of customer satisfaction, satisfaction formation, disconfirmation models, customer expectations and customer perceptions, perceived service quality, model of expectation, the dynamics of expectations, service quality theory, development of service quality models, and organizational barriers to service quality criticisms of SERVQUAL.

2.1 Introduction

The emergence of service quality and its assessment has attracted the attention of numerous researchers in the past two decades or so. In this sense, there are two main lines of thoughts on measuring service quality (Kang and James, 2004): an American and a European perspective. Brady and Cronin (2001) suggest that the researchers generally adopt one of the two conceptualizations in their work. The focus on functional quality attributes is referred to as the American perspective of service quality while the European perspective suggests that service quality considers two more components.

The European perspective considers additional aspects other than the process of service delivery. Gronroos (1984), for instance, noted that the quality of a service as perceived by customers consists of three dimensions: functional (the process of service delivery to customers), technical (the outcomes generated by the service to the customers), and image (how the customers view the company). Considering those dimensions, the quality of the service is dependent upon two variables: the expected service and the perceived service.

Functional quality of a service is often assessed by measures of customers' attitudes, as in customer satisfaction questionnaires. As described by Hayes (1997), the process of identifying customers' attitudes begins with determining customers' requirements or quality dimensions. Parasuraman et al. (1985) identified in a first study 10 quality dimensions based on a series of focus group sessions. From their study, the authors concluded that customers use the same criteria to assess service quality independent of the type of service.

For Hayes (1997), however, some quality dimensions are generalized across many services, but some will apply only to specific types of services, and it is necessary to understand quality dimensions to be able to develop measures to assess them. The author explains then two ways of identifying important quality dimensions of services: quality dimension development approach and critical incident approach. The first one uses different sources of information, such as opinions of providers and literature. The other one is a process to obtain information from customers.

The 10 determinants of service quality established by Parasuraman et al. (1985) provide a list that can guide investigation on the first approach. The authors subsequently developed SERVQUAL (Parasuraman et al., 1988), a two-part instrument for measuring service quality that was refined later (Parasuraman et al., 1991). Much of the research to date has focused on measuring service quality using this approach and its use has become quite widespread.

SERVQUAL instrument consists of a 22-item instrument for assessing service quality based on customer's perceptions, which is, in turn, the difference between the customer's perceived quality and his/her expectation. The perceived quality is assessed based on service quality dimensions that correspond to the criteria used by consumers when assessing service quality. There are 10 potentially overlapping dimensions: tangibles, reliability, responsiveness, communication, credibility, assurance, competence, courtesy, understanding/knowing the customer, and access. Afterwards, these dimensions were reduced to five, namely: tangibles, reliability, responsiveness, assurance, empathy. Using those 10 or 5 dimensions as the evaluation criteria the specification of service quality becomes the gap between customers' expectations and their perceptions (Parasuraman et al, 1985).

However, there has been an extensive debate whether the perception-minus-expectations specification would be appropriate or assessing perception alone would be sufficient. Some concerns about the SERVQUAL instrument were raised by Cronin and Taylor (1992; 1994) and Teas (1993; 1994). The authors argue that there are serious conceptual and operational drawbacks associated with the SERVQUAL model, inducing Cronin and Taylor (1992) to propose a perceived quality model called SERVPERF. The perceived quality model postulates that an individual's perception of the quality is only a function of its performance. Considering that the 22 performance items adequately define the domain of service quality, Cronin and Taylor (1992) proposed the SERVPERF instrument, which is a more concise performance-based

scale; an alternative to the SERVQUAL model. In addition, they compared the SERVPERF model with SERVQUAL and two other alternatives: the weighted SERVQUAL and the weighted SERVFERF models. Those weighted versions consider the importance of a quality attribute as a determinant of perceived quality. In response to the criticisms, Parasuraman et al. (1994) claimed that many of those concerns are questionable and offered a set of research directions for addressing unresolved issues.

2.2 Determinants of Customer Satisfaction

A lot of factors that drive customer satisfaction need to be examined in order to reliably measure it. In the work of many scholars and practitioners, Customer satisfaction is found to be driven by the quality of service and the customer service experiences (Parasuraman, et al., 1988, Yonggui Wang and Hing-Po Lo 2002; kotler P. and Keller K., 2006). It is generally accepted by most scholars that service quality basically relates to what the customer perceives of the product/service performance. Recent empirical studies have shown that customer satisfaction is not only driven by cognitive dimensions of customer perception of service quality but also by affective dimensions which have positive impact on post-purchase behavior like repeat purchase, customer loyalty, switching intention, and likelihood to recommend (Erevells S., 1998; Oliver, R.L., 1993a). This is consistent with the work of two perceived service quality guru's, Gronroos C. and Edvardsson (Gronroos C. 2005; Edvardsson, 2005; Edvardsson et al., 2005), who postulate that perceived service quality is an important determinant of customer satisfaction that have both cognitive and affective dimensions beyond just cognitive assessment of customers of the offering of service providers. This is realized when customers are factored in as co-producers and involved in the process of production, delivery and consumption of service/products.

Another important determinant of customer satisfaction is customer expectation. It has been found out that expectation plays a major role in determining satisfaction. This view was herald by the proponents of popular expectancy disconfirmation theory (Parasuraman, A., et al., 1988). According to this theory, the customer is satisfied if the performance of product/service is equal to his/her expectations (positive disconfirmation) and he/she is dissatisfied if the product/service performance is perceived to be below his/her expectation (negative disconfirmation). If expectation exceeds perceived performance, the customer is highly satisfied. Another perspective of the disconfirmation is that customer satisfaction relates to a comparison of customer perceive

quality with perceived performance, rather than comparing expectation with perceived performance (Gronroos 2001).

Again, customer satisfaction is driven by perceived value. Though the concept of value is relative and has several dimensions to it, Zeithmal (1988) considers customer value as the overall assessment of the utility of a product based on perception of what is received and what is given. Customer perception of value represent a trade-off between the quality or benefit they receive in the product relative to the sacrifice they perceived by paying the price. The perceived value process involves a trade-off between what the customer gives such as price/money, sacrifice, perceived risk, opportunity cost, and learning cost in exchange for what he/she gets such as quality, benefits, utilities (Yonggui Wang and Hing-Po Lo, 2002; Zeithmal, 1988).

Conceptually, since what the customer gets for what he/she gives is based on performance of the product /service, what he/she gives became a standard for comparison. In this, a sort of disconfirmation occurs in that the customer becomes satisfied if the performance of product/service is equal to what he/she gives (positive disconfirmation); he/she is dissatisfied if the product/service performance is perceived to be below what he/she gives (negative disconfirmation). If what he/she gives exceeds perceived product/service performance, the customer is highly satisfied. It is called as value-disconfirmation. A number of researches attest to the fact that there is some kind of intertwine relationships among all antecedents of customer satisfaction (Yonggui Wang and Hing-Po Lo, 2002).

It is established empirically that customers overall cognitive or affective evaluation is based on basically the service quality, but the customer's perception of the performance of the service quality encountered is compared with some cognitive or affective standard like his/her expected quality, perceived quality or value quality.

The implication of the antecedents of customer satisfaction is that managers must take effective strategies to manage customer perceived quality, customer expectations, and customer perceived value in order to reap the full benefits of customer satisfaction measurement (Gronroos C., 1990; Kauppinen-Raisanen H. et al., 2007).

2.3 Satisfaction Formation

In marketing literature as well as in recent information system studies the disconfirmation theory emerges as the primary foundation for satisfaction models. According to this theory, satisfaction is determined by the discrepancy between perceived performance and cognitive standards such as expectations and desires (Khalifa and Liu 2003).

Customer expectation can be defined as customer's pretrial beliefs about a product. Expectations are viewed as predictions made by consumers about what is likely to happen during impending transaction or exchange (Zeithmal and Berry, 1998). Perceived performance is defined as customer's perception of how product performance fulfills their needs, wants and desire. Perceived quality is the consumer's judgment about an entity's overall excellence or superiority. Disconfirmation is defined as consumer subjective judgment resulting from comparing their expectations and their perceptions of performance received (Zeithmal, 1988).

Oliver (1980) described the process by which satisfaction judgments are reached in the expectancy-disconfirmation framework. Buyers form expectations of the specific product or service before purchase and perceived quality level which is influenced by expectations.

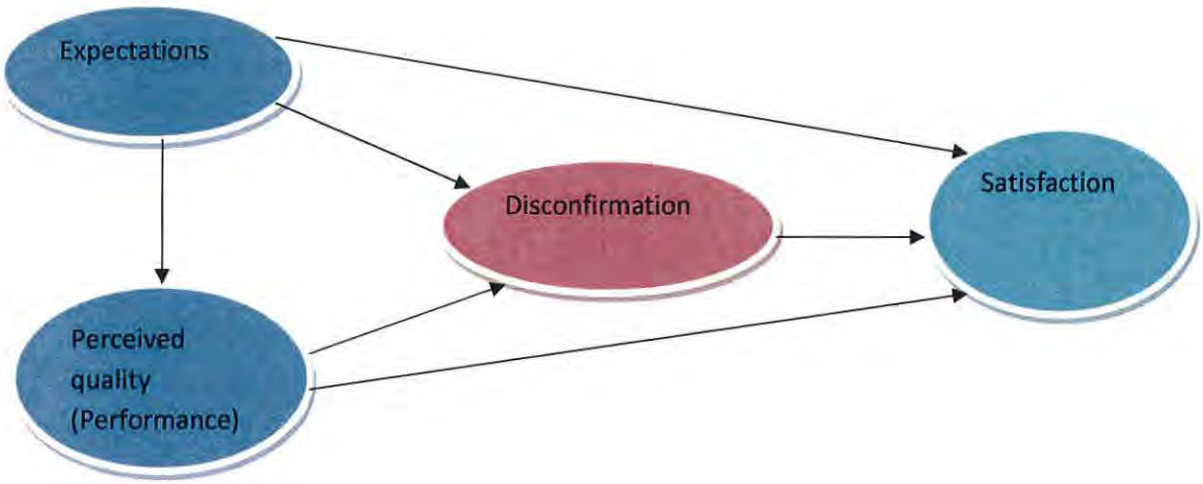

Figure 2: Satisfaction Formation

The figure above explains (the arrow drawn from expectations to perceived quality) that indicated perceived quality may increase or decrease directly with expectations. Perceived

quality may either confirm or disconfirm pre-purchase expectation. The determination of the extent to which perceived quality expectations are disconfirmed in figure 2 by arrow drawn from expectations and perceived quality to disconfirmation. Satisfaction is positively affected by expectations and the perceived level of disconfirmation that is also shown by arrow in the figure 2. Disconfirmation and perceived quality have a strong impact on satisfaction (Oliver, 1980)

2.4 Disconfirmation Models

Disconfirmation models are models that suggest customer satisfaction/dissatisfaction is the disparity that exist between the performance of a product/service and some cognitive or emotional standards of the customer. Oliver (1980) was the first to propose and developed the expectancy disconfirmation theory. According to expectation disconfirmation theory, customers after consuming a product/service, compare their perception of product/service performance against their expectations before the service encounter. When outcome or perceived performance is equal to expectations, confirmation occurs. Negative disconfirmation occurs when perceived performance of product/service is less than expected. Positive disconfirmation occurs when product/service performance is better than expected. Customer satisfaction occurs by confirmation or positive disconfirmation of consumer expectations, and dissatisfaction is caused by negative disconfirmation of consumer expectations.

Within the disconfirmation school of thought, more recent researches opine that 'desire' instead of 'expectation' in comparison with perceived performance should be used in determining customer satisfaction. Expectation disconfirmation model has been challenged as unsuitable since an expectation of a service can be rated as better than expected though it might not necessarily meet consumers desired set of services. Therefore desire disconfirmation has been suggested as a better substitute. Desire and expectations are both cognitive standards and it is not clear which one provides a better explanation of customer satisfaction. Khalifa and Liu (2002) proposed, in an empirically justified study, a contingency theory that incorporates both expectation and desire disconfirmations. They conclude that both desire and expectation simultaneously affect overall satisfaction (OCS) significantly. This implies that desire could be used in addition to expectation and not instead of it.

2.5 Customer Expectations and Customer Perceptions

"Expectations" are the wants of consumers, that is, what they feel a service provider should offer. Guests are the judges of service quality (Berry and Parasuraman, 1991). Their expectations of services greatly influence their resulting level of satisfaction. It is far easier to please guests with lower expectations than those with higher expectations. Consequently, an understanding of guests' expectation is critical. Lewison (1997) categories service expectations in three levels: essential, expected and optional. Zeithaml, Berry and Parasuraman (1993) include three similar levels in their conceptual model of customer service expectations: predicted, adequate, and desired.

Perception is the basis for personal interpretation of the world. As Chisnall cited by Eric Law (2001) argued that "people tend to select from the myriad stimuli to which they are exposed those which appear to be relevant to their needs." Schemerhorn et al. (2000) argued that perception is a way of forming impressions about oneself, other people and daily experience. It also serves as a screen or filter through which information passes before it has an effect on people. The quality or accuracy of a person's perceptions, therefore, has a major impact on his or her responses to a given situation. According to Mitchel (1978) perceptions are those processes that shape and produce what one actually experiences. Since perceptions are influenced by many external and internal factors such as cultural, social, psychological and economic, the ways in which the customer perceives services are highly subjective. What a customer perceives can differ from objective reality.

Therefore, measuring customer perception of service is important as the customer evaluation of service and future behavior (e.g. repeat purchase) depends on the perception, not on reality itself. The perceptions of service providers are part of the overall customer perceptions of a product.

2.6 Perceived Service Quality

According to disconfirmation theory, the extent of satisfaction or dissatisfaction that a consumer has with a particular service encounter is determined by the difference between the customer expectations of performance and the actual perceived performance of the service (Oliver, 1996). Any difference between them is referred to as disconfirmation. If the service experienced is

better than expected, then positive disconfirmation or high levels of satisfaction will result. If, however, the service performance falls short of what was expected, then negative disconfirmation or dissatisfaction will result as discussed under the model.

It is imperative to understand how consumers perceive the quality of the product offering, including the service element, and how these perceptions impact upon the consumer's ultimate purchase decision. Having understood the consumers' perception of quality the organization should be able to identify whether or not a gap exists between the customers' expectation and the manager in the development of appropriate managerial quality systems, which should maximize consumer satisfaction. The needs of survival and prosperity in the increasingly competitive marketplace are the main driving forces in the provision of superior quality services. This makes the provision, measurement of service quality imperative (Douglas and Connor, 2003).

2.7 Model of expectation

Expectations of end and business customer groups, of experienced or non experienced customers, and of customers of pure and product related services had fundamentally the same nature and antecedents. According to Zeithaml, et al. (1993), the generic model of customer expectations is divided in to four main sections: (1) the expected service component, (2) antecedents of desired service, (3) antecedents of adequate service, and (4) antecedents of both predicted and desired service.

2.7.1 The expected service component

Previous research on service quality supports the notion that perceived service quality stems from customers' comparisons of what they wish to receive from firms and what they perceive actual service performance to be. In other words, perceived service quality is viewed as the degree and direction of discrepancy between customers' perceptions and desires (Parasuraman et al, 1985)

Desired service is defined as the level of service the customer hopes to receive. Desired service is a blend of what the customer believes "can be" and "should be". Although customers hope to realize their service desires, they recognize that this is always possible. Thus, they hold another, lower level expectation for the threshold of acceptable service. This lower level expectation is defined as adequate service, the level of service the customer will accept. Based on the above

concepts, Zeithaml et al (1993) says that customers assess service performance based on two standards: what they desired and what they deem acceptable.

Services are heterogeneous in that performance may vary across providers, across employees from the same provider, and even from the same service employee. The extent to which customers recognize and are willing to accept heterogeneity is called the zone of tolerance. This zone, representing the difference between desired service and the level of service considered adequate, can expand and contract. In other words, customers' service expectations are characterized by a range of levels (bounded by desired and adequate service) rather than a single level. That is, a zone of tolerance separates desired service from adequate service.

The customer's zone of tolerance may vary for different service attributes. Parasuraman, et al (1988) found that customer evaluation of service quality occurs a long five dimensions: reliability, responsiveness, assurance, empathy, and tangibles. Zeithaml et al (1993) also found individual customer's zone of tolerance increases or decreases depending on a number of factors, including company-controlled factors such as price. The fluctuation in the individual customer's zone of tolerance is more a function of changes in the adequate service level, which moves readily up or down due to contextual circumstances, than a function of changes in the desired service level, which tends to move more incrementally and do so in an upward direction due to the accumulation of experiences. Desired service is relatively idiosyncratic and stable.

2.7.2 Antecedents of desired service

An antecedent of desired service defines and describes enduring service intensifiers and personal needs, two of the major influences on desired service. Davidow and Uttal (1989); as cited by Zeithaml et al, acknowledge the myriad of customer-related factors that influence the expectation formation process:

> *"[Service] expectations are formed by many uncontrollable factors, from the experience of customers with other companies and their advertising to a customer's psychological state at the time of service delivery. Strictly speaking, what customers expect is as diverse as their education, values, and experience. The same advertisement that shouts 'personal service' to one person tells another that the advertiser has promised more than it possibly can deliver."*

Enduring service intensifiers are individual, stable factors that lead the customer to a heightened sensitivity to service. One of those factors is derived service expectations, where the customer's

expectations are driven by another party (Example: when service employees depend on others to serve their own customers). Employees may also drive their expectations from their managers or supervisors. Another enduring service intensifier is personal service philosophy- the customer's underlying generic attitude about the meaning of service and the proper conduct of service providers.

Personal needs, states or conditions essential to the physical or psychological well-being of the customer are a second factor that shape desired service. Personal feeling can fall in to many subcategories, including physical, social and psychological. There is a positive relationship between the level of personal needs and the level of desired service (Zeithaml et al, 1993).

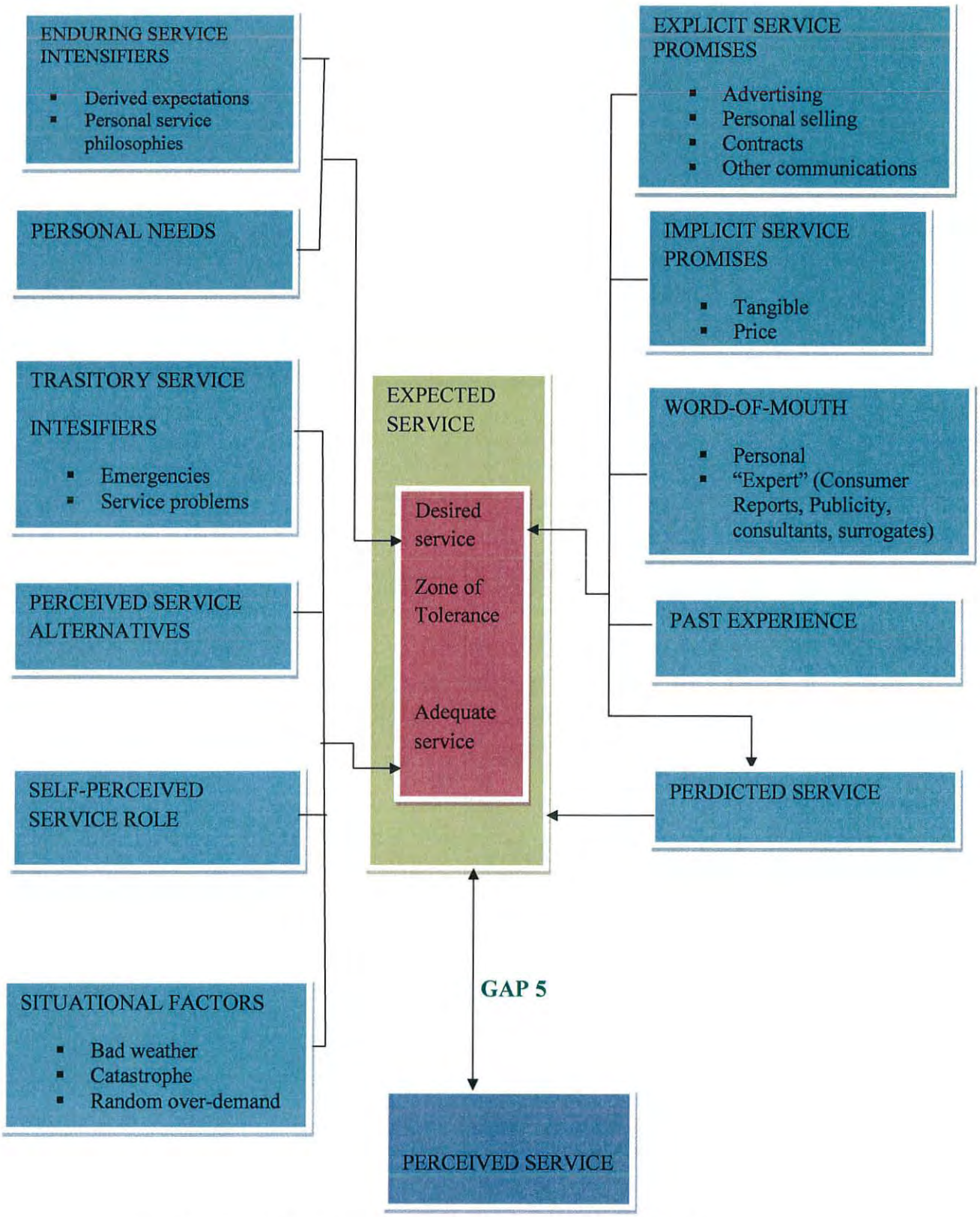

Figure 3: Nature and Determinants of Customer Expectations of Service

2.7.3 Antecedents of Adequate Service

Antecedents of adequate service identifies and explains five of the main influences on adequate service-transitory service intensifiers, perceived service alternatives, self-perceived service role, situational factors, and predicted service. Predicted service, the level of service customers believe they are likely to get, is the third type of service expectation developed in the model. Predicted service is viewed both as an antecedent of adequate service as well as the expectation standard for customer satisfaction assessments.

Transitory service intensifiers are temporary, usually short-term, individual factors that lead the customer to a heightened sensitivity to service. A personal emergency situation where the customer strongly needs service and perceives that company ought to be able to respond raise the level of adequate service, particularly the level of responsiveness considered acceptable. In the presence of transitory service intensifier, the level of adequate service will increase and the zone of tolerance will narrow.

Perceived service alternatives are customers' perceptions of the degree to which they can obtain better service through providers other than the focal company. If customers have several service providers to choose from, or if they can provide the services for themselves, their levels of adequate service may be higher than those of customers who believe it is not possible to get sufficiently better service elsewhere. And hence, the customer's perception that service alternatives exist raises the level of adequate service and narrows the zone of tolerance.

Self-perceived service role is defined as customers' perceptions of the degree to which they themselves influence the level of service they receive. When the provision of the service depends critically on customers' participation, their expectations are partly shaped by how well they believe they are performing their own roles. Customers' zones of tolerance seem to expand when they sense they are not fulfilling their roles. When, on the other hand, customers believe they are doing their part in delivery, their expectations of adequate service are heightened. To put it shortly, the higher the level of a customer's self perceived service role, the higher the level of adequate services.

Situational factors are defined as service performance contingencies that customers perceive are beyond the control of the service provider. Customers appear to recognize that those

contingencies are not the fault of the service company and accept lower levels of adequate service given the context. Situational factors temporarily lower the level of adequate service, widening the zone of tolerance. (Zeithmal et al, 1993)

The final variable to influence adequate service is predicted service, the level of service customers believe they are likely to get. This variable is synonymous with the definition of expectations in the dominant paradigm in the customer satisfaction or dissatisfaction literature (Oliver 1980a, b; Olson and Dover 1979; cited from Zeithmal, 1993).

Figure 4 illustrated the critical difference between customer satisfaction and perceived service quality assessments that result from the different standards of comparison used by customers in forming these assessments. Assessments of customer satisfaction result from a comparison between predicted service and perceived service. And assessments of service quality result from a comparison of desired service and perceived service. Parasuraman, Zeithmal, and Berry (1985) refer to this comparison as Gap 5 in their model of service quality.

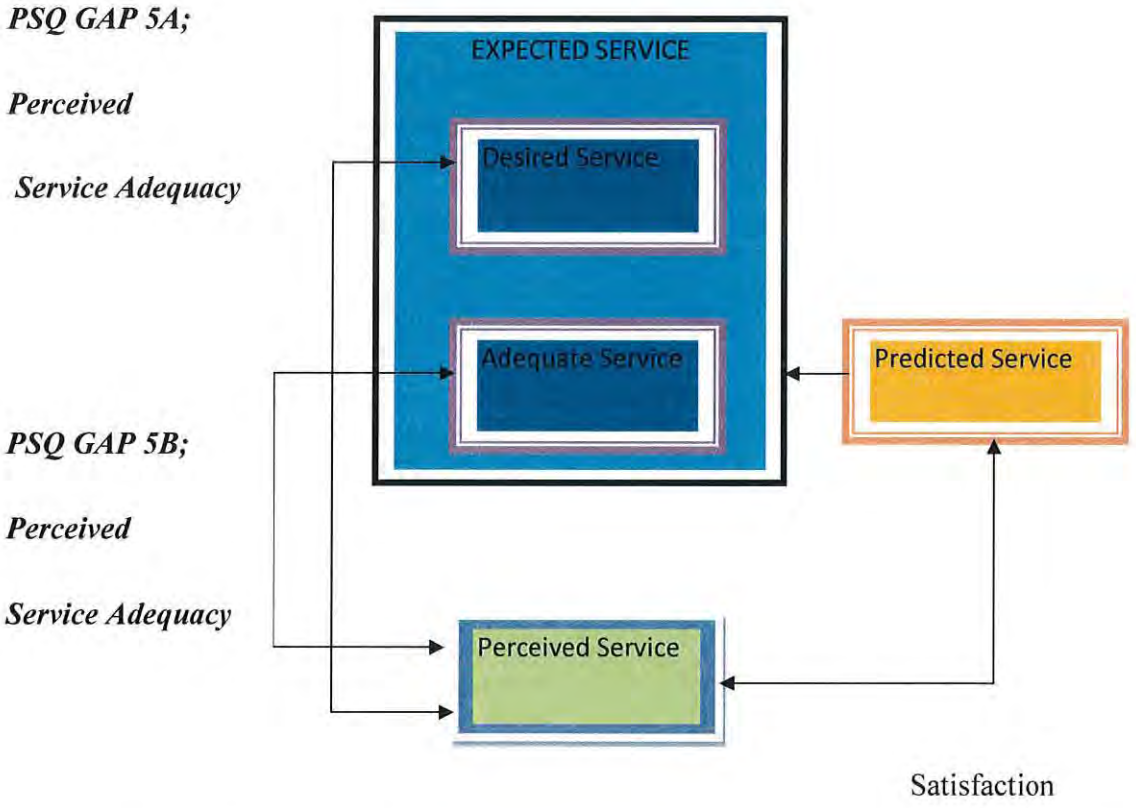

Figure 4: Comparisons between Customer Evaluation of Perceived Quality and Satisfaction

Gap 5- the gap between customer expectations and perceptions- can be conceptualized to reflect two comparison standards: desired and adequate service. The comparison between desired service and perceived service, which we call perceived service quality (PSQ) Gap 5A, is the perceived service superiority gap; and the comparison between adequate service and perceived service, which Zaithaml et al (1993) call PSQ Gap 5B, is the perceived service adequacy gap. The smaller the gap between desired service and perceived service, the higher the perceived service superiority of the firm and the smaller the gap between adequate service and perceived service, the higher the perceived service adequacy of the firm. These two service quality assessments (of perceived service superiority and perceived service adequacy) therefore replace the single Gap 5 in the Gap model. For this reason, Zaithaml et al proposes that: the two types of service quality assessments are made by consumers: perceived service superiority, which results from a comparison between desired service and perceived service; and perceived service adequacy, which results from a comparison between adequate service and perceived service.

2.7.3 Antecedents of both Desired and Predicted Service

Antecedents of both desired and predicted service details four variables: explicit service promises, implicit service promises, word-of-mouth communications, and past experience, all of which affect both desired and predicted service. The first three factors can be categorized as external affect and the other one, past experience, internal search factor.

Explicit service promises are personal and non personal statements about the service made to customers by organization. These promises take different forms, among them advertising, personal selling, contracts, and communications from service giving department. All have a direct impact on desired service as well as predicted service. The higher the level of explicit service promises, the higher the levels of desired service and predicted services.

Implicit Service promises are service related cues other than explicit promises that lead to inferences about what the service should and will be like. These quality cues include price and the tangibles associated with the service. That is, implicit service promises elevate the levels of desired service and predicted service.

Word of mouth communication is these personal and sometimes non-personal statements made by parties other than the organization convey to customers what the service will be like, what

they can expect and so on. Word of mouth tends to be quite important in services because services are difficult for customers to evaluate prior to purchasing and directly experiencing them. Therefore, positive word of mouth communication elevates the levels of desired and predicted service.

Past experience is the customer's previous exposure to service that is relevant to the focal service. The service experiences relevant for prediction can involve previous exposure to the focal firm's service, to other firms in the industry, or exposure to any service firm. A positive relationship exists between levels of past experience with a service and the levels of desired service and predicted service. (Zeithaml, winter, 1993)

2.8 The dynamics of expectations

Consumers evaluate a service according to their own expectations, based on past experiences, both direct and indirect, gives a realistic picture of the wide majority of business support situations.

How often customer expectations are not realistic? For business support services it is too difficult to evaluate specially after consumption, satisfaction depends on the how customer's expectations can be attuned to the provider's perception of what the customer's reasonable expectations should be, also satisfaction depends on the quality of the dialogue between user and provider, especially in the "moments of truth". (Nicola Bellini, 2002)

Expectations are created by many factors. Sometimes unrealistically high expectations occurs when one company perceives the business support services to solve its problems, this may be created by unrealistic marketing activities and strategies that instead of concerning to the importance and basic factors of service quality, they emphasis on social relationships, so consequently uncertainties emerging and also occurs a distrust in customers.

At the following figure, a useful model is presented for dynamics of expectations:

1. Fuzzy expectations exist when customers expect a service provider to solve a problem but do not have a clear understanding of what should be done.

2. Explicit expectations are clear in the customers' minds in advance of the service processes. They can be divided in to realistic and unrealistic expectations.

3. Implicit expectations refer to elements of a service which are so obvious to consumers that they do not consciously think about them but take them for granted (Gronroos, 2000).

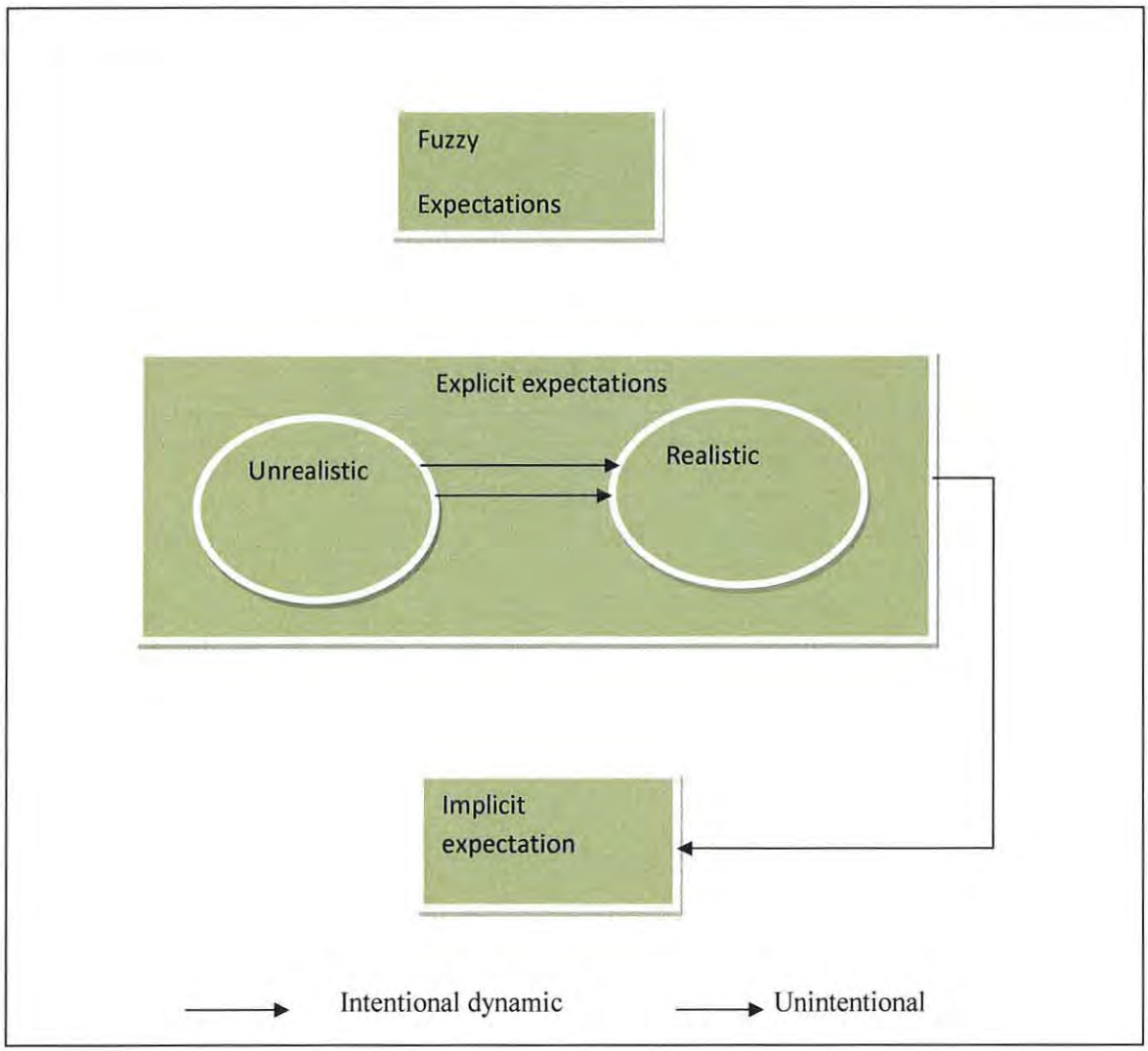

Figure 5: dynamic model of expectations

In the case of business support services:

1. Fuzzy expectations are easily prevail and run a high risk of being disappointed. Customers with fuzzy expectations must be helped by the provider to make their expectations explicit. This may happen also without the provider's intervention, as a

result of the user's learning process, but this may lead the user to quit the relationship or to substitute unrealistic for fuzzy expectations;

2. Explicit expectations are likely to be unrealistic, due to their innovative or experimental character or to the vague promises made by manager and politicians: these expectations must be rapidly brought to realism. Again this may happen autonomously, as the company learns about the service, but what the user understands now as realistic may be felt as insufficient and disappointing.

3. Implicit expectations may become relevant when they are not fulfilled: example, the user may incorrectly expect that the support service is free of charge. Implicit expectations should therefore make explicit and it must be clarified whether they are realistic or not.

4. Overtime expectations, that were once explicit, may become implicit and out of control: example, a certain level of quality and empathy is given for granted, but may decline as a consequence of the routinization of the service (Gronroos, 2000).

2.9 Service Quality Theory

Service quality is defined as the result of the comparison that customers make between expectations about a service and perception of the way the service was delivered (Lehtinen and Lehtinen, 1982; Gronroos, 1984; Parasuraman, Zeithaml and Berry, 1985).

Brady and Cronin (2001) identified that the foundation of service quality theory has some connection with the product quality and customer satisfaction literature based on the disconfirmation paradigm identified in physical goods literature.

The disconfirmation paradigm indicates the size and direction of a person's initial expectations in relation to the experience received. Therefore the disconfirmation is the size of the gap between prior expectation and the actual performance received. Directions are; positive, negative and zero disconfirmations. When a service is performed better than expectation, a positive disconfirmation occurs resulting in satisfaction and when a service is below the expectation a negative disconfirmation occurs resulting in dissatisfaction. When a service is performed as expected zero disconfirmation occurs (Churchill and Surprenant, 1982; cited by Parasuraman et al, 1985).

By building on this theory, Gronroos (1982) states that customers' compare the service they expect with the perception of service they receive when evaluating the service quality (Parasuraman et al, 1985). In an exploratory research of service quality Parasuraman et al (1985) state that a perceived service quality is the result of a comparison between what consumers consider the service should be and their perceptions about the actual performance delivered by the service provider. Parasuraman et al (1988) defined perception as customers' beliefs concerning the service received and the expectation as desires or wants of customers perceived.

2.10 Development of Service Quality Models

Understanding the key ingredients of service quality and the best way to measure and fulfill it is a keenly debated area in service marketing and as a result there are some 'service quality models' which have emerged and evolved within the past two decades. Some of the models are:

2.10.1 Gronroos (1984) Perceived service quality Model

According to Gronroos (1982), the quality of a service perceived by customers will differ depending on what strategy the company chooses to deliver and promote that service. The service quality model by Gronroos holds that the quality of a service, as it is perceived by the customer, can be divided into technical quality and functional quality dimensions. The former denotes what the customer receives as the output of a service production process and the latter how the technical quality is produced and transferred to the customer during buyer-seller interactions.

Gronroos posits that the technical quality is the "basic condition for a positively perceived total quality, but the functional quality is the one that adds competitive edge". Furthermore, in the relationship marketing, the growth of the importance of functional quality in comparison to technical quality becomes a strategic one (Gronroos 1993).

The organization's image works as a filter and can thus positively or negatively modify the customers' perception of service quality. Gronroos acknowledged that the model was intended to offer a conceptual framework to understand the features of service and is not a measurement model.

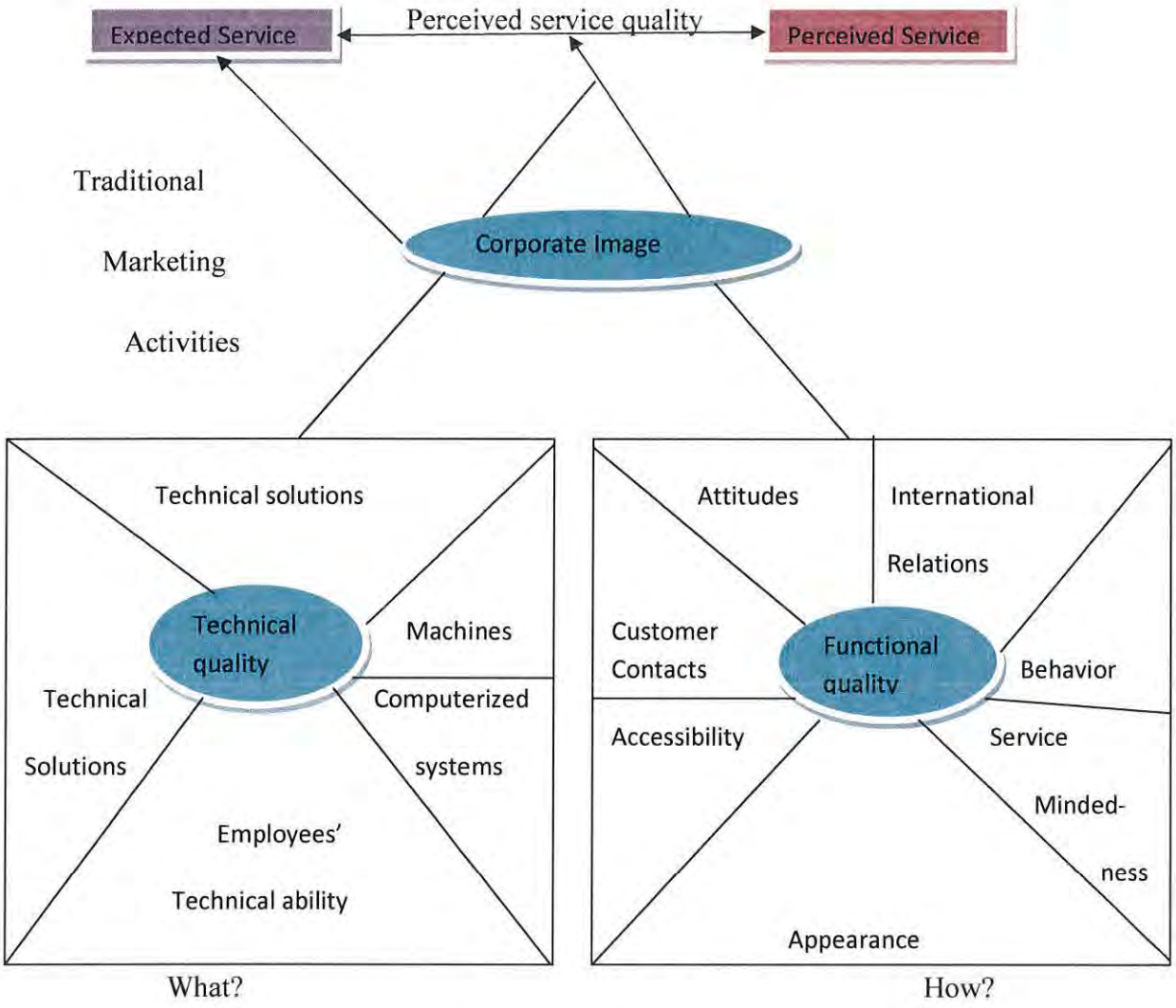

Figure 6: the Service Quality Model (Gronroos, 1982)

The distinction is also made in the model between perceived and expected service quality and it is suggested that the quality is perceived subjectively. Gronroos (1988) further develops the model by positing that in the case of a company, which extends product offer with services, it is more appropriate to talk about total perceived quality. According to him, a high perceived quality is obtained when the experienced quality meets customer expectations, that is, the expected quality. However, if the expectations are unrealistic, the total perceived quality will be low, even if high quality was experienced.

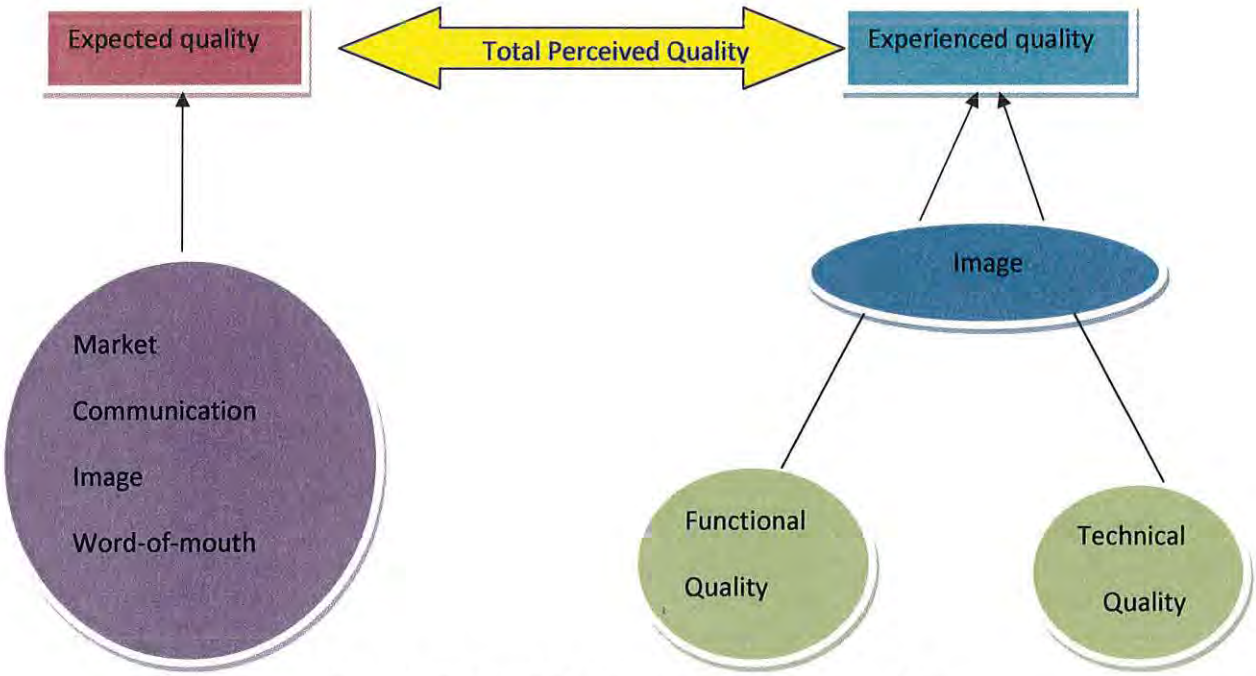

Figure 7: the Total Perceived Quality (Gronroos 1988)

The expected quality is heavily influenced by market communication (advertising, sales campaigns, public relation and direct mail), word-of-mouth, company image, and customers' needs. While a company directly controls market communication, the word-of-mouth and company image are outside its immediate reach. Gronroos conclusion is that the total perceived quality is not only defined by the level of technical and functional dimensions, but also by the gap between the expected and the experienced quality.

Gronroos (2001) identifies a list of determinants of good service quality and argues that the list needs to be short but comprehensive for it to be useful for managerial purposes. By expanding the argument, Gronroos (2007) emphasizes that the following 'seven criteria of good perceived service quality' are the determinants that need to be considered when evaluating the service quality of any organization.

1. Professionalism and skills
2. Attitudes and Behaviors
3. Accessibility and Flexibility
4. Reliability and Trustworthiness

5. Service Recovery

6. Service escape

7. Reputation and Credibility

However the above 'seven criteria of good service quality' concepts have very similar characteristics to the Parasuraman et al (1985) 'Ten Determinants of service quality'.

2.10.2 Model of Service Quality Gaps: SERVQUAL

The Gaps Model of Service Quality defines service quality in terms of the gap between what the service should provide and the customer's perception of what the service actually provides. It assumes that the smaller the gap, the higher the quality of services. One of propose of the SERVQUAL instrument is to ascertain the level of service quality based on the five key dimensions and to identify where gaps in service exist and to what extent. There are five major gaps in the service quality concept (Parasuman et al, 1991). The gaps are generally defined as:

Gap 1 (the positioning gap), pertains to managers' perception of consumers' expectations and the relative importance consumer attach to the quality dimensions. Management may have inaccurate perceptions of what consumers (actually) expect.

Gap 2 (the specification gap) is concerned with the difference between what management believes the consumer wants and what the consumers expect the business to provide. This gap relates to aspects of service design.

Gap 3 (the delivery gap) is concerned with the difference between the service provided by the employee of the business and the specifications set by management. Guidelines for service delivery do not guarantee high-quality service delivery or performance. The manner of service also influences the perception of quality.

Gap 4 (the communication gap) exists when the promises communicated by the business to the consumer do not match the consumers' expectation of those external promises. A realistic expectation will normally promote a more positive perception of service quality.

Gap 5 (the perception gap) is the different between the consumers internal perception and expectation of the services. Perceived quality of service depends on the size and direction of Gap 5, which in turn depends on the nature of the gaps associated with marketing, design and delivery of services.

Gaps 1-4 are within the control of an organization and need to be analyzed to determine the cause or causes and changes to be implemented which can reduce or even eliminate these four gaps emerge from an executive perspective on a service organization's design, marketing and delivery of service. They, in turn, contribute to another gap, mentioned earlier; Gap 5 Which is the discrepancy between customers' expected services and the perceived service actually delivered.

Gap 5 is the surveying of employees that can help to measure the extent of Gap 2 to Gap 4 (Zeithmal et al, 1990). This may reveal a difference in perception as to what creates possible gaps. This gap is a function of the other four gaps: that is,

Gap 5 = f (gaps 1, 2, 3, 4)

It is these gap that Parasuraman et.al. (1985) seek to measure using the SERVQUAL instrument. The gap model is basically customer-oriented. Quality is realized by the customer after the service has been received and it relates to the difference between expected and perceived quality

Disend (1991) correlates the Gaps Model with the concept of service quality. He implied that poor service results if the difference is large between what is expected and what is delivered. When what is delivered matches what is expected, customers find the service acceptable. He said "If the service provided is better than what they expected, exceptional service materializes"

Consequently, when expectations and perceptions are ranked on a scale, the gap is a number reflecting the difference between the two expectation rankings minus perception ranking. If there is a poor service gap, a minus number occurs. If the number, by chance, is zero, service is acceptable (expectations match perceptions). If a positive value emerges (perceptions exceed expectations), the service organization has achieved exceptional service (Disend, 1991).

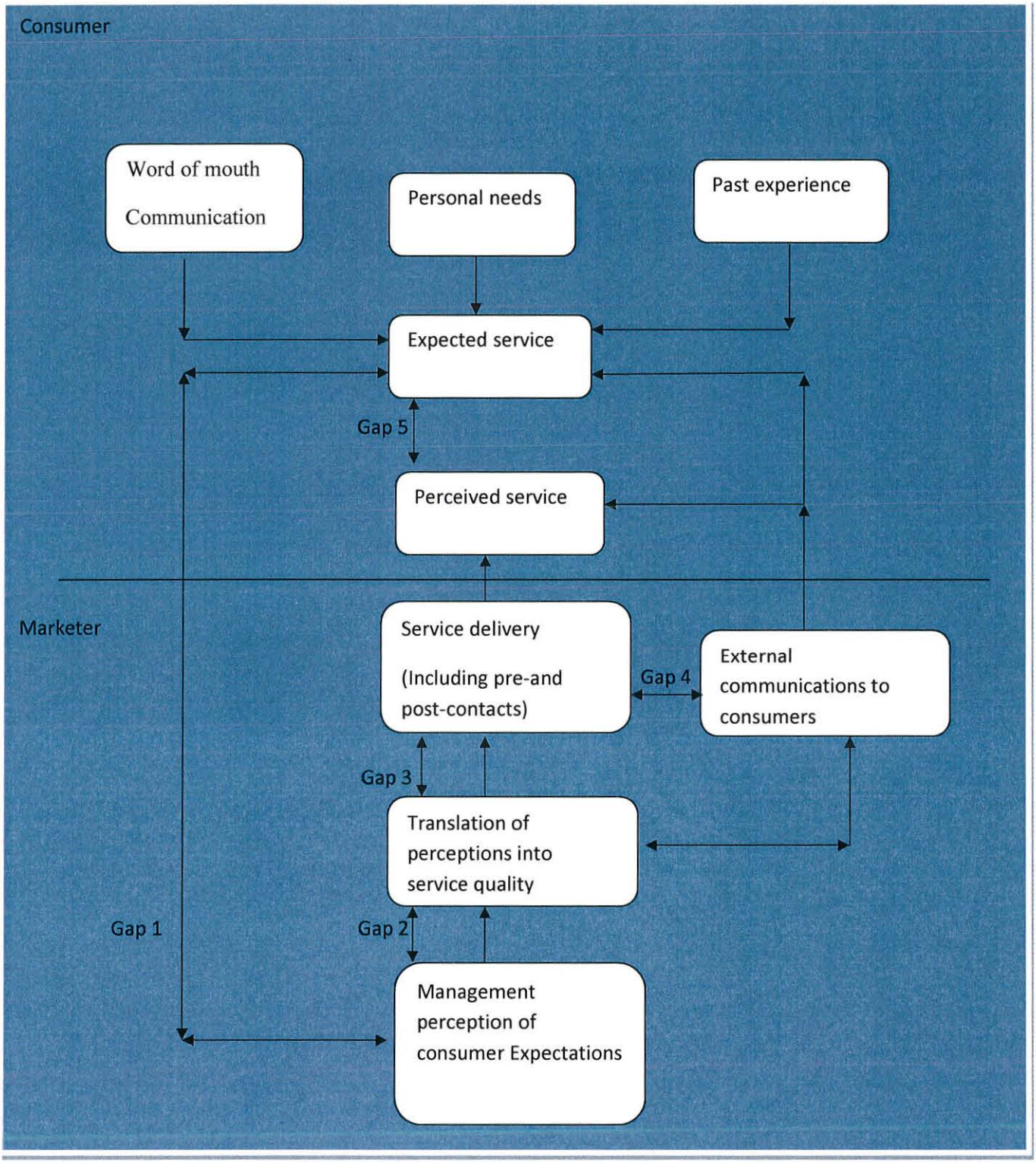

Figure 8: the gap analysis model (Parasuramann et.al., 1991)

2.11 Organizational Barriers to Service Quality

Parasuraman suggests service quality deficiencies experienced by customer externally is the consequence of four critical internal (that is, organizational) shortfalls or "gaps". The figure below contains a visual representation of this gaps model.

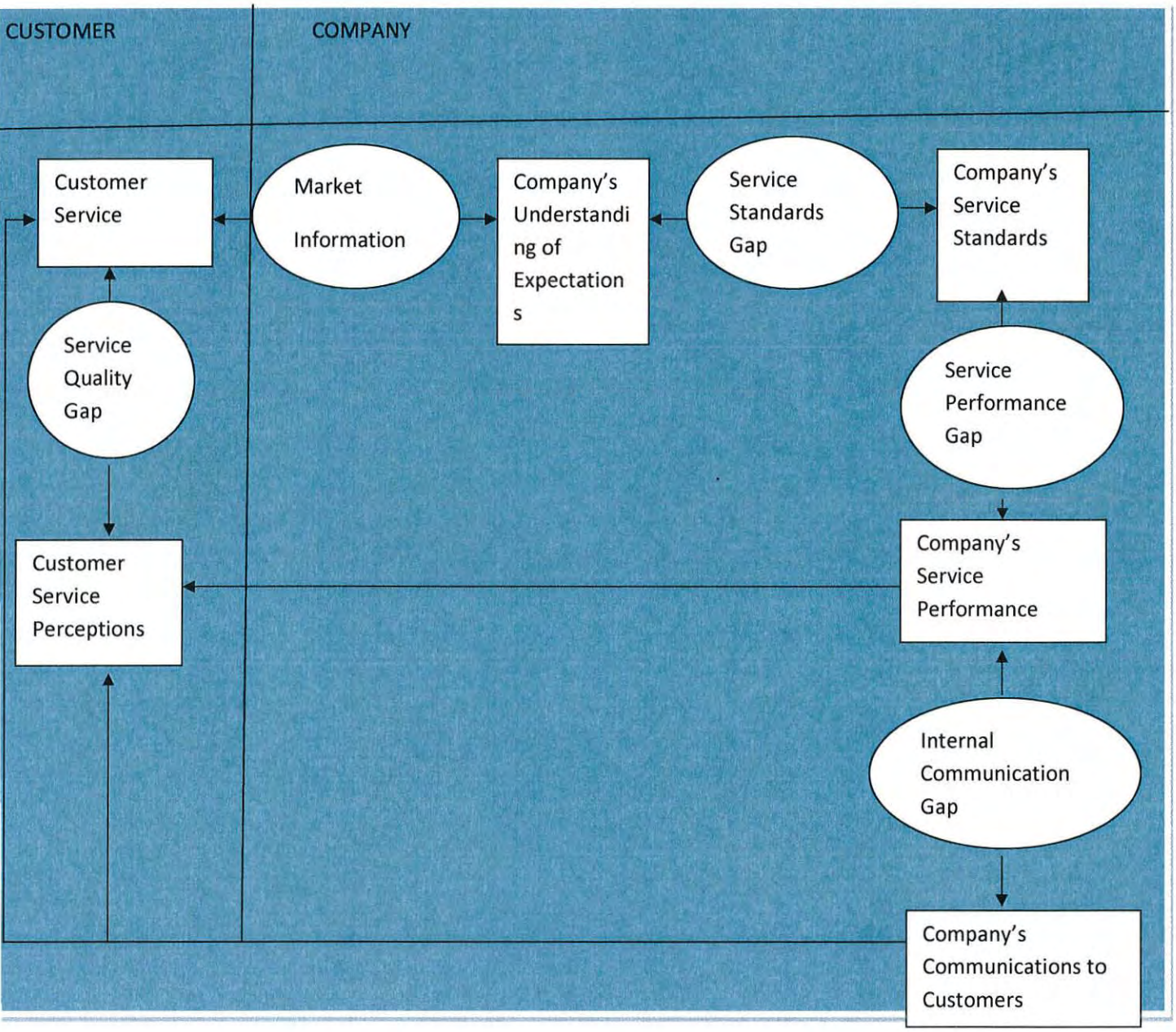

Figure 9: the gaps model of service quality

The gap on the left side of this figure, labeled "Service Quality Gap", represents customers' assessment of service quality. The four gaps shown on the right side of figure above represent organizational shortfall that ultimately lead to the customer-perceived service quality gap. These organizational gaps can be defined as follows:

1. Market Information Gap: the Company's incomplete or inaccurate knowledge of customers' service expectations.

2. Service Standards Gap: the Company's failure to translate accurately customers' service expectations in to specifications or guidelines for employees.

3. Service Performance Gap: lack of appropriate internal support systems (example, recruitment, training, technology, and compensation) that enable employees to deliver to service standards.

4. Internal Communication Gap: inconsistencies between what customers are told the service will be like and the actual service performance [example, due to lack of internal communication between the service 'promisers' (such as salespeople) and service providers (such as after-sale service representatives)].

Companies wishing to improve their service quality must diagnose the four organizational gaps and take appropriate corrective action to close them. An important message for managers from this overall implication is that a mere external focus (example, being customer-oriented and conducting periodic customer satisfaction survey) is not sufficient for delivering superior service. Managers must also systematically analyze and correct potential deficiencies within the organization.

2.12 Criticisms of SERVQUAL

Gronroos (1990); Mangold and Babakus (1991); Richard and Allaway (1993) criticize the SERVQUAL instrument stating that it mainly focuses on the service delivery process. Using only functional quality attributes to explain or predict consumers' behavior might be a misjudgment of service quality as it does not represent all the service quality attributes of a service encounter and therefore has low predictive validity (Gronroos, 2001; Cronin and Taylor, 1992).

Cronin and Taylor (1992) and Teas (1993) questioned the effectiveness of SERVQUAL in evaluating service quality and criticized the measurement of service quality through the SERVQUAL questionnaire. However, Parasuraman et al (1994) claim that diagnostic ability is the major practical benefit of the SERVQUAL model, as the purpose of measuring service quality is to diagnose the service shortfalls which need attention or action.

Parasuraman et al (1988) state that the five dimensions which make up the SERVQUAL questionnaire are distinct dimensions and categorized the 21 questions in to those five dimensions. Therefore each question of 21 questions of the SERVQUAL questionnaire belongs to one distinct dimension. Bagozzi (1981) emphasizes that according to the convergence and discrimination rule 'items representing a distinct dimension should correlate highly with each other in a uniform pattern, and should not correlate as strongly with items representing another dimension. (Babakus and Boller, 1992)

Caruana, Ewing and Ramaseshan (2000) argue that on the SERVQUAL 9 point scale, respondents mark their desired service quality level nearer to the high end and adequate service quality nearer to the low end of the scale. Then they tend to mark the perception of service quality in between the desired and adequate level through it is possible to mark a number below the adequate level. This makes a variance restriction which limits the full use of the 9 point scale.

Cronbach and Furby (1970) cited by Babakus and Boller (1992) argue that when respondents are asked to rate their desired and existing level at same time some psychological constraints occurs. By building on the above argument, Brown, Churchill and Peter (1993) argue that when respondents are asked to rate their desired and perception (two different scores) level on a particular attributes, respondents tend to rate the desired level higher than their perceptions due to the above psychometric problem.

Given the above criticism on the SERVQUAL instrument, it is still the most widely used measurement instrument. And hence, the researcher with all its constraints and drawbacks decided to use SERVQUAL (modified) to assess the satisfaction of customers for mobile users of ETC.

Chapter Three

Research Methodology

This chapter explains the research methodologies used and it covers, research methods, research instrument, research design, types of data collected, population, sampling, data collection procedure, data analysis approach, and research framework.

3.1 Research Methods

In order to investigate the objectives of this study and answer the hypotheses, the descriptive research method was employed. The questionnaire survey technique was used to collect data and the questions were developed mainly by Parasuraman et al (five SERVQUAL dimensions) and for two additional dimensions (convenience and network quality) developed by researchers (discussed in chapter one). This is because the researcher used a modified SERVQUAL dimensions. The choices of questions for this investigation include questions on personal background; age- lowest range was 15-20 and highest was above 50; gender- male/female; employment type- employed [public, private and business person (trader)] student and others (like house wives, agents, brokerages, etc); and mobile apparatus used by respondents [Nokia, Samsung, Motorola, Unbranded Chinese mobiles, and Others (LG, Sony Ericson, etc)]

3.2 Research Instrument

A questionnaire was the instrument used in this study to collect data. The questionnaire employed the typical form of fixed-response alternative questions that require the respondent to select from a predetermined set of answers to every question. The survey questionnaires were administered mostly on the zonal offices that come for other purpose but have a mobile in their hands. The questionnaires were filled out mostly by the people themselves or through the researcher and one assistant for few people who could not understand the issue.

The questionnaires employed the Likert non-comparative scaling technique. It is a rating scale which requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements or questions. The survey measured each attribute on a 7-point Likert type scale ranging from strongly disagree (1) to strongly agree (7) for service quality dimensions and extremely dissatisfied (1) to extremely satisfied (7) for customer satisfaction.

3.3 Research Design

The Statistical Package for Social Sciences (SPSS) 17.0 was used to analyze the data collected. The descriptive statistics (frequencies statistics) were applied to assess the level of customer satisfaction and the link between demographic variables and mobile apparatus. While the relationship between the mobile service quality dimensions and customer satisfaction was analyzed with the linear regression model.

Table 1: Modified SERVQUAL dimensions/Items

Dimensions	code	Items
Tangibles	T1	ETC has up-to-date equipment.
	T2	ETC's physical facilities are visually appealing.
	T3	Employees are well dressed and appear neat.
	T4	Materials associated with the service (such as pamphlets or statements) are visually appealing at ETC service centre.
Reliability	R1	When ETC's employees promise to do something by a certain time, they do so.
	R2	When you have a problem, service providers show a sincere interest in solving it.
	R3	Employees perform the service right the first time.
	R4	Employees provide their service at the time they promises to do so.
	R5	Employees keep their records accurately.
Responsiveness	Rs1	Employees tell customers exactly when services will be performed.
	Rs2	Employees give you prompt service.
	Rs3	Employees are always willing to help customers.
	Rs4	Employees are never too busy to respond to customer's request.

Table 1: Continued . . .

Assurance	A1	The behavior of employees instills confidence in customer.
	A2	Customers feel safe in their transactions with ETC.
	A3	Employees in service area consistently courteous with customer.
	A4	Employees have the knowledge to answer customers' questions.
Empathy	E1	Employee gives customer individual attention.
	E2	ETC has operating hours convenient to all its customers.
	E3	ETC has your best interest at heart.
	E4	Employees understand customer's specific needs.
Network quality	N1	ETC's mobile service network have excellent voice quality
	N2	ETC's mobile service have wider network coverage
	N3	ETC mobile service's network do not support call drops
Convenience	C1	ETC has sufficient offices in different geographic areas
	C2	ETC has toll-free numbers, websites, etc for clarification of problems, knowing account status, and so on by customers
	C3	It is easy to get scratch cards or pay bill to the service provider in ETC.

According to the SPSS package, the linear regression is used to model the value of a dependent scale variable based on its linear relationship to one or more predictors. The Model summary table reports the strength of the relationship between the model and the dependent variable. "R" value indicates the strength of relationship with larger values indicating stronger relationship and "R^2" is the proportion of the variation in the dependent variable explained by the regression. Both R and R^2 the regression procedure values range from 0 to 1.

3.4 Types of data collected

Both primary and secondary data was collected. The primary data were gathered from questionnaires. The secondary data were used from books, research journals, published and unpublished materials of Ethiopian Telecommunication Corporation and web addresses.

3.5 Population

The target population for the study comprised of 4200,000 (4.2 million) number of mobile telephone subscribers in the country by September, 2009. From this number 85% is estimated to be in Addis Ababa (capital city of the nation which are around 3,570,000 (three million five hundred seventy thousand) mobile subscribers. The number does not show those users are living in Addis Ababa, it is the code of the mobile number which is known as Addis Ababa's (0911, 0912, 0913, and 0910)

3.6 Sampling

3.6.1 Sample Size

Out of the sample frame of three million five hundred seventy thousand mobile subscribers in Addis Ababa, a sample size of four hundred responds were selected based on researcher's judgment since there is cost and time constraints.

3.6.2 Sample Technique

In selecting the sample of four hundred respondents, 360 of them were filled the questionnaire after pilot testing and 40 was used for pilot testing. For those 360 samples a purposive sampling were used. This technique is chosen because the population is the sum of six zones across Addis Ababa and those respondents were intentionally selected from different zones. Those zones are NAAZ (North Addis Ababa Zone), SAAZ (South Addis Ababa Zone), SWAAZ (South West Addis Ababa Zone), EAAZ (East Addis Ababa Zone), WAAZ (West Addis Ababa Zone), and CAAZ (Central Addis Ababa Zone). From each zone 60 respondents were selected. The researcher used non-probability sampling (convenience sampling) for both samples. These were done by the researcher's judgment which benefit for the purpose.

3.7 Data Collection Procedure

The 22 statements of SERVQUAL instrument developed by Parasuraman et al (1988) and additional 6 statements were sent to 40 mobile users as a pilot survey. Statement number 18 and 19 (developed by Parasuraman et al, 1988) were overlapped each other. Statement number 18 says 'the firms should not be expected to give customers individual attention' and statement number 19 says 'employees of these firms cannot be expected to give customers personal attention'. Given the comments from the pilot survey and some literatures, the researcher used the question as 'excellent service providers give customers individual attention'.

The other main comment was on the language of the questionnaire. They said the language should be translated to local language and all should be positively worded statements. And therefore, the questionnaires were translated in to Amharic through official translator known as Universal Translation Office.

The final instrument used 27 statements under seven dimensions and administering a two-part questionnaire with separate perception and expectation sections as used by Parasuraman et al, 1988. The other idea added after the pilot was including mobile apparatus as additional variable, because many customers believe there is a link between mobile apparatus and customer satisfaction.

The corrected, finalized and translated questionnaire was distributed in to six zones (the modified SERVQUAL dimensions are presented in the table 1). The data was administered mainly by the researcher and one assistant. The assistant was a half-day contract employee in CSA (central statistics agency) and she was hired by the researcher to engage half-day in distributing and collecting questionnaires for 2 months and was paid 500 birr each.

The assistant has been informed how the overall questionnaire should be filled and the difference between the expectation and perception questions. A majority of the respondents was approached when they come to ETC zonal offices, not necessary for the mobile cases but for paying their bill for fixed telephone, internet, and other services after assuring their willingness to fill the questionnaires. The other respondent approaching mechanism was to go to customers' home, shop, boutique and school, emphasizing each zone should have only 60 respondents.

Some respondents were able to fill by themselves, for example, 21 respondents from Central Addis Ababa Zone was used e-mail to respond. The rest was administered personally either by the researcher or the assistant. And as a result, the response rate was high (379 out of 400 which is 94.75%).

3.8 Data Analysis Approach

The responses obtained from the questionnaire were analyzed by theoretical (to prove a hypothesis) and inferential statistical techniques (correlation and regression analysis). Parasuraman et al. (1988) suggested that overall service quality can be obtained in the form of an average score of the stated dimensions, others advocate to measure overall service quality directly, by using a separate statement/item. Therefore, the researcher used overall service quality obtained in the form of an average score of the stated dimensions and additional item for measuring overall customer satisfaction with a seven likert scale range from extremely dissatisfied (1) to extremely satisfied (7).

3.9 Research Framework

This study is to assess service quality and customer satisfaction of the mobile telecoms services and explore the relationship between customer satisfaction and specific demographic variables and mobile apparatus. Previous studies on mobile telecommunication services suggested that tangibles, reliability, responsiveness, assurance, empathy, convenience, and network quality are important features of the mobile telecoms services (SERVQUAL dimensions) (Yonggui Wand and Hing-Polo, 2002; Rakshit Negi, 2009; Fujun Lai and Joe Hutchinson, 2007). Hence, this study employed these variables in its investigation. Figure 10 presents the conceptual structure of this study.

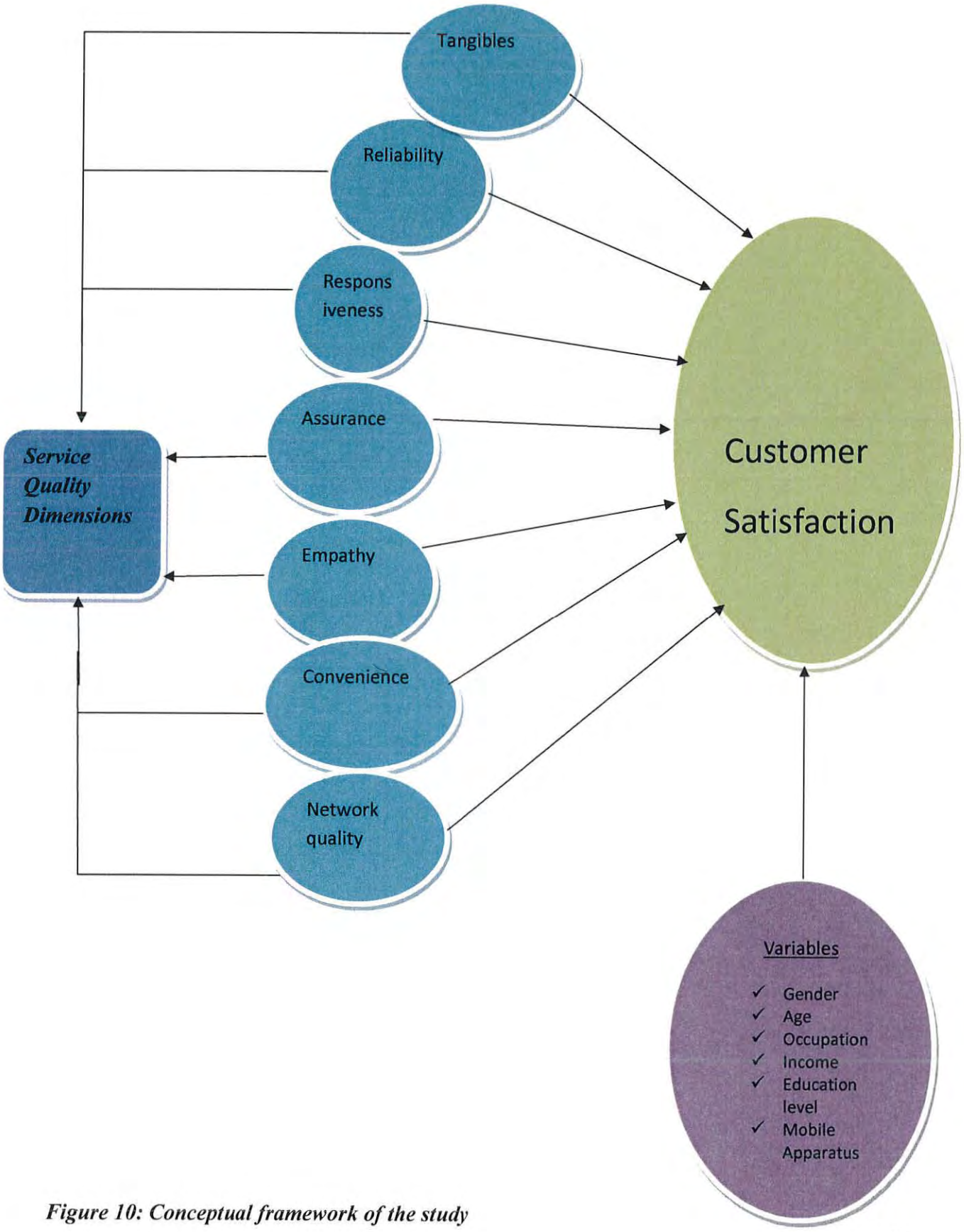

Figure 10: Conceptual framework of the study

Chapter Four

Data Analysis

The collected data has been analyzed and interpreted in this chapter. It consists the, validity and reliability of scale, respondents' characteristics, analysis of customer satisfaction, customer satisfaction among the demographic variables, the influence of service quality dimensions on customer satisfaction, expectations, perceptions and gap scores analysis, and modeling service quality dimensions and overall customer satisfaction.

4.1. Validity and Reliability of Scale

Reliability and validity are two important characteristics of any measurement procedure. Reliability refers to the confidence one can place on the measuring instrument to give us the same numeric value when the measurement is repeated on the same object. Validity on the other hand means that the measuring instrument actually measures the probability it is supposed to measure. (Ajais S. Gaur and Sanjaya S. Gaur, 2009)

Separate factor analyses were carried out to assess the unidimentionality and suitability of the service quality constructs (for expectation and perception) for the subsequent analysis. The exploratory factor analysis was conducted using principal component method as the factor extraction method followed by the direct Oblimin rotation, and retained all factors with eigenvalues greater than one considering all items are conceptually linked. All the items representing quality dimensions were found to be loaded in to seven factors, perceived to be SERVQUAL dimensions.

All items in the service quality- perception and expectation were loaded into one factor with 0.50 or higher value. As a result, all the 54 (27) each scale items were found to be fit within seven dimensions (Please see appendix I for full statistical result of the factor loading analysis)

Besides, to test the reliability of the SERVQUAL instruments, which helps to review the internal consistency of each scale item, a Cronbach coefficients (alpha) were computed for both the expectation and perception items.

The Cronbach's alpha coefficients for expected service quality items range from 0.683 (almost 0.70) to 0.08, which are equal to or/and greater than the cutoff value of 0.7 suggested in the literature (Fujun Lai et al, 2007). The new scale of service convenience and network quality developed in this study also demonstrates high internal consistency, with a Cronbach coefficient of 0.733 and 0.835 respectively. And the overall Cronbach alpha coefficient for expected-scale items is 0.944 (table 2).

Table 2: Scale Reliability (Cronbach Alphas) – Expected Service Quality

Dimension	**Items**	**Alpha Coefficients for dimensions**	**Alpha coefficients if item deleted**
Tangible	T1	.683	.943
	T2		.945
	T3		.944
	T4		.945
Reliability	R1	.867	.942
	R2		.941
	R3		.942
	R4		.941
	R5		.943
Responsiveness	Rs1	.788	.941
	Rs2		.941
	Rs3		.942
	Rs4		.944
Assurance	A1	.770	.943
	A2		.943
	A3		.942
	A4		.942
Empathy	E1	.789	.943
	E2		.942
	E3		.941
	E4		.942
Network	N1	.835	.941
	N2		.941
	N3		.942
Convenience	C1	.733	.942
	C2		.943
	C3		.943
Reliability of the total scale		*0. .944*	

The Cronbach's alpha coefficients for perception service quality items range from 0.675 (approximately 0.70) to 0.874, which are again equal to or/and greater than the minimum value. The new scale of service convenience and network quality demonstrates a Cronbach coefficient of approximately seven and 0.848 respectively. The overall Cronbach alpha coefficient for perceived scale items is 0.956 (table 3). Therefore, the scales used in this study demonstrate high reliability.

Table 3: Scale Reliability (Cronbach Alphas) – Perceived Service Quality

Dimension	**Items**	**Alpha Coefficients for dimensions**	**Alpha coefficients if item deleted**
Tangible	T1	.780	.955
	T2		.954
	T3		.955
	T4		.955
Reliability	R1	0.874	.954
	R2		.953
	R3		.953
	R4		.953
	R5		.954
Responsiveness	Rs1	0.857	.953
	Rs2		.953
	Rs3		.953
	Rs4		.954
Assurance	A1	0.850	.953
	A2		.954
	A3		.953
	A4		.954
Empathy	E1	0.805	.954
	E2		.955
	E3		.953
	E4		.954
Network	N1	0.848	.954
	N2		.955
	N3		.954
Convenience	C1	0.675	.954
	C2		.956
	C3		.956
Reliability of the total scale		*0.956*	

4.2. Respondents' Characteristics

The overall profiles of the respondents are analyzed using a descriptive statistics. From 400 distributed questionnaires 379 /94.75%/ have been collected. Among them 62.5% /237/ respondents are male and 37.5% /142/ respondents are female. The age of the respondents are 7.1% /27/ from 15 to 20, 56.7% /215/ aged from 21-30, 23.75% /90/are from 31-40, 10 % /38/ are from 41-50 and the rest, 2.4% /9/ are greater than 50 (table 4).

The occupations of the respondents are categorized into five types. That the first one is government employees, which are 48.5% /184/, the second is private employees, which are 30.9% /117/. The third category is students, which are 7.9%/30/, the fourth is trader or business person, which are 5.3% /20/. The fifth category is others, which includes house wives, brokers, etc, and constitute 7.4% /28/ of the total respondents.

Since the incomes of the majority of Ethiopians are less than one dollar a day, the researcher categorized the income of the respondents into four general categories. There were respondents who have no income at all /example house wife/ and there was also respondents whose income are greater than 4000 birr. But according to the researcher's general categorization, 9.5% /36/ have an income of less than 200 birr, 9.5% /36/ have an income between 200 and 500 birr, 46.7% /177/ have an income of 501 and 1500 birr and the rest 34.3% /130/, have an income of greater than 1500 birr a month. 81 % of the respondents have an income which is greater than 500 birr a month. This is because 84.7% of the respondents are government employees, private employees or business person /trader/.

The educational levels of the respondents are categorized into five. 1.1 /4/ of the respondents are unable to read or write /illiterate/, 24% /53/ are from grade 1 up to 10 /12/ primary and/or secondary school complete, 52% /197/ diploma, 28.2% /107/ have bachelor, and 4.7% /18/ have an education level of masters and above. Since there are people who use mobile but unable to read or write from or in contact, the researcher tried to assess those customers which are labeled as illiterate, 67.9% of all respondents have an education level of diploma and below, and 32.9% of the responds have Bachelor and above.

Table 4: Respondents' characteristics frequency statistics

Variables		Frequency	Percent	Cumulative Percent
Gender	Male	237	62.5	62.5
	Female	142	37.5	100.0
Age	15-20	27	7.1	7.1
	21-30	215	56.7	63.9
	31-40	90	23.7	87.6
	41-50	38	10.0	97.6
	> 50	9	2.4	100.0
Occupation	Government employee	184	48.5	48.5
	Private employee	117	30.9	79.4
	Student	30	7.9	87.3
	Trader	20	5.3	92.6
	Others	28	7.4	100.0
Income	<200 birr a month	36	9.5	9.5
	201-500 birr a month	36	9.5	19.0
	501-1500 birr a month	177	46.7	65.7
	>1500 birr a month	130	34.3	100.0
Educational Level	Illiterate	4	1.1	1.1
	Primary and secondary	53	14.0	15.0
	Diploma	197	52.0	67.0
	Bachelor	107	28.2	95.3
	Masters and above	18	4.7	100.0
Mobile Apparatus	Nokia	249	65.7	65.7
	Samsung	41	10.8	76.5
	Motorola	31	8.2	84.7
	Unbranded Chinese Mobile*	34	9.0	93.7
	Others	24	6.3	100.0

There are customers who believe that the overall service quality and customer satisfaction of the mobile service depends mainly on the type of apparatus one has. To investigate whether this is right or not, the researcher added one variable to the above described demographic variable, which is mobile apparatus. The researcher categorized the mobile apparatuses into five. Respondents who uses Nokia are 65.7% /249/, Samsung users are 10.5% /41/, Motorola users are 8.2% /31/, Unbranded Chinese mobile users are 9% /34/, and others /like LG, Sony Erickson,etc/ users are 6.3% /24/.

4.3. Analysis of Customer Satisfaction

Overall Customer Satisfaction

Table 5: overall customer satisfaction frequency distribution

	Frequency	Percent	Cumulative Percent
Extremely Dissatisfied	15	4.0	4.0
Very Dissatisfied	78	20.6	24.5
Dissatisfied	131	34.6	59.1
Neither	104	27.4	86.5
Satisfied	51	13.4	100.0
Total	379	100.0	

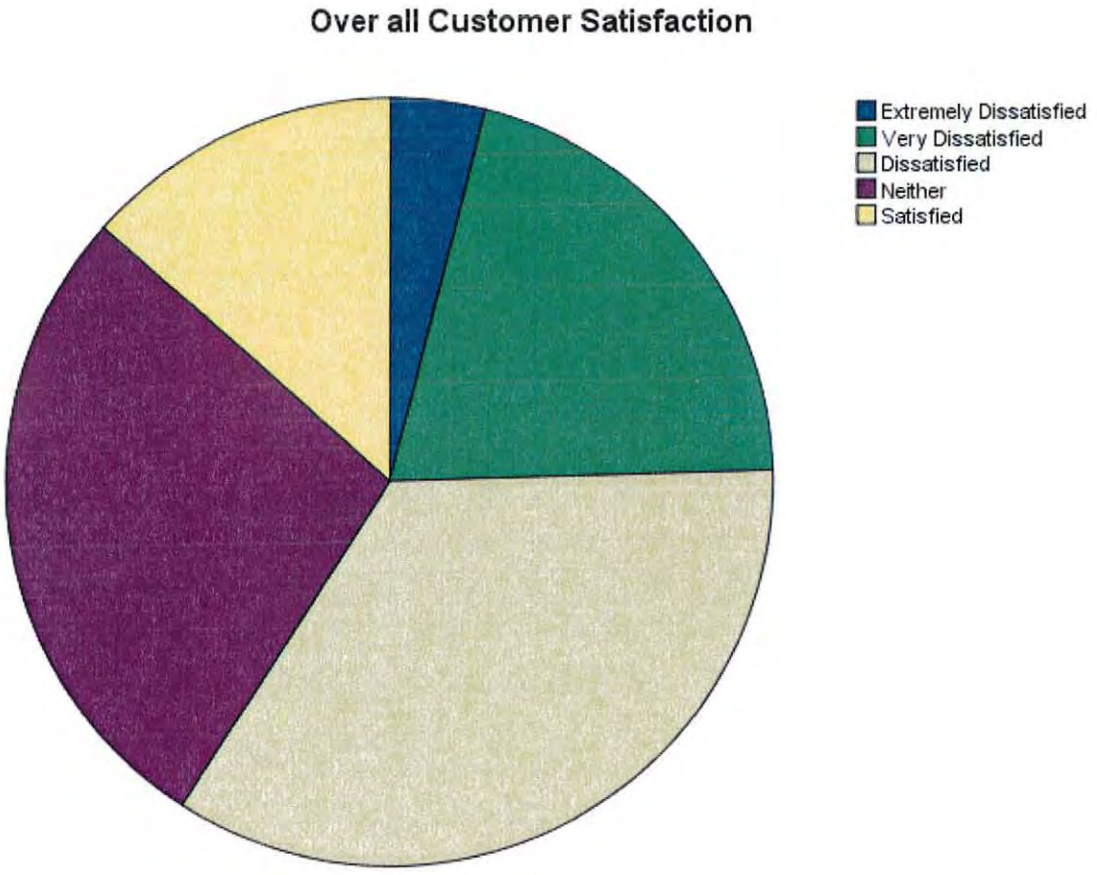

Figure 11: Pie chart of overall customer satisfaction

The overall customer satisfaction questions was developed using the 7 point likert scale. Those were extremely dissatisfied /1/ very dissatisfied /2/, dissatisfied /3/, neither /4/, satisfied /5/, very satisfied /6/ and extremely satisfied /7/. As one can see from table 5, there is no category in descriptive statistics or in pie chart above which shows very satisfied or extremely satisfied. This is solely because there is no one respondent who rate either very satisfied or extremely satisfied. And hence, the SPSS output given the table 5 and pie chart (figure 11) exclude these two results.

The researcher use the disconfirmation theory to describe whether customers are satisfied or not. From the theory when customers' expectation meets perception they are said to be satisfied. But in the table the satisfied do not represent when expectation is equal to perception, it is when perception exceeds expectation /that is positive disconfirmation discussed in the chapter two/. The respondents who said neither means they are satisfied /that is confirmation discussed in chapter two/. Therefore respondents who said both neither and satisfied in the table and pie chart are satisfied customers.

Given the above explanation, 4% /15/ respondents are extremely dissatisfied, 20.6% /78/ are very dissatisfied, 34.6% /131/ are dissatisfied, 27.4% /104/are neither /confirmation/ and 13.5% /51/ customers are satisfied by mobile services of Ethiopian Telecommunication Corporation.

The overall customer satisfaction shows that 59.1% of all respondents are dissatisfied /negative disconfirmation/, 27.4% said their experience matched their expectation /confirmation/ and 13.5% said their experience exceeds their expectation /positive disconfirmation/.

To sum up, 40.9% of the customers are satisfied by the mobile service given while the rest are dissatisfied. Therefore, the hypothesis one (H_1) is rejected.

4.4. Customer Satisfaction among the Demographic Variables

The demographic variables were analysed against customer satisfaction using the cross tab of the descriptive analysis to show assessments of customer satisfaction among various categories of the demographic variables. Table 6 presents the outcome of the analysis:

Table 6: Cross tabulation of customer satisfaction

Variables		Overall Customer Satisfaction						
		Extremely Dissatisfied	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Total	Satisfaction (%)
Gender	Male	12	55	79	57	34	237	38.4
	Female	3	23	52	47	17	142	45.1
Age	15-20	0	1	9	8	9	27	62.9
	21-30	13	39	61	67	35	215	47.5
	31-40	2	29	37	19	3	90	24.4
	41-50	0	8	19	9	2	38	29.0
	> 50	0	1	5	1	2	9	33.3
Occupation	Government employee	3	38	77	45	21	184	35.9
	Private employee	8	26	30	34	19	117	45.3
	Student	3	5	9	10	3	30	43.3
	Trader	1	4	4	9	2	20	55.0
	Others	0	5	11	6	6	28	42.8
Income	<200 birr a month	1	3	14	13	5	36	50.0
	201-500 birr a month	0	7	8	14	7	36	58.3
	501-1500 birr a month	7	27	74	46	23	177	39.0
	>1500 birr a month	7	41	35	31	16	130	36.1
Educational Level	illiterate	0	2	1	1	0	4	25.0
	Primary and secondary	0	7	11	26	9	53	66.1
	Diploma	9	25	81	51	31	197	41.6
	Bachelor	6	37	32	23	9	107	29.9
	Masters and above	0	7	6	3	2	18	27.8
Mobile Apparatus	Nokia	13	58	82	65	31	249	38.5
	Samsung	1	7	20	7	6	41	31.7
	Motorola	0	4	10	13	4	31	54.8
	Unbranded Chinese Mobile	0	4	12	8	10	34	52.9
	Others	1	5	7	11	0	24	45.8

Table 7 presents the result of the assessment of customer satisfaction in two categories of demographic variables.

Table 7: categorized variables and satisfaction

No.	Variables	Category	Satisfaction (Mean)%
1	Gender	Male	38.4%
		Female	45.1%
2	Age	Young	44.9%
		Old	31.15%
3	Income	≤500 Birr	54.15%
		≥501 Birr	37.55
4	Occupation	Employed	45.4%
		Unemployed	43.05%
5	Education	Diploma & below	44.23%
		Bachelor & above	28.85%

Note: *- Young-those under 40, old-those over 40; employed those in government & private employment and business persons (trades) unemployed-those who are students and others.*

This result demonstrates that customer satisfaction level differs among various demographic variables and hence supports hypothesis two (H_2). Within the gender groups, female customers are more satisfied than the male. Female customers are more satisfied than male could be due to their purpose of use. If we look to the combination of our society in some duties like agent, brokerage, etc, male are more in number than females, and those people want the quality of their mobile service more than anybody else, because their life is almost dependent on the use of telephone.

This result supports with the findings of Bryant et al cited from Dr. Eniola Samuel, who revealed that the female customers are more satisfied than male customers across all industries; Venn and Fone (2005) also revealed that higher satisfaction is positively related to female gender.

Within the age groups, the young people are more satisfied than the old people. The low satisfaction of the old people could result from their high expectation of those dimensions to be fulfilled by Ethiopian Telecommunication Corporation. The young people have great familiarity with mobile technologies and are high demanding, but due to their knowledge of the capacity

and the technology level (GSM not yet applied the 3G fully) our country is using, this could make them to expect less and hence to satisfy more than those of the old people (given the overall customers who are dissatisfied are 59.1%). This study contradicts the findings of Bryant et al, 1996 as cited by Dr. Eniloa, Which reported that satisfaction increases with age and major increase seen with in the age of 55 & above the younger age groups are less satisfied than the older age groups across all products and service industries; Venn and Fone (2005) also reported that higher satisfaction is significantly related with increasing age

The results demonstrated in table 6 and 7 also indicate that lower income people are more satisfied than higher income people. And the study also shows that those people whose educational level are diploma and below are more satisfied than those whose educational level are bachelor and above. This two results support each other in such a way that those people who have a high income could have more expectation and ready to pay for the best service they can get. The people with high education level could have more expectation because they are more demanding as a result of their greater familiarity with mobile technologies; and higher tendency to complain than those people with lower educational level. This result confirms the findings of Bryant etal, cited from Dr. Enida, which reported that the higher the income the lower the satisfaction.

The other result found from table 6 and 7 are that the employed customers are a little bit satisfied than the unemployed customers (actually it is almost equal unlike other variables). If we threat the employment as only private and government employees and the rest as un employed, the unemployed customers are satisfied (47%) than the employed customer (40.6.%) . However, since employed are those people who are currently in a job, the researches uses the figures in the table 7. Therefore, the result is unemployed customers have less satisfaction than the employed customers, the researcher can say the following possible causes for the given out come.

The first one could be employed customers can understand what the country could afford or not and adjust their expectations accordingly and hence, help to increase their satisfaction. The second one could be since the main factor here is business persons (traders), they might have low expectation due to lack of education, low income, etc. Because this people are those who have shop, small boutique, brokers, agents, etc.

The researcher added one non-demographic variable to look whether there is a link with customer satisfaction or not. This non-demographic variable is mobile apparatus. There is a

widely accepted saying in our city that Nokia apparatus has a good quality of service, and the worst service could get when one uses Motorola apparatus. The researcher needs to know whether this is right or not and added to the questionnaire under the respondent's identification. The options are narrow but the choice that could accommodate to the apparatuses which are not included are labeled as "others"

The results indicate that customers who use Motorola are more satisfied followed by unbranded Chinese mobiles, others (like LG, Sony Ericson, etc), Nokia and Samsung consequently. The customers who use Motorola apparatus are satisfied more than others could be because those peoples might set their expectation less due to the bad word of mouth continuously transmitted in Addis Ababa (word of mouth is one of the components which help to develop expectation as discussed in chapter two). The second apparatus is unbranded Chinese Mobile and this could be possible because the network terminals and fiber optics are build by Chinese company (ZTE) and this could make the terminal technology and the apparatus match. If we look to the past history when Nokia & Ericson were the network terminals it was Nokia which worked best. And this was the reason for the good word of mouth for Nokia.

4.5. The Influence of Service quality dimensions on Customer Satisfaction

To explore the relationship between mobile service quality dimensions and customer satisfaction, linear regression model was applied. R and R^2 values range between 0 and 1 with the larger values indicating stronger relationship or influence. The following subsections present the results. (Please see appendix II for full statistical result)

4.5.1 Tangibles and Customer Satisfaction

The following table shows the impact of tangibles attributes to customer satisfaction:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552[a]	.305	.298	.884

a. Predictors: (Constant), tangibles

This result indicates that there is a strong relationship between tangibles and customer satisfaction and thus, supports hypothesis three (H_3). The result means that the customers' perceptions of tangibles strongly influence their satisfaction level. Having up to date equipment,

visual appealed physical facilities, and well dressed and neat employees significantly and positively influence customers' satisfaction.

4.5.2 Reliability and Customers Satisfaction

The next table shows the impact of reliability attributes to customer satisfaction:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.536[a]	.287	.278	.897

a. Predictors: (Constant), reliability

The result demonstrates that there is a strong relationship between reliability and customer satisfaction and hence, supports hypothesis four (H_4). The attributes of reliability like when ETC's employees' promise to do something by a certain time, they do so; when customers have a problem, employees show a sincere interest in solving it; employees perform the service right the first time & employees provide their service at the time they promises to do so have positive and significant impact on customer satisfaction.

4.5.3 Responsiveness and Customer Satisfaction

The following table shows the impact of responsiveness attributes to customer satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.614[a]	.378	.371	.837

a. Predictors: (Constant), Responsiveness

The result shows there is a strong relationship between responsiveness and customer satisfaction and therefore, supports hypothesis five (H_5). The implication of this result is that responsiveness is the most significant of the entire seven service quality dimension used in this study. As a result, the customers' perceptions of responsiveness have positive effect on the customer satisfaction. This could be from the customers' willingness to get attention from the employees, to get response to their questions, need to be helped, and to accurately keep their record.

4.5.4 Assurance and Customer Satisfaction

The next table shows the impact of assurance attributes to customer satisfaction:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.592[a]	.350	.343	.855

a. Predictors: (Constant), assurance

The result indicates that there is a strong relationship between assurance and customer satisfactions, and thus, supports hypothesis six (H_6). The behavior of employees which instills confidence on the customer, the customers feelings of safety to transact with ETC, and the employees knowledge to answer customers' questions have a significant impact on customer satisfaction.

4.5.5 Empathy & Customer Satisfaction

The following table shows the impact of empathy attributes to customer satisfaction:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.548[a]	.301	.293	.887

1. a. Predictors: (Constant), empathy

The result shows there is a strong relationship between empathy and customer satisfaction and therefore, supports hypothesis (H_7). The employees' attention given to individual customers, convenient of ETC's operating hour, and employees understanding of customers specific needs have positive link with customer satisfaction.

4.5.6 Network Quality and customer satisfaction

The next table shows the impact of network quality attributes to customer satisfaction:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.502[a]	.252	.246	.916

a. Predictors: (Constant), network quality

The result shows there is a strong relationship between network quality and customer satisfaction and therefore, supports hypothesis (H_8). Excellent voice quality, wide network coverage, and minimum (no) call drops of mobile service of ETC have a positive influence on customer satisfaction.

4.5.7 Convenience and Customer Satisfaction.

The following table shows the impact of convenience attributes to customer satisfaction:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.510[a]	.260	.254	.911

a. Predictors: (Constant), convenience

The result shows there is a strong relationship between convenience and customer satisfaction and therefore, supports hypothesis (H_9) sufficient offices in different geographic areas, easy to get scratch cards, toll free numbers & websites for clarification of problems and knowing account status have a significant positive effect on customer satisfaction.

4.5.8 Overall service quality dimensions & customer satisfaction

The next table shows the impact of overall service quality dimensions together on customer satisfaction:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	618[a]	.518	.481	.760

a. Predictors: (Constant), all service quality dimensions (SERVQUAL)

The result shows there is a strong relationship among all service quality dimensions and customer satisfaction and therefore, supports hypothesis (H_{10}). The interpretation of this finding is that the combined mobile services quality dimensions are significant to the assessment of the customer satisfaction. Therefore, customer satisfaction with Ethiopian telecommunications corporation mobile services are a function of the assessment of tangibles, reliability, responsiveness, assurance, empathy, network quality & convenience.

4.6. Expectations, Perceptions and Gap scores Analysis

The concept of disconfirmation theory has been discussed in chapter two. The issue of the research is based on the assessment of service quality and customer satisfaction using the expected disconfirmation theory (ED). The higher the perception minus expectation scores, the higher is the level of perceived service quality (Positive disconfirmation). The (P-E) frame work suggests the highest service quality score for an attribute occurs when expectation score is 1 and perception score is 7, giving a score of 6 (7-1). Therefore, levels of quality increase as scores move from -6 to 6 (Jannadi and Al-saggaf, 2000 cited from Rakshit Negi)

From the table 8 the range for expectation was from 4.93 to 5.86 on a seven- point scale. Respondent reported with the greatest mean expectation of convenience (5.7) followed by assurance (5.69) responsiveness (5.63), reliability (5.35), network quality (5.34), tangibles (5.27), and empathy (5.13) respectively. And the range for perceptions was from 3.33 to 5.4. It was observed from the study that ETC performed best in convenience dimension (4.84). In contrast, ETC has the worst performance in the dimension of network quality (3.59). This result supports the findings of Rakshit Negi (2009).

The gap analysis is accurate in identifying service short falls in an operation (parasuraman et al, 1994). This will help ETC Management to identify which dimension need an improvement and which one is in a good position. The research indicated that there is no service quality gap which shows positive and this means there is no dimension in which all customers (or majority) whose perceptions are equal to or greater than expectation.

The Larger mean gaps were identified for the dimensions of network quality (-1.73) and reliability (-1.51). The smallest mean gaps were reported for the dimensions of tangibles (-0.78) and convenience (-0.86). The study did not have a wide gap. The maximum gap is less than two. All the items in the tangibles and two out of three convenience dimensions don't have a gap which is equal to one.

Table 8: Service Gap Scores

SERVQUAL Dimensions	Mean (Expectations)	Mean (Perceptions)	Service Quality Gap
T1	5.79	4.9	-0.89
T2	5.09	4.38	-0.71
T3	5.26	4.62	-0.64
T4	4.93	4.04	-0.89
Tangible	***5.27***	***4.49***	***-0.78***
R1	5.12	3.64	-1.48
R2	5.51	3.88	-1.63
R3	5.01	3.45	-1.56
R4	5.33	3.47	-1.86
R5	5.77	4.73	-1.04
Reliability	***5.35***	***3.83***	***-1.51***
Rs1	5.8	4.45	-1.35
Rs2	5.68	4.45	-1.23
Rs3	5.8	4.45	-1.35
Rs4	5.24	3.94	-1.3
Responsiveness	***5.63***	***4.32***	***-1.31***
A1	5.47	3.98	-1.49
A2	5.77	4.73	-1.04
A3	5.66	4.07	-1.59
A4	5.86	4.53	-1.33
Assurance	***5.69***	***4.33***	-1.36
E1	4.97	3.58	-1.39
E2	5.39	4.37	-1.02
E3	5.18	3.93	-1.25
E4	4.99	3.61	-1.38
Empathy	***5.13***	***3.87***	***-1.26***
N1	5.43	3.52	-1.91
N2	5.39	3.93	-1.46
N3	5.2	3.33	-1.87
Network quality	***5.34***	***3.59***	***-1.75***
C1	5.54	4.18	-1.36
C2	5.77	4.93	-0.84
C3	5.79	5.4	-0.39
Convenience	***5.7***	***4.84***	***-0.86***

4.7 Modeling Service Quality Dimensions and Overall Customer Satisfaction

A multi regression model is used to identify the determining service quality dimension and overall satisfaction of customers' of ETC-mobile service users. A Multiple regression is a

statistical technique that allows one to predict someone's score on one variable on the basis of their scores on several other variables. If two variables are correlated, then knowing the score on one variable will allow you to predict the score on the other variable. The stronger the correlation, the closer the scores will fall to the regression line and therefore the more accurate the prediction. A Multiple regression is simply an extension of this principle, where someone predicts one variable on the basis of several other variables. This modeling do not include overall service quality as a separate determining factor because, as discussed in chapter three, the overall service quality is derived from the average of all service quality dimensions and it could be a repetition. Likewise, the overall service quality's correlation with each dimension are not computed because it is already known that it is a product of them and hence, their correlation are very high.

The correlation analysis which helps to define the direction of the relationship of the variables (between -1 and +1) and also helps to gain insight in to the strength of their relationship are demonstrated in table 9. The correlations are between service quality dimensions and overall customer satisfaction, and between overall service quality and customer satisfaction.

From the table 9, it can be said that the overall customer satisfaction and seven service quality dimensions and overall service quality were found to be positively related ($p<0.001$) which range from convenience (0.413) to responsiveness (0.592) and overall service quality (0.618).

Table 9: Summary of correlation coefficients

	T	R	Rs	A	E	N	C	OQS
R	.666**							
Rs	.604**	.709**						
A	.620**	.752**	.776**					
E	.592**	.679**	.705**	.748**				
N	.493**	.536**	.615**	.588**	.573**			
C	.459**	.484**	.608**	.598**	.601**	.616**		
OCS	.511**	.530**	.592**	.589**	.530**	.494**	.413**	.618**

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

Note: T- Tangibles, R- Reliability, Rs- Responsiveness, A-Assurance, E-Empathy, N-Network Quality, C- Convenience, OSQ – Overall Service Quality, OCS – Overall Customer Satisfaction

When choosing a predictor variable the user should select one that might be correlated with the criterion variable, but that is not strongly correlated with the other predictor variables. If a correlation coefficient matrix demonstrates the degree of association between variables about 0.75 or higher, there might be Multi-collinearity, and be rectified before using such variables as predictors in regression analysis. The term multi-collinearity (or collinearity) is used to describe the situation when a high correlation is detected between two or more predictor variables. Such high correlations cause problems when trying to draw inferences about the relative contribution of each predictor variable to the success of the model.

Multi-collinearity was carried because there were high value of correlation between assurance and reliability (0.752) and assurance and responsiveness (0.776) by using appropriate statistical techniques. A linear regression using 'Enter 'approach was carried out to model the value of dependent scale variable (overall customer satisfaction) with modified SERVQUAL dimensions and overall service quality.

SPSS for psychologists advice "If someone have no theoretical model in mind, and/or have relatively low numbers of cases, then it is probably safest to use Enter, the simultaneous method". So since there are only 9 number of cases, the researcher decided to use Enter method.

The beta value is a measure of how strongly each predictor variable influences the criterion variable. The beta is measured in units of standard deviation. Thus, the higher the beta value the greater the impact of the predictor variable on the criterion variable. This equivalence makes sense, as this situation is a correlation between two variables. When you have more than one predictor variable, you cannot compare the contribution of each predictor variable by simply comparing the correlation coefficients. The beta regression coefficient is computed to allow you to make such comparisons and to assess the strength of the relationship between each predictor variable to the criterion variable. (SPSS for Psychologists)

The regression coefficient result (beta value) of overall service quality taking as independent variable and overall customer satisfaction as dependent variable using Multi collinearity and Enter method is 0.618 at $P<0.001$. This is equal to the correlation value and it significantly and positively affects the overall customer satisfaction and this is backed by the idea in the above paragraph.

A significant model emerged using the Enter method. The significant variables are responsiveness (β=0.226), assurance (β=0.202), tangibles (β=0.148), and network quality (β=0.147) respectively in evaluating overall satisfaction level of customers. On the other hand, service quality dimensions convenience (β= -0.053), reliability (β=0.024), and empathy (β=0.064) are insignificant variables (P>0.05) in evaluating the overall customer satisfaction level.

Responsiveness is the most significant determinant of customer satisfaction in Ethiopian Telecommunications Corporation mobile users along with assurance, tangibles, and network quality. The newly added network quality dimension to the original SERVQUAL is also a determinant of the overall customer satisfaction. Convenience, however, is not a determinant to the overall customer satisfaction level of the mobile users (for more statistical details please see appendix III).

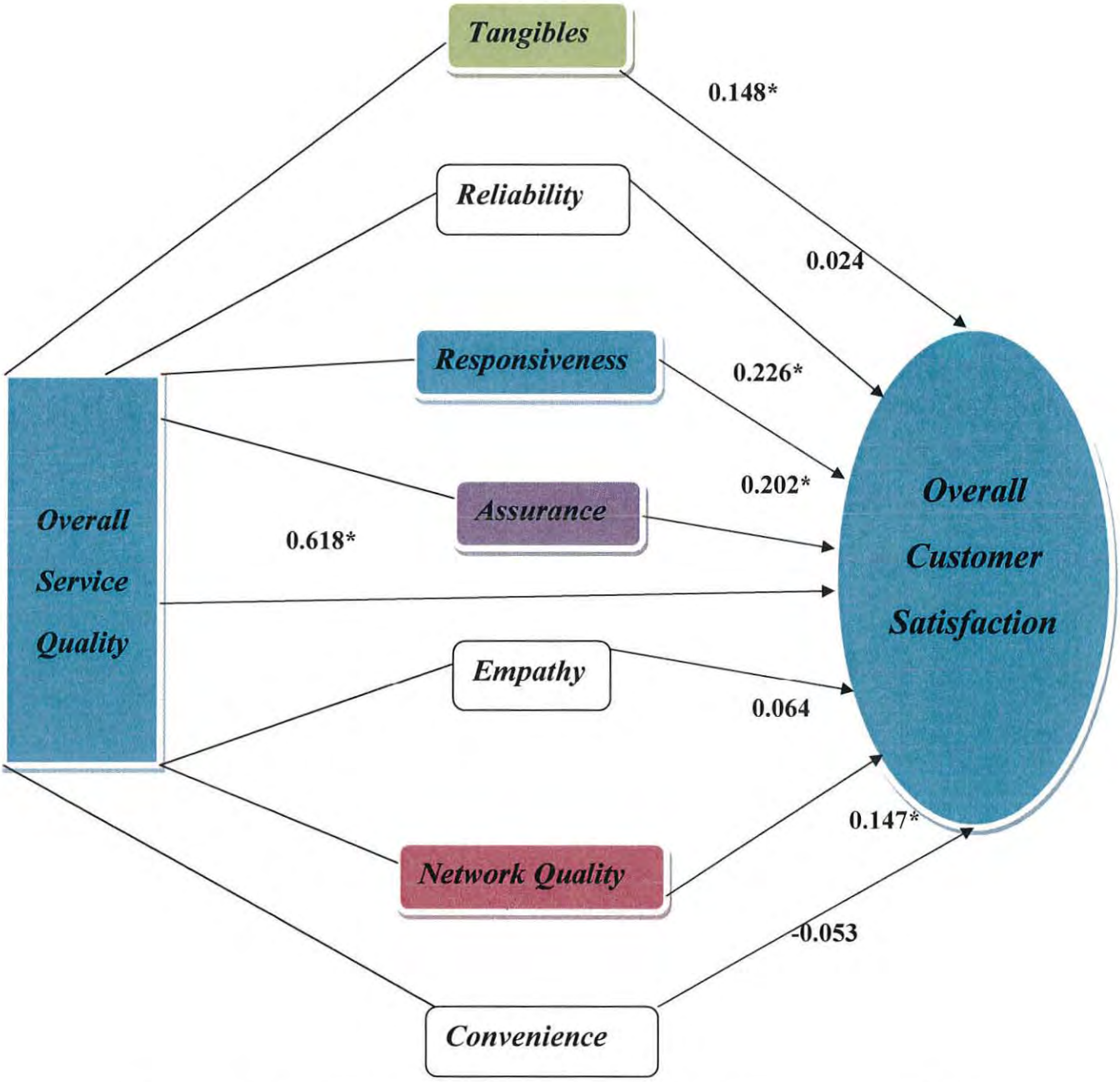

Figure 12: Modeling service quality dimensions and overall customer satisfaction

Note: the numbers represent standardized regression coefficients

** Significant at 0.05 level*

Chapter Five

Summary of findings, Conclusions and Recommendation, and Limitations and Implications for further research

This chapter focuses on the conclusion of the study. It covers summary of major findings, conclusions and recommendations of the thesis, and limitation and implications for further research.

5.1 Summary of Findings

The theme of this study is to assess the service quality and customer satisfaction of mobile service in Ethiopian Telecommunications Corporation. The study was conducted by distributing questionnaires to 400 customers from which 379 have been collected. To know the validity and reliability of the collected data an exploratory factor analysis and Cronbach coefficients (alpha) were computed. The factor loading for all items (both expectation and perception) were greater than 0.5. And the Cronbach coefficients (alpha) for expectation and perception items were 0.994 and 0.956 respectively. The newly added service quality dimensions to the original SERVQUAL developed by Parasuraman et al 1988, convenience and network quality, demonstrated high internal consistency for both expectation and perception data, constitute (0.733, 0.835) and (0.675,0.848) consequently (table 2 and table 3).

The demographic characteristics of the respondents were categorized in to five, gender, age, income, occupation, and education. Male respondents are 62.5% and females are 37.5%. The young respondents constitutes 87.6% and the old respondents are 12.4% . The young are those whose ages are 40 and less and old respondents are those whose ages are greater than 40. The respondents who are employed and unemployed are 84.7% and 15.3% respectively. The education levels of the respondents who have diploma and below are 67% and 33% have bachelor and above. Another variable has been added as a customer identification-mobile apparatus. Among the mobile apparatus used by the respondents 65.7% are Nokia followed by Samsung (10%), Motorola 8.2%, unbranded Chinese mobile (9%), and others 6.3%.

The overall satisfaction level of customers was measured using a point Likert scale range from extremely dissatisfied (1) to extremely satisfied (7). 59.1% the respondents are dissatisfied and 40.9% are satisfied. As a result, the hypothesis one (H_1) is rejected. And there is no respondent from a total of 379 users who are either very satisfied or extremely satisfied.

Satisfaction levels of customers differ among various demographic variables. In this study, females are more satisfied than males, the young people are more satisfied than the old ones, the low income people are more satisfied than the high income people, the employed are more satisfied than the unemployed, and the respondents with an educational level of diploma and below are more satisfied than bachelor and above.

The added variable to this personal identification is mobile apparatus. The mobile apparatus that uses Motorola are more satisfied followed by unbranded Chinese mobiles, others (like LG and Sony Ericsson), Nokia, and Samsung respectively.

The influence of service quality dimensions on customer satisfaction was measured using linear regression model. The entire hypotheses from h_3 to h_{10} are supported by the results (see appendix II for detail results). Responsiveness, assurance, tangibles, empathy, reliability, convenience, and network quality have a significant positive influence to the customer satisfaction. And the overall service quality, which is calculated by averaging all the seven dimensions, has also a significant positive influence to overall customer satisfaction.

The quality gap of the dimensions which is calculated by the difference between perception and expectation (P-E) has demonstrated a negative value for all dimensions. The highest negative margin of the gap is shown under the dimension of network quality. The study indicates the network does not have excellent voice quality and has call drops.

The relative best performance of the ETC has indicated in the convenience dimension of service quality. And the relative low performance of ETC has indicated in the network quality dimension of service quality.

The study found that expectation and perception scores were higher than the average, even though; the perception scores were less than the average scores of the expectation. Given the results of perception in this study, this might not be the case (the dissatisfaction of customers) had the researcher used the Gronroons model of service quality which says the satisfaction

should be measured by the perception only, assuming respondents could fill the questionnaire taking in to consideration of their expectation.

The model of service quality dimensions and overall customer satisfaction has been developed by using a multi regressions model of multi-collinearity using Enter method as appropriate statistical technique. This is done because there were high value of correlation between assurance and reliability (0.752) and assurance and responsiveness (0.776), and need to be rectified before using variables (variables for which the correlation values are about 0.75 or higher) as predictors in regression analysis.

Based on the methods used (discussed above), the determinant factor dimensions are responsiveness, assurance, tangibles, and network quality respectively in evaluating the satisfaction of customers. Convenience, reliability and empathy are not determinant factor dimensions for customer satisfaction. The newly added items under convenience like the existence of offices in different geographical areas, availability of toll-free numbers, websites, and easy getting of scratch cards or pay bill are not determinant variables for mobile users of Ethiopian Telecommunications Corporation. The other added dimension network quality, however, has significant variables for customer satisfaction of mobile users.

5.2 Conclusions and Recommendations

The researches main objectives were to investigate the overall customer satisfaction of ETC's mobile customers in reference to the modified SERVQUAL dimensions. The customers are 59.1% dissatisfied, 27.4% are satisfied in which their perceptions equal to expectation, and 13.5% are satisfied in which their perception are greater than their expectation. There is also a link between demographic variables and customer satisfaction.

All the seven dimensions of the modified SERVQUAL dimensions have a significant influence on customer satisfaction. By using a linear regression analysis the result for all dimensions are greater than 0.5.

The performances of ETC on mobile service are above average for all dimensions but since customers' expectations for all dimensions are also above average and above perception, there is no dimension with positive result. Therefore, respondents are dissatisfied with all dimensions

and their service quality gap derived from perception minus expectation shows negative for all dimensions.

The service quality dimensions which predicts for overall customer satisfaction are responsiveness, assurance, tangibles, and network quality. The service quality dimensions of convenience, reliability, and empathy are not determinant factors for customer satisfaction. The latter conclusion seems to have some difference with the former conclusion which says all dimensions influence customer satisfaction. This could be from the different approaches used to calculate their regression value. The first one used the linear regression method which depends on the 'R'-value. The latter one, on the other hand, used a multi regression model with a multi collinearity (collinearity) method. This is due to the existence of very strong correlation among the dimensions. Therefore, the study shows, all dimensions can influence to the overall customer satisfaction but without convenience, reliability, and empathy the customer can also satisfy if the other four dimensions (responsiveness, assurance, tangibles, and network quality) perform well but not vice versa. And, in both statistical methods, responsiveness and assurance are the two most determinant factors which influence customer satisfaction.

From the above conclusions, the following recommendations can be drown:

- ETC should work hard to improve all the service dimensions since the overall customer dissatisfaction level is higher than 50%.
- The quality gaps of the service dimensions are negative. The gap varies from -0.78 (tangibles) to -1.75 (network quality). ETC should improve specially the wider gaps in network quality and reliability. Network quality aspects like network coverage, call drops, and voice qualities are at the worst stage in which customers are complaining. To improve this relatively huge investment and time may be required but it needs to be addressed as soon as possible. The other dimension with a wider gap is reliability. This is the fault of management and employees. Some of the services here are when employees promise to do something by a certain time they do so, when customers have a problem employees show a sincere interest in solving it, employees perform the service right the first time, and employees ability to keep customers record accurately. This shows ETC lacks to meet its promise. These are simple to solve and only need management and employees commitment.

- All tangibles and two out of three convenience dimension items have a relatively small quality gaps. Easy to get scratch cards or pay bill and having toll-free numbers, websites, etc for clarification of problems and knowing account status of convenience dimension and the appearance of ETC's physical facilities, equipment, personnel, and communication materials are relatively in a better service, even though, they are still below expectation. ETC should focus on this two dimensions too because customers can satisfy easily.
- ETC should give great emphasis to the responsiveness dimensions; it is the most important determinant factor for improving the overall customer satisfaction. If employees give prompt service to customers, are willing to help customers, tell customers exactly when services will be performed, and are never too busy to respond to customer request the overall satisfaction of customers will improve. A serious focus on assurance, tangibles, and network quality are also helpful, as determinant factors, to influence customer satisfaction. And this means ETC should work on customer handling very well.
- Generally, there is no SERVQUAL dimensions in which ETC can proudly talk about. ETC should assess its strength and weaknesses pertaining to the dimensions of service quality so that it can better allocate resources to provide better service for its customers.

5.3 Limitations and Implications for further research

This study assessed the satisfaction level of mobile service users. It is difficult to say customers of ETC are satisfied or dissatisfied based on this study because this study does not show the satisfaction level of land line, Internet, CDMA, WCDMA, EVDO, or other users. One Corporation is the only service provider for mobile service and this can make respondents to have lack of experience in a better or worst Company. Due to this, customers might not fill the questionnaire as it could have.

The other constraint of the study was that the expectation and experience data were filled simultaneously. This would be better if customers fill their expectation before they get service and their perception at some other time after they get the service. And it could be another option to make a study based on the Gronroos model, which says the satisfaction of customers should only based on the perception of customers because when customers fill the perception it is the result of perception and expectation, and check whether there exists a huge difference or not.

The applicability of the SERVQUAL dimensions should also be tried in other sectors like Banking, Insurances and, Airline Companies. This study focused only on individual customers. A further study can be done by incorporating other actors like institutional customers (governmental, non-governmental, and private customers), the employees and management of ETC.

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Appendix I

(Exploratory Factor Loading)

Exploratory Factor Loadings- Service quality from customer perception

Item	Tangibles	Reliability	Responsiveness	Assurance	Empathy	Network Quality	Convenience
T1	.837						
T2	.852						
T3	.619						
T4	.655						
R1		.727					
R2		.794					
R3		.789					
R4		.811					
R5		.633					
Rs1			.747				
Rs2			.717				
Rs3			.787				
Rs4			.678				
A1				.819			
A2				.668			
A3				.791			
A4				.698			
E1					.748		
E2					.629		
E3					.678		
E4					.714		
N1						.810	
N2						.874	
N3						.800	
C1							.792
C2							.781
C3							.728

Exploratory Factor Loadings-Service quality from customer expectation

Item	Tangibles	Reliability	Responsiveness	Assurance	Empathy	Network Quality	Convenience
T1	.634						
T2	.670						
T3	.746						
T4	.723						
R1		.771					
R2		.723					
R3		.686					
R4		.756					
R5		.648					
Rs1			.659				
Rs2			.693				
Rs3			.762				
Rs4			.527				
A1				.595			
A2				.735			
A3				.711			
A4				.778			
E1					.539		
E2					.788		
E3					.666		
E4					.649		
N1						.789	
N2						.842	
N3						.821	
C1							.767
C2							.588
C3							.546

Appendix II

(Regression analysis result for the influence of SERVQUAL dimensions on customer satisfaction)

1. Relationship between tangibles and customer satisfaction

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	T4, T1, T3, T2[a]	.	Enter

a. All requested variables entered

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552[a]	.305	.298	.884

a. Predictors: (Constant), T4, T1, T3, T2

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	128.362	4	32.090	41.060	.000[a]
	Residual	292.298	374	.782		
	Total	420.660	378			

a. Predictors: (Constant), T4, T1, T3, T2

b. Dependent Variable: Overall Customer Satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.429	.155		9.230	.000
	T1	.208	.037	.341	5.562	.000
	T2	.084	.037	.146	2.256	.025
	T3	.056	.029	.097	1.911	.057
	T4	.045	.027	.087	1.673	.095

a. Dependent Variable: Overall Customer Satisfaction

2. *Relationship between reliability and customer satisfaction*

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	R5, R1, R3, R2, R4[a]	.	Enter

a. All requested variables entered

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.536[a]	.287	.278	.897

a. Predictors: (Constant), R5, R1, R3, R2, R4

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	120.843	5	24.169	30.068	.000[a]
	Residual	299.817	373	.804		
	Total	420.660	378			

a. Predictors: (Constant), R5, R1, R3, R2, R4

b. Dependent Variable: Overall Customer Satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.848	.134		13.831	.000
	R1	.138	.031	.267	4.440	.000
	R2	.079	.035	.150	2.230	.026
	R3	.056	.037	.108	1.515	.131
	R4	-.028	.041	-.052	-.672	.502
	R5	.107	.029	.190	3.697	.000

a. Dependent Variable: Overall Customer Satisfaction

3. *Relationship between responsiveness and customer satisfaction*

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Rs4, Rs1, Rs2, Rs3[a]	.	Enter

a. All requested variables entered

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.614[a]	.378	.371	.837

a. Predictors: (Constant), Rs4, Rs1, Rs2, Rs3

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	158.805	4	39.701	56.704	.000[a]
	Residual	261.855	374	.700		
	Total	420.660	378			

a. Predictors: (Constant), Rs4, Rs1, Rs2, Rs3

b. Dependent Variable: Overall Customer Satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.491	.127		11.741	.000
	Rs1	.155	.035	.263	4.478	.000
	Rs2	.118	.035	.203	3.362	.001
	Rs3	.035	.035	.062	.983	.326
	Rs4	.101	.027	.202	3.827	.000

a. Dependent Variable: Overall Customer Satisfaction

4. *Relationship between assurance and customer satisfaction*

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	A4, A2, A1, A3[a]	.	Enter

a. All requested variables entered

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.592[a]	.350	.343	.855

a. Predictors: (Constant), A4, A2, A1, A3

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	147.285	4	36.821	50.374	.000[a]
	Residual	273.375	374	.731		
	Total	420.660	378			

a. Predictors: (Constant), A4, A2, A1, A3

b. Dependent Variable: Overall Customer Satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.609	.131		12.271	.000
	A1	.101	.031	.194	3.255	.001
	A2	.050	.029	.096	1.746	.082
	A3	.144	.035	.251	4.120	.000
	A4	.094	.033	.160	2.831	.005

a. Dependent Variable: Overall Customer Satisfaction

5. *Relationship between empathy and customer satisfaction*

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	E4, E2, E1, E3[a]	.	Enter

a. All requested variables entered

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.548[a]	.301	.293	.887

a. Predictors: (Constant), E4, E2, E1, E3

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	126.411	4	31.603	40.168	.000[a]
	Residual	294.249	374	.787		
	Total	420.660	378			

a. Predictors: (Constant), E4, E2, E1, E3

b. Dependent Variable: Overall Customer Satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.803	.124		14.524	.000
	E1	.085	.029	.164	2.953	.003
	E2	.131	.027	.250	4.850	.000
	E3	.084	.031	.158	2.691	.007
	E4	.068	.034	.119	1.999	.046

a. Dependent Variable: Overall Customer Satisfaction

6. *Relationship between network quality and customer satisfaction*

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	N3, N1, N2[a]	.	Enter

a. All requested variables entered

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.502[a]	.252	.246	.916

a. Predictors: (Constant), N3, N1, N2

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	106.061	3	35.354	42.142	.000[a]
	Residual	314.598	375	.839		
	Total	420.660	378			

a. Predictors: (Constant), N3, N1, N2

b. Dependent Variable: Overall Customer Satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.192	.111		19.776	.000
	N1	.154	.037	.272	4.146	.000
	N2	.007	.035	.012	.185	.854
	N3	.150	.033	.276	4.530	.000

a. Dependent Variable: Overall Customer Satisfaction

7. *Relationship between convenience and customer satisfaction*

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	C3, C1, C2[a]	.	Enter

a. All requested variables entered

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.510[a]	.260	.254	.911

a. Predictors: (Constant), C3, C1, C2

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	109.348	3	36.449	43.906	.000[a]
	Residual	311.312	375	.830		
	Total	420.660	378			

a. Predictors: (Constant), C3, C1, C2

b. Dependent Variable: Overall Customer Satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.091	.159		13.146	.000
	C1	.240	.026	.447	9.166	.000
	C2	.097	.027	.191	3.568	.000
	C3	-.058	.030	-.102	-1.938	.053

a. Dependent Variable: Overall Customer Satisfaction

8. *Relationship between Overall Service Quality and customer satisfaction*

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Overall Service Quality[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Overall customer satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.618[a]	.382	.380	.830

a. Predictors: (Constant), Overall Service Qality average

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	160.680	1	160.680	233.004	.000a
	Residual	259.980	377	.690		
	Total	420.660	378			

a. Predictors: (Constant), Overall Service Quality average

b. Dependent Variable: Overall customer satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.202	.141		8.502	.000
	OSQ	.492	.032	.618	15.264	.000

a. Dependent Variable: Overall customer satisfaction

Appendix III

(Regression analysis result using Multi-Collinearity (Collinearity) and Enter method for modeling SERVQUAL dimensions and Overall Customer Satisfaction)

Regression analysis using Multi-Collinearity (Collinearity) and Enter method

Descriptive Statistics

	Mean	Std. Deviation	N
Overall customer satisfaction	3.26	1.055	379
Tangibles	4.61	1.478	379
Reliability	3.85	1.649	379
Responsiveness	4.43	1.647	379
Assurance	4.46	1.615	379
Empathy	4.02	1.563	379
Network quality	3.58	1.711	379
Convenience	4.85	1.556	379

Correlations

		OCS	T	R	Rs	A	E	N	C
Pearson Correlation	OCS	1.000	.511	.530	.592	.589	.530	.494	.413
	T	.511	1.000	.666	.604	.620	.592	.493	.459
	R	.530	.666	1.000	.709	.752	.679	.536	.484
	Rs	.592	.604	.709	1.000	.776	.705	.615	.608
	A	.589	.620	.752	.776	1.000	.748	.588	.598
	E	.530	.592	.679	.705	.748	1.000	.573	.601
	N	.494	.493	.536	.615	.588	.573	1.000	.616
	C	.413	.459	.484	.608	.598	.601	.616	1.000
Sig. (1-tailed)	OCS	.	.000	.000	.000	.000	.000	.000	.000
	T	.000	.	.000	.000	.000	.000	.000	.000
	R	.000	.000	.	.000	.000	.000	.000	.000
	Rs	.000	.000	.000	.	.000	.000	.000	.000
	A	.000	.000	.000	.000	.	.000	.000	.000
	E	.000	.000	.000	.000	.000	.	.000	.000
	N	.000	.000	.000	.000	.000	.000	.	.000
	C	.000	.000	.000	.000	.000	.000	.000	.
N	OCS	379	379	379	379	379	379	379	379
	T	379	379	379	379	379	379	379	379
	R	379	379	379	379	379	379	379	379
	Rs	379	379	379	379	379	379	379	379
	A	379	379	379	379	379	379	379	379
	E	379	379	379	379	379	379	379	379
	N	379	379	379	379	379	379	379	379
	C	379	379	379	379	379	379	379	379

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Convenience, Tangible, Network quality, Reliability Empathy, Responsiveness Average, Assurance [a]	.	Enter

a. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.652[a]	.425	.414	.807

a. Predictors: (Constant), Convenience, Tangible, Network quality, Reliability, Empathy, Responsiveness, Assurance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	178.802	7	25.543	39.182	.000[a]
	Residual	241.857	371	.652		
	Total	420.660	378			

a. Predictors: (Constant), Convenience, Tangibles, Network quality, Reliability, Empathy, Responsiveness, Assurance

b. Dependent Variable: Overall customer satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.163	.159		7.306	.000		
	Tangible	.106	.040	.148	2.653	.008	.498	2.007
	Reliability	.015	.043	.024	.350	.726	.340	2.942
	Responsiveness	.145	.045	.226	3.210	.001	.312	3.205
	Assurance	.132	.049	.202	2.663	.008	.270	3.702
	Empathy	.043	.044	.064	.973	.331	.358	2.790
	Network quality	.090	.034	.147	2.649	.008	.506	1.978
	Convenience	-.036	.038	-.053	-.958	.339	.497	2.014

a. Dependent Variable: Overall customer satisfaction

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions							
				(Constant)	T	R	Rs	A	E	N	C
1	1	7.622	1.000	.00	.00	.00	.00	.00	.00	.00	.00
	2	.103	8.595	.29	.03	.01	.00	.00	.00	.41	.00
	3	.093	9.046	.10	.01	.18	.01	.02	.02	.28	.07
	4	.053	11.978	.03	.23	.12	.03	.03	.22	.18	.14
	5	.038	14.135	.02	.20	.07	.23	.03	.58	.01	.03
	6	.033	15.166	.00	.08	.48	.40	.02	.00	.01	.37
	7	.032	15.324	.55	.44	.05	.03	.01	.09	.10	.38
	8	.025	17.629	.01	.01	.09	.31	.89	.09	.00	.00

a. Dependent Variable: Overall customer satisfaction

Regression analysis between Overall service quality and Overall customer satisfaction

Descriptive Statistics

	Mean	Std. Deviation	N
OCS	3.26	1.055	379
OSQ	4.18	1.326	379

Correlations

		OCS	OSQ
Pearson Correlation	OCS	1.000	.618
	OSQ	.618	1.000
Sig. (1-tailed)	OCS	.	.000
	OSQ	.000	.
N	OCS	379	379
	OSQ	379	379

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Overall Service Quality [a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Overall customer satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.618[a]	.382	.380	.830

a. Predictors: (Constant), Overall Service Quality average

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	160.680	1	160.680	233.004	.000a
	Residual	259.980	377	.690		
	Total	420.660	378			

a. Predictors: (Constant), Overall Service Quality average

b. Dependent Variable: Overall customer satisfaction

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.202	.141		8.502	.000		
	OSQ	.492	.032	.618	15.264	.000	1.000	1.000

a. Dependent Variable: Overall customer satisfaction

Collinearity Diagnostics[a]

Model	Dimension			Variance Proportions	
		Eigenvalue	Condition Index	(Constant)	OSQ
1	1	1.953	1.000	.02	.02
	2	.047	6.472	.98	.98

a. Dependent Variable: Overall customer satisfaction

Note: T= tangibles, R= reliability, Rs= responsiveness, A= assurance, E= empathy, N= network quality, C= convenience, OSQ= overall service quality, and OCS= overall customer satisfaction

Appendix IV

(Questionnaire in English)

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS EDUCATION

DEPARTMENT OF MARKETING MANAGEMENT EDUCATION

Questionnaire for customers of Mobile Service Users

Dear mobile subscriber, this questionnaire is designed to collect information how you feel about the service quality of your mobile service. Your responses will be treated confidential and used only for academic purpose. I am Masters Student of Addis Ababa University, department of Marketing Management Education. If you have any question(s), please don't hesitate to call at +251911508289.

Please circle or write the appropriate choice for your answer.

I. Respondent's Identification

1. What is your gender?

a) Male b) Female

2. Please select your age group

a) 15- 20 b) 20-29 c) 30-39 d) 40-49 d) above 50

3. What is your occupation?

a) Government worker b) Private worker c) Student d) Business person e) Other

4. How much is your monthly income?

a) Below 200 birr b) 201-500 birr c) 501-1500 birr d) Above 1500 birr

5. Select your highest academic or professional qualification

a) Illiterate a) High school and below b) Diploma (10+1, 10+2, 10+3)

c) B.A degree d) Masters and above

6. What type is your mobile apparatus?

a) Nokia b) Samsung c) Motorola d) Unbranded china's mobile e) Others

II. Expectations

Based on your experiences as a customer of mobile services, please think about the kind of Telecom Company that would deliver excellent quality of mobile service. Think about the kind of Telecom Company with which you would be pleased to do business. Please show the extent to which you think mobile services should posses the following features. If you feel a feature is not at all essential for excellent Telecom companies, circle the number"1". If you feel a feature is absolutely essential, circle "7". If your feelings are less strong, circle one of the numbers in the middle. What I am interested here is a number that best shows your expectations about Telecom Company offering Mobile services.

You should rank each statement as follows:

Strongly Disagree 1 2 3 4 5 6 Strongly Agree 7

Statement	Score
1. Excellent Service providers will have up-to-date equipment.	
2. The physical facilities at excellent service providers will be visually appealing.	
3. Employees at excellent service providers will be neat appearing.	
4. Materials associated with the service (such as pamphlets or statements) will be visually appealing at an excellent service providers.	
5. When excellent service providers promise to do something by a certain time, they do.	
6. When a customer has a problem, excellent service providers will show a sincere interest in solving it.	
7. Excellent service providers will perform the service right the first time.	
8. Excellent service providers will provide the service at the time they promise to do so.	
9. Excellent service providers will keep its records accurately.	
10. Employees of excellent service providers will tell customers exactly when services will be performed.	
11. Employees of excellent service providers will give prompt service to customers.	
12. Employees of excellent service providers will always be willing to help customers.	
13. Employees of excellent service providers will never be too busy to respond to customers' requests.	
14. The behavior of employees in excellent service providers will instill confidence in customers.	

15. Customers of excellent service providers will feel safe in transactions.	
16. Employees of excellent service providers will be consistently courteous with customers.	
17. Employees of excellent service providers will have the knowledge to answer customers' questions.	
18. Excellent service providers will give customers individual attention.	
19. Excellent service providers will have operating hours convenient to all their customers.	
20. Excellent service providers will have their customer's best interests at heart.	
EE21. The employees of excellent service providers will understand the specific needs of their customers.	
22. Excellent service provider's network will have excellent voice quality	
23. Excellent service provider will have wider network coverage	
24. Excellent mobile service provider's network will support no call drops	
25. Excellent service provider will have sufficient offices in different geographic areas	
26. Excellent service provider will have toll-free numbers, websites, etc for clarification of problems, knowing account status by customers.	
27. It will be easy to get scratch cards or pay bill to the service provider in excellent organizations.	

III. Perceptions

Relate the following statements to your feelings about the Mobile service you are using. Please show the extent to which you believe ETC has the features described in the statement. Once again, circling "1" means that you strongly disagree that ETC has that feature, and circling "7" means that you strongly agree. You may circle any of the numbers in the middle that show how strong your feelings are.

You should rank each statement as follows:

Strongly Disagree 1 2 3 4 5 6 Strongly Agree 7

Statement	Score
1. ETC has up-to-date equipment.	
2. ETC's physical facilities are visually appealing.	
3. Employees are well dressed and appear neat in ETC	
4. Materials associated with the service (such as pamphlets or statements) are visually appealing at ETC service center.	
5. When ETC's service providers promise to do something by a certain time, they do so.	

6. When you have a problem, employees show a sincere interest in solving it.	
7. Employees perform the service right the first time.	
8. Employees provide their service at the time they promises to do so.	
9. Employees keep their records accurately.	
10. Employees tell you exactly when services will be performed.	
11. Employees give you prompt service.	
12. Employees are always willing to help you.	
13. Employees are never too busy to respond to your request.	
14. The behavior of employees instills confidence in you.	
15. You feel safe in your transactions with ETC.	
16. Employees in service area consistently courteous with you.	
17. Employees have the knowledge to answer your questions.	
18. Employee gives you individual attention.	
19. ETC has operating hours convenient to all its customers.	
20. ETC has your best interest at heart.	
21. Employees understand your specific needs.	
22. ETC's mobile service network have excellent voice quality	
23. ETC's mobile service have wider network coverage	
24. ETC mobile service's network do not support call drops	
25. ETC has sufficient offices in different geographic areas	
26. ETC has toll-free numbers, websites, etc for clarification of problems, knowing account status, and so on by customers	
27. It is easy to get scratch cards or pay bill to the service provider in ETC.	

- What is your satisfaction level of mobile service given by Ethiopian Telecommunications Corporation? (Circle from the choices below)

a) Extremely dissatisfied
b) Very dissatisfied
c) Dissatisfied
d) Neither (gets what you expect)
e) Satisfied
f) Very satisfied
g) Extremely Satisfied

Thank You!!

Appendix V

(Questionnaire in Amharic)

አዲስ አበባ ዩኒቨርሲቲ
ቢዝነስ ኤዱኬሽን ኮሌጅ
ማርኬቲንግ ማኔጅመንት ኤዱኬሽን ዲፓርትመንት

ለሞባይል አገልግሎት ተጠቃሚዎች የቀረበ መጠይቅ

ውድ የሞባይል ተጠቃሚ ይህ መጠይቅ የቀረበው እየተጠቀሙበት ያሉትን የቅድመ ክፍያ ሞባይል የአገልግሎት አሰጣጥ ላይ ያለዎትን አመለካከት ለማወቅ ነው :: መልሶችህም/ሽም ሚስጥራዊነታቸው ተጠብቀው ለትምህርት አላማ ብቻ ይውላሉ።። እኔ የሁለተኛ ዲግሪ የአዲስ አበባ ዩኒቨርሲቲ ተማሪ ስሆን ምንም አይነት ጥያቄ ቢኖሮት በስልክ ቁጥር 0911 50 82 89 ደውሎ ለመጠየቅ ወደኋላ አይበሉ ።

I. የተጠያቂው ዝርዝር መረጃ

1. ፆታዎ ምንድን ነው?
   ሀ. ወንድ ለ. ሴት

2. እባክዎ የእድሜዎን ደረጃ ይምረጡ
   ሀ. 15 - 20 ለ. 20 - 29 ሐ. 30 - 39
   መ. 40 — 49 ሠ. ከ50 በላይ

3. የሥራዎ ዓይነት
   ሀ. የመንግስት ሰራተኛ ለ. የግል ሰራተኛ
   ሐ. ተማሪ መ. ነጋዴ ሠ. ሌላ

4. የወር ገቢዎ ምን ያክል ነው
   ሀ. ከ200 ብር በታች ለ. ከ201 - 500 ብር
   ሐ. ከ501 - 1500 ብር መ. ከ1500 በላይ

5. የትምህርት ደረጃዎን ይምረጡ
   ሀ. ያልተማረ ለ. ሁለተኛ ደረጃና ከዚያ በታች
   ሐ. ዲፕሎማ (10+1፣10+2፣10+3) መ. ቢኤ ዲግሪ
   ሠ. ማስተርስና ከዚያ በላይ

6. የሚጠቀሙበት የሞባይል ቀፎ ምን ዓይነት ነው?
   ሀ. ኖኪያ ለ. ሳምሰንግ ሐ. ሞቶሮላ
   መ. የቻይና ሞባይል ሠ. ሌላ

II. ቅድመ ግምት (Expectation)

ከዚህ በታች የተጠቀሱት መግለጫዎች ለአንድ ጥሩ የቅድመ-ክፍያ ሞባይል አገልግሎት ሰጪ ድርጅት ደንበኞቹን ለማርካት ምን ያህል አስፈላጊ እንደሆኑ፤ እርሶም አማራጭ ቢኖር ምን ምን መገለጫዎች ያሟላ የሞባይል አገልግሎት ሰጪ ድርጅት ጋር መጠቀም ይፈልጋሉ? የሚለው ለማወቅ ነው። ይህንን ሲሞሉ ለቅድመ ክፍያ የሞባይል አገልግሎት በጣም አስፈላጊ ነው ካሉ "7" ይጻፉ፤ ምንም አያስፈልግም ካሉ "1" ይጻፉ። አመለካከትዎ መካከለኛ ከሆነ በቁጥሮቹ መካካል ያሉትን ቀሪ ቁጥሮች ይጻፉ። የኔ ፍላጎት ከአንድ በጣም ጥሩ የሚባል የሞባይል ቅድመ ክፍያ አገልግሎት ሰጪ ድርጅት ሞባይል ተጠቃሚ ቢሆኑ ለእርካታዎ ወሳኝ የሆኑትና ያልሆኑት ከላይ በተገለጸው መሰረት እንዲያስቀምጡ ነው። እባክዎ ይህንን ሲሞሉ ከኢትዮጵያ ቴሌኮሙኒኬሽን የሚያገኙት አገልግሎት ግምት ውስጥ አያስገቡ።

የሚከተሉትን አረፍተ ነገሮች እንደሚከተለው ገምግሙ

ጠንካራ ተቃውሞ						ጠንካራ ስምምነት
1	2	3	4	5	6	7

መግለጫዎች	ውጤት
1 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ዘመናዊ የሆኑ መሳሪያዎች አሉት	
2 ጥሩ የሆነየሞባይል አገልግሎት ሰጪ ፡ለእይታ የሚስቡ መሳሪያዎች አሉት	
3 ጥሩ የሆነ የሞባይልአገልግሎት ሰጪ ፡ሰራተኞች ፅዱ ሆነው ይታያሉ	
4 ጥሩ የሆነየሞባይል አገልግሎት ሰጪ ፡የሚኖረው መሳሪያዎች ለምሳሌ (በራሪ ወረቀቶችና መግለጫዎች) ለእይታ የሚስቡ ናቸው	
5 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡አንድ ነገር ለማድረግ ቃል ከገባ ያደርጋል	
6 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ደንበኞች ችግር ቢያጋጥማቸው በተገቢው መልኩ ችግራቸውን ይፈታል	
7 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡በመጀመሪያው ቅጽበት(ጥያቄ) ስራውን ያከናውናል	
8 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ቃል በገባው ሰዓት ስራውን ይፈፅማል	
9 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡መረጃዎችን በአግባቡ ያስቀምጣል	
10 ጥሩ የሆነየሞባይል አገልግሎት ሰጪ ፡ሰራተኞች ደምበኞቻቸውን አገልግሎቱ በትክክለኛው መቼ እና እንዴት እንደሚፈፀም□እንደሚያገኙ ያስረዳሉ	
11 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ሰራተኞች ተገቢ የሆነ አገልግሎት ለደንበኛው ይሰጣሉ	
12 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ ሰራተኞች ደንበኛን ለማገልገል ፈቃደኞች ይሆናሉ	
13 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ሰራተኞች ለደንበኛ ግልጋሎት በስራ መጨናነቅን ምክንያት አያደርጉም	
14 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ሰራተኞች ባህሪ በተጠቃሚው ላይ መተማመንን ያሳድራል	
15 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ደንበኛ በግብይት(ሽያጭ) ወቅት	

መተማመን ይኖረዋል	
16 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ሰራተኞች በጣም ጥሩ የሆነ ደንበኛን የማስተናገድ ብቃትና ኃላፊነት ይኖራቸዋል	
17 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ሰራተኛ ለደንበኛው ጥያቄ መልስ ለመስጠት ብቃቱ ይኖረዋል	
18 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ለእያንዳንዱ ተገልጋይ በተናጠል ትኩረት ይሰጣል	
19 ጥሩየሆነየሞባይል አገልግሎት ሰጪ ፡ለደንበኞቹ የመጠቀሚያው ሰዓት አመቻችቶ ያቀርባል	
20 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡የደንበኞቹን ጥቅም የሚያስጠብቅ አላማ ያራምዳል	
21 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ሰራተኞች ደንበኞቻቸው ሊኖራቸው የሚችለውን ጥያቄዎች ቀድመው ይገነዘባሉ	
22 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ግሩም የሆነ የድምፅ ጥራት ያለው ኔትወርክ ይኖረዋል	
23 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡ሰፊ ሽፋን ያለው ኔትወርክ ይኖረዋል	
24 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡የስልክ ጥሪዎች የማይቆራረጡበት ኔትወርክ ይኖረዋል	
25 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡በተለያዩ ቦታዎች ላይ በቂ የሆኑ አገልግሎት መስጫዎች ይኖሩታል	
26 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ፡የነፃ ጥሪ መስመሮች፣ ዌብሳይት የመሳሰሉት የመረጃ መስጫዎችና ለተለያዩ ችግሮች መፍቻ፣ እንዲሁም ያለንን ሂሳብ ማወቂያና ሌሎችም መረጃዎች ይኖሩታል	
27 ጥሩ የሆነ የሞባይል አገልግሎት ሰጪ ተገልጋይ በምንሆንበት ጊዜ በቀላሉ ተፍቀው የሚሞሉ ካርዶችን ለማግኘት እና ክፍያ ለድርጅቱ ለመክፈል ቀላል ይሆናል	

III. ግንዛቤ (Perception)

ከሚያገኙት የቅድመ ክፍያ ሞባይል አገልግሎት ጋር በማገናኘት አሁን ያለው የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን ምን ያክል ገጽታዎች መገለጫዎች እያሟላ መሆኑን ያስተውሉ፡፡ ከዚህ በመቀጠልም ጠንካራ ተቃውሞ ካሎት አንድን ይጻፉ፣ ጠንካራ የሆነ ስምምነት ካለዎት ሰባትን ይጻፉ ፤ መካከል ላይ ያሉትን ቁጥሮችን በመጻፍ ምን ያክል ጠንካራ አመለካከት እንዳለዎት ያሳዩ።

ከዚህ ቀጥሎ ያሉትን ዝርዝሮች እንደሚከተለው ይገምግሙ

ጠንካራ ጠንካራ

ተቃውሞ ስምምነት

1 2 3 4 5 6 7

መግለጫዎች	ውጤት
1 የኢትዮጵያ ቴሌኮሚኒኬሽን ዘመናዊ የሆኑ መሳሪያዎች አሉት	
2 የኢትዮጵያ ቴሌኮሚኒኬሽን መሳሪያዎችን ለእይታ የሚስቡ ናቸው	

3 የኢትዮጵያ ቴሌኮሚኒኬሽን ሰራተኞች ፅዱ ሆነው ይታያሉ	
4 የኢትዮጵያ ቴሌኮሚኒኬሽን ያሉት ከአገልግሎት ጋር የተያያዙት መሳሪያዎች ለምሳሌ (በራሪ ወረቀቶችና መግለጫዎች) ለእይታ የሚስቡ ናቸው	
5 የኢትዮጵያ ቴሌኮሚኒኬሽን አንድ ነገር ለማድረግ ቃል ከገባ ያደርጋል	
6 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ደንበኞች ችግር ቢያጋጥማቸው በተገቢው መልኩ ችግራቸው ለመፍታት ጥረት ያደርጋል	
7 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡በመጀመሪያው ቅጽበት(ጥያቄ) ስራውን ያከናውናል	
8 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ቃል በገባው ሰዓት ስራውን ይፈፅማል	
9 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡መረጃዎችን በአግባቡ ያስቀምጣል	
10 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ ሰራተኞች ደምበኞቻቸውን አገልግሎቱ በትክክለኛው መቼ እና እንዴት እንደሚፈፀም □እንደሚያገኙ ያስረዳሉ	
11 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ሰራተኞች ተገቢ የሆነ አገልግሎት ለደንበኛው ይሰጣሉ	
12 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ሰራተኞች ደንበኛን ለማገልገል ፈቃደኞች ናቸው	
13 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ሰራተኞች ለደንበኛ ግልጋሎት በስራ መጨናነቅን ምክንያት አያደርጉም	
14 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ሰራተኞች ባህሪ በተጠቃሚው ላይ መተማመንን ያሳድራል	
15 ደንበኛው በኢትዮጵያ ቴሌኮሚኒኬሽን በግብይት□ሽያጭ ወቅት መተማመን አለው	
16 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ሰራተኛ ለደንበኞቻቸው የሚሰጡት እክብካቤ አስተማማኝ ነው	
17 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ሰራተኛ ለደንበኛው ጥያቄ መልስ ለመስጠት ብቃቱና እውቀቱ አለው	
18 የኢትዮጵያ ቴሌኮሚኒኬሽን አገልግሎት ሰጪ ፡ ለእያንዳንዱ ተገልጋይ በተናጠል ትኩረት ይሰጣል	
19 የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን፡ ደንበኞቹ የሚጠቀሙበትን ሰዓት አመቻችቶ አቅርቧል	
20 የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን፡ የደንበኞቹን ጥቅም የሚያስጠብቅ አላማ ያራምዳል	
21 የኢትዮጵያ ቴሌኮሚኒኬሽን ፡ሰራተኞች ደንበኞቻቸው ሊኖራቸው የሚችለውን ጥያቄዎች ቀድመው ተገንዝበዋል	
22 የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን ግሩም የሆነ የድምፅ ጥራት ያለው ኔትወርክ አለው	
23 የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን ሰፊ ሽፋን ያለው ኔትወርክ አለው	
24 የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን የስልክ ጥሪዎች የማይቆራረጡበት ኔትወርክ አለው	
25 የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን በተለያዩ ቦታዎች ላይ በቂ የሆነ አገልግሎት መስጫዎች ይኖሩታል	
26 የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን የነፃ ጥሪ መስመሮች፣ ዌብሳይት የመሳሰሉት የመረጃ መስጫዎች እና ለተለያዩ ችግሮች መፍቻ፣ እንዲሁም ያለንን ሂሳብ ማወቂያና ሌሎችም መረጃ መስጫዎች አሉት	
27 የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን አገልግሎት በሚሰጥበት ወቅት በቀላሉ ተፍቀው የሚሞሉ ካርዶችን እና ለድርጅቱ የሚከፈል ክፍያ በቀላሉ ይከናወናል	

- በአጠቃላይ የኢትዮጵያ ቴሌኮሚኒኬሽን ኮርፖሬሽን በሚሰጠው የሞባይል አገልግሎት ምን አስተያየት አሎት?

ሀ. እጅግ በጣም የወረደ ነው

ለ. በጣም የወረደ ነው

ሐ. አያረካም

መ. እንደገመትኩት ነው (ምንም አይልም)

ሠ. ያረካል

ረ. በጣም ያረካል

ሰ. እጅግ በጣም ያረካል

አመሰግናለሁ!!