



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

**THE ASSESMENT OF CUSTOMER SATISFACTION LEVELS ON THE
BROADBAND INTERNET SERVICE: A CASE STUDY ON ENTEPRISE
CUSTOMERS OF ETHIO TELECOM IN ADDIS ABEBA**

BY

AHMED ADEM

JULY 2014

ADDIS ABABA, ETHIOPIA

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ID NO: SGS/0039/2005

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE
STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF BUSINESS ADMINISTRATION**

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ACKNOWLEDGEMENTS

First and foremost, I would like to express my gratitude to Allah for his abundant grace that I am able to be what I am today. I have learned a lot and really enjoyed while working this research project. I would like to sincerely thank all those who helped me with their valuable support during the entire process of this research paper. I would like to express my special gratitude to my advisor, Dr Temesgen Belayneh for his unreserved support and advice from the beginning to the end of the study. I would also like to thank my parents who gave me so much encouragement and support for my study. Also, I like to appreciate kind supports of my friends and colleagues namely Meselework, Heron, Yenus and Amlake Degarege. Lastly, but by no means least, I would like to thank all research participants/respondents for letting me have some of their time.

LIST OF ACRONYMS AND ABBREVIATION

ADSL: Asymmetric Digital Subscriber Line

CDMA: Code Division Multiple Access

DSL: Digital subscriber line

ET: Ethio Telecom

EPON: Ethernet Passive Optical Network

ETC: Ethiopian Telecommunication Corporation

EVDO: Evolution Data Optimized or Evolution Data Only

GPON: Gigabit Passive Optical Network

ICT: Information Communication Technology

ISDN: Integrated Services Digital Network

ITU: International Telecommunication Union

LAN: Local Area Network

SLA: Service level agreement

SOHO/SME: Small office home office/Small and medium enterprise

SPSS: Statistical Package for Social Sciences

VDSL: Very high bit rate Digital Subscriber Line

VSAT: Very Small Aperture Terminal

WCDMA: Wideband Code Division Multiple Access

WLANs: Wireless local area networks

3G Technology: Third Generation Technology

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ABSTRACT

This research was conducted to assess the level of customer satisfaction on the broadband internet service of Ethio Telecom. To execute the research objective, 177 ethio telecom enterprise customers located in Addis Ababa are selected using simple random sampling technique. The parameters used to assess the satisfaction level of customer were service delivery, pricing and quality. To attain the objective, the study utilized qualitative and quantitative data types. Qualitative methods were employed to summarize interview responses and narrate open ended questions in the questionnaire whereas quantitative methods were used to show the phenomenon in numbers. The survey questions were developed based on likert scale questions and customers were asked to rate their level of satisfaction across the parameters identified. The study mainly used descriptive research design. Primary and secondary data are used for conducting the study. After data collection, the collected data was analyzed using SPSS 21.0 and Microsoft Excel software packages. The data is then organized, tabulated, depicted, and described in a way that can attain the objective of the study. Finally, the finding of the study uncovered that Ethio telecom customers are not satisfied with the service delivery, pricing and quality parameters. Based on the findings of the study, recommendations have been forwarded to improve the broadband internet service satisfaction level of Ethio telecom customers. The research supposed that Ethio telecom shall improve quality of broadband internet, service delivery mechanism and pricing scheme which in turn enhance the level of customer satisfaction.

Key words: Customer satisfaction, Service delivery, Price, Quality.

CHAPTER ONE: INTRODUCTION

This chapter consists of the background of the study, statement of the problem, research questions, objectives of the study, operational definitions, scope of the study, limitations and significance of the study.

1.1. Background of the Study

The world of telecommunications has changed rapidly as we enter the era of convergence between broadband Internet, wireless networks, and the content sector. The importance of information and communication technology (ICT) is undeniable as it has been applied in various fields for the purpose of service enhancement. It has been proven that resources can be managed efficiently and effectively through ICT. Broadband is considered as a key to enhance competitiveness of an economy and sustaining economic growth (OECD, 2001, 2002). Many governments around the world are increasingly committed to extending broadband networks to their citizens (BAG, 2003). They promote usage of this technology in the belief that broadband will contribute to economic and social development by enhancing productivity and introducing new services (Lee, 2005).

The state monopoly telecommunications service provider in Ethiopia, the Ethiopian Telecommunications Corporation, is operating currently as Ethio Telecom, started with a humble beginning more than a hundred years ago by establishing a telephone link between the capital city and some major provincial cities. The lack of infrastructural development has been hampered by the topography of the country and history of manmade and natural disasters contributed to the low-levels of deployment of ICT. Today, telecommunication has extended to the interior of the country and uses technologies such as microwave satellite and even fiber optics. However the infrastructure is far beyond what is needed to satisfy the ever growing demand.

According to Ethio telecom report (2013), internet was introduced in Ethiopia in 1993 and was commercialized in 1997 with the narrowband technologies. While broadband internet introduced in Ethiopia in 2005. Currently Ethio telecom is providing broadband internet via wired and

wireless means of connections. The wired broadband internet is delivered via ADSL, VDSL, EPON and GPON technologies while the wireless means of connections includes AIRNET, VSAT, EVDO and WCDMA/3G mobile. In 2013, there were more than 250,000 broadband subscribers in the country. From this number WCDMA and EVDO took the largest share amounting more than 150,000 and 75,000 respectively, however fixed or wired broadband internet subscribers amounts only 15,000.

In spite of the overall rapid growth broadband diffusion, Ethiopia is still in the early stage of broadband deployment and has been receiving many negative feedbacks in terms of speeds, connectivity, quality and price. Even though there is a dramatic change in the number of broadband subscribers in Ethiopia, the satisfaction level of its subscribers is estimated as at its minimum.

1.2. Statement of the Problem

Internet plays a significant role as a medium to organize globalization and by increasing the frequency, speed and efficiency of information exchange in every field – commercial, industrial, educational, scientific, political, religious, recreational, etc. To meet the growing demand for high connectivity and improve the quality of internet service and customer satisfaction, Ethio Telecom introduced broad band internet in 2005 which provide high band width internet connection. Due to its high subscription and transaction cost the highest user of this service are customers organized in a business entity form. Among these corporate customers are the highest users of the service.

Broadband internet users invest huge amount of their resources to transmit data, voice and video over the internet. They primarily use this service for the purpose of exploiting its fast speed and unique distinct features. These categories of customers use broadband for exchanging financial, educational, scientific, economic, social, administrative as well as political information. Some corporate customers such as financial institute rely on the efficient service provided by the broadband connection to entertain their customers. Taking into consideration the high contribution of the service in the country's economy Ethio Telecom (ET) is building its capacity on broadband internet to enrich and meet the demands of the customers.

Moreover, as part of rectifying the inherent problems that affect customer satisfaction in general and broadband internet subscribers in particular, Ethio telecom had made a transformation from the former ETC to Ethio telecom as of December 2010 and France telecom takes over the management to modernize the management part. In addition the company has also made an agreement with ZTE Corporation and Huawei technologies to solve the network related problems. Though the company has been claiming that it is striving to solve the problems related with service quality issues, customers are persistently complaining on the service (January 2014 Ethio telecom report).

Although, ET is undertaking a massive broadband network expansions all over the country, according to the researcher's preliminary formal and informal assessment, the current broadband internet service provided to enterprise customers is still characterized by poor service delivery which does not meet customer's expectations in terms of performance, poor customer complaint handling, lack of immediate response, lack of technical knowledge by employees regarding the service and poor broadband connection speed.

Therefore, the purpose of this research paper is to assess and analyze the customer satisfaction level on the broadband internet service and pinpoint possible areas of improvement.

1.3. Research Questions

To achieve the objectives of this research paper, the following questions have been addressed:

- How do customers feel about service provisioning of Broad band internet?
- What do customers feel about the quality of Broad band internet?
- What do customers feel about the pricing mechanism of Broad band internet?
- What do customers feel about the after sales support given by the sole telecom service provider?

1.4. Objectives of the Study

1.4.1 General Objective

The general objective of this research paper is to assess and analyze the customer satisfaction levels on the broad band internet service of enterprise subscribers` located in Addis Abeba.

1.4.2 Specific Objectives

The study have the following specific objectives:-

- To determine Broad band internet service subscribers' satisfaction level with regard to service delivery.
- To discuss broad band internet service subscribers' satisfaction level with regard to the pricing mechanism.
- To discuss broad band subscribers' satisfaction level with regard to the quality of broadband internet delivered by Ethio telecom.

1.5. Operational Definitions

Broadband: ITU describe broadband as recent Internet connections that range from 5 times to 2000 times faster than earlier Internet dial-up technologies and it combines connection capacity (bandwidth) and speed.

Enterprise Customers: are those legally registered enterprises who subscribe telecom services to support the day to day activities of their business.

Residential Customers: are those individuals who subscribe telecom services for their personal and/or family usage.

Key Account Customers: are those enterprise customers having more than 50 employees with one million birr or above capital. It accounts a total of 18 percent of all enterprises. Beside the above category, Ethio telecom categorizes all ministry offices and authorities, banks and insurances, embassies and Non-Government Organizations under this category.

Financial institutions: are those enterprise key account customers which consists of all private and governmental banks and insurance companies.

Government institutions: are those enterprise key account customers which consist of all governmental offices including ministry offices and authorities located mostly in Addis Ababa.

Public service: are those enterprise key account customers which includes all public service giving enterprises like hospitals.

Private service: are those enterprise key account customers which includes private service giving enterprises like hotels.

Production enterprise: are those enterprise key account customers which includes private and government factories and manufacturing enterprises.

International organizations: are those enterprise key account customers such as Africa Union, United Nations, European Union and all Embassies located in Addis Ababa.

SOHO/SME Customers: are those enterprise customers having less than 50 employees with below a million birr capital. It accounts a total of 82 percent of all enterprises. All enterprises which are not categorized under key account were included in this category (Ethio Telecom 2013 report).

1.6. Scope of the Study

This study is limited to assess the satisfaction level of broad band customers with regard to service delivery, pricing and broad band quality. Due to time and cost constraint this study is limited to assessing the satisfaction levels on the broadband internet service in Addis abeba and the study not incorporate all types of broad band internet customers; rather the study is focused only on enterprise broad band customers.

1.7. Significance of the Study

It is known that any useful study is conducted to serve a particular purpose. Based on this fact, this study is expected to have the following significance:

- The study can help the organization in formulating effective service delivery strategy that can increase the satisfaction level of broad band internet service subscribers.

- To the management of Ethio Telecom the findings and results that reported in this study provide understanding regarding factors affecting customer satisfaction level and take measures accordingly.
- In addition the study will offer a spring board to other researchers to work more on the area by incorporating broader scope.

1.8. Organization of the Paper

This study has a total of five chapters. The first chapter discuss about background of the study, statement of the problem, basic research questions, objectives of the study, definition of terms, significance of the study, and delimitation/scope of the study under chapter one.

Chapter two presents the review of related literature, which served as a basis for understanding the subject matter together with empirical studies.

Under chapter three, the methodology part of the study is described in detail. This chapter was employed to answer the research questions.

Subsequently, the findings of the study discussed in chapter four based on the given objectives of the paper. In this section the data is presented and analyzed from the survey.

Lastly but not least, summary of findings drawn from the results discussed under chapter five. In this section, some conclusions were drawn from the summary of findings for suggesting some practical recommendation to the management of ethio telecom in general.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter gives an overview of literatures that are related to the research problem presented in the previous chapter. The chapter introduces the theoretical literature concepts of broadband internet connection, benefits of broadband connection, definition of customer satisfaction, measurement of customer satisfaction, consequences of customer satisfaction, determinants of customer satisfaction and other empirical studies done related to broadband.

2.1. Customer Satisfaction

In today's competitive business environment marketing managers are more influenced from customer expectation and meeting the demand for customer satisfaction is becoming very important for them. Every organization must define customer satisfaction regarding their market.

2.1.1 Definitions of Customer satisfaction

Parker and Mathew (2001) expressed that there are two basic definitional approaches of the concept of customer satisfaction. The first approach defines satisfaction as a process and the second approach defines satisfaction as an outcome of a consumption experience. These two approaches are complementary, as often one depends on the other.

Customer satisfaction as a process is defined as an evaluation between what was received and what was expected (Oliver, 1981 p. 25), emphasizing the perceptual, evaluative and psychological processes that contribute to customer satisfaction. Parker and Mathews (2001, P. 38) however noted that the process of satisfaction definitions concentrates on the antecedents to satisfaction rather than satisfaction itself.

Satisfaction as a process is the most widely adopted description of customer satisfaction and a lot of research efforts have been directed at understanding the process approach of satisfaction evaluations (Parker and Mathews, 2001). This approach has its origin in the discrepancy theory (Porter, 1961), which argued that satisfaction is determined by the perception of a difference

between some standard and actual performance. Cardozo (1965) developed the contrast theory, which showed that consumers would exaggerate any contrasts between expectations and product evaluations.

Olson and Dover (1979) developed the assimilation theory, which means that perceived quality is directly increasing with expectations. Assimilation effects occur when the difference between expectations and quality is too small to be perceived. Anderson (1993) further developed this theory into assimilation-contrast theory, which means if the discrepancy is too large to be assimilated then the contrast effects occur. The assimilation-contrast effects occur when the difference between expectations and quality is too large to be perceived and this difference is exaggerated by consumers.

According to Parker and Mathews (2001), the most popular descendant of the discrepancy theories is the expectation disconfirmation theory, which stated that the result of customers' perceptions of the difference between their perceptions of performance and their expectations of performance. Positive disconfirmation leads to increased satisfaction, with negative disconfirmation having the opposite effect. Customers buy products or services with pre-purchase expectations about anticipated performance, once the bought product or service has been used, outcomes are compared against expectations. If the outcome matches expectations, the result is confirmation. When there are differences between expectations and outcomes, disconfirmation occurs. Positive disconfirmation occurs when product or service performance exceeds expectations. Therefore, satisfaction is caused by positive disconfirmation or confirmation of customer expectations, and dissatisfaction is the negative disconfirmation of customer expectations (Parker and Mathews 2001).

Furthermore, Parker and Mathews (2001) expressed that attention has been focused on the nature of satisfaction of the outcome approach which include:

- 1. Emotion** - Satisfaction is viewed as the surprise element of product or service purchase and or consumption experiences or is an affective response to a specific consumption experience (Oliver, 1981). This acknowledges the input of comparative cognitive processes but goes further by stating that these may be just one of the determinants of the affective "state" satisfaction (Parker and Mathews, 2001).

2. Fulfillment –The theories of motivation state that people are driven by the desire to satisfy their needs (Maslow, 1943) or by their behavior aimed at achieving the relevant goals. However, satisfaction can be either way viewed as the end-point in the motivational process. Thus “consumer satisfaction can be seen as the consumer’s fulfillment response.” (Rust and Oliver, 1994, p. 4).

3. State – Oliver (1989) expressed that there are four framework of satisfaction, which relates to reinforcement and arousal. “Satisfaction-as-pleasure” results from positive reinforcement, where the product or service is adding to an aroused resting state and “satisfaction-as-relief” results from negative reinforcement. In relation to arousal, low arousal fulfillment is defined as “satisfaction-as contentment”, a result of the product or service performing adequately in an ongoing passive sense. High arousal satisfaction is defined as “satisfaction as either positive (delight) or negative surprise” which could be a shock (Rust and Oliver, 1994).

The other customer satisfaction definitions include: Satisfaction is “the cognitive state of the buyer about the appropriateness or inappropriateness of the reward received in exchange for the service experienced and the evaluation of emotions (Hunt, 1977, p. 46); an overall customer attitude towards a service provider (Levesque and McDougall, 1996, pp.14); is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a 11 pleasurable level of consumption-related fulfillment, included levels of under- or over fulfillment (Oliver,1997, p. 13); is an experience-based assessment made by the customer of how far his own expectations about the individual characteristics or the overall functionality of the services obtained from the provider have been fulfilled and the fulfillment of some need, goal or desire (Oliver, 1999).

For this study, customer satisfaction definition used is that of Homburg, C. and Giering, A. (2001, P. 43) which is “an experience-based assessment made by the customer of how far his own expectations about the individual characteristics or the overall functionality of the services obtained from the provider have been fulfilled”.

The relevance of this definition to this study is that it indicates that customers assess the broad band services based on experience of use and the rating is done in accordance with the broad band services attributes. In this study, customer satisfaction with the Ethio Telecom broad band

internet services is evaluated based on customers experience of network quality of Broad band internet, service delivery of Broad band internet and pricing mechanism of Broad band internet.

2.1.2 Customer Satisfaction Measurement

Customer Satisfaction is one of the most important outcomes in the marketing literature and a core business challenge which has attracted considerable research attention. One of the most comprehensive reviews of the nature of customer satisfaction was produced by Oliver (1997), and noted that satisfaction is generally recognized as a pleasurable outcome, 'a desirable end state of consumption or patronization' (Oliver, 1997, p 10). On the other hand, precise definitions of satisfaction vary, but common themes emphasize that it is a customer's judgment of the consumption experience formed through some kind of psychological process that involves some form of comparison of what was expected with what was received.

As per the International Trade & Academic Research Conference (ITARC) - London 2010), it serves to link processes culminating purchase and consumption with post purchase phenomena such as attitude change, repeat purchase, and brand loyalty (Surprenant and Churchill, 1982). This definition is supported by Jamal and Naser (2003) and Mishra (2009). On the other hand, the customer's overall satisfaction with the services of the organization is based on (or a function of) all the encounters/ experience of the customer satisfaction can occur at multiple levels in an organization, for instance, satisfaction with the contact person, satisfaction with the core service and satisfaction with the organization as a whole.

Previous research in services acknowledges a strong positive correlation between service quality and satisfaction. However, the directionality of the relationship has been a source of much debate (Bahia et al., 2000). Most of the researchers found that service quality is the antecedent of customer satisfaction (Bedi, 2010; Kassim and Abdullah, 2010; Kumar *et al.*, 2010; Naeem and Saif 2009; Balaji, 2009; Lee and Hwan, 2005; Athanassopoulos and Iliakopoulos, 2003; Parasuraman *et al* 1988). Yee *et al* (2010) found that service quality has a positive influence on customer satisfaction. On the other hand, Bitner (1990) and Bolton and Drew (1991) pointed out

that customer satisfaction is the antecedent of service quality. Beerliet *al.* (2004) supported this finding and mentioned a possible explanation is that the satisfaction construct supposes an evaluative judgment of the value received by the customer. Moreover, some early works depicted service quality perceptions as an outcome of satisfaction (Bitner, 1990; Oliver, 1981; Parasuraman et al., 1988). As per the International Trade & Academic Research Conference (ITARC) - London 2010, this finding is contrasted with most of the researchers.

As cited by Kazi, (2010), Zami et al (2010) find out that tangibility, reliability and empathy are important factor for customer satisfaction, whereas, responsiveness and assurance are important factor, founded by Mengi (2009). Kumar et al (2010) and Lai (2004) found that assurance, empathy and tangibility are the important factor, and on the other hand, Baumann et al. (2007) found that tangible are not related to customer satisfaction. Researchers have identified various determinates of customer satisfaction in the retail banking sector. Arsil et al (2005) pointed out that reliability dimension of SEVQUAL has the highest impact on customer satisfaction in Geek Cypriot banking industry, whereas reliability is not related to customer satisfaction , founded by Chanitakis and lymerspoulos (2009).

In general, the existing customer satisfaction (CS) literature is dominated by two theoretical perspectives: the service profit chain (Heskett et al., 1994) and SERVQUAL (Parasuraman et al., 1985). In brief, the service profit chain posits a positive relationship between staff satisfaction, service quality and customer satisfaction leading, ultimately, to profitability. SERVQUAL also recognizes the significance of staff satisfaction and service quality as drivers of customer satisfaction. However, SERVQUAL differentiates the service quality construct distinguishing between functional service quality (doing things nicely) and technical service quality (doing things right). Priority is afforded to functional service quality.

Yet, later works, however, have characterized service quality as an antecedent of satisfaction (Anderson and Sullivan, 1993; Drew and Bolton, 1991; Oliver, 1993; Parker and Mathews, 2001). There is now a convergence of opinion that service quality is a primarily cognitive construct while satisfaction is a complex concept with a healthy dose of both cognitive and affective components (Dabholkar, 1995) and that favorable service quality perceptions lead to

improved satisfaction (Cronin et al., 2000). Therefore, it is evident that quality, value and satisfaction are all influenced by the customer's expectations and perceptions in some form or another. While perceptions are effectively a product of the service encounter and should be managed by careful management of service delivery, expectations (whether ideal or predicted) are formed in advance of experiencing the service.

2.1.3 What Determines Customer Satisfaction

The followings are some of the determinants of customer satisfaction (Zeithaml, Bitner, 2003 p 87). These are:

Product and Service Features: Customer satisfaction with a product or service is influenced significantly by the customer's evaluation of the product or service features. In conducting satisfaction studies, most firms will determine through some means (often focus groups) what the important features as well as overall service satisfaction.

Customer Emotion: Customers' emotions can also affect their perceptions of satisfaction with products and services. These emotions can be stable, preexisting emotions-example: mood state or life satisfaction.

Attributions for Service Success or Failure: Attributions are the perceived causes of events, influence perceptions of satisfaction as well. When they have been surprised by an outcome (the service is either much better or worse than expected), customers tend to look for the reasons and their assessment of the reasons can influence their satisfaction.

Perceptions of Equity or Fairness: Customers ask themselves: have I been treated fairly compared with other customers? Did other customers get better treatment, better prices, or better quality services? , did I pay a fair price for the service? Notion of fairness are central to customers' perceptions of satisfaction with products/services.

Other consumers, family members, and coworkers: In addition to products and service features one's own individual feelings and beliefs, consumer satisfaction is often influenced by other people.

Several studies have shown that perceived value is significant determinant of customer satisfaction (Anderson et al. (1994); and Levesque and McDougall, 2000). In addition, quality of services and products, the user friendly nature of product and services, and comfort assurance (Bailey et al., 1983, p.532); (Karen, 2001, p.306); (Shi et al., 2005, p.1440) are some of the important determinants of customer satisfaction.

2.1.4 Consequences of Customer Satisfaction

Several research works have shown that customer satisfaction is positively associated with desirable business outcomes namely; Customer Loyalty, Customer Retention, and Customer Profitability. Gerpott et al. (2001) reported that these consequences are important goals for telecommunications operators to have superior economic success.

Customer Loyalty

Coyne (1989) stated that customer satisfaction has measurable impact on customer loyalty in that when satisfaction reaches a certain level; on the high side, loyalty increases dramatically; at the same time, when satisfaction falls to a certain point, loyalty reduces equally dramatically.

Fornell (1992) found out that there is a positive relationship between customer satisfaction and customer loyalty but this connection is not always a linear relation. This relationship depends on factors such as market regulation, switching costs, brand equity, existence of loyalty programs, proprietary technology, and product differentiation at the industry level.

Oliver (1999) stated that the relationship between satisfaction and loyalty is that satisfaction is transformed into loyalty with the assistance of a myriad of other factors. However, this relationship is complex and asymmetric. High levels of satisfaction lead to high levels of attitudinal loyalty. Attitudinal loyalty involves different feelings, which create a customer's overall attachment to a product, service, or company (Lovelock et al., 2001). Gerpott et al. (2001) in their study of the German mobile telecommunication found that customer satisfaction is positively related to customer loyalty, and both factors are important parameters in the mobile telecommunications industry. Turel and Serenko, 2006, in their study of Canadian mobile telecommunications also confirmed this finding.

Customer Retention

Several research works have shown that there is positive relationship between customer satisfaction and customer retention; customer satisfaction has a direct effect on customer retention (Rust and Subramaman, 1992); customer satisfaction is positively related to customer retention (Anderson and Sullivan, 1993); to retain a customer, it is necessary to satisfy him. Customer retention is central to the development of business relationships, and these relationships depend on satisfaction (Eriksson and Vaghult, 2000); customer satisfaction is a central determinant of customer retention (Gerpott et al., 2001).

Customer Profitability

Research studies conducted by Gale (1992) and Fornell (1992) showed that higher customer satisfaction translates into higher than normal market share growth, the ability to charge a higher price, lower transaction costs, and a strong link to improved profitability. Nelson et al., (1992) also demonstrated that customer satisfaction is related to higher profitability and proved his findings statistically. Andersson et al., (1994) found a significant association between customer satisfaction and accounting return on assets. Fornell et al., 1996, found out that customer satisfaction is significantly related to firms' financial performance. The volume of business conducted with a firm is directly related to customer satisfaction, which in turns affect profitability. The significance of this sub-section to this study is that it helps to provide better understanding that customer satisfaction to some extent affects loyalty which in turn may affect retention and profitability.

2.2. Broadband Internet Connection

Broadband internet is a high speed internet access and an advanced communication systems that transmit data, voice, and video over the internet. Broadband often called "high-speed" access to the Internet usually has a high rate of data transmission. The International Telecommunication Union Standardization Sector recommendation has defined broadband as a transmission capacity that is faster than primary rate ISDN (integrated service data network), at 1.5 to 2 Megabits.

According to Shekher (2012) broadband refers to a telecommunication bandwidth that is at least 256Kbps. A single broadband communication channel is 6MHz wide and the voice grade is greater than 20KHz. Broadband uses a wide range of frequencies to seamlessly transmit and receive information between networks and it offers more speed than a traditional dial up internet connection because data and information can be multiplexed and transmitted on different communication frequencies and channels.

While ITU (2003) defined broadband internet connection as a recent internet connection that range from 5 times to 2000 times faster than earlier internet dial-up technologies. However, the term broadband does not refer to either a certain speed or a specific service. Broadband combines connection capacity (bandwidth) and speed.

Besides the definition, ITU (2003) categorized digital subscriber line (DSL), cable modem, fiber optic cable, wireless local area networks (WLANs) and wireless fidelity (Wi-Fi) as a broadband connection. Unlike DSL and cable technologies, which are both based on copper wire, fiber optic cable uses lasers to transmit pulses of light down extremely fine strands of silicon.

Because light uses higher frequencies, fiber optic cable can carry thousands of times more data than either electric signal or radio waves. Thus high bandwidth broadband internet connections were delivered using fiber optic cables.

Ethio telecom also defines broadband internet as a high bandwidth, always on and could transfer data faster than the former dial-up internet connections. Currently the company is delivering the services using different media starting from the speed of 256Kbps. The company is delivering the service via DSL, fiber and wireless connections including satellite. The company delivers the service through ADSL, VDSL, and wireless to subscribers that request up to the speed of 8Mbps whereas those who request higher bandwidth that is more than 8Mbps could get the service via fiber optics cable.

2.2.1 Benefits of Broadband Internet Connection

The internet has now become the means by which many people have found how to live their lives. Whether there is training for a new skill, a new language, or completing an online course, broadband facilitates the access of information in many different forms. Different bodies declare

the importance of broadband internet differently but they all argue that broadband is becoming the necessity of life. The following paragraphs present the benefits of broadband internet as discussed by different groups.

ITU in its 2003 publication classified the benefits of broadband into three. The first one is broadband speeds are significantly faster than previous technologies, making it faster and more convenient to access information or conduct online transactions using the Internet. The speed of broadband service has also enhanced existing services, such as online gaming, and enabled new applications, like downloading music and videos. Secondly depending on the type of technology deployed, there can be economic gains associated with broadband. For example, with DSL, users can use a single standard phone line for both voice and data services. This enables them to surf the internet and call a friend at the same time—all using the same phone line. Previously, passionate internet users may have installed an extra phone line in their homes for internet access; but with broadband, two phone lines are no longer necessary. The last benefit of broadband is it enhances existing internet applications, while paving the way for new solutions, which were too expensive, inefficient or slow to consider in the past. This may include everything from new e-government services, such as electronic tax filing, to online health care services, e-learning and increased levels of electronic commerce.

Federal Communication Commission of America (2010) indicated in its national broadband plans that broadband can provide access to a wide range of resources, services, and products that can enhance the life of the society in a variety of ways. These resources, services, and products include, but are not limited to the following:

- Broadband can overcome geographical and financial barriers to provide access to a wide range of educational, cultural, and recreational opportunities and resources.
- Broadband can facilitate provision of medical care to underserved populations through remote diagnosis, treatment, monitoring, and consultations with specialists
- Broadband can promote economic development and revitalization through electronic commerce (e-commerce) by creating new jobs and attracting new industries, providing access to regional, national, and worldwide markets.

- Electronic government can help streamline people's interaction with government agencies, and provide information about government policies, procedures, benefits, and programs.
- Broadband can help protect the public by facilitating and promoting public safety information and procedures, including, but not limited to:
 - Early warning/public alert systems and disaster preparation programs.
 - Remote security monitoring and real time security background checks.
 - Backup systems for public safety communications networks.

In line with the above importance, currently in Ethiopia there are universities that educate their students at a distant jointly with their partners abroad; medical specialists are getting consultations and remote diagnosis with the help of video conference. Even though there is no electronic payment adopted in Ethiopia, many businesses are advertising and selling their products and services on the web. Banks and insurances were providing online service with the help of broadband.

In addition the government of Ethiopia is using broadband as a means of people's interaction via woreda net (which is implemented to support the good governance system), school net (to support the national education system via plasma TV), agri-net to support the agriculture related work and recently a net is implemented to facilitate the housing development program and other significant government purposes. Today every company is becoming dependent on broadband to be effective and efficient in their service delivery.

2.3. Service Quality

The gap model (also known as the "5 gaps model") of service quality is an important customer-satisfaction framework. Parasuraman A., Zeithaml V. A., and Berry L. L. (1985) identify five major gaps that face organizations seeking to meet customer's expectations of the customer experience. Gap 1 (as shown in the below service quality model) is the distance between what customers expect and what managers think they expect - Clearly survey research is a key way to narrow this gap and one of the major areas to be discovered in this research is gap 1 where

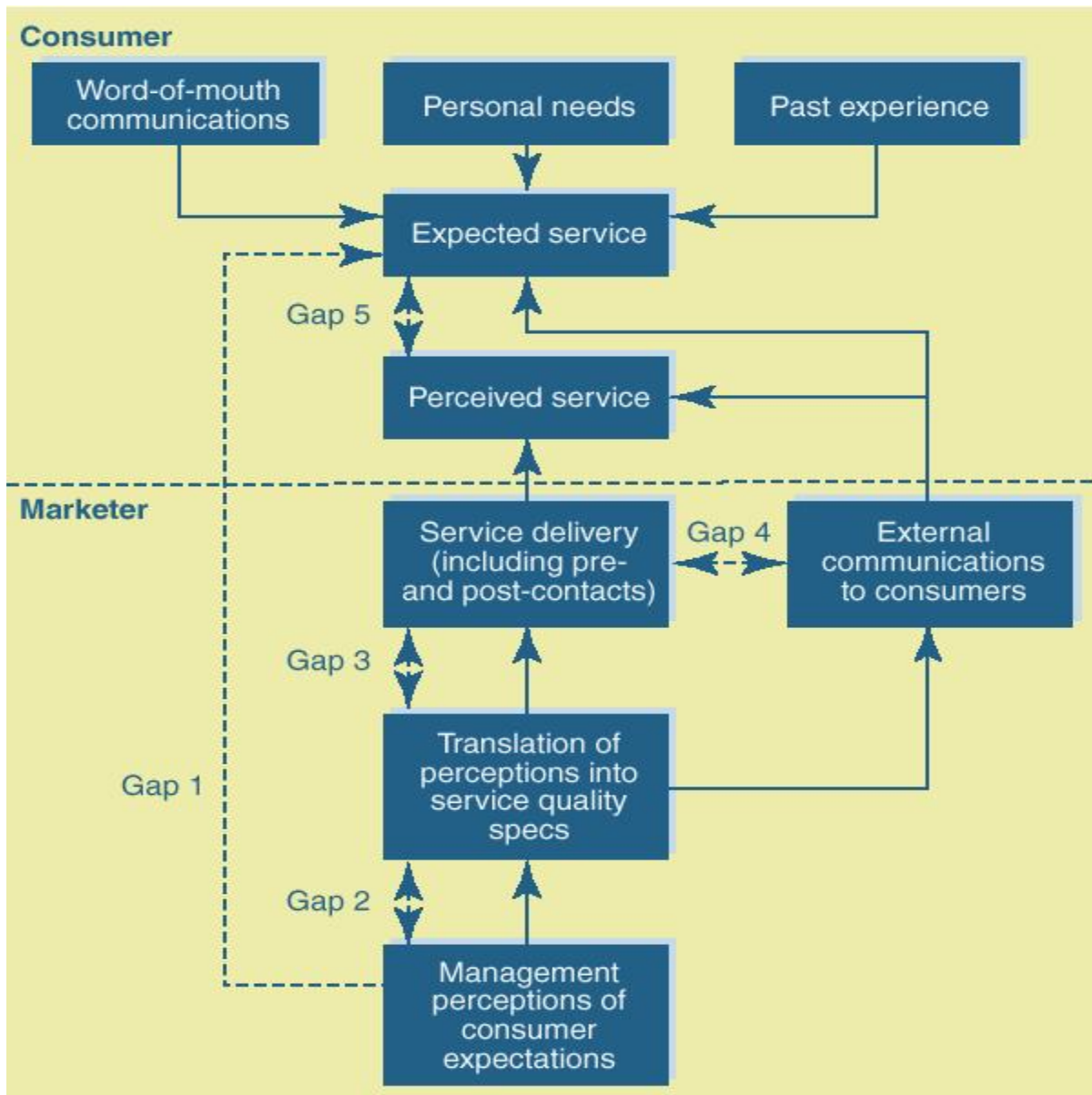
determinants of customer satisfaction investigated from the customer view point so that it will give an insight for managers.

Parasuraman et al., (1985) identified ten determinants of service quality. The determinants identified are reliability which involves consistency of performance and dependability; responsiveness which concerns the willingness and readiness of employees to provide service; competence means the possession of the required knowledge; access which involves approachability and ease of contact; courtesy involves politeness, respect, consideration, and friendliness; communication means keeping customers informed; credibility involves trustworthiness, believability, and honesty; security is the freedom from danger; understanding/knowing the customer involves making effort to understand the customer's need; and tangibles includes the physical evidence of the service.

The central focus of the gaps model is the customer gap, the difference between customer expectations and perceptions. Firms need to close this gap-between what customers expect and receive-in order to satisfy their customers and build long-term relationships with them.

- Gap 1: Difference between consumer expectations and management perceptions of consumer expectations.
- Gap 2: Difference between management perceptions of consumer expectations and service quality specifications.
- Gap 3: Difference between service quality specifications and the service actually delivered.
- Gap 4: Difference between service delivery and what is communicated about the service to the consumer.
- Gap 5: Difference between consumer expectations and perceptions.

Figure1. The Gap Model



Source: Zeithaml and Bitner, 2003

Quality and satisfaction have been conceptualized similarly in the literature and therefore might be parsimoniously considered as one and similar. The research finding made by Dawn et al. (2003) on distinguishing service quality and customer satisfaction indicates that no distinguishing characteristics between quality and satisfaction. The research made by Eugene and

Mary (1993) also found that satisfaction is best specified as a function of perceived quality and disconfirmation.

Cronin, Brady, and Hult, 2000; Anderson et al. 1994; Cronin and Taylor, 1992 as cited in Michael D. et al. (2008) suggest there is a strong relationship between satisfaction and service quality. They argue high level of service quality should be delivered by the service provider as service quality is normally considered as antecedent of customer satisfaction.

Service quality involves a comparison of expectations with performance. Service quality is a measure of how well a delivered service matches the customers' expectations. Generally the customer is requesting a service at the service interface where the service encounter is being realized, and then the service is being provided by the provider and in the same time delivered to or consumed by the customer. The main reason to focus on quality is to meet customer needs while remaining economically competitive in the same time. This means satisfying customer needs is very important for the enterprises to survive. The outcome of using quality practices is:

- Understanding and improving of operational processes
- Identifying problems quickly and systematically
- Establishing valid and reliable service performance measures
- Measuring customer satisfaction and other performance outcomes

2.4. Concept of Broadband Internet Price

Telecommunication development sector report of ITU (2012) indicates that the affordability and accessibility of broadband services are largely determined by the prices that are charged for those services. The regulation of prices can thus be a very tempting prospect for policymakers and regulators who want to increase the adoption and use of broadband services at the earliest time. One of the key determinants of affordability, adoption and usage of broadband is pricing. Pricing at both retail and wholesale levels can also influence the broadband investment and product decisions of network operators and service providers.

According to ITU, broadband internet price might be a key industry factor in promoting broadband internet demand. It is assumed that lower prices can contribute for higher broadband adoption and in return higher prices may bring lower broadband adoption. In general, lower

prices can contribute to higher broadband adoption. Through statistical analysis of approximately 100 countries, Garcia-Murillo (2005) found broadband price and competition have been influential factors of broadband adoption.

Biggs and Kelly (2006) discussed that pricing strategy has major implications for the development of markets in terms of subscriber growth, online behavior, market transparency and choice of provider. Options available to broadband providers to differentiate their service offering regarding price include an installation fee, equipment charges, monthly access fees (the flat rate element), additional thresholds by megabyte or time limits, and additional service fees may be levied.

2.5. Ethiopian Telecommunication Agency

The Ethiopian Telecommunication Agency is the regulatory body of the telecommunication services in Ethiopia. The Agency has the mandate to specify technical standards and procedures for the provision of telecommunication services and ensuring that the services conform to the standards of quality. The Quality of Service Standards (QSS) notice identifies minimum quality of service standards and associated measurement, reporting and record keeping tasks.

The QSS notice covers services that are provided by the Agency such as public switched telephone network services, cellular mobile services and internet access services including the dialup and the broadband internet access service. The notice portrays, Dialup internet access service refers to an application of service where internet services are provided with a dialup modems and telephone lines whereas broadband internet access service refers to a high speed internet access service that has a downstream of 128 kilobits per second and above.

Article 3 sub article 3 of the notice portrays about the service restoration performance. Service restoration performance refers to the service provider's performance in restoring a service, after a fault has been reported by a customer. This indicator represents the time taken to restore the service from the time the fault was reported by the customer to the time of restoration. In this regard, restoration performance for broadband internet access service is described as follows:

- A) 80% of the service restoration request shall be fulfilled within 48 hours of receipt of request and
- B) 90% of all service restoration request shall be fulfilled within 72 hours of receipt of request

Article 3 sub article 9 (2) discuss about network performance on broadband internet access service. Network Latency is an expression of how much time it takes for a packet data to get from one designated point to another. The standard in this regard is less or equal to 200 microseconds for local link and less or equal to 300 microseconds for international link. Throughput is the amount of data transmitted through internet connectors in response to a given request. In other words it is the amount of data moved to and from the end user to the nearest serving internet service provider node successfully in a given time period. The standard is greater or equal to 75% of subscribed level for 95% of the time during busy hours. Packet loss means failure of one or more transmitted packets to arrive at their destinations. According to the standard it should be less than 1%. Service availability refers to the total operational hours of service, less the total downtime or disruption of the service due to service failure of the reporting period. With reference to the notice the network has to be available 99% of the time.

2.6. Empirical Literature

There are many studies conducted on customer satisfaction. Among others the following studies were believed to relate with this study.

Syakir and Rafi (2011) conducted a research to identify the determinants of customer satisfaction of broadband services in Malaysia with regards to price, speed and stability. The research was conducted based on random sample of broadband users in Malaysia by using a questionnaire survey. Altogether 150 respondents in Klang Valley were surveyed for this study. And the findings show that price, speed and stability of the service had no significant relationship with customers' satisfaction level on broadband in Malaysia. However there are associations between education level and stability factors, monthly income and price factors, nationality and price factors, gender and acceptable price level, monthly income and internet broadband usage period and gender and speed.

In contrary to the above finding, Laeheem (2012) also conducted a research on the determinants of customer satisfaction towards broadband services in Songkhla province using a randomly selected 100 respondents which focused business group. The researcher mentioned that factors influencing between internet service of all broadband service providers in Songkhla province in Thailand is quality, speed of internet and price are influential for the decision making process of the customers to select the broadband service providers. The results of the study found that the price and quality of broadband services providers have significant relevant to customers satisfaction whereas the stability, education, and monthly income have no relevance to the customers satisfaction in Songkhla province in Thailand.

Chaudhuri and Flamm (2005) prepare a paper to be presented at The Future of Broadband: Wired & Wireless? Conference and found that the own-price elasticity of broadband demand is statistically significant but has a small coefficient value. The cross-price sensitivity of broadband demand with respect to dialup price is also statistically significant, and supports the notion of the two services being substitutes. These results have important policy implications for deepening broadband penetration: first, the small magnitudes of the impacts of own price suggest that untargeted price subsidies may not be a very effective tool. Second, while lower dialup prices (as have been observed in the market recently) increase Internet use, they diminish broadband demand. This study shows that broadband pricing will have an impact on the demand and being substitutable by the narrowband technologies.

Potluri and W/Hawariat (2010) conducted a research on assessment of after-sales service behaviors of Ethiopia Telecom customers. The research was conducted on telecom customers who are in Addis Ababa using self-administered questionnaires sent to a sample of 450 respondents. In addition to this, interviews were conducted with managers and selected employees to provide supporting data. The research found that lack of clarities of bills and delays in making decisions on complaints as some of the main reasons for their dissatisfactions.

2.7. Conceptual frame work

Customer satisfaction has been conceptualized as the result of a customer's perception of the value received in a transaction or relationship (Blanchard and Galloway, 1994; Zeithaml et al., 1990). Several studies have also investigated the path of satisfaction formation in the context of service offerings (e.g. Bolton and Drew, 1991; Mittal, Ross and Baldasare 1998; Oliva et al., 1992). Figure 2 below presents the study's conceptual framework, which essentially stipulates that customer satisfaction in the broad band would be a function of broad band internet provider's service delivery, price and quality. In this sense, the framework suggests that the influence of employees' customer orientation on customer satisfaction would be mediated by service delivery, price and broad band internet quality.



Figure 2: Conceptual framework of the study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter discusses the research methodology adopted and the various data collection methods used for the thesis. Accordingly, the chapter includes the research design, source of data, sampling technique, data collection methods and the method of data analysis. The research design gives the general description of the blue-print of the study whereas sample and sampling techniques deals with the process and techniques of taking samples from population. The data collection technique discuss on the techniques used for data collection. Finally the last part deals with the method of data analysis.

3.1. Research design

A research design provides a framework for the collection and analysis of data. Considering the stated research questions, the researcher has determined the suitable research design. According to R. Kothari, (2004), a research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In fact, research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data.

Accordingly, from different types of research designs descriptive type is employed for this paper for the realization of intended objectives. Descriptive type of research, according to Creswell (1994), is a technique of gathering information about the existing condition. This research design is a fact finding study with adequate and accurate interpretation of findings and furthermore, it allows describing both qualitative and quantitative approaches (Kothari, 2004). This study approached by using survey method using questionnaire and interview to assess customer satisfaction of broad band internet enterprise customers. The researcher opted to use this research method considering the objective to obtain first hand data from the respondents. Considering the aim of the research of reviewing customers' viewpoint; the descriptive method is then appropriate for this research since this method is used for gathering prevailing conditions.

3.2. Sample and sampling techniques

Kothari (2004) states that a sample design is a definite plan for obtaining a sample from a given target population and it refers to the techniques or procedures the researcher would adopt in selecting items for sample. After it is restructured by France telecom in November 2010, for better customer Management and work simplicity purpose, ethio telecom has classified its large customer base in to residential and enterprise wings by using the volume of purchase and nature of customers. The enterprise wing further sub divided into key accounts and SOHO/ SME.

The population of the study comprises of all Addis Ababa enterprise customers of Ethio Telecom including both key account and SOHO/SME. The sample frame for this study is the present Ethio telecom customers which are living in the country's capital Addis Ababa. For that purpose, simple random sampling techniques were used in selecting those who fill the questionnaire. The total population of enterprise broad band subscribers in Addis Abeba is about 6000. Based on this, the researcher adopts a mathematical formula for the purpose of determining the sample size. Therefore from different methods of sample size determining, a simplified formula of Taro Yamane (1967) sample size determination used to calculate the sample. Accordingly, the sample size for the research by using 0.07 sampling error and 93% confidence level is 198. The reason to choose the formula is because the population under the study is finite.

Taro Yamane's Formula for sample size determination:

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

Where n= sample size,

N= Total population,

e= the researcher will uses 0.07 sampling error and 93% confidence level.

$$n=6000/ [1+6000(0.07)^2]$$

$$n=6000/ [30.4]$$

$$n=197.684$$

Hence, out of the total population of 6,000 Ethio Telecom enterprise broad band subscribers, a sample size of 198 are selected. Similarly, Interviews conducted with sales executives of Ethio Telecom (categorized as non-managerial staffs), and managerial staffs. Therefore, the sampling techniques that will be used to secure respondents for questionnaire are a probability sampling.

Accordingly, a total of 198 questionnaires were distributed and out of which, 177 (89.39%) of the questionnaires were completely filled and returned to the researcher. From the total of 177 Enterprise respondents, 61 are key account and 116 are SOHO/SME enterprise customers.

3.3. Source and Tools/Instruments of Data Collection

Data Type

A mixed research data type was favored over purely qualitative or quantitative because this mixed research method permits the researcher to easily get information from both qualitative and quantitative data for a better understanding of the problems. So, to conduct the research a mixed method of qualitative (the data generated from interviews and open ended questions) and quantitative (a survey with a questionnaire) approaches were applied to this study.

Data Sources

The study was based on primary and secondary source of data. The researcher used questionnaires, interview and documentary reviews in order to collect primary and secondary data. The primary data for the study were collected through questionnaires and semi-structured interview. The questionnaire involves both open and closed-ended questions that were prepared for sample customers and the interview were semi-structured arranged for non-managerial and managerial staffs. In addition the researcher used secondary data sources like various books, journals and articles. A review of relevant literature conducted to assess the previous research studies conducted by other researchers and some statistical reports related to the topic of the study were reviewed.

3.4. Procedures of Data Collection

The data for this research collected using a survey questionnaires and interview. The sample size is 198 Customers. After carefully reviewing all the sources, the researcher has developed five point likert scales Questionnaire and distributed to the samples selected from the customers of Ethio Telecom. The items used to measure customer satisfaction were constructed mainly from SERVQUAL parameters. In addition literatures, related researches and questions were also considered especially for the price and broad band quality parameters. In the questionnaire both open and closed ended questionnaire are incorporated in order to get the designed information.

The survey comprises questions namely service delivery, price and quality was employed. A five-point likert scale ranging from Very low to very high was employed to get adequate responses from subscribers related to their customers' satisfaction level on the Broad band internet service. The questionnaire distributed to respondents personally by the researcher and with the help of ET sales executives. The researcher chooses the representatives randomly when they visit ET shop. Participants given time to respond and then researcher collected the response. At the same time, semi- structured interview prepared and held with non-managerial and managerial staffs working in Ethio telecom regarding the customer satisfaction.

Reliability Coefficient of All the Items in the Instruments

For any survey measurement tool, first it needs assessment whether the data are reliable. Reliability measure helps to determine the extent to which the items in the questionnaire are related to each other, and get an overall index of the repeatability or internal consistency of the scale as a whole, and also to identify problem items that should be excluded from the scale.

This research was used Cronbach alpha to measure the reliability where alpha coefficient values range between 0 and 1 with higher values indicating higher reliability among the indicators (Hair et al., 2006). George & Mallory (2003) cited in Gandhi (2012) provides the following techniques of measuring reliability.

Table 1: Reliability Scale

Alpha Value	Reliability Scale
0.9	Excellent
0.80-0.89	Good
0.70-0.79	Acceptable
0.60-0.69	Questionable
0.50-0.59	Poor
<0.50	Unacceptable

The Cronbach's alpha internal consistency indicator was used to estimate the reliability of 12 service delivery items, 4 price issue items and 5 quality issue items. The first constructs includes items such as Clear information and consultation from customer service staffs before subscription, the requirements used to subscribe, the accessibility of Broadband internet, the number of days it takes to get the service, the process for getting concerns resolved and so on. The second construct incorporate 4 determinant factors of price issue including the subscription and installation fee for Broadband internet service, the usage charge (monthly fee), getting better service compared to the payment made and the pricing scheme to encourage subscribers were considered. Lastly, items like consistent speed of Broad band internet and accessing the actual bandwidth were also used in the third construct to measure the level of customer satisfaction. Therefore, as shown on the below table, The Cronbach's alpha internal consistency indicator result is adequate and it ranges between 0.71 to .803 indicating 0.803, 0.731 and 0.710 for Service delivery, price and quality parameter respectively. This reliability value for the study is substantial considering the fact that the highest reliability that can be obtained is 1.0 and this is an indication that the items of all the three constructs are accepted for analysis.

From the survey questionnaire distributed and collected from broadband internet subscribers, the following alpha values were generated for the three parameters used to measure the customer satisfaction.

Table 2: Reliability Analysis of Variables

No	Measurement Parameter	Cronbach's Alpha	Number of items	Results
1	Service Delivery	0.803	12	Good
2	Price	0.731	4	Acceptable
3	Quality	0.71	5	Acceptable
4	Overall Cronbach's Alpha	0.864	21	Good

Source: SPSS Output

Based on the reliability analysis, it is found that the variables of price and quality has an acceptable reliable Cronbach's alpha value since their alpha value is above 0.70 and service delivery had an alpha value of 0.803 which is stated as a good measure of reliability. This shows that all the three variables were acceptable to measure the level of customer satisfaction. As a result, all of the constructs were acceptable and a total of twenty one items were retained for the three constructs in the study. The overall Cronbach's alpha value shows the entire value and measures the reliability of the questions entirely. The overall result show that Cronbach's alpha is 0.864 and according to the benchmark discussed above, all the twenty one questions used in the questionnaire reliably assess customer satisfaction.

3.5. Data Analysis Methods

The collected data has to be changed and interpreted into meaningful information, figures and statements. It was analyzed and processed both qualitatively and quantitatively. The data analyzed through descriptive data analysis techniques. The analysis completely done on the basis of data and information collected from one hundred seventy seven respondents through

questionnaires and interview with the sales representatives and management of Ethio telecom. Response of each customer obtained from the questionnaires is tabulated-question by question and summarized. Tabulation methods, frequency distribution, figures, percentage, mean and standard deviation and description of facts based on some statistical analysis are the techniques used in the study to analyze and interpret the data. The scaled data collected from the questionnaire summarized using statistical package for social science (SPSS 21.0) and Microsoft excel by means of statistical methods such as tabulation, percentage charts and frequency count, in a way that can show the level of customer satisfaction.

3.6. Ethical Consideration

Respondents are assured that the information they provide is confidential and used for academic purpose only. Moreover statements conform the prohibition of including any identity details or personal references in the questionnaire. This was to avoid any biased response or unauthentic data provided by respondents and to make participants certain that he/she cannot be traced; this would offer them enough room to express their ideas and point out their responses freely and safely.

The data gathered in process of the study was kept confidential and would not be used for any personal interest and the whole process of the study was controlled to be within acceptable professional ethics.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

In this chapter, the data collected from different customers is presented, and analyzed by using different statistical tools.

4.1. General Characteristics of the Respondents

The background characteristics of respondents as referred to in this section deals with the presentation on the overview and number of respondents sampled for the study. Since it is difficult to analyze Age, Educational qualification and Monthly income for enterprise respondents, only their customer segmentation is described and currently, ET's enterprise customers are segmented into two, namely: key accounts, and Small Office Home Office/Small and Medium enterprises (SOHO/SME), based on the number of employees they administer under the company and the amount of capital they have. Hence enterprise customers who have above million birr capital with more than 50 employees in their company are segmented as key accounts, while enterprise customers who have below million birr capital with 1-50 employees working for their company are considered as SOHO/SME. From the interview made with Ethio telecom management members, it is stated that among the six thousand Addis Ababa enterprise broadband subscribers, one thousand eighty subscribers were key account customers whereas the remaining were Small Office Home Office/Small and Medium enterprises (SOHO/SME) customers who subscribe broadband internet for business use. The below chart presents the frequency distribution of key account category.

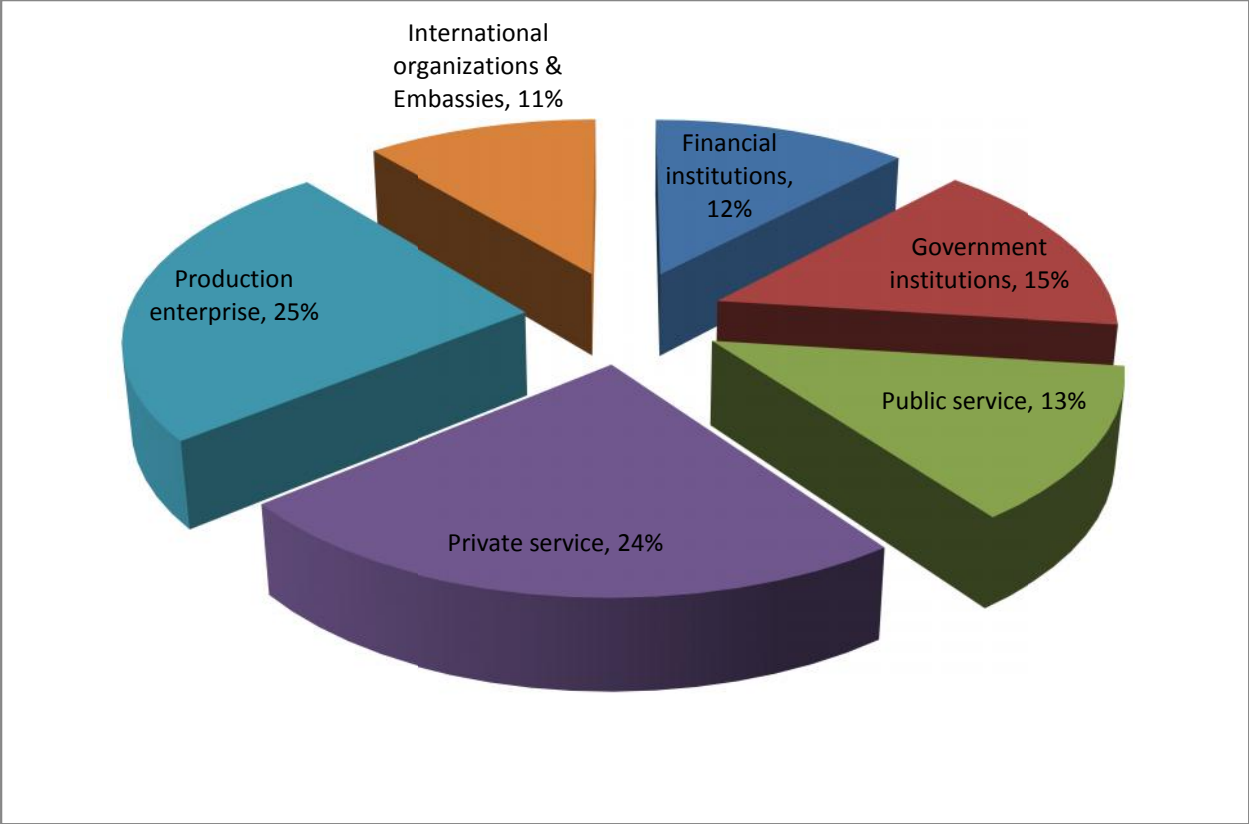


Figure 3: key account category presented based on percentage proportion

As depicted in figure 3 above, out of the total one thousand eighty key account customers of Ethio telecom 12% are financial institutions, 15% government administration, 11% international organizations and embassies, 25% production industries, 24% private service enterprises and 13% public service enterprises.

As stated in chapter three a total of 198 questionnaires were distributed and out of which, 177 (89.39%) of the questionnaires were completely filled and returned to the researcher. Accordingly, from the total of 177 Enterprise respondents, 61 are key account and 116 are SOHO/SME enterprise customers. The below table indicates the frequency distribution of respondents' category.

Table 3: Respondents Category

Ser.no	Business Category	Frequency	Percentage
1	Financial institutions	11	6.21
2	Government institutions	10	5.65
3	Public service	5	2.82
4	Private service	14	7.91
5	Production enterprise	8	4.52
6	International organizations & Embassies	13	7.34
7	SOHO/SME	116	65.54
Total		177	100

Source: Own survey, 2014

As shown in the above table among the enterprise customers that amount 177 respondents, the respondents fall in different category within enterprise customers. 6.2% (n=11) of the respondents were working in the financial institutions. Whereas 5.65% (n=10) of the respondents were government organization, 2.8% (n=5) and 7.9% (n=14) of the respondents were working in the public and private sector. The remaining 4.5% (n=8) and 7.3% (n=13) fall into Production enterprise and international organization and embassies category. The last category, SOHO/SME comprises 65.5% (n=116). These enterprise respondents were representatives from their organizations that subscribe broadband internet for their business use. This shows that majority of the respondents are SOHO/SME customers.

4.2. Analysis of Collected Data

Some of the techniques include tables, figures, percentage, mean and standard deviation based on the need for analysis. The information collected through questionnaire from the respondents is

described and summarized in appropriate formats. After data collection has taken place the data has gone through coding and encoding it to SPSS for further analysis. Cronbach's alpha, scale reliability was checked for each variable identified to measure customer satisfaction. And then the satisfaction level of customers with each variable was discussed. The interpretation of the data is also presented next to each summarized data including the information obtained through interview from different staffs. In this section, the researcher by applying descriptive statistics (specially mean and standard deviation) undertook the analysis of five point Likert scale data collected through questionnaire where 1= Very Low, 2= Low, 3= Neutral, 4= High and 5= Very High. The scales represent the level of customer satisfaction from very low to very high rating.

4.2.1. Measuring Customer Satisfaction

Customer satisfaction is the most important element of marketing and it is the measure of organizations performance. The ability to satisfy customers could be used as a source of competitive advantage for a firm. Companies no longer compete on cost but on their ability to satisfy customers (Kotler and Keller, 2006). Customer satisfaction measurement involves the collection of data that provides information about how satisfied or dissatisfied customers are with a service. Thus based on the collected data from the survey, the satisfaction level of respondents with regard to service delivery, pricing and quality was examined separately.

Satisfaction Level Regarding Service Delivery

Service delivery is getting services as effectively and quickly as possible to the intended recipient. In this part, a total of twelve questions were used to construct the service delivery parameter.

To distinguish the service provisioning process interview was made with ET management members about the service provisioning process and it is found that ET require written request letter from the customers to initiate the service provisioning. Then the request will be forwarded to network teams to check feasibility with site survey. Since every request may not be feasible, if the request found feasible, then the customers will be asked to settle the subscription and installation fee (if any). After the payment made the installation and configuration work will

continue. Then after the service delivered the next task will be the after sales support and billing. Taking the process of service delivery, questionnaire were developed and distributed to broadband internet subscribers to identify how much customers are satisfied with each element of the service delivery questions and the following results were found.

Table 4: Measurement of Satisfaction on Service Delivery

Measurement Parameters	N Valid	Mean	S. Deviation
Clear information and consultation from customer service staffs before subscription.	177	2.88	1.046
The requirements used to subscribe.	177	2.68	1.052
The accessibility of Broadband internet.	177	2.61	1.093
The number of days it takes to get the service.	177	2.22	.906
The process for getting concerns resolved.	177	2.17	.808
The level of employee's knowledge.	177	3.34	1.022
The time it takes to get problem solved.	177	2.12	.868
The automated system made the customer service experience more satisfying.	177	2.93	1.026
Business hour convenience.	177	3.02	1.003
Getting sufficient information to solve When problem face.	177	2.59	1.078
The after sales practice.	177	2.64	.841
The service quality.	177	2.34	.934

Source: SPSS Output data

The translation of level ranking is analyzed based on the following criteria of customers' satisfaction designed by Best (1977: 174)

The score between 1.00-1.80 mean lowest satisfaction (Lowest) The score between 1.81-2.61 mean low satisfaction (Low) The score between 2.62-3.41 mean average satisfaction (Average or

Medium) The score between 3.42-4.21 mean good satisfaction (High) The score between 4.22-5.00 mean very good satisfaction (Highest).

According to the above table, Customer’s response on questions about the accessibility of the service, the number of days taking to get the service activated, the process for getting concerns resolved, the time it takes to get problem solved, getting sufficient information to solve when problem face and the service quality are dissatisfied by the mean score of 2.61, 2.22, 2.17, 2.12, 2.59 and 2.34 respectively. Relative to other questions, the question which states getting clear information before subscribing the service are averagely satisfied by the mean response rate of 2.88. In addition as shown above in the table, the mean response rate for the requirements used to subscribe, level of employee’s knowledge, the automated system made the customer service experience more satisfying, Business hour convenience and the after sales practice were 2.68, 3.34, 2.93, 3.02 and 2.64 respectively.

Satisfaction Level Regarding Price

ET implement both a flat rate and per usage rate pricing for enterprise customers and residential customers respectively. In order to increase the number of broad band internet subscribers, Ethio telecom made huge tariff discount on the subscription, installation and monthly fees of broad band services. In this part, a total of four questions were used to construct the price parameter.

Table 5: Measurement of Satisfaction on Price

Measurement Parameters	N Valid	Mean	S. Deviation
Subscription and installation fee.	177	2.59	.926
The usage charge (monthly fee).	177	2.58	.975
Getting better service compared to the payment made.	177	2.36	.888
The pricing scheme to encourage subscribers.	177	2.44	.935

Source: SPSS Output data

The above table portrays that customers mean result shows 2.58 in answering whether the monthly fee is rational, 2.36 in getting better service compared to price and 2.44 in confirming whether the price scheme encourages subscribing more. While regarding the fairness of the subscription and installation fee the mean result shows 2.59.

Satisfaction Level Regarding Quality of Broadband internet

Broad band quality is considered as one of the most crucial in determining customer satisfaction level of current broadband service. Currently the company is working on network expansion to reduce the service interruption and to make the service accessible everywhere.

Table 6: Measurement of Satisfaction on Quality

Measurement Parameters	N Valid	Mean	S. Deviation
Consistent speed of Broadband internet.	177	1.95	.748
Accessing the actual bandwidth.	177	2.02	.699
Ethio Telecom usage of up-to-date equipment.	177	2.80	.826
The interruption of Broad band internet service.	177	1.98	.872
Getting reliable service based on the SLA.	177	2.02	.787

Source: SPSS Output data

The above table shows that the mean rating of customers in getting consistent speed and often accessing subscribed bandwidth they subscribed from ET is 1.95 and 2.02 respectively. In addition customers rate the question of having less interruption of service as 1.98 and getting service based on agreement as 2.02. Regarding whether ET uses up-to-date equipment to support the service delivery or not, the customers mean result shows 2.80.

4.2.2. The Trend of broad band Subscribers

As discussed in the introduction part broadband internet is a recent phenomenon for Ethiopia. It became functional in 2005 with the wired technologies. Even though the service introduced at that time, the number of subscribers were few in numbers. There are many reasons associated with this limited number of subscribers.

From the year ETC transformed as ET in 2010, the company adopts different strategies to increase the number of subscribers. In addition the company is working on network expansion to reduce the service interruption and to make the service accessible everywhere. The company is working to reach 3.1 million of internet subscribers (both in fixed and wireless) in order to achieve the growth and transformation plan (GTP) of the country.

4.2.3. Discussions

Assessing customer satisfaction and measurement how much customers are satisfied have vital roles for businesses in providing quality service. The purpose of this study was to assess how customers are satisfied with the parameters i.e. service delivery, pricing and quality which is identified by the researcher.

High mean score stands for high level of satisfaction; whereas low mean score dictates low level of satisfaction. The standard deviation on the other hand presents the degree of dispersion of responses from the mean score. For instance, high Standard Deviation means that the data are wide spread, which means that customers give variety of opinion and the low standard deviation means that customers express close opinion. The overall assessment of customer satisfaction shows customers were dissatisfied with the broad band internet service as the overall average mean shows 2.42. The interpretation of this result could be that enterprise customers are dissatisfied with the service performance (dissatisfied with experience of the broadband internet service) or their dissatisfaction results from their expectation of greater service performance by comparing the Ethio Telecom's service delivery with other world class telecom operators' performance.

In conducting this research, the researchers have perceived the challenges of evaluating the customers satisfaction level of broadband services in Ethiopia because there are not many studies have been conducted done in ethio telecom broad band customers. Apart of that, broadband services are considered as a pretty new technology that existed in Ethiopia for the past few years. Broadband services are only getting more public awareness recently with the aggressive promotional activities by Ethio telecom.

Service Delivery

The findings shows that customers are not satisfied with the company's service delivery mechanism since the average mean rating shows 2.63. The result of service delivery mechanism is consistent with the previous study conducted by Astatkie Alamrew (2013). Since it takes many days to get the service and the frontline employees of Ethio telecom not anticipating the needs of the users and proactively respond to these needs, Broadband internet users may not get a prompt response from the employees regarding their complaints and enquiries. To this effect, majority of customers have been enormously complaining about unavailability of prompt service assistance. Since most of business organizations are relying on the broad band internet service provided by Ethio telecom, Customers want a safe and secured service of broadband internet in undertaking their operation.

Price

As the result shows that customers are not satisfied with the pricing scheme since customers average mean rating is 2.49. With regards to price factors, majority of respondents were dissatisfied that price for broadband service in Ethiopia is expensive. In addition they need to get reliable service for the price they paid. It is also an indicator for the company to see its tariff structure. Likewise service delivery measurement, the result of price measurement is also consistent with the previous study conducted by Astatkie Alamrew (2013).

Quality

The research found that most respondents were dissatisfied with their current broadband speed as the respondents tends to agree that the speed of broadband internet is slow, the actual performing

speed is slower than expectation and there are inconsistencies of the speed of current broadband. As the result shows that customers are not satisfied with the broad band quality since the average mean rating shows 2.15. Based on the result and open ended question response, it revealed that most of the respondents agreed that quick access to internet is an important factor and thus they would consider changing to other internet broadband service provider if other provider will be available in Ethiopia. Due to speed factor the actual performing speed is slower than expected and the speed of the broadband internet is inconsistent. In the broadband access market, broadband speed influence broadband demand. According to International Telecommunication Union (2003), higher speed is a key driver of broadband adoption. Since speed has substantial impact on broad band usage and satisfaction levels of customers is low, it may reduce the usage rate of broad band internet. In addition to this Said Business School (2009) has confirmed that broadband quality was linked to social and economic benefits and those countries with high broadband quality have broadband on their agenda. Offering a full-fledged Service in terms of quality is becoming a must in today's business world. Every company in the world is seeking to achieve a high level of quality improvement to be a leader in the market and achieve customer satisfaction. In line with this Ethio Telecom should strive to search for ways to improve its broad band quality and specifically broadband internet service and should focus on improving these broadband internet service attributes to heighten its customer's satisfaction.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

In this chapter, an attempt is made to discuss the findings of the research based on empirical analysis of collected data by referring objectives of the study in a comprehensive way. As a result, conclusions have been reached and recommendations are given for the target company to tackle problem at hand.

5.1. Summary of the Major Findings

Before forwarding the conclusion and recommendation, it is necessary to state what have been found from the research in precise manner.

- Φ Customers are not happy with the service delivery and quality of broad band internet. The service delivery is below customer expectations expressing their disappointment by rating the overall service delivery of the company as low. The price of broad band internet is expensive and they are not getting reliable service for the price they paid.
- Φ The satisfaction level of customers is highly affected by poor performances of the state owned company (Ethio Telecom), showing a strong stand of majority of respondents commented on favoring the alternatives of opening of the market for competition in order to improve the current provision of the telecom sectors in Ethiopia and satisfy the need of customers.

5.2. Conclusions

There has been a growing body of evidence that the spread of information and communication technologies can have substantial benefits for economic development. As it is being said too much about customer satisfaction, assessing the levels of customer satisfaction of telecom service becomes a very crucial task in today's contemporary business world.

Enterprise broadband customers' responses have been analyzed thoroughly and the following conclusions have been reached.

- The study portrayed that, in terms of broadband internet service quality delivery, most of the respondents believe that ET is not discharging its responsibility as it has agreed to do so. Most corporate enterprise customers are not satisfied about the company's quality performance with respect to the broadband service delivery because the service offerings are significantly below their expectations level not meeting their desired need.
- According to the analysis gain from open ended questions, majority of customers have been anticipating to receive good customer service-that may include answering questions, taking service orders, dealing with billing issues, handling complaints, and perhaps scheduling maintenance or repairs of service when any fault has been encountered by customers. Despite their expectation, the existing customer service performance has shown low performance level and majority of customers have been enormously complaining about unavailability of prompt service assistance. The front and back office employees' are not working in an integrated fashion.
- The majority of respondents specifically revealed that in terms of access speed it has been found out that corporate broadband customer are not receiving the exact bandwidth/access speed that they have been subscribed for. Significant number of customers asserted that they never have received what they have been agreed to.
- Likewise the survey result revealed that customers still need the tariff to be more attractive to subscribe more. In addition they need to get reliable service for the price they paid. It is also an indicator for the company to see its tariff structure.
- Customers are experiencing frequent and sudden service failure and the deterioration of quality was awfully high and it may last up to several weeks, nevertheless customers have been requested to pay full month charge for unused service.
- The target sample respondents also asserted that ET does not conduct any beforehand customer expectation survey, therefore, the service has been designed disregarding or without incorporating customers' needs and priorities. The company lacks accurate understanding of exactly what corporate broadband customers expect to receive.
- According to Ethiopian telecommunication agency's standard, "Broadband installation order shall be fulfilled within 7 days". Despite this fact, customers have been obliged to wait for a long period of time to receive the subscribed services.

- The study also found that broad band subscribers were disappointed with the after sales practice of Ethio telecom both from getting information about a problem and getting their problems solved. In addition the study revealed that the after sales service is not satisfactory. This also gives clue for the company to design proper after sales support program.

5.3. Recommendations

Most of the respondents expressed their level of satisfaction as low with the broad band service of Ethio Telecom. In an era where service providers are working for customer delight, these scores are a bad assessment for Ethio Telecom. This indicates that Ethio Telecom has to do a lot to bring improvement in quality of its service and better satisfy its broad band internet customers. As a whole customer satisfaction can be taken as the measure of success for every organization.

Based on the analysis of the study and conclusions made, several recommendations have been forwarded to improve the satisfaction level of broadband internet customers.

- To increase the level of customer satisfaction, Ethio Telecom should more focus on improving broadband internet services by recruiting competent and marketing oriented service representatives and investing in equipment to enhance internet quality and coverage by provisioning better customer friendly equipment.
- After ET made tariff revision and price amendment, the number of subscribers was increasing from time to time. Though ET is a sole telecom provider in the country, the company has to deploy competitive pricing mechanism and offer reasonable pricing and price discounts in order to get large pool of subscribers and increase the penetration ratio of broad band in the country.
- Since Broadband internet users are keen to get a prompt response from the employees regarding their complaints and enquiries, Ethio telecom should offer adequate and ongoing training to its sales representatives on how to treat and interact with customers to meet their needs and wants there by ensuring excellent service quality. Because this training would enhance employees' awareness level so that they will get ready to serve

customers and at the same time would enhance the company image inculcating in the customer mind. And finally, Ethio telecom sales office employees should deal with customers in a caring fashion.

- ET needs to design a sound complaint handling mechanism capable of solving effectively problem and complaints raised by enterprise broadband customers.
- In order to overcome the broadband service failure which is mostly characterized by sudden disruption of connection, ET needs to extensively improve the broadband service technical area hugely with additional expansion activities which can enable to overcome possible congestion with the service.
- The company needs to work more on after sales support since it will have a major impact on the repurchase intention of subscribers. ET has to use its call center efficiently both in terms of quality and quantity to assist the process of after sales support. The company has to assign the right person when customers call for support in order to reduce the time it takes to identify and solve the problem.
- Management of Ethio telecom needs to conduct a research periodically to study the perception of customers towards its broadband internet service to identify shortcomings in its internet quality so that it can improve and provide its service in accordance with customers' needs and wants. The regular service quality assessment enables organizations to align to the changing customer's needs.

5.4. Limitation of the Study

Since every research requires sufficient time, up to date information, reference materials and finance, the major limitation is lack of accurate data and lack of up to date literature in the study area, especially in Ethiopia. As a matter of resource constraint, the research is delimited to enterprise customers of Ethio telecom found in Addis Ababa, had it been conducted across county level; the findings might have been different. Thus, future research initiatives can explore by administering large target population all over the country. Moreover, the research would have been more successful if it would consider more variables that measure customer satisfaction of enterprise customers.

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APPENDIX

APPENDIX A- SURVEY QUESTIONNAIRE

ST.MARY UNIVERSITY

SCHOOL OF GRADUATE STUDIES

MBA PROGRAM

Questionnaire to be filled by broadband internet subscribers

Research Title: The Assessment of Customer Satisfaction levels on the broadband internet service. A case study on Enterprise customers of Ethio Telecom

(A thesis for the partial fulfillment of the requirements of Master of business administration)

I'm a post graduate student in ST. MARY University master of business administration program. I'd like first of all to thank you for your cooperation in filling out this questionnaire. This questionnaire is considered as part of the research thesis for the partial fulfillment of the requirements of Master of Business Administration. This questionnaire is designed to collect information in order to assess the satisfaction level of Ethio telecom broadband internet subscribers in Addis Ababa.

As your responses to the statements below have a great bearing to my thesis work, I kindly request you to fill it out carefully and genuinely. This information is going to be used just only for academic purpose and apart from that your responses will be treated with great confidentiality.

General Instructions

- ⊗ There is no need of writing your name
- ⊗ Close- ended questions are answered by placing a tick(✓) mark with in the box.
- ⊗ For questions that demands your opinion, please try to honestly describe as per the questions on the space provided

Thank You in Advance,

Ahmed AdemShikur: Candidate of MBA Degree

Cell Phone: 0911-51-00-57

Email: annwaradem@yahoo.com

1. Which of the following business category indicates your organization?

Financial institutions Government institutions Public service Private

Service Production enterprise International organizations SOHO/SME

2. Please rate your satisfaction level with the broad band service of Ethio Telecom on the following parameters.

S.No.	Research Questions	Very Low(1)	Low(2)	Neutral(3)	High(4)	Very High(5)
A. How do you rate the satisfaction level of service delivery Issue with respect to the following parameters?						
1	Clear information and consultation from customer service staffs about Broadband internet before subscribing the service.					
2	The requirements used to subscribe Broadband internet.					
3	The accessibility of Broadband internet and everyone can subscribe the service.					
4	The number of days it takes to get the service.					
5	The process for getting concerns resolved.					
6	The level of employee’s knowledge to answer broadband internet customers’ question.					
7	The time it takes to get problem solved.					
8	The automated system made the customer service experience more satisfying.					
9	Ethio Telecom business hour convenience for its broadband customers.					
10	Getting sufficient information to solve When problem face.					
11	The after sales practice.					
12	The broadband internet service quality.					

B. How do you rate the satisfaction level of Price Issue with respect to the following parameters?		Very Low(1)	Low(2)	Neutral (3)	High (4)	Very High(5)
1	The subscription and installation fee for Broadband internet service.					
2	The usage charge (monthly fee) for the service.					
3	Getting better service compared to the payment made.					
4	The pricing scheme to encourage subscribers to subscribe higher bandwidth.					
C. How do you rate the satisfaction level of Quality Issue with respect to the following parameters?						
1	Consistent speed of Broadband internet service.					
2	Accessing the actual bandwidth subscribed for.					
3	Ethio Telecom usage of up-to-date equipment to make the service reliable.					
4	The interruption of Broad band internet service that Ethio Telecom provides.					
5	Getting reliable service based on the service level agreement.					

Please write on the below free space what you feel about the questions.

- 1. What problems does your organization face in using the broadband service?

- 2. If you have any point to add relate to this_____

Thank you for your time.

APPENDIX B-INTERVIEW QUESTIONS

1. What are the preconditions and requirements needed to subscribe Broadband internet?
2. Do you think the pricing for Broadband internet is competitive if other operators were in place?
3. What type of technologies Ethio Telecom uses to provide the service?
4. How confidential is the information to be sent and receive using the Broadband internet?
5. Are you charging bill for only active connections?
6. How do you rate the end to end process of Service provisioning of Broadband internet?

APPENDIX C: SPSS RESULTS

I. Reliability Statistics for the parameters used to measure customer satisfaction

1. Service Delivery Issue

Reliability Statistics

Cronbach's Alpha	N of Items
.803	12

Table 1: Service Delivery Issue Reliability Statistics

2. Price Issue

Reliability Statistics

Cronbach's Alpha	N of Items
.731	4

Table 2: Price Issue Reliability Statistics

3. Quality Issue

Reliability Statistics

Cronbach's Alpha	N of Items
.710	5

Table 3: Quality Issue Reliability Statistics

Statement of Declaration

I hereby declare that **Assessment of customer satisfaction levels on the broadband internet service: A case study on enterprise customers of ethio telecom in Addis Ababa** research work is wholly the work of **Ahmed Adem** I have carried out the present study independently with the guidance and support of the research advisor, **Dr. Temesgen Belayneh**. Also any other contributors or sources have either been referenced in the prescribed manner or are listed in the acknowledgements together with the nature and the scope of their contribution. And the study has not been submitted for award of any Degree or Diploma Program in this or any other Institution. It is in partial fulfillment to the requirement of the program Master's Degree in Business Administration.

Ahmed Adem

Date: July, 2014

ENDORSEMENT

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

Dr. Temesgen Belayneh

Advisor

Signature & Date