



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

**AN ASSESSMENT OF FIXED BROADBAND INTERNET CUSTOMER
SATISFACTION IN ETHIO TELECOM: THE CASE OF ADDIS ABABA**

**BY: ASTATIKIE ALAMIREW
ID NO: SGS1/0067/2004**

**NOVEMBER 2013
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**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE
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BY: ASTATIKIE ALAMIREW

APPROVED BY BOARD OF EXAMINERS

Advisor

Signature & Date

External Examiner

Signature & Date

Internal Examiner

Signature & Date

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LIST OF ACRONYMS

3G Technology: Third Generation Technology
ADSL: Asymmetric Digital Subscriber Line
CDMA: Code Division Multiple Access
E-Commerce: Electronic Commerce
EPON: Ethernet Passive Optical Network
ET: Ethio Telecom
ETC: Ethiopian Telecommunications Corporation
EVDO: Evolution Data Optimized or Evolution Data Only
FBBI: Fixed Broadband Internet
GPON: Gigabit Passive Optical Network
ICT: Information Communication Technology
ITU: International Telecommunication Union
LAN: Local Area Network
Mbps: Mega Byte per Second
NGOs: Non-Government Organizations
PSTN: Public Switched Telephone Network
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
Wi-Fi: Wireless Fidelity
WLANs: Wireless Local Area Networks
ZTE Corporation: Zhongxing Telecommunication Equipment Corporation

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ABSTRACT

Customer satisfaction assessment is an important part in telecommunication as it is a core part for a service giving company. Companies that are unable or unwilling to properly serve their customers to meet their satisfaction stand to lose the customers business. The aim of this research is to assess customer satisfaction of fixed broadband internet subscribers of Ethio telecom in Addis Ababa. The parameters used to assess the satisfaction level of customer were service provisioning/delivery, pricing, quality, security and after sales supports.

To attain this objective, the study utilized both interview and questionnaire survey. In depth personal interview was made with Ethio telecom management members to understand the service delivery mechanism and 199 questionnaires were distributed across residential and enterprise customers in Addis Ababa. The survey questions were developed based on likert scale questions and customers were asked to rate their satisfaction across the parameters identified. This paper used descriptive research design in order to obtain pertinent and precise information about the satisfaction level of customers being studied and draw conclusion from the facts discovered. Both qualitative and quantitative methods were employed. Qualitative methods were employed to describe the service delivery mechanism and narrate open ended questions in the questionnaire whereas quantitative methods were used to show the phenomenon in numbers. After data collection, the collected data was analyzed using SPSS 16.0 and Microsoft Excel software packages. Then the data organized, tabulated, depicted, and described in a way that can attain the objective of the study.

Finally, the finding shows that customers were not satisfied with the service provisioning, pricing, quality, and after sales support. But regarding security, customers had average satisfaction. Thus, Ethio telecom should learn a valuable lesson from this specific study since the study guides the higher officials on which facet of customer satisfaction area should focus.

Key Words: Customer Satisfaction, Fixed broadband internet, Ethio Telecom, Telecommunication Services

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

In the era of information, the importance of communication is becoming crucial to carry out any activity in the world. Telecommunication service providers deliver various voice, data, internet, and content services to businesses and consumers. They include companies that provide access to internet; cable and satellite television services; wireless communication services like cellular telephony, paging, and messaging; and wire line communication services like local, long distance, and international telephony (Potluri and Mangnale, 2010).

The introduction of telecommunication services in Ethiopia dates back to 1884, seventeen years after the invention of telephone technology in the world. It was Minilik II, the King of Ethiopia, who introduced telephone technology to the country around 1884, with the installation of 477 kilometers long telephone and telegram lines from Harar to Addis Ababa (Tele Negarit, 2007).

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 AIRONET, VSAT, EVDO and WCDMA/3G mobile. In 2012, there were more than 200,000 broadband subscribers in the country. From this number WCDMA and EVDO took the largest share amounting more than 130,000 and 55,000 respectively, however fixed or wired broadband internet subscribers amounts only 10,000. 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

Dwivedi et al. (2007) cited in Syakir and Rafi (2011) confirmed that broadband, as a key enabling technology in the networked society, can help boost the economy at the national level as well as help to improve the lives of its citizens by facilitating delivery of education, health and telecommunications services at low cost and to a wider population. 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. In addition Internet also overcomes the limits of time and space by enabling instantaneous access to information around the world.

In spite of the above facts ITU (2011) report shows that as of the end of 2011, internet penetration in Ethiopia stood at 1.1 percent, up from 0.75 percent in 2010 while fixed broadband subscriptions is only 0.01 per hundred inhabitants which is the lowest compared to the sub-Saharan African average which is 1.3 percent for internet service. Such penetration rates represent extremely limited access to information and communication technologies (ICTs) by global comparison.

Even if the former Ethiopian Telecommunication Corporation (ETC) launched broadband internet service, the rate of penetration is very low as discussed above and the company is receiving many negative feedbacks from the customers in terms of service provisioning, speed, price, quality, security and after sales factors.

As part of rectifying the inherent problems that affect customer satisfaction in general and fixed 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.

The purpose of this research paper is therefore to assess the satisfaction level of FBBI service subscribers of Ethio telecom in Addis Ababa.

1.3. Objective of the Study

The main objective of the study is to assess the satisfaction level of FBBI subscribers' of Ethio telecom in Addis Ababa. In line with this general objective, the specific objectives to be addressed include the following:

- To assess FBBI subscribers' satisfaction level with regard to service provisioning/delivery mechanism.
- To discuss FBBI subscribers' satisfaction level with regard to the pricing mechanism.
- To analyze FBBI subscribers' satisfaction level with regard to the quality of service delivered by Ethio telecom.
- To examine FBBI subscribers' satisfaction level with regard to the security and feeling of privacy while using FBBI.
- To scrutinize FBBI subscribers' satisfaction level with regard to the after sales support service.
- To discuss the FBBI subscribers' growth trend and show recent number of FBBI subscribers in Ethiopia.
- To suggest possible ways of improving customers' satisfaction of FBBI service on the basis of the findings.

1.4. Research Questions

The following questions were formulated and answered based on the data collected and presented:

- How do customers' feel about service provisioning/delivery of FBBI?
- What do customers' feel about the pricing mechanism of FBBI?
- What do customers' feel about the quality of FBBI?
- How do customers' feel about security (privacy) while using FBBI?
- What do customers' feel about the after sales support given by the sole telecom service provider?
- Is there a substantial difference with the number of subscribers of FBBI?

1.5. Significance of the Study

It is known that any useful study is conducted to serve a particular purpose. Customer satisfaction assessment is now widely recognized as a vital input to any strategy for customer focused business performance improvement. 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 its FBBI subscribers.
- The results of this study would have implications for managers in enhancing their understanding regarding factors affecting customer satisfaction level of FBBI service and take measures accordingly.
- In addition, the study would benefit the company to alter resources in areas that have greater influence on customer satisfaction. Moreover, the results of this paper can be an input for further investigations in the area by other researchers.

1.6. Scope of the Study

The research paper is limited to assess the satisfaction level of Ethio telecom FBBI subscribers. Narrowband and wireless types of broadband internet connections are not included in this study. In addition the paper focus only in Addis Ababa in which eighty percent of FBBI subscribers found. Thus, the study does not incorporate all FBBI users who are in the other regions of the country.

1.7. Limitation of the Study

The research would have been more successful if it would consider more variables that measure customer satisfaction which are specific to Ethiopian telecom sector. The sampling was done only in Addis Ababa but for a researcher who wants to do a study in this construct should take samples from at least major cities in the country for better understanding of FBBI service.

This study has limitation in generalizing the findings to the whole population of Ethiopia as only 188 respondents were selected and responded in the research.

Since every research requires sufficient time, up to date information, reference materials and finance, this research work faced a limitation on the above mentioned matters. But the major limitation is lack of accurate data and lack of up to date literature in the study area, especially in Ethiopia.

As Reips and Funke (2008) discussed the researcher assumes that the five point likert responses were treated as an interval level of measurement considering the interval between the scales as equal. In addition even if the research assess the satisfaction level taking mean and mode value, first priority was given for the mean and the research took the mean satisfaction level for each parameter.

1.8. Definition of Terms

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. This category of customers' accounts 20 percent of the total number of subscribers and generate 80 percent of the company's revenue.

Residential Customers: are those individuals who subscribe telecom services for their personal and/or family usage. This category of customers comprises 80 percent of the total number of subscribers and generates 20 percent of the company's revenue.

Key Account Customers: are those enterprise customers having more than 50 employees with one million birr or above capital. It accounts a total of 17 percent of all enterprises in Ethiopia. Beside the above category, Ethio telecom categorizes all ministry offices and authorities, banks and insurances, embassies and NGO's under this category.

SOHO/SME Customers: are those enterprise customers having less than 50 employees with below a million birr capital. It accounts a total of 83 percent of all enterprises in Ethiopia. All enterprises which are not categorized under key account were included in this category.

1.9. Organization of the Paper

This study has a total of five chapters. The first chapter one discuss about introductory aspects in which background of the study, statement of the problem, objective of the study, research questions, significance of the study, scope of the study, limitation of the study, definition of terms, and organization of the paper incorporated.

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

The third Chapter focuses on the research and methodology part which incorporates the research design, sample and sampling techniques, data collection techniques and the method of data analysis.

Chapter four presents the results/findings of the interview and questionnaire data along with discussions.

Finally the last chapter, chapter five, provides summary of the findings, concise conclusions along with possible recommendations.

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. This chapter introduces the theoretical literature concepts of broadband internet connection, benefits of broadband connection, customer satisfaction, measurement of customer satisfaction, determinants of customer satisfaction and other empirical studies done related to broadband.

2.1. Theoretical Literature

2.1.1. Broadband Internet Connection

Many years of ground breaking research, effort and patience contributed to the invention of broadband in the new millennium. Standards, technical specifications and protocols were put in place by international unions and major telecom companies throughout the world started offering broadband services at 256Kbps to home consumers, institutions and business enterprises (Shehker, 2012).

In line with the above idea, Biggs and Kelly (2006) identify broadband as the technological child of the twenty-first century. At the dawn of the new millennium, high speed internet access was mainly limited to users with local area network connections at their place of work or study. Residential users were mostly restricted to using dial-up connections. Six years later, more than 200 million households around the world enjoy internet access at speeds in excess of 256kbit/s, more than five times as fast dial-up. In some countries, speeds fifty times faster than dial-up are already on place.

Despite its worldwide growth and promotion by policymakers, network operators, content providers and other stakeholders, broadband does not have a single, standardized definition. But various definitions were given by different bodies.

According to Shehker (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. Recommendation I.113 of the ITU Standardization Sector defines broadband as a “transmission capacity that is faster than primary rate Integrated Services Digital Network (ISDN) at 1.5 or 2.0 Megabits per second (Mbits)”.

Meanwhile, Fish telecom (2013) explained that communication technologies which provide high-speed, always-on connections to the internet for large numbers of residential and small-business subscribers are commonly referred as “broadband”.

Whereas according to American broadband strategies handbook(2012), the term “broadband” may refer to multiple aspects of the network and services, including: 1) the infrastructure or “pipes” used to deliver services to users; 2) high-speed access to the Internet; and/or 3) the services and applications available via broadband networks.

From the above definitions we can have the general view that broadband internet is a high speed internet connection that is always on and could enable to transfer data faster than the former dial-up technology. Further, many countries have established definitions of broadband based on speed, typically in megabits or kilobits per second, or based on the types of services and applications that can be used over a broadband network (i.e., functionality). Due to each country’s unique needs and history, including economic, geographic and regulatory factors, definitions of broadband vary widely.

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.

Whereas according to the Federal Communication Commission of American (2010) broadband includes several high speed transmission technologies including digital subscriber line (DSL), cable modem, fiber, wireless, satellite and broadband over power lines (BPL). But the broadband technology that will be chosen will depend on the number of factors which may include the place you are located, how broadband access is packaged with other services (such as telephone and home entertainment), price and availability.

The commission discussed DSL as a wire line transmission technology that transmits data faster over traditional copper telephone lines already installed to homes and businesses. Cable modem service enables cable operators to provide broadband using the same coaxial cables that deliver pictures and sound to your television set. Whereas fiber optic technology converts electrical signals carrying data to light and sends the light through transparent glass fibers about the diameter of a human hair. Wireless broadband in contrary connects a home or business to the internet using a radio link between the customer's location and the service provider's facility. Satellite broadband is another form of wireless broadband, and just as satellites orbiting the earth provide necessary links for telephone and television services, they can also provide links for broadband to serve remote or sparsely populated areas. The last means of broadband is BPL which is the delivery of broadband over the existing low and medium voltage electric power distribution network that is comparable with the speed of DSL and cable modems.

Accordingly Ethio telecom 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.

2.1.2. Benefits of Broadband Internet Connection

There is no doubt we are living in an information society, and broadband puts all types of information within a few clicks away. 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. The internet has now become the means by which many people have found how to live their lives. But those who do not have broadband access wonder why so much emphasis is placed on availability and why internet access is so important. Just like the saying, you don't know what you don't know, broadband non-adopters don't see the relevance of the internet to their lives, and don't see a need to subscribe. This is particularly true in rural areas where they don't understand the benefit of broadband internet.

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.

The communication workers of America (2009) describe that access to broadband has become as essential to individual and community economic prosperity as electricity was a need in 1930s and roads.

From rural to urban areas and everywhere in between, all people stand to benefit economically from a national high speed internet network. In line with the above input, they placed their suggestion that broadband internet can benefit the society via education, employment and wealth creation, maintaining public health, fire and emergency services, police and national security, accelerate business development by providing new opportunities for innovation, expansion and e-commerce.

Whereas the 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.

Even though the degree varies Ethiopia shares the benefits of broadband discussed above since it adopts broadband internet. 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. In general broadband can help to enhance the society with the above mentioned and other several methods.

2.1.3. 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. So customer satisfaction could not be defined as only standard or quality of product. Customer satisfaction is about relationships between the customer and product or service and the provider of a product or service. A number of related but important concepts are frequently used interchangeably with satisfaction, although they are actually distinct from satisfaction despite the fact that they may be related to satisfaction in various ways.

Khan and Afsheen (2012) discussed that though satisfaction is explained by different researchers in different ways, previous researches have given significant importance to customer satisfaction. And satisfaction can be defined as a features or characteristics that can full either a need or want of a consumer in better way than competitors. If a company provides a product according to the requirements of their customers it will lead the satisfaction of those customers.

While Mihelis, Grigoroudis, Siskos, Politis and Malandrakis (2001) discuss customer satisfaction as a modern approach for quality in enterprises and organizations and serve the development of a truly customer-focused management and culture. Gerson cited in Mihelis et.al. (2001) include modern management science's philosophy considers customer satisfaction as a baseline standard of performance and a possible standard of excellence for any business organization. To reinforce customer orientation on a day-to-day basis, a growing number of companies choose customer satisfaction as their main performance indicator.

Although definition of customer satisfaction has been widely debated as organizations attempt to measure it, definition of customer satisfaction could be defined as follows.

In his study Oliver (1981) has defined customer satisfaction as:

the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under or over fulfillment (1997 p.13).

Besides the above definition, Oliver (1981) discussed the most widely accepted model, in which satisfaction is a function of disconfirmation, which in turn is a function of both expectations and performance. To enrich the idea, disconfirmation, also known as expectancy disconfirmation, is the result of a comparison between what was expected and what was observed. In current satisfaction parlance, it more commonly refers to an expectation-performance discrepancy. Consumers would describe this concept in terms of performance being better than or worse than expected with regard to a product or service. The first component of disconfirmation, expectation, is a predisposing prediction- sometimes stated as a probability or likelihood of an attribute or product performance. Performance itself is the perceived amount of product or service attribute outcomes received, usually reported on an objective scale bounded by good and bad levels of performance (e.g., courteous/discourteous service). This is often confused with quality, a judgment of performance excellence. Although frequently substituted for satisfaction, the concepts are separate and distinct.

In their book, Kotler and Keller (2012) define satisfaction as a person's feelings of pleasure or disappointment that result from comparing a product's perceived performance (or outcome) to expectations. If the performance falls short of expectations, the customer is dissatisfied. If it matches expectations, the customer is satisfied. If it exceeds expectations, the customer is highly satisfied or delighted.

Similarly Tse and Wilton (1988) defined satisfaction as the consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product as perceived after its consumption.

Parasuraman, Zeithaml and Berry (1988) found that customer satisfaction is thought to result from the comparison between *predicted* service and perceived service, whereas service quality refers to the comparison between desired service and perceived service. However, affective states and perceived performance have been shown to be strong and direct determinants of both customer satisfaction and service quality of the service encounter.

Customer satisfaction is the degree to which a customer perceives that an individual, firm or organization has effectively provided a product or service that meets the customer's needs in the context in which the customer is aware of and/or using the product but is a socially constructed response to the relationship between a customer, the product and the product provider/maker. To the extent that a provider/maker can influence the various dimensions of the relationship, the provider can influence customer satisfaction (Reed, John, Hall, and Nicholas, 1997).

As many of the authors discussed above, expectation exerts significant influence on customer satisfaction. Thus understanding what customers expect from a service giving organization is necessary to achieve customer satisfaction. For an organization that desires to keep its customers loyal, needs a continuous expectation assessment and should narrow those gaps.

2.1.4. Customer Satisfaction Measurement

After defining and delineating satisfaction and related concepts, the next discussion proceeds to customer satisfaction measurement more generally.

Customer's overall satisfaction with the services of the organization is based on (or a function of) all the encounters/experiences of the customers with that organization. Similar to service quality, customer satisfaction can occur at multiple levels in an organization, e.g. satisfaction with the contact person, satisfaction with the core service and satisfaction with the organization as a whole.

According to Kotler and Keller (2012) many companies are systematically measuring how well they treat customers, identifying the factors shaping satisfaction, and changing operations and marketing as a result. Wise firms measure customer satisfaction regularly, because it is one key to customer retention. A highly satisfied customer generally stays loyal longer, buys more as the company introduces new and upgraded products, talks favorably to others about the company

and its products, pays less attention to competing brands and is less sensitive to price, offers product or service ideas to the company, and costs less to serve than new customers because transactions can become routine.

Furthermore Kotler and Keller (2012) discussed that periodic surveys can track customer satisfaction directly and ask additional questions to measure repurchase intention and the respondent's likelihood or willingness to recommend the company and brand to others.

In addition Cengiz (2010) discussed that customer satisfaction and measurement issues have vital roles for businesses in providing and maintaining a competitive advantage. It is recognized that the businesses forming components of marketing mix by acknowledging the customer's expectations, receive customer loyalty and profit in return. Through measuring customer satisfaction, organizations do not only have customer knowledge also have competitors' knowledge in the market.

To realize customer satisfaction, everyone within an organization should consider continuous improvement as something normal. As part of the strategy, it is important to define the product or service and the customer's needs, making an inventory of customer's data and complaints, and selecting processes which cause most of the complaints. The central questions in this case are which products or services do we produce? Who are our customers? What do they want, what are their requirements? Is it measurable? Which critical processes need improvement? By answering these questions continuously, the customer will be better understood and the product or service will be better in tune with the market demand (Mahdavinia, 2008). In the service quality literature, perceptions of service delivery are measured separately from customer expectations, and the gap between the two, P (Perceptions) – E (Expectations), provides a measure of service quality and determines the level of satisfaction.

Measuring customer satisfaction is about profit and competitive advantage. To achieve long term success in the market, firm should monitor the customer satisfaction signals regarding product, service and relationship. Measuring customer satisfaction provides a comprehensive insight to the customer pre and post purchase behavior. Without this approach understanding, improving and developing better customer services could not be possible.

Customer satisfaction assessment is part of a process of understanding customers and their needs; understanding that is essential to the long-term satisfaction of their needs and business relationship with them. For the managers of specialist functions looking for change, some concepts from the field of service management provide a useful starting point to assess customer satisfaction (Jones, 1996). The following four basic questions can serve as a guide to measure customer satisfaction:

- i. Identifying who the customers are?
- ii. Identifying what do they need?
- iii. Do they meet their needs?
- iv. How do they feel about the services provided?

Customer satisfaction measurement involves the collection of data that provides information about how satisfied or dissatisfied customers are with a service. Customer satisfaction measurement allows an organization to understand the issues, or key drivers, that cause satisfaction or dissatisfaction with a service experience. When an organization is able to understand how satisfied its customers are, and why, it can focus its time and resources more effectively (BMRB Social Research and Henley Centre, 2007). According to this center, customer satisfaction measurement may also enable an organization to understand the extent to which satisfaction with a service is influenced by factors outside of its control (such as the media) and to differentiate between what people say influences, how satisfied they are, and what is really driving their satisfaction during a service experience. Customer satisfaction measurement can help an organization understand what it can and cannot control. Most importantly, customer satisfaction measurement helps an organization focus on its customers, and should galvanize service owners, customer facing staff, policy, strategy and research staff, as well as senior management, around the aim of improving the customer experience.

Ethio telecom as a service provider used to prepare customer focused events in Addis Ababa and other regions of the country to measure and understand the satisfaction level of its subscribers in general and fixed broadband subscribers in particular. In addition the company prepare questionnaire for enterprise customers to assess their satisfaction level.

2.1.5. Determinants of FBBI Customer Satisfaction

The determinants of FBBI customer satisfaction come from a variety of activities performed by a firm. In case of FBBI, the major gains in customer satisfaction are likely to come from improvements in service provisioning, price, service quality; service features; and customer complaint handling procedures.

Hanif, Hafeez and Riaz (2010) indicate that factors affecting customer satisfaction is of worth importance in order to know the reasons or the factors which are responsible to create satisfaction among customers for a particular brand.

According to Khan and Afsheen (2012) price fairness, customer services and coverage are major factors which can highly affect the customer satisfaction. In addition Laheem (2012) found that price and quality of broadband service have significant relevance to the customers' satisfaction. Whereas, Syakir and Rafi (2011) found that price, speed and stability have no significant relationship with broadband services customer satisfaction. The above justifications indicate that customer satisfaction depends on many factors depending on the situation.

Besides the above factors, in this study the researcher identified service provisioning, price, quality, security and after sales support as relevant variables for customer satisfaction. Here under briefing was made about the concepts of these points before using them in the data analysis.

2.1.5.1. Concept of FBBI Service Provisioning

Service provisioning is the process describing the method and sequence in which service operating systems work and how they link together to create the service experiences and outcomes that customers will value.

In telecommunication, provisioning is the process of preparing and equipping a network to allow it to provide new services to its users. FBBI service provisioning process may include many steps depending on the connection technology requested. FBBI service provisioning start from getting customer request, on site survey for feasibility check and modem set up, server side remote set up, and providing installation information.

The provisioning system operates effectively as a mediation device between operator's business processes (i.e. marketing, sales, customer care and billing, etc.) and network technology. The provisioning system receives non-technical service orders from the sales personnel through service management systems, and then converts them into equipment specific sequences of configuration commands and responses.

A proper and on-time service provisioning have greater importance in achieving customer satisfaction while a delay and/or a gap in integration among the business processes during provisioning could dissatisfy the customers. Thus, as discussed above the effectiveness and efficiency level of service provisioning have its own impact on customer satisfaction level and telecom companies have to give due care for service provisioning.

2.1.5.2. Concept of FBBI Price

ITU (2012) in its telecommunication development sector report indicate 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 fixed 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.

Fixed broadband internet access is often sold under an “unlimited” or flat rate pricing model, with price determined by the maximum data rate chosen by the customer, rather than a per minute or traffic based charge. Per minute and traffic based charges are common for mobile broadband internet access.

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 fixed broadband price and competition have been influential factors of fixed 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.

2.1.5.3. Concept of Service Quality

There are many different concepts used to understand and define “Quality”. Moreover, the quality definition can be changed according to the people view and criteria it will be used.

Taylor & Huneter (2002) cited in Laeheem (2012) believed that the perceived service quality contributes to positive business outcome as greater level of customer satisfaction, and by extension, favorable marketing, behaviors, such as repurchases and positive word-of-mouth behaviors of customers.

While some researchers used SERVQUAL instrument which are developed by Parasuraman, Zeithaml, and Berry to examine consumer perceived service quality. SERVQUAL is an empiric model used to compare service quality performance with customer service quality needs. It is used to do a gap analysis of an organization’s service quality performance and the service quality needs of its customers. That is why it is called the gap model. It takes into account the perceptions of its customers to the relative importance of the service attributes. The main aspects of service quality raters are reliability, assurance, tangibles, empathy and responsiveness.

Unlike prices, which users can easily compare across carriers, the telecommunications industry rarely publicizes quality of service (QoS). To address this gap, national regulatory agencies (NRAs) in many countries have introduced QoS programs.

Even though there is no clear standard, in Ethiopia the service quality for fixed broadband internet is assumed to be measured by the speed of broadband internet connection to upload and download and as to how the service is used consistently whenever and wherever you like. If subscribers of FBBI get the amount of bandwidth they subscribe and that is consistent, such kind of service is assumed as a good quality service.

Besides the definition the relationship between service quality and customer satisfaction has received considerable academic attention in the past few years. But the nature of the exact relationship between service quality and customer satisfaction is still uncertain.

2.1.5.4. Concept of Security

Security in broadband services refers subscribers feeling of safety while accessing the internet. In addition it is the view that the subscribers of FBBI feeling of safety in the information they are sending and/or receiving were not hacked by the service provider or any other body.

It is easy to be confused by all the technical jargon around broadband, especially when it relates to your security. Actually it is not complicated, especially when you know what everything means and you are aware of what measures you can take to protect yourself.

The reason that risk from viruses and hackers when you are online is the fact that the internet is a free flow of information. While this means that other people can access your personal data by manipulating the open ports on your computer. This is particularly relevant to broadband which is an 'always-on' connection since people could access your information even when you are not surfing the web. The continuous escalation of cybercrimes, the involvement of various criminal groups in them and soaring revenues and profits generated by similar business practices are serious threats, for both organizations and enterprises, as well as for the public sector.

2.1.5.5. Concept of After Sales Support

In a world where telecommunications companies find it more and more difficult to differentiate themselves from competitors, improved after-sales service can offer real benefits. The after sales support includes periodic or as-required maintenance or repair of equipment, complaint handling issues, bill settlement, consultation and related issues.

Potluri and W/Hawariat (2010) discussed that customers often find it difficult to evaluate services in advance of purchase. After a customer has purchased a service, marketers need to examine usage behavior through customers' interactions with service facilities and personnel. Assessing after-sales service helps focus attention on major areas such as personnel efficiency, service delivery responsiveness, billing accuracy, maintenance speed, and complaint handling process.

By supporting the above idea Fazlzadeh, Bagherzadeh and Mohamadi (2011) explained that an understanding of the effect of after sales services in satisfaction and post behavioral intentions is important to services marketing managers because it allows them to differentiate their offering substantially, in a way that strengthens the relationship with their client in the short as well as in the long run. And after performing a path analysis their finding shows that after sales service quality affect satisfaction, which in turn affects behavioral intentions. Hence, after sales service affects the overall offering and thus, the quality of the relationship with customers.

Providing high quality after-sales service is not an easy task, especially for large global companies. The very complexity of the logistics and communication processes involved in picking up, repairing, and returning devices can easily increase turnaround times, while poorly aligned systems create yet more waiting time between steps in the process. But a successful delivery of after sales service can mean greater customer satisfaction, higher revenues, and significantly lower costs. In addition it helps to meet customer demand for a product or service.

2.1.6. Fixed Broadband Internet Penetration in East Africa

Currently many of the east African countries are deploying fixed broadband internet to improve their economic growth and to support the activities of their businesses.

Fact fish (2013) in its report listed fixed broadband internet subscribers per 100 people for all countries of the world. From the total 235 countries of the world, most of the east African countries are at the bottom of the world rank. Ethiopia stood at 178 from the world having 0.04 FBBI subscribers per 100 people which is the lowest. Since Ethiopia had more than 90 million populations, it has to work more than any of the east African countries to increase the penetration rate of FBBI subscribers.

According to maps of the world, east African countries include countries shown below in the table. The following table helps to compare the FBBI penetration in these east Africa countries. Ethiopia has to compare its FBBI deployment from its neighboring countries like Djibouti, Kenya and Uganda.

Table 1: Fixed broadband Internet subscribers, per 100 people

Country	Value	Rank from the World	Year
Djibouti	1.72	127	2012
Eritrea	0.00	196	2012
Ethiopia	0.04	178	2012
Somalia	0.00	199	2008
Kenya	0.10	169	2012
Uganda	0.11	167	2012
Rwanda	0.02	183	2012
Burundi	0.00	194	2012
Tanzania	0.01	189	2012
Malawi	0.01	190	2012
Zambia	0.11	168	2012
Zimbabwe	0.55	148	2012
Mozambique	0.08	170	2012
Madagascar	0.04	179	2012
Seychelles	11.72	71	2012
Mauritius	10.57	76	2012
Comoros	0.03	182	2012

2.2. Empirical Literature

Even though the sectors are different, there are many studies conducted on customer satisfaction. Among others the following studies were believed to relate with this study.

Santouridis and Trivellas (2010) conducted a research to investigate the impact of service quality and customer satisfaction on customer loyalty in mobile telephony in Greece. In addition the mediation effect of customer satisfaction on the service quality and customer loyalty relationship also to be examined. The research took field research and questionnaire as a data collection method and the research took residential non-business mobile phone users as a sample.

Finally the research found that Customer service, pricing structure and billing system are the service quality dimensions that have the more significant positive influence on customer satisfaction, which in turn has a significant positive impact on customer loyalty. The mediation role of customer satisfaction on the service quality and customer loyalty relationship has also been confirmed.

In contrary to the above finding, 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 ad price factors, gender and acceptable price level, monthly income and internet broadband usage period and gender and speed.

In a different view Zaim, Turkyilmaz, Tarim, Ucar and Akkas (2010) conducted a research on measuring customer satisfaction in Turk Telecom Company taking European Customer Satisfaction model as the reference and Turk Telekom customer satisfaction model. The study used structural equation modeling technique customer expectation, customer value, perceived quality, and image of the company, on the customer satisfaction. Their results revealed that customer satisfaction was significantly related to loyalty. In a similar vein, a strong and positive relationship has also been found between perceived qualities and perceived value. Image of the company, perceived value and perceived quality have positive and significant impact on customer satisfaction. Image of the company has the highest impact on customer satisfaction.

By focusing on the importance of monitoring customer satisfaction Pizam and Ellis (1999) conducted a research on customer satisfaction and its application to the hospitality and tourism industries and they found that if properly designed, administered and analyzed, the process of monitoring customer satisfaction can be beneficial to any hospitality enterprises and make a difference between offering a mediocre product and an excellent, quality product.

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.

Between June 22 and August 14, 2011, Connect Minnesota conducted random digit dial telephone surveys of 1,200 adults across the state. Of the 1,200 respondents randomly contacted statewide, 202 were called on their cellular phones, and 998 were contacted via landline telephone. To ensure a representative sample, quotas were set by age, gender and country of residence (rural and non-rural), and the results were weighted to coincide with 2010 United States Census population figures.

The findings of the survey show that Minnesotans that subscribe to home broadband service or use mobile internet are generally satisfied with the overall services. The aspect of service that is rated the highest among home and mobile internet is reliability of the service. Although, the monthly price paid for the service is least satisfied with aspect of service among home broadband subscribers and download speed is the least satisfied aspect among mobile internet users. Customer satisfaction is an important piece of ensuring the continued adoption and use of broadband service. Thus home broadband subscribers require attention to ensure sustainable adoption of the services.

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.

Recently 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.

Other reasons include telephone interruptions during rainy seasons, old cables and networks, and damaged and stolen cables, which combined, increase the frequency of faults and interruptions. In general out of 450 respondents, nearly 40 percent of respondents have negative assessments of the role of employees in delivering good quality after-sales service. Since after sales support have significant influence on the overall customer satisfaction level, this study could benefit in identifying the satisfaction level of FBBI customers.

In addition on the same year Potluri with Mangnale (2010) conducted a research on assessment of Ethiopian telecom customer satisfaction taking 400 customers as a sample. The researcher used structured questionnaire and in-depth personal interviews and customers were asked about their opinions on service interaction, service delivery process, customer complaint handling procedure, overall satisfaction levels and also customers' opinion on improvement on telecom service provider's ability in the last five years. The analysis showed that 41% customers of ETC were dissatisfied with employees' interaction skills. Furthermore another 47% of the customers were also disappointed with customer service delivery system and 70% customers were not pleased with the complaint handling procedure and its outcome. And 57% of the customers expressed overall dissatisfaction on the services provided by ETC. Furthermore 90% respondents robustly acknowledged ETC is improving tremendously in providing all kinds of services in the last five years. An overall assessment of satisfaction measures of customer satisfaction in all services. But the finding of this study can be an input for the study to be conducted on FBBI customers' satisfaction level.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

In the previous chapter, various literatures concerning the determinants of customer satisfaction were discussed. From the insights, appropriate research designs, sampling techniques and data analysis methodologies were drawn out. This chapter focuses on the following four sections; Research Design, Sample and Sampling Techniques, Data Collection techniques and Data Analysis.

The study is conducted on FBBI subscribers of Ethio Telecom. This comprises enterprise customers (which include both key account and small and medium enterprises/SMEs) and residential customers. 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

This research applies descriptive research design in order to obtain pertinent and precise information concerning the past and current status of phenomena and draw conclusions from the facts discovered. Both qualitative and quantitative methods will be employed with the view of assessing FBBI customer satisfaction. Qualitative methods used to assess service delivery mechanism of the company and describe the categories of information while quantitative method used to show the satisfaction level of customers in numbers.

Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts and describes the data collection. It often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution.

3.2. Sample and Sampling Techniques

As defined in the scope, the study assessed the satisfaction level of FBBI subscribers that is found in Addis Ababa. This entails that the total population taken for this study includes all Addis Ababa enterprise and residential FBBI subscribers that account a total of 8,000 (as of March 2013 Ethio telecom report).

The researcher assumes that there is a difference in the characteristics of population units in relation to the measurement of customer satisfaction among enterprise and residential customers. Further classifications were made among enterprise customers as key account and SOHO/SME customers. Thus stratified sampling method was used to divide the population into subgroups (strata) based on the type of customers and then simple random sampling method used to select representatives from each subgroup within the population that represent the sample.

Based on this, the researcher adopts a mathematical formula for the purpose of determining the sample size. Yamane (1967) cited in Meron (2007) has suggested the following mathematical formula for determining sample size.

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

Where, N is the total ET FBBI customers within Addis Ababa, and “e” is the error or confidence level.

As Rumsey (2011) discussed confidence levels range from 80% to 99% and the particular choice of confidence level depends on the field of study. This research uses a confidence level of 93 percent to ensure an accurate result from the sample. Based on this, the error term would equal to 0.07. Using the total population of 8,000 and an error term of 0.07, the sample size is calculated as follows.

$$n = \frac{8,000}{1 + 8,000(0.07)^2} = 199 \text{ which will be taken as a sample.}$$

Hence, out of the total population of 8,000 ET FBBI subscribers, a sample size of 199 was taken. A simple random sampling technique also adopted to select these 199 representatives from each subgroup at six different ET zones namely north, south, central, east, west and southwest Addis Ababa zones.

3.3. Data Collection Techniques

Having decided up on the research approaches, the next step is to collect the data. In order to collect the primary information from selected respondents, self-administered questionnaires were designed in a well-organized manner and distributed to customers personally by the researcher and with the help of ET sales executives and representatives.

The researcher took the sample both when customers visit ET shop and through enterprise sales executive contact persons. The researcher first gets the consent of the participants and assured them about the confidentiality of the information in order to get accurate information.

The survey questionnaire consists of five items, namely service provisioning/delivery, price, quality, security and after sales support was employed. A five-point likert scale ranging from “very dissatisfied to very satisfied” was employed to get adequate responses from subscribers related to their satisfaction level on the FBBI service. Using a questionnaire helps the researcher to clearly see the respondents view concerning the issue. In addition to the questionnaire, the researcher made a face-to-face interview with ET managers regarding the parameters that were identified to measure customer satisfaction.

The research is also supported by some other secondary sources of company reports and external studies done about the issue. A review of relevant literature was conducted to assess the previous research studies conducted by other researchers and some statistical reports related to the topic of the study were also reviewed. In addition review of various books, journals, articles, and notes from the internet pertaining to the study was also conducted.

3.4. Method of Data Analysis

The purpose of data analysis is to organize, provide structure to, and elicit meaning from research data. The data analysis consists of investigating the surveys for correctness and completeness, coding and entering data into a database.

Data collected from open ended questionnaires and interviews were reported following the responses. The scaled data that was collected from the questionnaire were summarized using statistical package for social science (SPSS) version 16 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, its related problems and limitations.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

This chapter focuses on data collection results and discussions, which is the main part of this study. After data collection has taken place the data has gone through coding and encoding it to SPSS for further analysis. The need of analyzing the primary data collected from survey is to answer the research questions. The first part of the analysis focus on descriptive statistics to summarize data to simplify the understanding of the data. Next using 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 detail outputs of the analysis software are attached in the appendix part. The outcomes of the data collected were presented and discussed in the following manner.

4.1. Results/Findings of the Study

4.1.1. Characteristics of Respondents

The study designed a questionnaire to obtain reliable data. From the total sample size, which is 199, six of the questionnaires were not returned and five of the questionnaires were found incomplete and removed. This makes 94.5% response rate with 188 valid responses.

The demographic data below shows male respondents constitute three fourth of the total respondents.

Table 2: Respondents Demographic

Demographic Variable	Frequency	Percentage (%)
Gender (n=188)		
Male	140	74.5
Female	48	25.5
Age (n=188)		
<25	25	13.3
26-35	125	66.5
36-45	38	20.2

Marital Status (n=188)		
Single	83	44.1
Married	105	55.9
Education Level (n=188)		
Diploma	29	15.4
First Degree	130	69.1
Master's degree and above	29	15.4
Occupation (n=188)		
Government Employee	66	35.1
Non-government Employee	89	47.3
Self-Employed	33	17.6
Category of Customer (n=188)		
Enterprise	186	98.9
Residential	2	1.1
Amount of Bandwidth Subscribed (n=188)		
<3Mbps	98	52.1
3Mbps to 10Mbps	74	39.4
11Mbps to 50Mbps	15	8.0
>50Mbps	1	0.5

Source: SPSS Output

From the interview made with Ethio telecom management members, it is stated that among the eight thousand Addis Ababa FBBI subscribers, only one hundred subscribers were residential customers whereas the remaining were enterprise customers who subscribe fixed broadband internet for personal and business use. Having this highest number of enterprise subscribers may have its own indication for the output to be generated.

For this study the number of residential customers randomly taken is only two and the rest were enterprise customers as shown in the below table:

Among the enterprise customers that amount 186 respondents, the respondents fall in different category of enterprise customers within enterprise customers. 35.1% (n=66) of the respondents were working in the government sector. Whereas 47.3 (n=89) of the respondents were non-government organization employees and the remaining 17.6% (n=33) were self-employed. Having this variety of respondents among enterprises could help to identify the satisfaction level of different category of subscribers. These enterprise respondents were representatives from their organizations that subscribe fixed broadband internet for their business use.

The summarized table above also shows the educational background of the respondents and all of the respondents have been found having a minimum of diploma and it might contribute to the validity of the data collected. Accordingly 15.4% (n=29), were found diploma holders and 69.1% (n=130) were first degree holders and the remaining 15.4% (n=29) of respondents were found to have master's degree and above.

Furthermore the above table shows the amount of bandwidth the customers subscribe from ETand it is founded that majority of the subscribers' i.e. 91.5% (n=172) subscribe FBBI with a speed of 10Mbps or less. By determining which factors affect those subscribers to subscribe lesser bandwidth will help the company to focus on those variables in order to take corrective action.

4.1.2. Reliability Measurement and Analysis

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 analysis procedure calculates a number of commonly used measures of scale reliability and also provides information about the relationships between individual items in the scale. Cronbach's alpha was used to measure reliability among the scales.

4.1.2.1. Cronbach's Alpha

Cronbach's alpha is a tool for assessing reliability scale which normally ranges between 0 and 1. The closer Cronbach's alpha coefficient is to 1.00, the greater the internal consistency of the items in the scale. George & Mallory (2003) cited in Gandhi (2012) provides the following techniques of measuring reliability.

Table 3: Reliability Scale

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

Since surveys and tests are like any other measurement tool, first it needs assessment whether the data are reliable. From the survey questionnaire distributed and collected from FBBI subscribers, the following alpha values were generated for the parameters used to measure the customer satisfaction. Furthermore those items used to measure customer satisfaction were constructed based on researcher's judgment and evaluation.

Table 4: Measurement of Cronbach's Alpha

Measurement Parameter	N of Items	Cronbach's Alpha
Service Provisioning/Delivery	5	0.715
Price	4	0.722
Quality	5	0.735
Security	2	0.772
After Sales Support	7	0.825

Source: SPSS Output

Based on the reliability analysis, it is found that all the independent variables of service provisioning, price, quality and security has an acceptable reliable Cronbach's alpha value since their alpha value is above 0.70. Whereas after sales support had an alpha value of 0.83 which is stated as a good measure of reliability.

According to the techniques described above, all the measurements used to measure customer satisfaction were internally consistent. This shows that all the independent variables were acceptable to measure the dependent variable customer satisfaction. As a result, all of the constructs were acceptable and a total of twenty three items were retained for the five constructs in the study.

The above Cronbach's alpha value was calculated only for the five parameters used to measure customer satisfaction. Hence the below table shows the entire Cronbach's alpha value and measures the reliability of the questions entirely.

Table 5: Reliability Statistics

Cronbach's Alpha	N of Items
.899	24

Source: SPSS Output

The results above show that Cronbach's alpha is 0.899 and according to the benchmark discussed above, all the twenty four questions used in the questionnaire reliably assess customer satisfaction.

4.1.3. Measuring Customer Satisfaction

As discussed previously in the literature review part, 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, we will see the satisfaction level of FBBI subscribers with regard to service delivery, pricing, quality, security and after sales support.

4.1.3.1. Satisfaction Level Regarding Service Provisioning/Delivery

Service provisioning/delivery is getting services as effectively and quickly as possible to the intended recipient. In most instances service provisioning implies a degree of excellence on the part of the organization.

In order to assess the satisfaction level of FBBI subscribers regarding service provisioning, the researcher first try to analyze the process of the service provisioning. 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 provisioning, questionnaire were developed and distributed to FBBI subscribers to identify how much customers are satisfied with each element of the service provisioning and the following results were found.

Table 6: Measurement of Satisfaction on Service Provisioning

	Get Clear Info Before Subscribing FBBI	Flexible Means of Requesting	Requirements were Convincing	FBBI is Accessible	No of days to get the Service is Reasonable
N Valid	188	188	188	188	188
Missing	0	0	0	0	0
Mean	2.57	2.44	3.2181	2.5585	2.4202
Mode	2	2	3	3	2

Source: SPSS Output

According to table 6 above, customers response on average shows that customers are a bit far from dissatisfaction by the mean score of 2.57, 2.44, 2.56 and 2.42with questions about getting clear information before subscribing the service, having flexible means of requesting the service,

whether the service is accessible, and the number of days taking to get the service activated respectively. Whereas the customers' response shows they are neither satisfied nor dissatisfied whether the requirements were convincing or not by scoring the mean value of 3.22.

4.1.3.2. Satisfaction Level Regarding Price

ET implements both a flat rate and per usage rate fixed broadband pricing for enterprise and residential customers respectively. ET made different tariff arrangements and tariff discounts for FBBI to make it more affordable and the management members confirmed efforts were made to make the price competitive if other operators were in place. In addition ET confirmed price amendment will continue in the future to increase the internet penetration ratio in the country.

Table 7: Measurement of Satisfaction on Price

	Fair Subscription and Installation Fee	Rational Monthly Fee	Get Better Service Compared to Price	Price Scheme Encourages to Subscribe More
N Valid	188	188	188	188
Missing	0	0	0	0
Mean	3.1649	1.8298	1.9309	1.8989
Mode	4	2	2	2

Source: SPSS Output

As discussed in the literature, one of the key determinants of affordability, adoption and usage of fixed broadband is pricing. Subscribers' satisfaction with price contributes for higher fixed broadband internet adoption. The above table portrays that customers mean result shows 1.83 in answering whether the monthly fee is rational, 1.93 in getting better service compared to price and 1.90 in confirming whether the price scheme encourages subscribing more. While regarding the fairness of the subscription and installation fee the mean result shows 3.16.

4.1.3.3. Satisfaction Level Regarding Quality of FBBI

Service quality is considered as one of the most crucial in determining customer satisfaction level of current broadband service.

As discussed in the literature review part the telecommunications industry rarely publicizes quality of service and it is difficult for customers to distinguish quality unlike prices.

The below table shows that the mean rating of customers in getting consistent speed and often accessing subscribed bandwidth they subscribed from ET is 1.99 and 1.88 respectively. In addition customers rate the question of having less interruption of service as 2.30 and getting service based on agreement as 2.30. Regarding whether ET uses up-to-date equipment to support the service delivery or not, the customers mean result shows 3.07.

Table 8: Measurement of Satisfaction on Service Quality

	ET has Consistent Speed	Often Access Subscribed Bandwidth	ET has up to date equipment	Less Interruption of Service	Getting Service Based on Agreement
N Valid	188	188	188	188	188
Missing	0	0	0	0	0
Mean	1.9894	1.8777	3.0691	2.2979	1.9202
Mode	2.00	2.00	3.00	2.00	2.00

Source: SPSS Output

4.1.3.4. Satisfaction Level Regarding Security

In theory, a device that is connected by dial-up modem is no more secure than one connected using broadband or an office LAN. The speed and always-on convenience are certain to change the way users work and play on-line. In this study security refers the way customers feel while they use FBBI and whether they feel the information sent using this connection is confidential or not.

Regarding security issue, the survey result reveals customers mean response rate is 2.83. In addition they rate 3.38 whether the information sent using this connection was confidential. The below table depicts the summary of customers satisfaction with these two items.

Table 9: Measurement of Satisfaction on Security

		I Feel Secure When I use FBBI	Information Sent with this Connection is Confidential
N	Valid	188	188
	Missing	0	0
Mean		2.8298	3.3830
Mode		3.00	4

Source: SPSS Output data

4.1.3.5. Satisfaction Level Regarding After Sales Support

A total of seven questions were used to construct the after sales support parameter. As discussed on the reliability test after sales support questions were found internally consistent. According to the customers response rate in getting clear information before sales get the mean value of 2.08. The customers mean response rate shows 2.01 for the time it takes to get their problems solved. In addition as shown below in the table, the mean response rate for billing only active connections, satisfaction with the automated phone system, process to solve problems and trustworthiness of the after sales practice were 2.5, 2.52, 2.12 and 1.87 respectively. Relative to other questions, the question which states whether employees are professional and respond customer requests promptly got the mean response rate of 2.80.

Table 10: Measurement of Satisfaction on After Sales Support

	I got information during Problem	Employees were professional & respond promptly	The time it takes to get problems solved	Bill only active connections	Automated phone system is satisfying	Process to solve problems	After sales practice is trustworthy
N	Valid	188	188	188	188	188	188
	Missing	0	0	0	0	0	0
Mean		2.0798	2.8032	2.0053	2.5000	2.5160	2.1223
Mode		2.00	3	2.00	2.00	2.00	2.00

Source: SPSS Output

4.1.3.6. Measurement of Overall Satisfaction

To measure overall satisfaction level of respondents a single five scale likert question was used. Accordingly the mean response rate is 2.14 which fall around dissatisfaction.

Table 11: Measurement of Overall Satisfaction

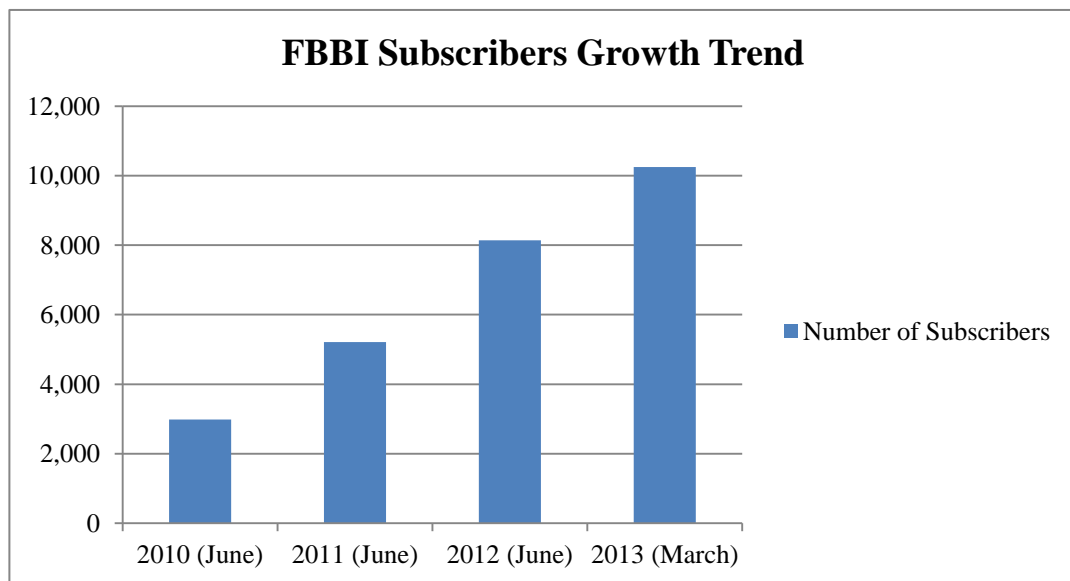
		Overall Satisfaction
N	Valid	188
	Missing	0
Mean		2.1383
Mode		2.00

Source: SPSS Output

4.1.4. The Trend of FBBI 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. The below chart depicts the growth of FBBI subscribers of Ethio telecom.

Figure1: FBBI Subscribers Growth Trend



From the year ETC transformed as ET in 2010, the company adopts different strategies to increase the number of subscribers. The above chart portrays the number of subscribers in June 2010 was only 2,983. Even though the penetration rate is still treated as low, within three years the company could raise the number of subscribers to 10,248.

According to Ethio telecom report, at the end of March 2013 there were 66,000 broadband subscribers. Out of this number, mobile broadband i.e. EVDO and WCDMA took the largest share but FBBI as shown in the above table is only 10,248. In order to increase the number of FBBI subscribers, Ethio telecom made huge tariff discount on the subscription, installation and monthly fees of FBBI services. 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. Discussions

Assessing customer satisfaction and measuring how much customers are satisfied have vital roles for businesses in providing quality service and maintaining a competitive advantage (if competitions already exist). The purpose of this study was to assess how customers are satisfied with the parameters i.e. service provisioning, pricing, quality, security and after sales support which is identified by the researcher.

The findings above shows that customers are not satisfied with the company's service provisioning mechanism since the mean rating shows 2.64. In addition customers are dissatisfied with the pricing scheme (2.21), service quality (2.23) and after sales support service (2.27). While with the security issue, customers has average satisfaction with a mean score of 3.11. The overall assessment of customer satisfaction shows customers were dissatisfied with the FBBI service.

The empirical data and statistical tests in this study did not provide enough support for the parameters used and overall satisfaction. It should be noted; however, when customers were dissatisfied with the parameters discussed above, there will be a tendency of overall dissatisfaction. Thus this study suggests the five parameters used contribute for the dissatisfaction of overall satisfaction.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary of the Findings

In the previous chapter, the discussions have been carried out accordingly to the objective of the study. In order to assess the satisfaction level of FBBI subscribers, the researcher identifies six parameters namely service delivery/provisioning, pricing, quality, security, after sales support and overall satisfaction. Discussions were made using these parameters.

Service provisioning issue was measured using five basic questions and the finding of the study shows that customers are not satisfied with the service provisioning/delivery mechanism. In addition using four basic FBBI questions, assessment was taken among enterprise and residential customers. It was found that customers are dissatisfied with the current pricing scheme employed by Ethio Telecom.

As discussed in the literature part, users cannot easily compare quality of service among carriers. In this study five questions which focused on speed and quality of equipment used to measure customer satisfaction on quality. The finding shows customers are dissatisfied with the quality of FBBI. Regarding security, it is stated that customers are in average satisfaction.

In addition it is stated that improved after sales service can offer real benefits. To measure after sales support issue, seven points were taken but it was found customers were dissatisfied with the after sales support.

5.2. Conclusion

In conducting this research, the researcher has perceived the challenges of evaluating FBBI customer satisfaction level of broadband services in Ethiopia since there is no study conducted in Ethiopia earlier. As discussed on the empirical literature, most of the studies conducted to determine the factors which influence the level of customer satisfaction but this study focuses on assessing customers satisfaction level regarding the parameters identified above.

Based on the assessment it is found that the service provisioning/delivery mechanism from giving clear information before subscribing FBBI to delivering the service to the customers was not good. It can be taken as a signal for proper design of service provisioning.

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.

Furthermore customers were discontented with the quality of the service. As discussed in the literature review part, users cannot easily compare service quality across carriers but it has an inherent value for customer satisfaction.

Even though many of the studies did not take in to account security while using FBBI service, the current information spying activity suspected by many of the government bodies become a reason to take security as a parameter to measure customer satisfaction. Besides the above result it is found that customers feel indifferent with this specific parameter while subscribing FBBI service.

The study also found that FBBI subscribers were disappointed with the after sales support trend 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 trustworthy with the customers. This also gives clue for the company to design proper after sales support program.

A single measure assumed to comprehends also taken and found that the customers were not happy with the FBBI service delivered by ET. The overall satisfaction measure might take other parameters in to consideration.

5.3. Recommendation

For a service organization, the collection, analysis and dissemination of customer satisfaction data send a message about the importance of tending to customers and ensuring that they have a positive experience with the company's goods and services. As a whole customer satisfaction can be taken as the measure of success for every organization.

Based on the discussion made above, the researcher recommends the following action items to be taken to improve the customer satisfaction tendency.

During service delivery/provisioning, the means of requesting the service must be expanded in a way that can be comfortable to the customer such as; via phone, email, partners, company websites, and other possible methods. This helps to increase the number of orders that will be generated. In addition the company has to improve the service delivery after getting requests which may be improved by signing service level agreement (SLA) with the customers.

As shown above, 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 in order to get large pool of subscribers and increase the penetration ratio of FBBI in the country.

In order to improve the quality and reliability of FBBI service, the company has to use up to date equipment and good quality copper and fiber cables to reduce the signal loss. In addition, to reduce the interruption time, the company has to work closely with security agencies to reduce the vandalism and theft. Furthermore the company has to evolve more on creating awareness about the use of the FBBI materials.

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 reduce the time it takes to identify and solve the problem.

The current study provides insights to ET higher officials about the customer dissatisfaction areas in providing quality telecom services and should strive to meet and pass customers expectation with those areas of dissatisfaction.

Generally the company has to see back its end to end service provisioning and design an integrated system from getting customer requests to supporting and billing the service after activation.

The researcher expects that this study can be used as an important input for future research. In addition further research should be conducted in order to identify the influential factors of customer satisfaction by broadening the scope of the study since there may be different IT environment in Ethiopia.

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APPENDIX A: QUESTIONNAIRE

ST.MARY UNIVERSITY
SCHOOL OF GRADUATE STUDIES
MBA PROGRAM

QUESTIONNAIRE TO BE FILLED BY FIXED BROADBAND INTERNET (FBBI) SUBSCRIBERS

This questionnaire is designed to collect information in order to assess the satisfaction level of Ethio telecom FBBI subscribers in Addis Ababa. The information shall be used as a primary data in my research which I am conducting as a partial requirement of my study at St. Mary University College for completing my MBA program.

This questionnaire is intended to secure relevant data to the study which is believed to come up with valuable recommendations for problems observed (if any). Therefore, your genuine, honest, and prompt response is a valuable input for the quality and successful completion of the project. Be assured that all information you provide will be confidential and it will be used only for research purpose.

General Instructions

- You are not required to write your name
- Open- ended questions are answered by writing on the space provided.
- Close- ended questions are answered by placing a tick (✓) mark with in the box. You can choose more than one option in this case.

Thank you in advance for your kind cooperation.

If you have any questions to ask please do not hesitate to contact me at any time through the following address:

Astatikie Alamirew

Phone: 0911509829

Email: asteabet@gmail.com/astea2006@yahoo.com

Thank you

I. RESPONDENT'S PROFILE

1. Sex
 Male Female
2. Age
 Below 25 26-35 36-45 Above 45
3. Marital status
 Single Divorced
 Married Other, Please specify_____
3. Widowed
4. What is your highest formal education attended?
 Below High school High school complete Diploma
 First Degree Master's Degree and above
5. What is your Occupation?
 Government employee Self Employed
 Non-government employee Other, Please specify_____
6. In which category of customer are you for Ethio telecom?
 Residential/Individual Customer
 Enterprise Customer
7. For what purpose do you use the FBBI you/your organization subscribed for?

8. What is the amount of bandwidth you/your organization subscribe from ET?
 Less than 3Mbps
 3Mbps to 10Mbps
 10Mbps to 50Mbps
 More than 50Mbps

II. Based on your experience as a customer of ET FBBI service, please rank your perceptions of the service provided by Ethio telecom. To what extent do you agree with each of the following statements?

S. No.	Research Questions	<i>Very Satisfied</i>	<i>Satisfied</i>	<i>Average satisfaction</i>	<i>Dissatisfied</i>	<i>Very Dissatisfied</i>
A. Service Provisioning Issue						
1.	I get clear information and consultation from customer service staffs about FBBI before I subscribe the service.					
2.	The means of requesting FBBI is easy and flexible.					
3.	The requirements used to subscribe FBBI are convincing.					
4.	FBBI is accessible and everyone can subscribe the service.					
5.	The number of days it takes to get the service is reasonable.					
B. Price Issue						
1.	The subscription and installation fee for FBBI service is fair.					
2.	The usage charge (monthly fee) for the service is rational.					
3.	I am getting better service compared to the payment I made.					
4.	The pricing scheme encourages subscribers to subscribe higher bandwidth.					
C. Quality Issue						
1.	ET has consistent speed of FBBI service.					
2.	I often access the actual bandwidth I subscribed for.					
3.	ET use up-to-date equipment to make the service reliable.					
4.	The FBBI service that ET provides has less interruption.					
5.	I am getting reliable service based on the SLA.					
D. Security Issue						
1.	I feel secured when I use the service.					
2.	The information I send and receive using this connection is confidential.					

E. After sales Support Issue					
1. When I face a problem, I can get sufficient information to solve it.					
2. Employees are professional and respond to customer request promptly.					
3. How do you rate the time it takes to get your problem solved?					
4. The company request bill for only active connections.					
5. The automated phone system made the customer service experience more satisfying					
6. How do you rate the process for getting your concerns resolved?					
7. The after sales practice is trustworthy.					
F. Overall, how happy are you with the FBBI service you subscribe?					

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

1. Where do you think need to improve most?

2. Any other comments on the service,

Thank you again for your honest and prompt response.

APPENDIX B: INTERVIEW QUESTIONS

1. What are the preconditions and requirements needed to subscribe FBBI?
2. Can you clarify the way of requesting FBBI and do you think those requested the service could get the service?
3. Do you think the number of days it will take to install everything is reasonable?
4. Do you think the pricing for FBBI is competitive if other operators were in place?
5. Do you think customers get the amount of bandwidth they subscribe consistently?
6. How could you see the quality of FBBI and do you have SLA with your customers?
7. What type of technologies do you think ET uses to provide the service?
8. How confidential is the information to be sent and receive using the FBBI?
9. How do you perform after sales support? Do you think the automated phone system is performing well to support the after sales?
10. Do you think employees were professional and respond to customer requests promptly?
11. Are you charging bill for only active connections?
12. How do you rate the end to end process of Service provisioning of FBBI?

APPENDIX C: SPSS RESULTS

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

1. Service Provisioning Issue

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.715	.718	5

2. Price Issue

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.722	.741	4

3. Quality Issue

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.735	.745	5

4. Security Issue

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.772	.778	2

5. After sales Support Issue

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.825	.833	7

II. Overall Reliability Statistics Measure

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.899	.902	24

III. Frequency Table

Sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Female	48	25.5	25.5	25.5
Male	140	74.5	74.5	100.0
Total	188	100.0	100.0	

Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Below 25	25	13.3	13.3	13.3
26 to 35	125	66.5	66.5	79.8
36-45	38	20.2	20.2	100.0
Total	188	100.0	100.0	

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	83	44.1	44.1	44.1
	Married	105	55.9	55.9	100.0
	Total	188	100.0	100.0	

Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	29	15.4	15.4	15.4
	First Degree	130	69.1	69.1	84.6
	Master's Degree and above	29	15.4	15.4	100.0
	Total	188	100.0	100.0	

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government Employee	66	35.1	35.1	35.1
	Non-Government Employee	89	47.3	47.3	82.4
	Self Employed	33	17.6	17.6	100.0

Category of Customer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Residential	2	1.1	1.1	1.1
	Enterprise	186	98.9	98.9	100.0
	Total	188	100.0	100.0	

Amount of Bandwidth Subscribed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 3Mbps	98	52.1	52.1	52.1
	3Mbps to 10Mbps	74	39.4	39.4	91.5
	11Mbps to 50Mbps	15	8.0	8.0	99.5
	More than 50Mbps	1	.5	.5	100.0
	Total	188	100.0	100.0	

Get clear info before subscribing FBBI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	12	6.4	6.4	6.4
	Dissatisfied	94	50.0	50.0	56.4
	No Opinion	45	23.9	23.9	80.3
	Satisfied	37	19.7	19.7	100.0
	Total	188	100.0	100.0	

Flexible means of requesting FBI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	21	11.2	11.2	11.2
	Dissatisfied	92	48.9	48.9	60.1
	No Opinion	47	25.0	25.0	85.1
	Satisfied	28	14.9	14.9	100.0
	Total	188	100.0	100.0	

Requirements were convincing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	4	2.1	2.1	2.1
	Dissatisfied	28	14.9	14.9	17.0
	No Opinion	81	43.1	43.1	60.1
	Satisfied	73	38.8	38.8	98.9
	Very Satisfied	2	1.1	1.1	100.0
	Total	188	100.0	100.0	

FBI is accessible

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	17	9.0	9.0	9.0
	Dissatisfied	70	37.2	37.2	46.3
	No Opinion	80	42.6	42.6	88.8
	Satisfied	21	11.2	11.2	100.0
	Total	188	100.0	100.0	

No of days to get the service is reasonable

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	26	13.8	13.8	13.8
Dissatisfied	90	47.9	47.9	61.7
No Opinion	39	20.7	20.7	82.4
Satisfied	33	17.6	17.6	100.0
Total	188	100.0	100.0	

Fair subscription and installation fee

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	8	4.3	4.3	4.3
Dissatisfied	52	27.7	27.7	31.9
No Opinion	35	18.6	18.6	50.5
Satisfied	87	46.3	46.3	96.8
Very Satisfied	6	3.2	3.2	100.0
Total	188	100.0	100.0	

Rational monthly fee

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	68	36.2	36.2	36.2
Dissatisfied	87	46.3	46.3	82.4
No Opinion	30	16.0	16.0	98.4
Satisfied	3	1.6	1.6	100.0
Total	188	100.0	100.0	

Get better service compared to price

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	49	26.1	26.1	26.1
Dissatisfied	108	57.4	57.4	83.5
No Opinion	26	13.8	13.8	97.3
Satisfied	5	2.7	2.7	100.0
Total	188	100.0	100.0	

Price scheme encourages to subscribe more

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	51	27.1	27.1	27.1
Dissatisfied	108	57.4	57.4	84.6
No Opinion	26	13.8	13.8	98.4
Satisfied	3	1.6	1.6	100.0
Total	188	100.0	100.0	

ET has consistent speed

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	50	26.6	26.6	26.6
Dissatisfied	97	51.6	51.6	78.2
No Opinion	34	18.1	18.1	96.3
Satisfied	7	3.7	3.7	100.0
Total	188	100.0	100.0	

Often access subscribed bandwidth

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	71	37.8	37.8	37.8
	Dissatisfied	77	41.0	41.0	78.7
	No Opinion	32	17.0	17.0	95.7
	Satisfied	8	4.3	4.3	100.0
	Total	188	100.0	100.0	

ET use up to date equipment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	9	4.8	4.8	4.8
	Dissatisfied	40	21.3	21.3	26.1
	No Opinion	69	36.7	36.7	62.8
	Satisfied	69	36.7	36.7	99.5
	Very Satisfied	1	.5	.5	100.0
	Total	188	100.0	100.0	

There is less interruption of service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	42	22.3	22.3	22.3
	Dissatisfied	84	44.7	44.7	67.0
	No Opinion	26	13.8	13.8	80.9
	Satisfied	36	19.1	19.1	100.0
	Total	188	100.0	100.0	

Getting service based on agreement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	68	36.2	36.2	36.2
	Dissatisfied	73	38.8	38.8	75.0
	No Opinion	41	21.8	21.8	96.8
	Satisfied	6	3.2	3.2	100.0
	Total	188	100.0	100.0	

I feel secured when I use FBI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	17	9.0	9.0	9.0
	Dissatisfied	53	28.2	28.2	37.2
	No Opinion	70	37.2	37.2	74.5
	Satisfied	41	21.8	21.8	96.3
	Very Satisfied	7	3.7	3.7	100.0
	Total	188	100.0	100.0	

Info sent with this connection is confidential

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	4	2.1	2.1	2.1
	Dissatisfied	21	11.2	11.2	13.3
	No Opinion	74	39.4	39.4	52.7
	Satisfied	77	41.0	41.0	93.6
	Very Satisfied	12	6.4	6.4	100.0
	Total	188	100.0	100.0	

I got info during problem

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	46	24.5	24.5	24.5
	Dissatisfied	99	52.7	52.7	77.1
	No Opinion	26	13.8	13.8	91.0
	Satisfied	16	8.5	8.5	99.5
	Very Satisfied	1	.5	.5	100.0
	Total	188	100.0	100.0	

Employees are professional and respond promptly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	11	5.9	5.9	5.9
	Dissatisfied	62	33.0	33.0	38.8
	No Opinion	69	36.7	36.7	75.5
	Satisfied	45	23.9	23.9	99.5
	Very Satisfied	1	.5	.5	100.0
	Total	188	100.0	100.0	

The time it takes to get problems solved

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Dissatisfied	51	27.1	27.1	27.1
	Dissatisfied	96	51.1	51.1	78.2
	No Opinion	30	16.0	16.0	94.1
	Satisfied	11	5.9	5.9	100.0
	Total	188	100.0	100.0	

Bill only active connections

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	31	16.5	16.5	16.5
Dissatisfied	72	38.3	38.3	54.8
No Opinion	45	23.9	23.9	78.7
Satisfied	40	21.3	21.3	100.0
Total	188	100.0	100.0	

Automated phone system is satisfying

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	17	9.0	9.0	9.0
Dissatisfied	82	43.6	43.6	52.7
No Opinion	65	34.6	34.6	87.2
Satisfied	23	12.2	12.2	99.5
Very Satisfied	1	.5	.5	100.0
Total	188	100.0	100.0	

Process to resolve problems

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	34	18.1	18.1	18.1
Dissatisfied	105	55.9	55.9	73.9
No Opinion	41	21.8	21.8	95.7
Satisfied	8	4.3	4.3	100.0
Total	188	100.0	100.0	

After sales practice is trustworthy

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	61	32.4	32.4	32.4
Dissatisfied	92	48.9	48.9	81.4
No Opinion	33	17.6	17.6	98.9
Satisfied	2	1.1	1.1	100.0
Total	188	100.0	100.0	

Overall Satisfaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	46	24.5	24.5	24.5
Dissatisfied	82	43.6	43.6	68.1
No Opinion	48	25.5	25.5	93.6
Satisfied	12	6.4	6.4	100.0
Total	188	100.0	100.0	

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Mr. Elias Birhanu. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Astatikie Alamirew

Name

Signature & Date

ENDORSEMENT

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

Elias Birhanu

Advisor

Signature & Date