



**St. Mary's University  
School of Graduate Studies**

**THE EFFECT OF SERVICE QUALITY ON CUSTOMER  
SATISFACTION: IN CASE OF IE (INTERNET EXPERT)  
NETWORK SOLUTIONS PLC**

**By:**

**Tesfaye Getenet Assefa**

**AUGUST, 2020  
Addis Ababa, Ethiopia**

**THE EFFECT OF SERVICE QUALITY ON CUSTOMER SATISFACTION  
THE CASE OF IE (INTERNET EXPERT) NETWORK SOLUTIONS PLC**

**BY**

**TESFAYE GETENET ASSEFA**

**ID NO.SGS/0194/2011A**

**ADVISOR: - WORKU MEKONEN (PHD)**

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

**AUGUST, 2020**

**ADDIS ABABA, ETHIOPIA**

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

**THE EFFECT OF SERVICE QUALITY ON CUSTOMER SATISFACTION  
IE (INTERNET EXPERT) NETWORK SOLUTIONS PLC  
BY  
TESFAYE GETENET ASSEFA**

**APPROVED BY BOARD OF EXAMINERS**

\_\_\_\_\_  
**Dean, Graduate Studies**

\_\_\_\_\_  
**Signature & Date**

\_\_\_\_\_  
**Advisor**

\_\_\_\_\_  
**Signature & Date**

\_\_\_\_\_  
**External Examiner**

\_\_\_\_\_  
**Signature & Date**

\_\_\_\_\_  
**Internal Examiner**

\_\_\_\_\_  
**Signature & Date**

## **ACKNOWLEDGEMENT**

First and foremost, thanks to the Almighty God My sincere and deepest gratitude goes to my advisors Worku Mekonnen (PhD) for his unreserved assistance in giving me relevant comments and guidance throughout the study. My grateful thanks also go to IE founder and CEO Mr. Meried Bekele and IE employees for their positive cooperation in giving the relevant data for the study.

# Table of Contents

LIST OF TABLES.....	vi
LIST OF FIGURES.....	vii
ACRONYMS .....	viii
Abstract.....	ix
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.1 Background of the study.....	1
1.2 Background of the Company.....	2
1.4 Statement of the Problem .....	3
1.5 Research Questions .....	4
1.6 General Objective .....	4
1.7 Specific Objectives .....	4
1.8 Significance of the Study.....	5
1.9 Scope and.....	5
1.10 Limitation of the Study.....	5
1.11 Organization of the Study .....	5
<b>CHAPTER TWO .....</b>	<b>9</b>
<b>RELATED LITERATURE REVIEW .....</b>	<b>9</b>
2.1 Theoretical literature .....	9
2.2 Empirical literature .....	16
<b>CHAPTER THREE .....</b>	<b>20</b>
<b>METHODOLOGY OF THE STUDY .....</b>	<b>20</b>
3.1 Research approach.....	20
3.2 Research Design.....	20
3.3 Population and Sample size .....	20
3.4 Data sources.....	21
3.5 Data Collection methodology .....	21
3.6 Data collection instrument .....	22
3.7 Data analysis method.....	22
3.8 Reliability and Validity.....	23
3.8.1. Reliability .....	23

3.8.2. Validity .....	23
3.9 Methods of Data Analysis .....	23
3.10 Ethical Consideration .....	23
<b>CHAPTER FOUR.....</b>	<b>25</b>
<b>DATA PRESENTATION, ANALYSIS, AND INTERPRETATION.....</b>	<b>25</b>
4.1 Response Rate.....	25
4.2 Demographic Characteristics of Respondents.....	25
4.3 Service delivered.....	26
4.4 Descriptive Analysis .....	26
4.4.1 Perception towards each item of service quality dimensions .....	27
4.4.2 Perception towards overall service quality dimensions .....	30
4.6 Analysis of Customer Satisfaction.....	32
4.7 Correlation Analysis of Service Quality Dimensions, Service Quality and IE Services Level of Satisfaction.....	33
4.7.1 Correlation analysis between overall service quality dimensions and customer satisfaction ..	33
4.8 Regression analysis .....	34
4.9 Summary of Hypotheses Testing .....	36
4.10 Conclusion.....	36
<b>CHAPTER FIVE .....</b>	<b>37</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS .....</b>	<b>37</b>
5.1 Summary of the major findings .....	37
5.2 Conclusion.....	40
5.3 Recommendation.....	40
<b>REFERENCE .....</b>	<b>42</b>

## LIST OF TABLES

Table 3.1: Respondents job title .....	20
Table 4.1: Demographic characteristics of respondents .....	24
Table 4.2 Perception statistics towards items of Tangibles .....	26
Table: 4.3 Perception statistics towards items of Reliability .....	27
Table 4.4: Perception statistics towards items of Responsiveness .....	27
Table 4.5: Perception towards items of Assurance .....	28
Table 4.6: Perception towards items of Empathy .....	29
Table: 4.7: Descriptive Statistics .....	30
Table 4.8: The overall service quality of IE .....	31
Table 4.9: overall satisfaction on the providing/provided service of IE .....	31
Table 4.10: Correlations .....	32
Table 4.11: Model Summary .....	33
Table 4.12: Coefficients .....	34
Table 4.13: Independent variables B coefficients .....	34
Table 4.14: Research hypotheses testing .....	35

**LIST OF FIGURES**

Figure 1.1: IE Network Solutions Plc. Organizational structure ..... 3

Figure 2.1: SERVPERF model ..... 12

Figure 2.2: Conceptual framework of this research ..... 17

Figure 4.1: Graphical stat representation of respondents ..... 24

Figure 4.2: Customer perceived IE services ..... 25



## **ACRONYMS**

ICT	Information and Communication Technology
IE	IE Network Solutions Plc.
PLC	Private Limited Company
SERVPERF	Service Performance Scale/Model
SERVQUAL	Service Quality Scale/Model
SPSS	Statistical Package for Social Scientists

## **Abstract**

*The main purpose of this study is to investigate the Effect of service quality dimensions of ICT service on customer satisfaction. In addition it tries to measure customer satisfaction and the quality of service offered by IE. The independent five dimensions of SERVPERF (tangibility, assurance, responsiveness, empathy & reliability) was used to measure the quality of service offered by IE and have been utilized as measurement constructs to assess the level of service quality and customer satisfaction. Primary data were collected from a sample of 18 companies for service provided from 2019 and 2020 clients of IE whom already perceived and on perceiving the service of IE and analysis using descriptive and regression on SPSS Version 20. Descriptive statistics such as frequency, mean and correlation analysis techniques are applied to analyze background information of respondents. Respondents' perception on service quality and satisfaction as well as relationship between service quality dimensions and customers satisfaction are also analyzed under descriptive statistics. Besides, regression analysis technique is applied to investigate the effect of service quality dimensions on customer satisfaction and at the same time test the hypothesis developed. The finding of the study shows that customers are satisfied on all service quality. On the base of correlation analysis implies that the relationship between service quality dimensions and customer satisfaction is analyzed and the result shows that service quality dimensions of assurance and empathy have positive and insignificant relation with customer satisfaction and tangibility, responsiveness, and reliability have negative and insignificant relation with customer satisfaction. The finding also confirms the service quality dimensions have an impact on customers' satisfaction which implying that the higher the quality of service, the higher is the level of customers' satisfaction. From this finding, it can be summarized that IE clients are satisfied with the provided services and to stay competent in the ICT sector IE shall continue improving its service quality.*

**Key words:** Service quality, Customer Satisfaction, ICT Service, SERVPERF

# CHAPTER ONE

## INTRODUCTION

This chapter starts by introducing the main theme of the research work service quality, customer satisfaction. Background information, problem statement, research questions, objective of the study, operational definitions, significance and delimitation of the study are discussed in this chapter.

### 1.1 Background of the study

In today's frequently changing competitive world, companies are losing their significant number of customers not because of the price they offered to those products or services but the quality of the product or not delivering quality service. Particularly in service giving organization, delivering high quality service is vital for their continued existence (Harris, 1996). Now in Ethiopia, the service providers' number is yearly increasing and still now there are new companies joining the market.

Service organizations range in size from big international corporations like airlines, banking, insurance, telecommunications, hotel chains, and freight transportation to a massive collection of locally owned and operated small businesses, including restaurants, laundries, taxis, optometrists, and numerous business-to-business (B2B) services (Lovelock & Wright, 1999). The information and communication technology (ICT) industry is one of the service giving organization in the world, which provides various service such as software development; telecommunication activities; publishing activities, including software publication; motion picture and sound recording activities; radio and TV broadcasting and programming; and many others. The joining of the telecommunications industry with the computing and broadcasting industries resulted in a broader definition of information and communication technology (ICT). As defined by OECD. "... ICT sector refers to equipment and service related to broadcasting, computing and telecommunication, all of which capture and display information electronically" in UN social economic council's (Report of the international telecommunication union on information and communication technologies statistics, 2004)

The Information Technology sector (Computers, networks, and related services) in Ethiopia is small compared with other top tech companies in Africa like Nigeria and Kenya but growing. ICT Human resource are limited due to small markets, low salaries, low on the job scope, and very often are implemented in a disjointed and fragmented manner. The applied solutions are also generally under-utilized. Information availability, particularly in local languages is limited. Lack of ICT standards delays widespread growth of applications, particularly in local languages. The Ethiopian government has been building a national "IT Park" with the aim of attracting IT Service companies such as those involved in business process outsourcing. However, the Ethiopian ICT Sector remains underdeveloped compared to our neighbors Kenya and Sudan.

With the lack of awareness and knowledge of the business community about the business benefits of information communication technology is among the leading challenges for the ICT sector industries. According to the study conducted by Ronabit Consults in 2018, for example, majority

of Business in Ethiopia do not have websites to promote their business for the online community. Significant number of business in Addis Ababa own computers but mainly use it as a type writer. Many own smart phones but use to browse social media contents. Business processes of most companies in Addis Ababa are manual. Business processes facing customers are in the first-row to be automated; the researcher believe, the reason is they are not usually profitable. Customer facing process automation do not usually have a direct relationship with revenue generating or profit bearing activities and cheaper when done manually. Their return on investment is indirect and takes relatively long-term to pay back as they mostly pay back through efficiency and customer satisfaction.

Currently service quality has an obvious relationship with cost, financial performance, customer satisfaction, and customer loyalty. For this cause, companies are forced to evaluate the quality of the service that they provide in order to attract and retain customers. The quick competition and development of quality of service, in both developing and developed countries has made this very significant for organizations to determine and estimate the service quality meets (Brown and Bitner, 2007).

During the past few decades service quality has become a major area of attention to practitioners, managers and researchers due to its strong impact on customer satisfaction, business performance, customer loyalty, profitability and lower costs (Guru, 2003). Customer satisfaction is important since the service nature requires an intensive contact with the customer who have different needs and different specialization. Customer satisfaction identified as a serious issue in today's Ethiopian competitive business environment. With this increasing computation IE Network Solutions is always following a professional way of doing business and has a reputation on its previous projects.

IE Networks is a fully Ethiopian owned Company that focuses on a value maximizing and is a service oriented solution provider. Established on December 2008 GC, IE Networks Has been involved exclusively in the areas of Design, Consultancy, Supply, Deployment, Integration, Support, Project Management of Network, WLAN, Unified Communications, Video Conferencing, Digital Signage, Computing, Storage, Backup, Virtualization, Datacenter Facility, Surveillance Camera, ERP. The company has a dedicated team called "Service Delivery Management" specifically working on improving the service quality of the company. The Company believes that the satisfied customers will stick to the company and also recommend for others.

Therefore, this study assesses the impact of service quality on customer satisfaction in the case of IE Network Solutions Plc. And try to identify the problem hanging over the neck of providing quality service and recommends possible solution to the identified problems.

## **1.2 Background of the Company**

IE networks is fully Ethiopian owned company that focuses on value maximizing and a service oriented solution provider.

"WE SERVE BEST YOUR IT INFRASTRUCTURE NEEDS WITH EXPERT SOLUTIONS!"

Established On December 2008 G.C, IE Networks has been involved exclusively in the areas of Enterprise campus Networking, collaboration systems , virtualization/cloud Infrastructure, Enterprise Servers Data center Storage systems, Backup Solutions, Data Center facility , security , IT Facility, ERP Software solutions, IT Services Management, Cloud and Data Analytics and Consultancy.

IE Networks is a company being built on a foundation to last for long and great in what it does they don't settle for nothing less than excellence. Only best performers who are self-motivated and passionate about their job stay with the company. The number of employees in the company is more than 90.

The company solutions are the best in the market satisfaction of clients with their commitment to service excellence is what drives them to do better every day. They are not in the business of making quick money by chasing obvious opportunities and short cuts. In fact, they already chose to win though difficult situations with hard work, competence, consistency and integrity. They lead the market by creating disciplined culture that will have much bigger effect on the work ethics of our society and overall technological development of Ethiopia in the medium to long term.



Figure 1.1: IE Network Solutions Plc. Organizational structure

### 1.4 Statement of the Problem

The Ethiopian economy has a double digit economic growth over the past decade. In 2016 the share of the service sector constitutes 46.8% of the Country's GDP of the same year. It is expected that the share of this sector will continue expanding at least in as much as the general economy of the Country is growing (Information Technology Association, 2017). Ethiopia's real gross domestic product (GDP) growth decelerated to 7.7% in 2017/18 Industry, mainly construction, and services accounted for most of the growth. Agriculture and manufacturing made lower contribution to growth in 2017/18 compared to the previous year. (World Bank, 2019).

The understanding of customer's needs within current competitive ICT industry has become an important factor for service provider's successes. Due to that, companies have moved from product-centric to a customer centric positions.

Professionals in the ICT Service Delivery argued that developed local ICT products may or may not have a technical quality but the way of delivering of the technical professional have also an impact on the customer satisfaction who are demanding the service on their own perspective. In every year we hear that a lot of ICT related graduated are joining the industry but we are not witnessing their impact on the nation technology growth like our neighbor country Kenya.

In Ethiopia every technology companies have their own different way of delivering their services to their customers. IE Network Solutions always lessons to the customers to provide world class service in this Ethiopian market. The company has taken many measures to improve its service quality. One of the example the researcher takes is the service delivery manager of the company if ITIL V3 Certified. Even though, its market share is not growing as it is expected.

Past researchers were focusing on studying on ICT product which already occupied by a firm and its quality of service on satisfying company's customer needs, like a core banking system, ATM, Wallet, Mobile Banking for banks and studying the bank's customers satisfaction on the technology products. Some of them are: Lidya Seyoum (The Impact Of Service Quality On Customer Satisfaction: The Case Of Ethio Telecom Call Center), Gemechissa (Assessment Of Customer Intention Of Internet Banking Adoption In Commercial Banks The Case Of United Bank S.C.), Eleny Rorissa (Assessment Of Performance Management System Implementation And Challenges: A Case Of Commercial Bank Of Ethiopia), Ermias Kibru (Assessment Of Customer Satisfaction With E-Banking: Empirical Evidence From Selected Commercial Banks To Ethiopia), Geletaw Mekonnen (The Impact Of Implementing Quality Management System On Organization Performance: The Case Of National Tobacco Enterprise (Eth.) S.C.

Similar to service quality, customer satisfaction can occur at multiple levels in the company for example, satisfaction with the contact person, satisfaction with the core service and satisfaction with the company as a whole.

The major objective of this study is assessing the impact of service quality on customer satisfaction in IE Network Solutions founded at Kazanchis, Addis Ababa. The study use a quantitative research design and primary data. The research try to identify the problems on providing a quality service and suggests a possible solution to the identified problems.

## **1.5 Research Questions**

1. What is the relationship between service quality dimensions and service quality in IE?
2. What is the effect of service quality on customer satisfaction?
3. What suggestions can be made to improve the current situation?

## **1.6 General Objective**

To assess the effect of service quality on customer.

## **1.7 Specific Objectives**

- To examine the relationship between quality service and customer satisfaction of IE
- To identify the service quality factors that affect customer satisfaction

- To provide some suggestions for the continuous improvement of services of IE Network Solutions

## **1.8 Significance of the Study**

This study have a great deal of importance/significance for the mangers of Ethiopian ICT Sector companies because it provide information about the level quality of service the company is providing to its customers from the point of view of the customers. It will help them to know whether the company is delivering its promise to the customers and also it will provide them insight about the customer’s perception of service and methods to improve them. The research also give some insight about service quality and customer satisfaction in the Ethiopian ICT industry. It will serve as a spring board for other researchers to undertake further investigation on the area.

This study will be used as a reference for Companies operated in Ethiopian ICT sector to understand the customer understanding (perspective) of ICT service and how they wanted it in improving their business (organizational goal) and to understand the gap between the technology service providers and the consumers, which will certainly help the industry (service providers) to be more close to the customers (service receivers) than ever. The study suggest ways and means of tackling the problem at hand, to fill in current gaps specified by the problem; to shed light for further studies; it will have practical significance on the ICT industry.

## **1.9 Scope and**

To study the effect of ICT sector companies’ service quality in a way of satisfying their customers, there are a number of registered ICT companies in all over Ethiopia. Due to time and resource constraint for the purpose of this study the researcher study on a Company called IE and its customers. This study is conducted to evaluate the quality of services provided and the level of customer satisfaction.

## **1.10 Limitation of the Study**

IE is providing different services and has different customers, among those services and customers the scope is limited to IE major and current customers who located in all over Ethiopia.

The researcher evaluate how consumers perceive the service quality in IE services in general. To make the study meaningful the important information is gathered as a form of questionnaires from selected customers.

## **1.11 Organization of the Study**

The study is organized into three major chapters. The first part is the introductory part composed of background of the study, statement of the problem, research questions, Research general and specific Objectives, Significance of the Study, Scope and limitation of the study, and organization of the study. The second chapter deals with Review of Related Literature, in the third chapter research design and Methodology.

## **Definition of Terms**

Table 1.1 Definition of terms

<b>Term</b>	<b>Definition</b>
Customer Satisfaction	Satisfaction is the consumer's fulfilment response. It is a judgment that a product or service feature, or the product of service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under- or over-fulfilment. (Oliver, 1997).
Service Quality	Service quality is the discrepancy between consumers' perceptions of services offered by a particular firm and their expectations about firms offering such services. (Parasuraman, 1985)
SERVPERF	SERVPERF is a service quality model which measures service quality by using the perceptions of customers.
Tangibility	IE overall appearance, employees' appearance, completeness and modernity of facilities & equipments in the company
Reliability	Ability of the IE and its employees to perform the promised service accurately and dependably
Responsiveness	The willingness of IE employees to provide prompt service and help customers.
Assurance	The knowledge and courtesy of employees in IE and their ability to convey trust and confidence on customers
Empathy	The ability of the IE employees to provide a carrying and individualized attention to customers and understand customers need
Network and Facility	In computing, Wireless LAN or Wireless Local Area Network is a term to refer to a Local Area Network that does not need cables to connect the different devices. People can access the network from where they want; the length of the cable no longer limits them. IT Facility includes managing and oversee customers data centers. It is a continuous improvement initiatives to existing corporate data centers and recommended infrastructure upgrades to improve overall system performance and reliability
Software	Software, in its most general sense, is a set of instructions or programs instructing a computer to do specific tasks. Software is a generic term used to describe computer programs that run on PCs, mobile phones, tablets, or other smart devices. Software is often used to describe all the functional aspects of a computer that do not refer to its physical components (hardware). Scripts, applications, programs and a set of instructions are all terms often used to describe software.
Collaboration	collaboration is a term used for software or technologies that allow multiple users to work together on a project in real time, or simultaneously. Challenges related to real-time collaboration involve making files commonly available to multiple users in different locations, and allowing these users to communicate without signal delays. Collaboration software enables the sharing, processing and management of files, documents and other data types among several



Managed Services	<p>users and/or systems. This type of software allows two or more remote users to jointly work on a task or project.</p> <p>A managed service provider is a type of IT service that provides server, network, and specialized applications to end users and organizations. These applications are hosted and managed by the service provider.</p> <p>Managed service providers tend to be Web hosting or application service providers that allow users to outsource their network and application resource procedures under a delivery agreement. In most cases, Managed service provider own the entire physical back-end infrastructure and provide resources to end users remotely over the Internet on a self-service, on-demand basis.</p>
Cloud Solutions	<p>A cloud based solution refers to on-demand services, computer networks, storage, applications or resources accessed via the internet and through another provider’s shared cloud computing infrastructure. The benefits of cloud based solutions to end users and businesses include increased capacity, scalability, functionality, and reduced maintenance and cost for computer infrastructure or in-house staff. Additionally, cloud-based solutions can enable companies to focus on revenue driving initiatives rather than time-consuming, non-core business tasks. Cloud computer pricing models are categorized by servers in the cloud, sites/applications in the cloud, and storage in the cloud and the majority of cloud providers tend to offer “pay-as-you-go” subscription based models which enable companies closely manage costs as well as scale up and down as needed.</p>
Security	<p>IT infrastructure is protected from cyberattacks is critical for businesses today. Much like a firewall in real life protects parts of a building from a spreading fire, an IT firewall protects computer systems from the dangers posed by an internet connection. A firewall is essentially a component located between a computer or a network of computers and the internet. The specific purpose of a firewall is to prevent unauthorized access to the computer systems it is configured to protect. Firewalls take the form of software, hardware or a combination of both and are not limited to use by large companies. Anyone who owns a computer (including home users) that is connected to the internet for even short periods of time should have a firewall configured.</p>
ITIL®	<p>It stands for the Information Technology Infrastructure Library. ITIL® is the international de facto management framework describing “good practices” for IT Service Management. The ITIL® framework evolved from the UK government’s efforts during the 1980s to document how successful organizations approached service management. By the early 1990s they had produced a large collection of books documenting the “best practices” for IT Service Management. This library was eventually entitled the IT Infrastructure Library. The Office of</p>

Government Commerce in the UK continues to operate as the trademark owner of ITIL®.( 2009 Edition Study Guide Book)

## **CHAPTER TWO**

### **RELATED LITERATURE REVIEW**

This chapter shows about the detailed theoretical concepts that the researchers believe they provide a good back ground to carry out the research work. Existing literatures related to service quality and customer satisfaction is assessed. IE's brief background information with existing studies related to service quality and customer satisfaction which focused on the company is presented and theoretical frame work on the relationship between customer satisfaction and service quality developed.

#### **2.1 Theoretical literature**

##### **Definition of Service**

A service is a performance offered by one party to another. The service process may include to a physical product, the performance is basically intangible and does not generally outcome of the ownership of any of the production (Lovelock & Wright, 1999 pp. 84)

Services have traditionally been difficult to define because of they are different in kind. In the process of services are created and delivered to customers is mostly hard to understand since a lot of inputs and outputs are intangible. Most people have little struggle of defining manufacturing or agriculture, but defining service can be more difficult for them (Lovelock & Wright, 1999).

When taking the concept of a service, most often the focus is on activities, deeds, processes and interactions (Lovelock, 1991; Solomon, Surprenant, Czepiel, & Gutman, 1985; Vargo & Lusch, 2004a; Zeithaml & Bitner, 2003). For the aim of analysis, a service can be considered in three different ways: 1) as a process; 2) as a solution to customers' problems; and 3) as a beneficial outcome for customers. The first of these consideration (service as a process) is discussed by Lovelock (1991, p. 13), who defines services as "a process or performance rather than a thing"; a view also supported by Grönroos (2001), who explain that a service is a process with an outcome of partly real-time production and consumption processes. Gummesson (2007) agrees that services are continuously changing activities and processes, whereas 'goods' are static things. The second perspective (service as a solution to customers' problems) is presented by Grönroos (2001), whose view of services focuses on the customers, where services are provided as solutions to customers' problems. From this perspective, service is considered as an activity of an intangible nature that usually takes place during the interaction between the customer and service employees to provide solutions to customers' problems (Grönroos, 2001). The final perspective (service as a beneficial outcome) is discussed by Vargo and Lusch (2004a, 2004b), who popose that service is the main function of business companies: it is a use of specialized competences, knowledge and skills through deeds, processes, and actions for the benefit of another entity or the entity itself.

Kumar's (2008) description of services attributes is comprehensive and described as:

- Services are typically intangible.
- The production and consumption of many services are simultaneous.
- The service may not be separable from the person or the seller.

- The customer may be involved in the service performance.
- The service process including staff at the customer interface becomes integral to service quality.
- Variability exists in services depending upon inputs and resources; quality can be affected and resulted in lack of standardization so the use of quality indicators and standards in the conventional sense is difficult.
- Many purchases cannot be stored to meet fluctuations in demand.

## **Service Quality**

Quality is degree to which a set of inherent characteristics fulfils requirements (ISO 9000:2015). Now a day's quality is considered as a strategic tool for reaching maximum operational efficiency and improved business performance.

The first attempts to conceptualize service quality were in the 1980s and were based on suggested services characteristics and research in the field of reasoning psychology (Churchill & Surprenant, 1982; Hoffman, 1986; Mandler, 1975; Oliver, 1980; Russell & Pratt 1980; Russell, Ward, & Pratt, 1981). On the starting poin, the comparison between the actual service performances with standards became a basis for conceptualizations of service quality (Grönroos, 1984; Parasuraman et al., 1988). According to Grönroos (1984), the perceived service quality is “the outcome of an assessment process where the customers compare their expectations with service they have received” (p. 37). Parasuraman et al. (1988) supported the same view, defining the concept of service quality as “a form of attitude related but not equivalent to satisfaction that results from a comparison of expectations with perceptions and performance” (p. 15) Parasuraman et al. (1988). Parasuraman as cited in Oladepo & Abimbola (2014) defines service quality as the degree and direction of discrepancy between the consumer’s perceptions and expectations or the extent to which a service meets or exceeds customer’s expectations

Customer sometimes known as client, buyer, or purchaser is the recipient of a good, service, product or an idea – obtained from a seller, vendor, or supplier via a financial transaction or exchange for money or some other valuable consideration. (Reizenstein, 2004).

Definitions of service quality, therefore, focus on meeting the customers’ needs and requirements, and how well the service delivered matches the customers’ expectations of it (Philip and Hazlett, 1997).

## **Service Quality Measurement**

Many conceptual quality models have been postulated to bridge the understanding gap of the main concepts incorporated under the umbrella of service quality better. Despite the accumulated information in various service quality models, still there is lack of substantial knowledge as to how consumer evaluations of a particular service are really formed (Philip and Hazlett, 1997).

According to Gronroos (1994) cited in Anglova et,al. (2011) there are three dimensions of service quality stated as:

1. *Technical Quality*, which involves what the customer is receiving from the service delivery. This can be measured by the consumer in a rather objective manner.
2. *Functional Quality*, which involves the manner in which the service is delivered. This concerns the psychological interaction between the buyer and the seller perceived in a very subjective way, and would include elements such as: Attitudes and behavior of employees; Approachability of service personnel; Accessibility of service; Appearance and personality of personnel; Relationship between employees, and Interrelationships between employees and customers.
3. *Corporate Image* dimension of quality is the result how consumers perceive the firm, and it is expected to be built up mainly by the technical and functional quality of its services, and will eventually affect service perceptions.

### **Technical and Functional Quality Model**

This model of quality promulgated by C. Gronroos in 1984. The author identified three components of service quality viz; technical quality, functional quality and image:

- (1) Technical quality is the quality of what consumer actually receives as a result of his/her interaction with the service firm. It is important to the customer and uses it to evaluate the quality of service.
- (2) Functional quality is how the customer gets the technical outcome which is important to the customer and shapes views of service he/she has received.
- (3) Image is very important to service firms. It is mainly the result of technical and functional quality of service the firm delivers including the other factors such as tradition, ideology, word of mouth, pricing and public relations.

### **Service Quality Model**

One of the most known measurements of service quality is the dimensions from the SERVQUAL model. In this model for the very first time, "Parasuraman et al. (1985) identified 97 attributes which were reduced into ten dimensions; they were found to have an impact on service quality and were regarded as the criteria that were important to access customer's expectations and perceptions on already delivered service (Kumar et al., 2009.).

The SERVQUAL scale which is also known as the gap model by Parasuraman, et al.(1988) has been one of the best ways to measure the quality of services provided to customers. This service evaluation method has been proven and reliable by some authors (Brown et al., 1993). They thought that, when perceived or experienced service is less than the expected service; it implies less than satisfactory service quality; and when perceived service is more than expected service, the implication is that service quality is more than satisfactory (Jain et al., 2004.). From the way this theory is presented, it seems the idea of SERVQUAL best fits the evaluation of service quality from the customer perspective. This is because when it is stated "perceived" and "expected" service, it is very clear that this goes to the person, who is going to or is consuming the service; who definitely is the consumer/customer.

From the models of service quality presented in the literature, it is important to see five of them as follows:

**Gap 1:** Difference between consumers' expectations and management's perceptions of those expectations, i.e. not knowing what consumers expect.

**Gap 2:** Difference between management's perceptions of consumer's expectations and service quality specifications, i.e. improper service-quality standards.

**Gap 3:** Difference between service quality specifications and service actually delivered i.e. the service performance gap.

**Gap 4:** Difference between service delivery and the communications to consumers about service delivery, i.e. whether promises match delivery?

**Gap 5:** Difference between consumer's expectation and perceived service. This gap depends on size and direction of the four gaps associated with the delivery of service quality on the marketer's side.

Service Quality Dimensions In Parasuraman et al. (1985, 1918) service quality gap model five dimensions and 22 service attributes are identified these dimensions are:

- **Reliability** – is the ability to execute the promised service accurately and without fail. Reliable service performance is a customer expectation and means that the service is accomplished on time, every time, in the same manner, and without errors. For example, receiving their mail at approximately the same time each day is important to certain people. Reliability extends into the back office, as well as where accuracy in billing and record keeping is expected.
- **Responsiveness** –is the willingness to help customers by providing prompt services. Keeping customers waiting for no apparent reason creates unnecessary negative perceptions of service quality. In the event of a service failure or interruptions, the ability of the service provider to recover quickly with professionalism can create very positive perceptions of quality. For serving complimentary drinks on a delayed flight can turn a potentially poor customer experience into one that is remembered favorably.
- **Assurance** – relates to the knowledge and consideration of customer service staff and their ability to express confidence and trust. The assurance dimension includes the competence to perform the service offered, politeness and respect for the customer, effective communication with the customer, and the general attitude that the server has the customer's best interest at heart.
- **Empathy** - Individualized attention to customers, caring about the customers. Empathy is the provision of caring demonstrated by the customer service staff and individualized attention provided to customers. Empathy includes approachability, sense of security, and the effort to understand customer's needs.
- **Tangibles** – includes the appearance of physical facilities, equipment, personnel, and communication materials. The overall condition of the physical surroundings is tangible evidence of the care and attention to details demonstrated by the service provider. The

assessment of this dimension can extend to the conduct of the other customers being provided the services, such as noisy guests in the next room at a hotel.

Cronin and Taylor (1992) argued that the conceptualization and operationalization of service quality model, SERVQUAL (Parasuraman et al., 1985, 1988) are inadequate measure of the relationship between service quality, customer's satisfaction, and purchase intentions. In addition, Brow and Swartz (1989), Crosby (1979), Garvin (1983), and Rathmell (1966) confirmed that service quality is abstract and difficult to measure.

They proposed what is referred to as the 'SERVPERF' scale. Besides theoretical arguments, Cronin and Taylor (1992) provided empirical evidence across four industries (namely banks, pest control, dry cleaning, and fast food) to verify the superiority of their 'performance-only' instrument over disconfirmation-based SERVQUAL scale.

Cronin and Taylor (1992) reviewed and analyzed a performance model based on the SERVQUAL (Parasuraman et al., 1985, 1988) measurement which was supported by Mariz et al., (1975), Churchill and Surprenant (1982). Findings of Hawes and Rao (1985) supported SERVPERF construct and they argue that it can measure customers' perceptions of service firm's performance. Statistical test conducted by Cronin and Taylor (1992) proves the significance of SERVQUAL affects in two industries (banking and fast food) out of four but SERVPERF (Figure 2.1) was effective in all four industries chosen (banking, pest control, dry cleaning, and fast food).

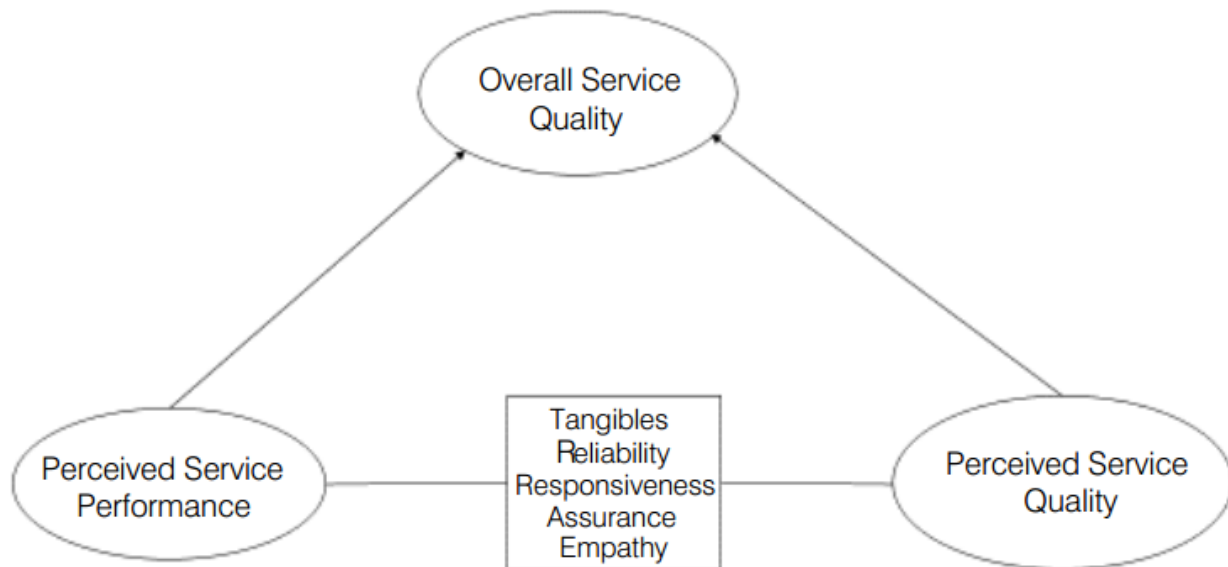


Figure 2.1: SERVPERF model

The SERVPERF method (Service Performance) is less known, however, it is an interesting method of the service quality analysis. It was created as a contrast proposal to the SERVQUAL method. The basic assumption the SERVPERF method is to improve the service quality. It was created by Cronin and Taylor, who found out that we cannot measure customer expectations, because the expectations belong to the unclear and variable category. They can change very easily. The SERVPERF method, unlike the method SERVQUAL, examines only the level of quality of the received, realized service (perception), and compares it to the ideal services (STOMA, 2012). This

method gets rid of the subjectivity, because the customer does not specify in advance its often unreasonable expectations about the service. The general formula of the method is easy, which from a practical point of view makes it easier to apply. The service quality is compared to customer perception (KUCIŃSKA, 2007; KUCIŃSKA; KOŁOSOWSKI, 2009). This method is therefore easier to use and less time-consuming compared to the SERVQUAL method (GILMORE, 2003).

Cronin and Taylor (1992) in their empirical work challenged the framework of Parasuraman, Zeithaml and Berry (1985, 1988) with respect to conceptualization and measurement of service quality, and offered a performance-based measure of service quality called 'SERVPERF' illustrating that service quality is a form of consumer attitude. They argued that SERVPERF was an enhanced means of measuring the service quality concept. Their study was later replicated and findings suggest that little if any theoretical or empirical evidence supports the relevance of the E-P=quality gap as the basis for measuring service quality.

Original researchers of SERVPERF argued that due to the limitations of operationalization, conceptualization, measurement and applications of SERVQUAL's scale, the performance-based measure was an enhanced means of measuring the service quality concept, causing an interesting disagreement in service quality research. However, later Parasuraman, Zeithaml and Berry (1994a) responded to the concerns of Cronin and Taylor (1992) and Teas (1993) by empirically proving that the validity and alleged severity of many of those concerns raised by them were questionable, and in fact elaborated that though their approach for conceptualizing service quality could be revised, leaving it altogether in preference of the alternate approaches as proclaimed by the critics did not seem justified. In another empirical work, Parasuraman, Zeithaml and Berry (1994b) refined SERVQUAL's structure to embody not only the discordance between perceived service and desired service, but also the discrepancy between perceived service and adequate service.

Methodologically, the SERVPERF scale represents marked improvement over the SERVQUAL scale. Not only is the scale more efficient in reducing the number of items to be measured by 50 percent, it has also been empirically found superior to the SERVQUAL scale for being able to explain greater variance in the overall service quality measured through the use of single-item scale.

For those reasons, Cronin then argued for the superiority of the performance based-only (SERVPERF) measures of service quality as compared to the "perceptions-minus-expectations" measures (Cronin Jr. and Taylor, 1994). Despite the fact that SERVQUAL is the more commonly used framework since its introduction as it has been used longer, this research use the SERVPERF model. SERVPERF measures are based only on consumers' perceptions of the performance of a service provider, which explain more of the variation in service quality. While using SERVPERF, it is noted that while Cronin and Taylor (1992) have argued strongly in defense of SERVPERF, its scale has yet to be empirically tested in as many industries as has SERVQUAL. SERVPERF has been identified that it has been used to measure service quality in entertainment parks, aerobic schools and investment consulting companies, retail companies, banks, hospitals and higher education foundations (Yılmaz, 2011).



## **Choice of Service Quality Model of the Study**

SERVPERF is the brain child of Cronin & Taylor (1992) who after extensive research and investigation proved that the model of SERVPERF is a better measurement of service quality for service providing industry.

Primary, SERVPERF is found to be superior to the SERVQUAL scale for being able to explain greater variance in the overall service quality measured through the use of single item scale and it has been empirically proofed. It is also evident that SERVPERF is more efficient in reducing the number of items to be measured by 50% than SERVQUAL (Babakus & Boller, 1992 cited in Shanka, 2012).

Moreover, according to Cronin and Taylor (1992), their performance based SERVPERF scale is a better method of measuring service quality. They claim that this scale's reliability ranges between 0.884 and 0.964 depending on the industry type and exhibits both convergent and discriminate validity (Mesay, 2012). In addition, it is more concentrated on functional quality of dimensions which is good to assess the impact of the quality of outsourcing service delivery.

## **Customer Satisfaction**

Customer satisfaction can be defined as a person's feeling state, either pleasure or unhappiness, succeeding from comparing a product's perceived performance (or outcome) in relation to the person's expectations as cited on (Zhilin, Minjoon, Robin, 2004). Customer satisfaction can also be defined as a response of consumer's fulfilment; i.e., it is a judgment whether a product or service feature, or product or service itself, provides a pleasurable level of consumption-related fulfilment (Oliver, 1997; Zeithaml and Bitner, 2000). As customer satisfaction reflects the degree of a customer's positive feeling about a service provider, it is important for service providers to understand customers' perception of their services because a high level of customer satisfaction do have a positive effect on customer loyalty (Deng, Lu, Wei and Zhang, 2009).

Generally, the concept satisfaction can be seen as a transaction-specific satisfaction and the cumulative satisfaction (Bouldingetal, 1993; Jones and Suh, 2000; Yi and La, 2004 as cited in Munusamy, Chelliah and Mun 2010).

Customer satisfaction or dissatisfaction is the outcome of providing value that meets or doesn't meet the customer's need in that situation. Service quality must be measured as antecedent to both customer value and satisfaction, measure the value perceived by customers during usage, and measure the satisfaction or dissatisfaction that is the realized end state (Oakland,2006).

As Giese and Cote, (2000,) argue that there is no generic definition of customer satisfaction. Having carried a study on various definitions on satisfaction, they put forward customer satisfaction as a response (cognitive or affective) that pertains to a particular focus (i.e. a purchase experience and/or the associated product) and occurs at a certain time.

The other definition of customer satisfaction is an individual's feeling of pleasure (or disappointment) resulting from comparing the perceived performance or outcome in relation to the

expectation (Oliver, 1981; Brandy and Robertson, 2001; Lovelock, Patterson and Walker, 2001 as cited in Munusamy, Chelliah and Mun 2010).

Generally, the concept satisfaction can be seen as a transaction-specific satisfaction and the cumulative satisfaction (Boulding et al., 1993; Jones and Suh, 2000; Yi and La, 2004 as cited in Munusamy, Chelliah and Mun 2010). On the other hand, Lonial and Zaim, (2000 as cited in Oladepo & Abimbola, 2014) put customer satisfaction as the customer's positive or negative feeling about the value that was received after the consumption of ideas, goods and services. According to the authors, if using a product or service yields the desired consequences, then the consumer perceives high customer value which in turn leads to customer satisfaction (Lonial and Zaim, 2000 as cited in Oladepo, & Abimbola, 2014).

Customer satisfaction has long been known as one of the serious success factor in today's competitive business environment as it affects companies' market share and customer loyalty. "Satisfied customers be likely to be less influenced by competitors, less price sensitive, and stay loyal longer" as cited by (Zhilin, Minjoon, Robin, 2004).

### **Customer Perception of Service Quality**

Customer perceived service quality can be defined as a global assessment or attitude relating to the power of a service relative to competing presents (Parasuraman et al 1988) as cited on (Zhilin, Minjoon & Robin, 2004). Perceived service quality results from comparisons by consumers of expectations with their perceptions of service delivered by the suppliers (Zeithaml, 1988). It is argued that the key to ensuring good service quality perception is in meeting or above what customers expect from the service. Thus, if perception of the actual service delivered by the supplier falls short of expectation, a gap is created which should be addressed through strategies that affect the direction either of expectations or perceptions, or both (Parasuraman et al., 1988).

There has been much debate on whether service quality dimensions are the experiences of customer satisfaction, according to prior research (Cronin and Taylor, 1992; Zeithaml, Berry and Parasuraman, 1996). Nevertheless, there are some empirical studies, which have shown that service quality is related to customer satisfaction (Cronin and Taylor, 1992; Levesque and McDougall, 1996; Taylor and Baker, 1994; Zeithaml et al., 1996; McDougall and Levesque, 2000). There were also studies on the mobile phone service markets, which suggested that service quality positively affects customer satisfaction (Kim et al., 2004; Kuo et al, 2009; Tung, 2004; Turel and Serenko, 2007). In addition, Brady and Robertson (2001) had confirmed the predecessor role of service quality with respect to customer satisfaction in their research.

## **2.2 Empirical literature**

### **The Relationship between Service Quality and Customer Satisfaction**

The relationship between customer satisfaction and service quality has received an attention in the literature Bolton and Drew; (1994). The key difference between service quality and customer satisfaction is that quality relates to decision-making delivery of the service while satisfaction reflects customers' experiences with that service. They argue that quality improvements that are

not based on customer needs will not lead to improved customer satisfaction (Iacobucci et al, 1995).

Despite the fact that factors such as price, product quality, delivery etc. can affect customer satisfaction, perceived service quality is a component of customer satisfaction (Zeithaml, 2006). Satisfaction and service quality have certain things in common, but satisfaction generally is a broader concept, whereas service quality focuses specifically on dimensions of service (Wilson, 2008). This theory conforms to the idea of Wilson (2008) and has been confirmed by the definition of customer satisfaction presented by other researchers.

Bolton and Drew (1994) pointed out “customer satisfaction depends on pre-existing or contemporaneous attitudes about service quality”. There is also a lot of argument regarding whether customer satisfaction is the predecessor of service quality or the outcome of service quality. “Originally scholars take the position that satisfaction is an antecedent of service quality since to reach an overall attitude (service quality) implies an accumulation of satisfactory meeting (Bolton & Drew, 1991). However, other scholars take the opposite view that service quality is the originator of customer satisfaction (Cronin & Taylor, 1992); (Ekinci, 2004); (Rust & Oliver, 1994); as cited on (Harr, 2008).

More evidence has been proved that the service quality acted as one of the factors that influence satisfaction. Parasuraman (1985) in their study confirmed that when perceived service quality is high, then it will lead to increase in customer satisfaction. Some other authors also acknowledged that customer satisfaction is based on the level of service quality being provided by the service entities (Saravana & Rao, 2007).

### **Measurement of Service Quality**

Measurements need to take account of the service process, we need to measure both tangible and intangible aspects of services and we should take account of the specific context in which a service occurs. Given that services are processes, measurements need to take account of the complete service process. Such measurements need to address all stages in the service experience, the pre-, during and post-service experience of the customer and, where the design of a service is linked to technology, if appropriate (Gilmore, 2003).

### **SERVPERF scale**

Cronin and Taylor (1992) examined SERVQUAL scale and analyzed the relation of the questions in the scale with service satisfaction (Jain and Gupta, 2004). SERVQUAL Scale developed the SERVPERF scale, based on the content of SERVQUAL scale, by asserting that it is incompetent to measure the performance (Cronin and Taylor, 1992). Cronin and Taylor (1994) developed SERVPERF scale, based on performance has been recently supported by most researchers (Burch et al., 1995; Oliver, 1993).

Although criticism on SERVPERF, they experienced it in four basic service sectors (e.g., banking, insect control, dry-cleaning and fast-food). They developed SERVPERF scale, performance-based tool, versus SERVQUAL scale (Jain and Gupta, 2004). Thus, Cronin and Taylor (1992) revealed SERVPERF as an alternative measurement tool by asserting that the gap between performance

and expectation should be measured on only performance-based (Yılmaz, 2011). 22 variables and five basic dimensions developed for SERVQUAL scale by Parasuman et al., in 1988, took place in standard (Okumus and Yasin, 2007).

## Conceptual Framework of the Study

The conceptual framework is the blue print of the research work that guides the researcher to conceptually understand the research and outline and operationalize the dependent and the independent variables so that the measurement, processing, analysis of the data and interpretation of the result been easy and meaningful.

Customer satisfaction is believed to affect post-purchase perception and future decisions of customers. The relationship between service quality and customer satisfaction has been addressed in several studies including Cronin and Taylor, 1992, Oliver, 1993.

According to Cronin and Taylor (1992) service to customers and quality service are a vital antecedent of customer's satisfaction. From the above discussion of literature review, it is clear that there is a relationship between service quality and customer's satisfaction where the former eventually leads to customer's satisfaction. Literature availed a number of models to measuring service quality. SERVQUAL and SERVPERF are among the models which researcher are using most often. Both models use five service quality dimensions. The empirical studies also shows that service quality dimensions have relations with service quality. It is evident that service quality dimensions have impact on customer satisfaction as various articles and journals show though with varying degree. SERVPERF model is an improvised model of Parasurman's SERVQUAL. While SERVPERF mainstay is perceived service quality, SERVQUAL approach integrates the service quality and satisfaction.

Based on the above literature review the following conceptual framework is developed.

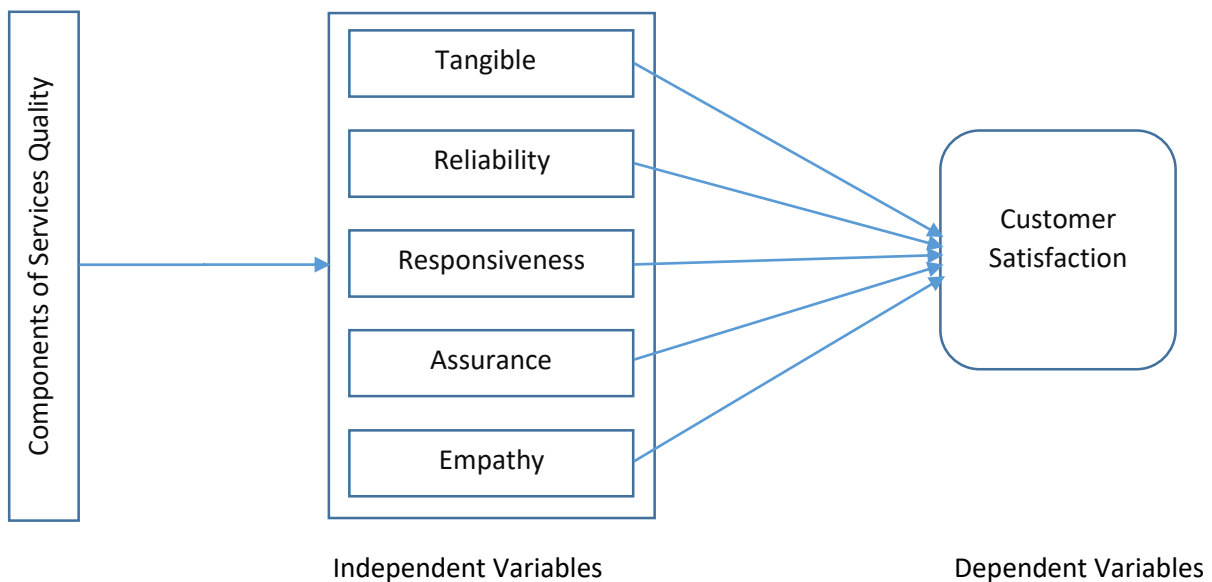


Figure 2.2: Conceptual framework of this research

The above figure presents the study conceptual framework, which essentially specifies that overall customers' satisfaction (dependent variable) would be a function of reliability, tangibility, responsiveness, assurance, and empathy (independent variables).

## Research Hypotheses

Based on the above conceptual framework the following research hypotheses are formulated to be tested.

1. **H01:** Service Quality Dimensions (Tangibles, reliability, responsiveness, Assurance & empathy) will have a significant effect on customer satisfaction.

## CHAPTER THREE

### METHODOLOGY OF THE STUDY

This chapter outlines the methodology used in the research: The research purpose and research design is mentioned followed by data collection method, population, sampling frame, sampling technique.

#### 3.1 Research approach

According to John, (2014) Research approaches are plans and the procedures for research that extent the steps from wide-ranging assumptions to detailed methods of data collection, analysis, and interpretation. The selection of a research approach is also founded on the nature of the research problem or issue being addressed, the researchers' personal experiences, and the audiences for the study. There are three fundamental approaches to research (a) qualitative (b) quantitative (c) mixed methods. According to Christensen, (1985) noted that quantitative survey is the most suitable one to use if the purpose of the study is to define the degree of relationship which exists between the dependent and independent variables. Therefore this research use quantitative research approach hence, it examine and measure the relationship between service quality and customer satisfaction. Therefore; the quantitative method is used by bearing in mind customers of the company and questionnaires are distributed.

#### 3.2 Research Design

According to Singh, (2006), research design is fundamental statement of the object of the analysis and the approaches for collecting the evidence, analyzing the evidences and reporting the findings.

A research design provides a framework for the collection and analysis of data. To this effect, both descriptive and explanatory research were applied for the study using quantitative research approach to analyze data collected as a sample. Descriptive study design is appropriate for it enables the researcher to describe the existing situation of outsourced service quality and customer satisfaction in line to the service quality dimensions. An explanatory or causal research designs also be used in this study. Explanatory research used to explain the relationship between dependent variable (customer satisfaction) and Independent variables (reliability, tangibility, empathy responsiveness and assurance) and as well as the impact of service quality dimensions on over all service quality and customer satisfaction, causal research design was used.

To accomplish the study objective and to answer the stated research questions, descriptive and inferential statistics are applied. Descriptive statistics such as frequency, percentage, mean and standard deviation are used to assess service quality and measure customer satisfaction level in IE. Inferential statistics such as correlation is applied to identify the relationship between service quality dimensions and customer satisfaction.

#### 3.3 Population and Sample size

Since IE is in B2B business and currently IE has 19 different customer companies, and the companies are scattered all over Ethiopia and the researcher focused on all the 19 companies. Since it would be difficult, time consuming and costs to visit and conduct an information gathering

survey on all of the customer companies employees and physical visit was imposible due to the current COVID-19 situation, the researcher takes a representative ICT Heads (or project managers) from the customers’ side. Total population sampling is a type of purposive sampling technique that involves examining the entire population.

The total population size of this study is all of 19 currant companies of IE. But because of time and budget constraints the researchers of this study only used representative point of contact person from the 19 customer companies. So that in this study the population and the sampling size is the same.

From the 19 companies the questionnaire is distributed to

<b>Respondents Job Title</b>	<b>Number</b>
ICT Directorate Director	10
ICT Director	4
IT Manager	4
Network Administrator / System Administrator	1

Table 3.1: Respondents job title

### **3.4 Data sources**

For the sack of achieving the purpose of this study the relevant data collected or obtained from primary source of data.

It is clear that data obtained from primary source very important for the reliability of research output. Because it help a researcher to generate a clear and more detailed understanding of problem at hand. Primary data is obtained through the administering of questionnaires.

Reliability of secondary data must be combined with primary data. Company background data were gathered from the company. As well as the data gathered from articles to review related theories and empirical findings in order to have better understanding of customer satisfaction, service quality and SERVPERF model.

### **3.5 Data Collection methodology**

Quantitative and qualitative data were gathered from primary data sources. Primary data are described as those items that are original to the problem under study. This undertaking access and generate primary data from respondents sampled for the study. Primary data are necessary in order to get relevant, original and reliable firsthand information about the problem under study. Questionnaires are the major tool of capturing the primary data because of its advantages over the other methods and its efficiency or ability to capture more information from the source (Kothari, 1992). The questionnaires was arranged in close ended questions and prepared by English languages. They are usually seen as text that is produced much later than the events being studied, offering an interpretation and conversion of the primary data into an account that may be consulted by others (Mertens, 1998).

### **3.6 Data collection instrument**

The questionnaire is prepared in English language and it has three parts. The first part contained five questions which focus on the general background of the respondents. These questions include age, sex, educational qualification, and list of services which IE service.

The second part of the questionnaire is developed based on five dimensions of service quality dimensions of the SERVQUAL system i.e, tangibility, reliability, responsiveness, assurance, and empathy based on Parasuraman et al. (1988). These five dimensions of service quality incorporates 22 items of SERVPERF model where the later 22 items are distributed among five service quality dimensions. The 22 items are distributed among the five dimensions of service quality as follows; four items are put under the tangibility dimension, five items are related to the reliability dimension, four items correspond to responsiveness dimension, four items distributed to assurance dimension and finally the remaining five items are part of the empathy dimension.

The third part of the questionnaire requests respondents to rate their perception of overall service quality of IE's service delivery and their level of satisfaction on a five point Likert scale during the delivery of outsourced service of employment.

Secondary data sources are the other information and data source of the research which include literatures. These enable the researcher to have better understanding of customer satisfaction, service quality and SERVPERF model. The medium of these data are books, articles, journals and internet.

### **3.7 Data analysis method**

After the relevant data is collected, it was analyzed using statistical package for social sciences (SPSS). Each research questions answered accordingly and output of the analysis is presented in tables and finally their implications are explained.

Descriptive statistics like frequency, mean and correlation analysis techniques are applied to analyze background information of respondents, to analyze respondents' perception on service quality and satisfaction as well as relationship between service quality dimensions, overall service quality and customer satisfaction. In addition, inferential like regression analysis techniques used.

Percentage and frequency apart from helping to discuss the general information of the respondents, it has been also applied to assess the perception of customers on outsourced service quality and the customers satisfaction on service delivery.

Comparison of mean scores of each service quality dimension is conducted to see on which service quality dimensions IE performs well based on the perception of respondents. Besides, this data is applied to evaluate the perception of the customers' on over all service quality and their satisfaction level on outsourced employment service delivery.

Correlation analysis is performed to analyze weather there is relation between each item of the five service quality dimension and service quality. Moreover, it is performed to see the relation between the five service quality dimension and customer satisfaction on service delivery. I also use



correlation analysis technique to check whether or not service quality dimensions and customer's satisfaction has relation.

### **3.8 Reliability and Validity**

#### **3.8.1. Reliability**

This quality criterion of the research refers to the consistency of a measure of a concept. This quality criteria deals with the question whether the results of a study are repeatable (Bryman and Bell, 2007). Cronbach's alpha is used in this study to assess the internal consistency (reliability of the instrument (questionnaire). Cronbach's alpha is a coefficient of reliability used to measure internal consistency of a test. The coefficient has to be between 0 and 1 to label as reliable. The internal consistency of the item is better, as the result approaches to 1, which means all the items measures the same variable i.e. over all service quality and customers' satisfaction.

#### **3.8.2. Validity**

The validity assures that the constructs measure what they claim to measure. In other words, construct validity assures whether service dimensions could measure the predefined dependent variables or not.

The service quality best practice scale comprises best practices that are limited to the domain of service quality as explained by well-known researchers such as Sin et al (2005) each of which is different from any other. The statements have been generated from an extensive review of literatures, the study assume that the construct validity will hold. In this regard, different theories and empirical studies have been assessed to assure their validity in the literature survey portion of this paper. For the content validity the researcher had a discussion with the service delivery manager at IE and final version of the instrument approved by the research advisor.

### **3.9 Methods of Data Analysis**

The collected survey data are analyzed using statistical package for social sciences (SPSS) version 20 application program. Each research questions were answered accordingly and outputs of the analysis are presented in tables and their implication are explained.

The descriptive statistics is also applied to assess service quality in IE points of sales and the level of customer satisfaction with the services provided in IE. Comparison of Mean scores of each service quality dimension is conducted to identify at which service quality dimension IE points of sales are performing well and at which in an unfavorable condition based on the perception of respondents.

To discover if there is a relation between each item of the five service quality dimensions and customer satisfaction, correlation analysis is performed. Similarly the relation between the overall five service quality dimensions and customer satisfaction are discovered using correlation analysis.

### **3.10 Ethical Consideration**

This research was conducted by giving the utmost respect for ethical behavior. Ethical concerns play important role, while assumed to be the part of the essential consideration, in the design of any research. Consequently, diverse ethical issues were taken into consideration during this

research, from administration of the research instrument with respondents to the acknowledgement of all the secondary sources being used. Research participants were given freedom to participate in the study, by filling the questionnaire, and the results of the research were presented as aggregate.

In general, great care was taken to fulfill all the criteria of ethical research, including:

- By using standard instrument for data collection to reduce the researcher's bias while avoiding sensitive and leading questions to be asked, and not to offend the research participants.
- Requesting the voluntary consent of research participants by using covering letter which:
  - Described who the researcher is and for what purpose the research is being conducted;
  - Clearly stated that participation is voluntary and the respondent can decline any time from taking part in the study;
  - Assured that all personal information provided by the respondents kept confidential and used only for the purpose of this study;
  - Provided contact information of the researcher if the respondents have any inquiry to make, with how the research findings can be accessed, as recommended by Marczyk, Dematteo and Festinger (2005) and Salkind (2009).
- Confidentiality and anonymity of research participants was given due respect.

The research methodology was carefully designed to arrest researcher's and participants' bias through involving diversifying, more responsible and professional respondents, securing anonymity, and cross checking data through triangulation.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

This chapter comprises data presentation, Analysis and interpretation of the study. Its main purpose is to analysis and interpret survey finding by using different statistical tools. It consists of different reliability test in relation to service quality and customer satisfaction and also analysis and interpretations` of background of the respondents.

#### 4.1 Response Rate

The researcher prepared and distributed a total of 19 questioners to collect necessary data and information in this study. 18 (94.73%) questioners returned which exhibits an acceptable respondent`s rate to conduct the study.

#### 4.2 Demographic Characteristics of Respondents

Descriptive statistics (frequency statistics) is used to discuss the general demographic characteristics of respondents. Age, gender and occupation of respondents are discussed in the below

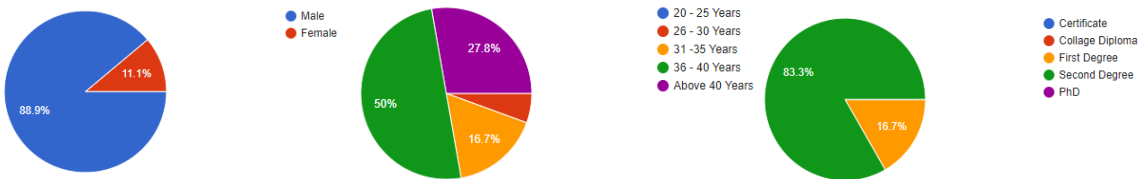


Figure 4.1: Graphical stat representation of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Sex</b>					
Valid	Male	16	88.9	88.9	88.9
	Female	2	11.1	11.1	100.0
	Total	18	100.0	100.0	
<b>Age</b>					
Valid	31 - 35	4	22.2	22.2	22.2
	36 - 40	9	50.0	50.0	72.2
	Above 40	5	27.8	27.8	100.0
	Total	18	100.0	100.0	
<b>Educational Qualification</b>					
Valid	First Degree	3	16.7	16.7	16.7
	Second degree	15	83.3	83.3	100.0
	Total	18	100.0	100.0	

Table 4.1: Demographic characteristics of respondents

The gender distribution of respondents is dominated by male respondents with 88.9% while the female respondents constitute 11.1% of respondents.

As the figure depicts from the total of respondents the age group 36-40 constitutes the highest percentage (50%) followed by the age group above 40 with 27.8% and age group 31 - 35 years with 16.7%. The lowest percentage (5.5%) is register by the age group between 26-30.

Educational status of respondents is assessed, from the total number of respondents 83.3% of respondents has a second degree and the remaining 16.7% have a first degree.

### 4.3 Service delivered

To understand respondents' knowledge of services provided by IE and their involvement with the services, they were asked to choose the type of services they are provided/providing by IE. The questions where a multi choose since the client companies may also receive more than one service at a time.

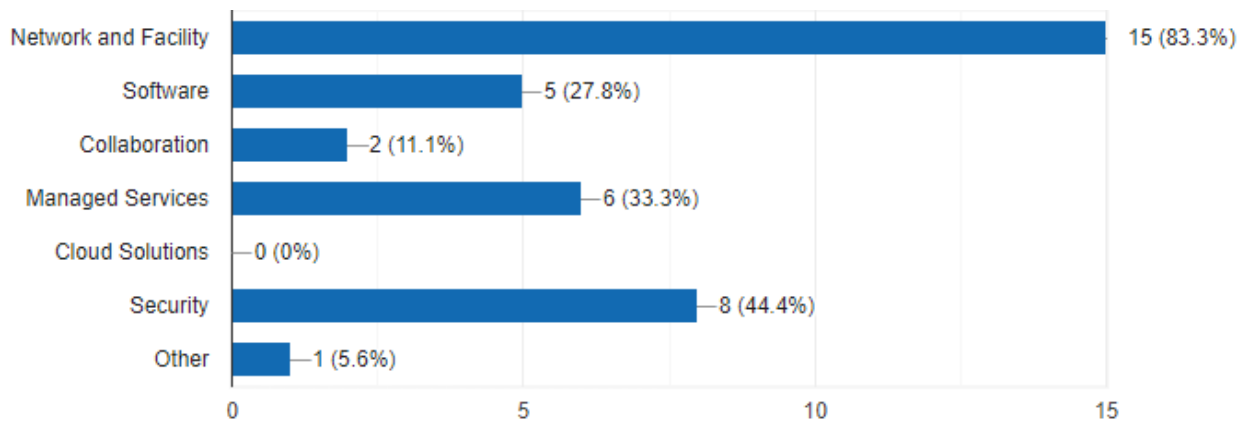


Figure 4.2: Customer perceived IE services

As the above group shows most of IE clients (83.3%) are procuring for network and facility service and from the 18 of the client's 15 of the companies are receiving/received the service. The second demanding services is security which from the total of 18 clients 8 of them (44.4%) are receiving the service. Managed service, software, collaboration, and other are the list services provided to the clients which are 6(33.3%), 5(27.8%), 2(11.1%), and 1(5.6%) the number of clients and percentage respectively.

As IE founder Mr. Meried Bekele is a certified internet expert at the time of the company established the company's main business activity was networking and as we see now on the table still the main business of the company is in networking. Since networking, facility, and security business are not separated the company's major business activities next to network and facility are security.

### 4.4 Descriptive Analysis

As it has been mentioned in the previous chapters of this paper, SERVPERF model is used in this research to measure respondents' perception towards IE's service quality by using five service

quality dimensions having 22 items. The paper uses mean score to measure respondents' perception of IE's over all service quality and their satisfaction level.

#### 4.4.1 Perception towards each item of service quality dimensions

The mean represents the typical of all customer response on those service dimensions while, variance express how diverse the responses of the respondents are meaning if the quality deviation shows smaller number, it indicates that the response of the respondents shows nearby opinions and when the quality deviation is high, it indicates the response of the respondents shows high difference. According to Zaidatol & Bagheri (2009).

Analysis of each of the five service quality dimension is discussed below. The highest and lowest mean scored will be identified and interpreted with regarding to every item of each service quality dimensions.

#### I Tangibles

The tangibility dimension holds four items and customers' perception towards tangibility is presented in bellows table

Perception towards items of Tangibles	N	Mean	Std. Deviation
IE uses Modern-look (up to date materials) equipment	18	4.3889	.60768
IE has visual appealing physical facilities	18	4.2778	.75190
IE employees are well dressed and clean	18	4.2222	.64676
IE Materials used for work are visually appealing	18	4.1667	.51450

*Own Source*

**Table 4.2** Perception statistics towards items of Tangibles

Analysis of individual service quality items of tangibles dimension shows IE employees uses modern-look and up to date equipment with a mean score of 4.4, which shows that as a technology company IE is using modern materials its self. On the other hand respondents believed that at IE materials used for work are visually appealing with the lest mean score of 4.16. The second and the third moderate perception with mean scored tangibles are IE has visual appealing physical facilities and IE employees are well dressed and clean with 4.3 and 4.2 mean score respectively.

#### II Reliability

Reliability dimension explains the ability of the IE service and its employees to perform the promised service accurately, dependably and on time.

Perception towards items of Reliability	N	Mean	Std. Deviation
IE provides services at the time they promise to do so	18	4.0556	.63914
IE staff members have a sincere interest in solving customer problems	18	4.5556	.51131
IE employees provide service as promised	18	4.2222	.54832

IE insists on error-free records (do we insist to provide an error-free service and Keeps our records accurately)	18	3.8889	.47140
Sufficient man power and material is kept to avoid the interruption of service provision	18	3.9444	.41618

*Own Source*

Table: 4.3 Perception statistics towards items of Reliability

As the above table shows from items listed under reliability dimension, the ability of IE service to perform the service when clients have problem, IE staff members shows a sincere interest in solving it shows highest mean score (4.6). This means the customers agreed that IE employees has sincere interest in solving the problem, also they perceived that IE insists on error-free records (insist in providing an error-free service and keeps records accurately) with the lowest mean (3.9) in insist to providing an error-free service and keeps records accurately give under the reliability dimension. The moderate second, third, and fourth perception with mean scored reliability dimension are IE has a mean score of 4.2, 4.0, and 3.9 which are IE employees provide services as promised, IE provides services at the time the company to do so.

### III Responsiveness

The third service quality dimension, responsiveness, includes four items which indicates about the willingness of IE employees to provide prompt service and help customers. In service delivery which involves a face to face encounter between customers and the service providers, employees play a significant role in providing information and responses to requests raised by customers. And at IE the services and other activities need employees' most engagement on the service delivery process. Customers' perception towards items of responsiveness is presented in table

Perception towards items of Responsiveness	N	Mean	Std. Deviation
IE makes the information easily obtainable	18	3.9444	.72536
IE employees are always willing to help	18	4.5556	.51131
IE employees are never too busy to respond to customer requests	18	3.8889	.83235
IE employees have the knowledge to answer your questions	18	4.2778	.46089

*Own Source*

Table 4.4: Perception statistics towards items of Responsiveness

From the four items of responsiveness dimension customers state their agreement that employees in IE are always willing to help customers with a mean score of 4.56 is the highest. The moderate second and third perception with mean scored of 4.3 and 3.9 are IE employees have the knowledge to answer customer questions and IE makes the information easily obtainable respectively. Then

customers perceived that employees in IE are never too busy to prompt response for customers when help is requested got the lowest mean score (mean = 3.9). This could be related with the service traffic and employees may get busy with the eternal operation at the company to serve the customer since they have the willingness to serve.

#### IV Assurance

The assurance dimension holds items which explain knowledge and courtesy of employees at IE and their ability to convey trust and confidence on customers. Like other dimensions of service quality this dimension has its own impact and importance for the overall service quality. Since service activity involves introducing a new technologies and service to the customer, employees involved in the activity should have a better knowledge about what they provide to the customer.

In IE service most of existing or new services presented for sales are technological by nature and needs explanation for the customer

Perception towards items of Assurance	N	Mean	Std. Deviation
IE employees behavior instills customer confidence	18	4.1667	.61835
Do you (Customers) feel safe on the service provided by the employees	18	4.2222	.54832
IE employees are consistently polite	18	4.5000	.61835
IE employee are trust worthy	18	4.3333	.59409
IE employees have the required skill in providing services	18	4.3889	.50163

*Own Source*

Table 4.5: Perception towards items of Assurance

As the table indicates, regarding the items of assurance although the customers agree that Employees in IE are consistently polite with a highest mean score of 4.5. The second highest mean score is IE employees have the required skill in providing services and the company is well known in promoting its employees to upgrade their knowledge with professional certifications and this item has a mean score of 4.4. The third and fourth moderates are IE employees are trust worthy and customers feel safe on the service provided by IE with the respective mean score of 4.3 and 4.2. Employees behavior in IE instil customer confidence in them with the lowest mean score (4.1) from the four assurance items.

#### V Empathy

Items constructed under the dimension of empathy are indicators of the ability of the IE and its employees to provide a carrying and individualized attention to customers and understand customers' specific needs. The below table presents respondents' perception towards items of empathy.

Perception towards items of Empathy	N	Mean	Std. Deviation
-------------------------------------	---	------	----------------

IE operating hours are convenient for all customers	18	3.9444	.87260
IE employees give customers personal attention	18	4.1111	.47140
IE customers' best interests are at the heart	18	4.1667	.51450
IE employees understand the needs of customers	18	4.0556	.41618

*Own Source*

Table 4.6: Perception towards items of Empathy

As presented in the table, analysis of the empathy dimension items shows that customers believed that IE customers' best interests are at the heart with the highest mean score of 4.2. IE opened at 2:00 (Local Time) in the morning and closed daily operations at 11:00 (Local Time) in the afternoon from Monday to Friday. On Saturday only some employees who has things to do present at the company office. For respondents the stated operating hours are convenient for their interaction. However, customers believe that IE do not understand their specific day and time covenant for them. This specific item scored the lowest mean (3.9) in this specific category. IE employee's gives customers' personal attention and IE employees understand the needs of customers are the moderate mean score with 4.1 and 4.0 respectively.

**1.6 Perception towards overall service quality dimensions**

Customers' perception towards each of the five service quality dimension items are discussed earlier in this chapter. Now customers' perception towards the five service quality dimension in general will be discussed. The mean score of each of the 22 items were computed and converted to their respective dimensions.

The following table presents the summarized score of the five service quality dimension. The mean, standard deviation, and the interpretation of mean scores of customers' perception towards service quality of IE are presented.

**Descriptive Statistics**

As it has been noted in the previous portion of this paper, SERVPERF model is used in this paper to measuring respondents' perception towards IE's service delivery quality by using five service quality dimensions having 22 items. The paper also uses mean score to measuring respondents' perception of IE's over all service quality and their satisfaction level.



### Descriptive Statistics

	Mean	Std. Deviation	N
Tangibility	4.2639	1.92422	18
Reliability	4.1334	1.32842	18
Responsiveness	4.1667	2.00000	18
Assurance	4.3222	2.40438	18
Empathy	4.0694	1.84089	18
The overall service quality of IE	4.5	0.5145	18
Your overall satisfaction on the providing/provided service of IE	4.2778	57451	18

*Own Source*

Table: 4.7: Descriptive Statistics

The table shows respondents' perception towards the five service quality dimensions, over all service quality of IE and overall customer satisfaction on IE service. As clearly seen in the table 4.7, the perception of the respondents on assurance is 4.3. The mean score of assurance is higher than the other service quality dimensions. Assurance is rated as good which is reflected in the form of having good information on the services, inspiring confidence and being courteous in providing the services. Furthermore, tangibility and responsiveness are the next higher mean score of 4.26, and 4.17 respectively. While tangibility reflects the attractiveness of the service provider's physical facilities and deployment of modern equipment, responsiveness shows that the customers are being informed the exact time of service delivery, the employees of IE are willing and quick in their response to customers queries. The customers' perception on reliability and empathy are relatively the least perceived value from the services quality dimensions with mean score of 4.13 and 4.06 respectively. While reliability is doing the promised thing on time, solving problems to the outsourced services immediately and efficiently, empathy as a dimension measures the state of knowing the best interest of the clients etc.

Finally, the overall perceived-service quality was found to be acceptable, being the respondents agreed on the performance of various service quality of IE. As the ICT sector appeared to be highly demanded on service quality, such research findings worked as a motivation for the Ethiopian ICT companies to achieve competitive position in the international market, by improving their service deliveries. In other words, as the basics five dimensions of service quality were found to be existing in the ICT sector, a further push-up and commitment towards quality improvement across the dimensions can determine the excellence/performance of ICT companies.

## Overall service quality of IE

	Frequency	Percent	Valid Percent	Cumulative Percent
Worst	0	0	0	0
Poor	0	0	0	0
Neutral	0	0	0	0
Valid Good	9	50.0	50.0	50.0
Excellent	9	50.0	50.0	100.0
Total	18	100.0	100.0	

*Own Source*

Table 4.8: The overall service quality of IE

From the above table all of the respondents are choosing from all the listed measures of IE service quality and half of them responded with good and half of them responded with excellent which means 9 of them (50%) and 9 of them (50%) respectively.

## 4.6 Analysis of Customer Satisfaction

To determine the level of satisfaction with the service provided at IE, respondents were asked to rate their overall level of satisfaction using a 5-point liker scale (1 means highly dissatisfied, 2 means dissatisfied, 3 means neutral, 4 means satisfied and 5 means highly satisfied). The level of customer satisfaction was analyzed with the descriptive statistics (frequency distribution) and table presents the result of the analyzed overall customer satisfaction level.

	Frequency	Percent	Valid Percent	Cumulative Percent
Highly Dissatisfied	0	0	0	0
Dissatisfied	0	0	0	0
Neutral	1	5.6	5.6	5.6
Valid Satisfied	11	61.1	61.1	66.7
Strongly Satisfied	6	33.3	33.3	100.0
Total	18	100.0	100.0	

*Own Source*

Table 4.9: overall satisfaction on the providing/provided service of IE

As we can see on table 4.9, 5.6 % of the respondents are neutral that means they are neither agree nor disagree. 61.1% of the respondents are satisfied with the service quality they get from IE service, and the rest 33.3% strongly satisfied with service provided. Unfortunately none of the

respondents are replayed with dissatisfied and dissatisfied from the provided service of IE. Overall from all the respondents 94.4% of IE clients are satisfied with the service quality they are receiving/received.

#### 4.7 Correlation Analysis of Service Quality Dimensions, Service Quality and IE Services Level of Satisfaction

Correlation analysis deal with relationships among variables and helps to gain insight into the direction and strength of relation between the variables. Correlation coefficients take values between -1 and 1 ranging from being negatively correlated (-1) to uncorrelated (0) to positively correlated (+). The sign of the correlation coefficient defines the direction of the relationship. The absolute value indicates the strength of the correlation. Dancy and Reidy (2004) states that a correlation result which is 0 indicates zero correlation, a result between 0.1 and 0.3 indicates a weak correlation among variables, a result which is between 0.4 and 0.6 shows a moderate correlation, a result between 0.7 and 0.9 indicates a strong correlation among variables while a result which is equal to 1 indicates a perfect correlation.

##### 4.7.1 Correlation analysis between overall service quality dimensions and customer satisfaction

Correlation is a statistical measure that describes how two variables are related and indicates that as one variable changes in value, the other variable tends to change in a specific direction. In this case the dependent variable is the overall satisfaction of customers on the service of IE and the independent variables are the five dimension of service quality.

		Your overall satisfaction on the providing/provide d service of IE	Tangibility	Reliability	Responsiveness	Assurance	Empathy
Pearson Correlation	Your overall satisfaction on the providing/provided service of IE	1.000	.624	.437	.546	.807	.813
	Tangibility		1.000	.307	.433	.717	.676
	Reliability			1.000	.686	.694	.690
	Responsiveness				1.000	.767	.682
	Assurance					1.000	.903
	Empathy						1.000

*Own Source*

Table 4.10: Correlations

As it can be seen from the above table, all service quality dimensions, tangibility, responsiveness, reliability, assurance and empathy have positive relationship with over all service quality and customer satisfaction though the magnitude of the relationship differ among service quality dimensions.

All service quality dimensions have positive relationship with the level of customer satisfaction. The strongest correlation is obtained between Empathy and overall customer satisfaction on the service of IE (0.813); followed by the moderate correlation between Assurance (0.807), Tangibility (0.624), and the last two dimensions are Responsiveness (0.546) and Reliability (0.437) respectively with customer satisfaction. From all service quality dimensions, the least scored correlation is between Reliability and customer satisfaction (0.437).

Since, the researcher uses the total population there is no need to conduct a statistical significance test. The significance test tells us whether or not what we observe in the sample is expected to be true in the population, and can be conducted through a hypothesis test.

#### 4.8 Regression analysis

Regression analysis used to determine the statistical relationship between the dependent variable customer satisfaction and the independent variables of the five service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy respectively) which affect the dependent variable customer satisfaction.

Thus, the regression analysis is a statistical method to deal with the formulation of mathematical model depicting relationship amongst variables which can be used for the purpose of prediction of the values of dependent variable, given the values of the independent variable.

When there are two or more than two independent variables, the analysis concerning relationship is known as multiple correlations and the equation describing such relationship as the multiple regression equation. We here explain multiple correlation and regression taking only five independent variables and one dependent variable.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.860 <sup>a</sup>	.739	.630	.34931	2.042

a. Predictors: (Constant), Empathy, Tangibility, Responsiveness, Reliability, Assurance

b. Dependent Variable: overall satisfaction on the providing/provided service of IE

*Own Source*

Table 4.11: Model Summary

Adjusted R2 value of 0.860 indicated that around 73.9% of the variation in customer satisfaction can be explained by service quality.

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	1.735	1.562		1.111	.288					
Tangibility	-.024	.070	-.080	-.342	.738	.624	-.098	-.050	.393	2.541
Reliability	-.137	.103	-.317	-1.328	.209	.437	-.358	-.196	.382	2.617
Responsiveness	-.019	.071	-.065	-.262	.798	.546	-.075	-.039	.355	2.818
Assurance	.147	.105	.616	1.409	.184	.807	.377	.208	.114	8.800
Empathy	.179	.112	.573	1.599	.136	.813	.419	.236	.169	5.913

a. Dependent Variable: Your overall satisfaction on the providing/provided service of IE

Table 4.12: Coefficients

As the above table 4.12 shows, the tolerance values of all independent variables are above 0.1 and the VIF values are below 10 which the two values together confirm none existence of multi collinearity problem in the regression analysis under consideration.

Dependent Variable	Independent Variables	B coefficients	Constant (a)
Y = Customer satisfaction	X1 = Tangibility	b1 = -0.024	A = 1.735
	X2 = Reliability	b2 = -0.137	
	X3 = Responsiveness	b3 = -0.019	
	X4 = Assurance	b4 = 0.147	
	X5 = Empathy	b5 = 0.179	

Table 4.13: Independent variables B coefficients

The coefficients and the constant is calculated Using SPSS version 20. In this situation the results are interpreted as shown below:

Multiple regression equation assumes the form

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$$

where X1, X2, X3, X4 and X5 are five independent variables ( tangibility, reliability, responsiveness, assurance and empathy respectively) can affect Y being the dependent variable( customer satisfaction), and the constants a, b1, b2, b3, b4, and b5, can be solved by solving the following three normal equations:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$$

$$\text{Customer satisfaction} = 1.735 + (-0.024)X_1 + (-0.137)X_2 + (-0.019)X_3 + (0.147)X_4 + (0.179)X_5$$

From the above regression equation each unit change in X produces a change of b in

Y +ve for direct and –ve for inverse relationship.

We can say three of the independent variable (tangibility, reliability, and responsiveness) coefficients are -ve means they have inverse relationship with customer satisfaction but the rate of change may vary. The relationship between those three independent and dependent variables is an inverse relationship. When one increases the other decreases or as one decreases the other increases. The other two of independent variables (assurance and empathy) they have direct (+ve) relationship with customer satisfaction but the rate of change may also vary.

The level of statistical significance is often expressed as a *p*-value between 0 and 1. A *p*-value less than 0.05 (typically  $\leq 0.05$ ) is statistically significant. A *p*-value higher than 0.05 ( $> 0.05$ ) is not statistically significant and indicates strong evidence for the null hypothesis. As shown on Table 4.12 all dimension of service quality *p*-value are higher than 0.05 ( $> 0.05$ ) which means they are not statistically significant.

From the –ve inverse relationship (inverse correlation) variables Tangibility (-2.4%), Reliability (-13.7%), and Responsiveness (-1.9%). From those above relationship amongst variables Assurance 14.7% and Empathy 17.9. The table shows that assurance, responsiveness, empathy, reliability and tangibility (the independent variables) impact on dependent variable (customers' satisfaction). Empathy and assurance have relatively big impact with value of  $\beta$  0.179 and 0.147 respectively. The finding rejects the null hypothesis which states service quality dimensions do not contribute positively and significantly to customers' satisfaction. From the research hypothesis (Test of Hypothesis-1) of this paper. Assurance and Empathy accepts the research hypothesis.

#### 4.9 Summary of Hypotheses Testing

The conceptual frame work developed under the literature review of this paper is tested by using tools in both descriptive and inferential analysis like mean, standard deviation, Pearson correlation and multiple regressions. The test result is summarized as follows.

Hypotheses	Statically test	Result
<b>H01:</b> Service Quality Dimensions (Tangibles, reliability, responsiveness, Assurance & empathy) will have a positive significant effect on customer satisfaction	Multiple regression	For tangibles, reliability, and responsiveness the hypotheses is supported but for assurance and empathy the hypothesis is not supported

Table 4.14: Research hypotheses testing

#### 4.10 Conclusion

The findings of this study indicate that IE as a technology company need to critically analyze and understand customers' and strive to deliver high quality customer service that plays a key role in determining customer satisfaction.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

This section pinpoints the results of the study and the researcher put his conclusion indicating what results have been achieved. In doing so, this section answers the research questions set out previously in problem discussion and at the same time further suggestions and recommendations are forwarded for future study as well.

#### 5.1 Summary of the major findings

The impact of the overall service quality on the customers' satisfaction of the IE delivers using SERVPERF model is the main objective of the study. To this effect hypotheses were developed to investigate how service quality dimensions can affect and impact on the level of customer satisfaction.

The paper adopted quantitative research strategy and used self-administered questionnaire to collect data from IE customers. Descriptive statistics like frequency, mean, and Pearson correlation analysis techniques were applied to analyze background information of respondents, respondents' perception on service quality and satisfaction as well as relationship between service quality dimensions and customers' satisfaction. In addition, regression analysis technique was applied to investigate impacts of service quality dimensions on customers' satisfaction and also to test the research hypothesis.

The gender distribution of respondents is dominated by male respondents with 88.9% while the female respondents constitute 11.1% of respondents. Educational status of respondents is assessed, from the total number of respondents 83.3% of respondents has a second degree and the remaining 16.7% have a first degree.

From the respondent IE clients (83.3%) are procuring for network and facility service and second demanding services is security which from the total of 18 clients 8 of them (44.4%) are receiving the service. Managed service, software, collaboration, and other are the list services provided to the clients which are 6(33.3%), 5(27.8%), 2(11.1%), and 1(5.6%) the number of clients and percentage respectively.

In the descriptive analysis portion of the paper, customers' perceptions measured in terms of mean values. Discussion of Dimensions' Results In order to assess the service quality performance, the five dimensions of service quality were used.

#### **Tangibles**

Tangibles encompass the appearance of IE usage of modern equipment, visually appealing physical facilities, well dressed and clean employees, and materials used for work are visually appealing. The findings show that it has a -ve impact and insignificant on customers' satisfaction. It signifies that the physical environment shouldn't be that much clean, facilities to be visually appealing, and it is not important to have modern equipment. From chapter 4 of this research tangibility has a mean score of 4.2639, which is in between strongly agree and agree.

Tangibles dimension shows IE employees uses modern-look and up to date equipment with a mean score of 4.4 and IE employees are well dressed and clean with 4.3. Since IE is a technology company the management is insisting to use up to date and modern equipment for it's clients project. IE materials used for work are visually appealing with lest mean score of 4.16. The second and the third moderate perception with mean scored tangibles are IE has visual appealing physical facilities and IE employees are well dressed and clean with 4.3 and 4.2 mean score respectively.

From the relationship between tangibility dimension of service quality and customer satisfaction the correlation table showed 0.624. Tangibility is the third high coefficient value and have positive relationship with the level of customer satisfaction.

### **Reliability**

Reliability is the most important part of a technology service provider. As shown from the analysis reliability is negative and inversely related with customer satisfaction. From chapter four of analysis part reliability is insignificant. Reliability incorporates in IE providing service at time of promised, interest in solving customer problems, provide service as promised, error-free records, and avoiding interruption of service provision.

Respondents' perception towards the five service quality dimensions, reliability has a mean score of 4.1334. Under reliability dimension, IE staff members shows a sincere interest in solving it shows highest mean score (4.6) and customers agreed that IE employees has sincere interest in solving the problem, also they perceived that IE insists on error-free records (insist in providing an error-free service and keeps records accurately) with the lowest mean (3.9) in insist to providing an error-free service and keeps records accurately give under the reliability dimension. The moderate second, third, and fourth perception with mean scored reliability dimension are IE has a mean score of 4.2, 4.0, and 3.9 which are IE employees provide services as promised, IE provides services at the time the company to do so.

From the relationship between reliability dimension of service quality and customer satisfaction the correlation table showed 0.437. Tangibility is the least and fives' coefficient value and have positive relationship with the level of customer satisfaction.

### **Responsiveness**

In this responsiveness we measured if IE makes information easily obtainable, willingness to help, being never busy to respond to customer request, and knowledge of employees to answer questions.

From the four items of responsiveness dimension customers state their agreement that employees in IE are always willing to help customers with a mean score of 4.56 is the highest. The moderate second and third perception with mean scored of 4.3 and 3.9 are IE employees have the knowledge to answer customer questions and IE makes the information easily obtainable respectively. Then customers perceived that employees in IE are never too busy to prompt response for customers when help is requested got the lowest mean score (mean = 3.9). This could be related with the service traffic and employees may get busy with the eternal operation at the company to serve the customer since they have the willingness to serve.



Responsiveness is a result that shows that customers need special attention with regards to information accessibility, the prompt service being received, and willingness of employees of IE to help them. Even so human responsiveness sometime can be affected by emotion, which causes low productivity. Like tangibility and reliability of service quality dimensions responsiveness is also negative and inversely related with customer satisfaction.

From the relationship between reliability dimension of service quality and customer satisfaction the correlation table showed .546. Tangibility is the fourth highest coefficient value and have positive relationship with the level of customer satisfaction.

### **Assurance**

Assurance includes employees of IE behavior, politeness, trust worthy, and having the required skill. Customers show a higher need towards assurance expectation, the actual service has been found to be very problematic. It further showed that IE employees engaged in customer service have the required knowledge, and take care of their customers and give prompt service. From the analysis assurance is positively and directly related with customer satisfaction.

Regarding the items of assurance although the customers agree that Employees in IE are consistently polite with a highest mean score of 4.5. The second highest mean score is IE employees have the required skill in providing services and the company is well known in promoting its employees to upgrade their knowledge with professional certifications and this item has a mean score of 4.4. The third and fourth moderates are IE employees are trust worthy and customers feel safe on the service provided by IE with the respective mean score of 4.3 and 4.2. Employees behavior in IE instil customer confidence in them with the lowest mean score (4.1) from the four assurance items.

From the relationship between reliability dimension of service quality and customer satisfaction the correlation table showed 0.807. Tangibility is the second highest coefficient value and have positive relationship with the level of customer satisfaction.

### **Empathy**

Empathy incorporated the operating hour's convenience, customer individual attention, and employees understanding the needs of customers.

As presented in the table, analysis of the empathy dimension items shows that customers believed that IE customers' best interests are at the heart with the highest mean score of 4.2. IE opened at 2:00 (Local Time) in the morning and closed daily operations at 11:00 (Local Time) in the afternoon from Monday to Friday. On Saturday only some employees who has things to do present at the company office. For respondents the stated operating hours are convenient for their interaction. However, customers believe that IE do not understand their specific day and time covenant for them. This specific item scored the lowest mean (3.9) in this specific category. IE employee's gives customers' personal attention and IE employees understand the needs of customers are the moderate mean score with 4.1 and 4.0 respectively.

From the relationship between reliability dimension of service quality and customer satisfaction the correlation table showed 0.813. Tangibility is the highest coefficient of all value and have positive relationship with the level of customer satisfaction.

### **Overall Perceived Service Quality and Customers' Satisfaction**

Multiple regression analysis were undertaken to investigate the impacts of each independent variables on dependent variable. To get the customer delighted, there is still a room for improvement which IE has to work on. Correlation coefficient statistics shows that tangibility, reliability and responsiveness service quality dimensions have a negative and insignificant relationship with over all service quality. But assurance and empathy has a positive and insignificant correlation to overall service quality.

Generally, the research hypotheses of this study has been tested and for tangibles, reliability, and responsiveness the hypotheses is supported but for assurance and empathy the hypothesis is not supported.

### **5.2 Conclusion**

Customers are increasingly aware and demanding, as well as increasingly engaged and active; resulting in the need for ICT solutions. Ensuring service quality will play a major role in keeping the pace of globalization and, therefore, the study made at service quality of IE Network Solutions.

Service quality dimensions used as construct to measure customer satisfaction of the same entity by applying various statistical tools. In the descriptive analysis portion of the paper, customers perceptions measured in terms of mean values. Accordingly, customers are satisfied in all service quality dimensions with mean value ranging between 4.06 and 4.32. And the mean value shows that IE is performing very well in the eye of its customers.

With regards to the overall services quality and customer satisfaction, the customers are satisfied on the services of IE. However, to stay competent in the market quality improvement must be a continues process and still has a room to improve the overall service quality and its customer satisfaction to higher level i.e., to very satisfied with high degree of loyalty (Anton, 1997).

Regarding the impact analysis, it is found out that independent variables (service quality dimensions) have insignificant impact on customers' satisfaction (dependent variables) but with varying degrees. From this it is clear that IE has an improved customers' satisfaction because of working on quality of its services.

### **5.3 Recommendation**

Based on the findings of the study, the following recommendations are made:

From my one observation customers are complaining about on time delivery of projects. It has many reasons from IE side to not deliver projects on time. One of the reason is foreign currency problem in the country and I recommend the company to improve and work on this problem to better satisfy its customers.

To strengthen more IE's presence in the ICT service solution industry, it has to continue satisfying its customers as it is well established fact that satisfied customers are key to higher economic returns & long-term business success (Kristensen et al. as cited in Munusamy, Chelliah and Mun, 2010)). As this paper confirms, in IE context service quality is the biggest component that impacts on customer satisfaction. The management of IE has to give major attention to quality to bring about a better satisfaction level. So working to improve these aspects will contribute to the overall customer satisfaction with IE service.

## REFERENCE

- Abubakar, M.M., Mokhtar, S.S.M. and Abdullateef, A.O. (2013) 'The Moderating Effect of Long-Term Orientation Culture on the Relationship between Trust, Personalization and Customer Satisfaction and Loyalty: A Proposed Framework', *International Journal of Academic Research in Business and Social Sciences*, Vol. 3, No. 9, pp. 117-131.
- Altinay, L. and Paraskevas P. (2008) 'Data collection techniques', *Planning Research in Hospitality and Tourism*, pp.107-135.
- Arasli, H., Mehtap-Smadi, S. and Katircioglu, S.T. (2005) 'Customers service quality in the Greek Cypriot banking industry', *Managing Service Quality*, Vol. 15, No. 1, pp. 41-56.
- Babakus, E & Boller, G.W (1992), 'An empirical assessment of the SERVQUAL scale', *Journal of Business Research*, vol. 24, pp. 253-68.
- Biljana, A. and Zekiri, J. (2011) 'Measuring Customer Satisfaction with Service Quality using American Customer Satisfaction Model (ACSI Model)', *International Journal of Academic Research in Business and Social Science*, Vol. 1, No. 3, pp.232-258.
- Brady, M.K. and Cronin, J.J.Jr. (2001) 'Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach', *Journal of Marketing*, Vol. 65, July, pp.34-49.
- Bryman, A & Bell, E (2007), *Business research methods*, Oxford University Press Inc, New York.
- Carrillat, F.A., Jaramillo, F. and Mulki, J.P., 2007. 'The validity of the SERVQUAL and SERVPERF scales: A meta-analytic view of 17 years of research across five continents'. *International Journal of Service Industry Management*, 18(5), pp.472-490.
- Carman, J.M. (1990) 'Consumer Perceptions Of Service Quality: An Assessment', *Journal of retailing*, 66(1), p.33.
- Chen, C, Chen, S, and Lee, H. (2013) 'Interrelationships between Physical Environment Quality, Personal Interaction Quality, Satisfaction and Behavioral Intentions in Relation to Customer Loyalty: The Case of Kinmen's Bed and Breakfast Industry', *Asia Pacific Journal Of Tourism Research*, Vol. 18, No. 3, pp. 262-287.
- Chowdhary, N. and Parakash, M. (2007) 'Prioritizing Service Quality Dimensions', *Managing Service Quality: An International Journal*, Vol. 17, No. 5, pp. 493-509.
- Churchill, G., and Iacobucci, D. (2002) *Marketing Research: Methodology and Foundation*, 8<sup>th</sup> ed., New York: South West Publishers.
- Cooper, D. and Schindler, P. (2008) *Business Research Methods*, 10<sup>th</sup> ed., New York: McGraw Hill Publishers.
- Creswell, J.W. (2009) *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*, 3<sup>rd</sup> ed., Thousand Oaks, California: Sage Publications.

- Cronin, J. and Taylor, S. (1994) 'SERVPERF versus SERVQUAL: Reconciling Performance Based and Perceptions-Minus-Expectations Measurement of Service Quality', *Journal of Marketing*, Vol. 58, pp. 125-131.
- Cronin, J. and Taylor S. (1992) 'Measuring Service Quality: Reexamination and Extension', *Journal of Marketing*, Vol.56, July, pp.56-57.
- Cronin, J., Bradley, M. and Hult, T. (2000) 'Assessing the Effect of Quality, Value, and Customer Satisfaction on Customer Behavioral Intention in Service Environment', *Journal of Retailing*, Vol. 76, No.2, pp. 193-218.
- Daniel, C. and Berinyuy, L. (2010) 'Using the SERVQUAL Model to Assess Service Quality and Customer Satisfaction: An Empirical Study of Grocery Stores in Umea', Umea University.
- Devellis, R.F. (1991) *Scale Development: Theory and Applications*, Applied Social Research Methods, Series 26, New Bury Park: Sage Publications.
- Devine, F. and Heath, S. (1999) *Sociological Research Methods in Context*. Palgrave Macmillan.
- Drost, E. (2011) 'Validity and Reliability in Social Science Research', *Education Research and Perspectives*, Vol.38, No. 1, pp. 105-123.
- Edward, M. and Sahadev, S. (2011) 'Role of Switching Costs in the Service Quality, Perceived Value, Customer Satisfaction and Customer Retention Linkage', *Asia Pacific Journal of Marketing and Logistics*, Vol. 23, No. 3, pp. 327-345.
- Enquist, B., Edvardsson, B. and Sebhatu, S.P. (2007) 'Values-based service quality for sustainable business', *Managing Service Quality*, Vol. 17, No. 4, pp.385–403.
- Field, A. (2009) *Discovering Statistics Using SPSS*, 3<sup>rd</sup> ed., London: Sage Publications.
- Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J. and Bryant, B.E.(1996) 'The American customer satisfaction index: nature, purpose, and findings', *The Journal of Marketing*, pp.7-18.
- Flick, U. (2009) *An Introduction to Qualitative Research*. Sage.
- Francois, A., Jaramillo, C.F. and Mulki, J. (2007) 'The Validity of the SERVQUAL and SERVPERF Scales A Meta-analytic View of 17 Years of Research Across Five Continents', *International Journal of Service Industry Management*, Vol. 18, No. 5, pp. 472-490.
- Giese, JL, & Cote, JA (2000), 'Defining Customer Satisfaction', *Academy of Marketing Science Review*
- Grönroos, Christian (2000). *Service Management and Marketing: A Customer Relationship Approach*. Chichester: John Wiley.
- Gyasi SN & Azumah, K.A (2009), 'An Assessment and Analysis of Customer Satisfaction with Service Delivery of Mobile Telecommunication Networks within Ghana'. Masters thesis, LTU, Sweden.

- Gummesson, E. (2003) All Research is Interpretive!', *Journal of Business and Industrial Marketing*, Vol. 18, Iss.6/7, pp. 482-492.
- Gustafsson, A. Johnson, M.D. and Roos, I. (2005) The effects of customer satisfaction, relationship commitment dimensions, and triggers on customer retention', *Journal of Marketing*, Vol.69, pp. 210-218.
- Huang, H. (2012) \_Golf Event Sports Tourists: Behavioral Intentions and Perceptions of Service Quality, Value, Satisfaction, and Image', PhD Thesis, Texas Tech University.
- James, A.F. and Mona, J.F. (2006) *Service Management: Operation, Strategy, Information Technology*, 5<sup>th</sup> ed., New Delhi: Tata McGraw-Hill.
- Juan, C. and Zornoza, C., (2000) Validity and Reliability in Perceived Quality Measurement Models' *International Journal of Quality & Reliability Management*, Vol. 17, No. 8, pp. 899-918.
- Jones, S. (2005) Toward an Acceptable Definition of Service [service-oriented architecture]. *IEEE software*, 22(3), pp.87-93.
- Kothari, C.R. (2004) *Research Methodology: Methods and Techniques*, 2<sup>nd</sup> ed., New Delhi: New Age Publishers.
- Lee, H., Lee, Y. and Yoo, D. (2000) \_The Determinants of Perceived Service Quality and its Relationship with Satisfaction', *Journal of Services Marketing*, Vol.14, No.3,pp. 217-223.
- Martinez, J.A. and Martinez, L., 2010. Some insights on conceptualizing and measuring service quality. *Journal of Retailing and Consumer Services*, 17(1), pp.29-42.
- Marczyk, G., Dematteo, D. and Festinger, D. (2005) *Essentials of Research Design and Methodology*, New Jersey: John Wiley and Sons Inc.
- McNeill, P. and Chapman, S. (2005) *Research Methods*. Psychology Press.
- Negi, R. (2009) Determining Customer Satisfaction through Perceived Service Quality: A study of Ethiopian Mobile Users', *International Journal of Mobile Marketing*, Vol. 4, No.1, pp. 31-38.
- Osborne, J., and Waters, E. (2002) Four Assumptions of Multiple Regression that Researchers Should Always Test', *Practical Assessment, Research & Evaluation*, Vol.8, No. 2, pp.1-9.
- Parasuraman as cited in Oladepo, O.I. & Abimbola, S. (2014).Telecommunication Service Delivery and Customer Satisfaction: a Study of Telecom Subscribers, *International Journal of Business and Management Review* Vol.2,No.6, pp. 51
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985) A Conceptual Model of Service Quality and its Implications for Future Research', *Journal of Marketing*, Vol. 49, pp. 41-45.
- Perran, A. (1995) Dimensions of Service Quality: A Study in Istanbul', *Managing Service Quality*, Vol. 5, No. 6, pp. 39-43.

- Philip, G. and Hazlett, S. (1997). Measurements of Service Quality, *International Journal of Quality & Reliability Management*, Vol. 14 No. 3. pp. 262, 263, 266, 267,271,272
- Pollack, B.L. (2008) The nature of the service quality and satisfaction relationship: empirical evidence for the existence of satisfiers and dissatisfiers', *Managing Service Quality*, 18(6), pp.537-558.
- Rust, RT & Oliver, RL (1994), *Service Quality; New Directions in Theory and Practice*, SAGE Publication, California.
- Sanjay, K. J. and Gupta, G. (2004) Measuring Service Quality: SERVQUAL vs. SERVPERF Scales', *VIKALPA*, Vol. 29, No. 2, pp.25-38.
- Saunders, M., Lewis, P. and Thornhill, A. (2007) *Research Methods for Business Students*, 4<sup>th</sup> ed., London: Pearson Education Ltd.
- Senge M., Oliva R. (1993). *Developing a theory of Service Quality/ Service Capacity Interaction*. Cambridge, USA.
- Seth, N. and Deshmukh, S.G. (2005). Service quality models: *International Journal of Quality*. pp. 913-949
- Silvestro & Johnston as cited in Johns, N. (1998). What is this thing called service? *European Journal of Marketing*, Vol. 33 No. 9/10, pp. 959
- Spreng, R.A. and Machoy, R.D. (1996). An Empirical Examination of a Model of Perceived Service Quality and Satisfaction, *Journal of Retailing*, vol. 72, No. 2, pp. 201-214.
- Stenkamp, J.E.M. (1990) Conceptual Model of the Quality Perception Process', *Journal of Business Research*, Vol. 21, pp. 309-333.
- Temam Afdel (MBA) , Mesfin Lemma (PhD) An Assessment of Industrial Customers' Satisfaction at Ethiopian Electric Power Corporation: A Case of South Addis Ababa Region (2 Vol.5 No. 2 December 2013)
- Ueltschy, L.C., Laroche, M., Eggert, A. and Bindl, U. (2007) \_Service quality and satisfaction: An international comparison of professional services perceptions', *The Journal of Services Marketing*, Vol. 21, No.6, pp. 410-423.
- Wicks, AM, & Roethlein, C J 2009, „A Satisfaction-Based Definition of Quality “ *Journal of Business & Economic Studies*, vol. 15, pp. 82-97.
- Wilkinson, D. and Birmingham, P. (2003) *Using Research Instruments: A Guide for Researchers*, London: TJ International Ltd.
- Yamane, Taro (1967) *Statistics: an Introductory Analysis*, 2<sup>nd</sup> ed., New York: Harper & Row.

## Appendix



### ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES MBA PROGRAM

Dear respondents,

My name is Tesfaye Getenet. I am a student of General Business Administration at ST. Mary's University. This questionnaire is intended to collect data for research to be conducted on the "The effect of Service Quality on Customer Satisfaction: In case of IE Network Solutions Plc."

It is only for educational purposes. I kindly seek your kind assistance in completing the questionnaire which would take approximately 15 to 20 minutes of your valuable time. Your responses will be treated as "strictly confidential" So, please, you are highly requested to answer genuinely as much as possible...

**Note** - Kindly tick (  ) you feel appropriate for your feedback for part one.

For any information please do not hesitate to contact me

*Mobile No.* +251910896906 or *Email address:* - getes38@gmail.com

Thank you in advance for your cooperation!!!

*IE = IE Network Solution Plc.*

#### Part One: Background Information

**Direction I:** Please make a "✓" (tick mark) in the circles provided below.

1. Sex:                       Male                       Female
2. Age:                       20-25 years                       26-30 years                       31-35 years  
                                     36- 40 years                       Above 40 years



3. Educational Qualification:

- Certificate
- College diploma
- First Degree
- Second degree
- PhD

4. Which of the following services delivered to you by IE Network Solutions Plc?

- Network and Facility
- Software
- Collaboration
- Managed Services
- Cloud Solutions
- Managed Services
- Security
- Other

**Part Two: Service Quality Dimensions (SQD)**

**Directions:** Please rate each of the following statements by encircling the appropriate number with respect to your level of agreement/disagreement against each question. (Where, 1 = “Strongly Disagree”; 2=

“Disagree”; 3= “Neutral”; 4= “Agree” and 5= “Strongly Agree”).

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>Tangibles</b>					
IE uses Modern-look (up to date materials) equipment	1	2	3	4	5
IE has visual appealing physical facilities	1	2	3	4	5
IE employees are well dressed and clean	1	2	3	4	5
IE Materials used for work are visually appealing.	1	2	3	4	5
<b>Reliability</b>					
IE provides services at the time they promise to do so	1	2	3	4	5
IE staff members have a sincere interest in solving customer problems	1	2	3	4	5
IE employees provide service as promised	1	2	3	4	5
IE insists on error-free records (do we insist to provide an error-free service and Keeps our records accurately)	1	2	3	4	5

Sufficient man power and material is kept to avoid the interruption of service provision.	1	2	3	4	5
<b>Responsiveness</b>					
IE makes the information easily obtainable	1	2	3	4	5
IE employees are always willing to help	1	2	3	4	5
IE employees are never too busy to respond to customer requests	1	2	3	4	5
IE employees have the knowledge to answer your questions	1	2	3	4	5
<b>Assurance</b>					
IE employees behavior instills customer confidence	1	2	3	4	5
Do you (Customers) feel safe on the service provided by the employees	1	2	3	4	5
IE employees are consistently polite	1	2	3	4	5
IE employee are trust worthy	1	2	3	4	5
IE employees have the required skill in providing services	1	2	3	4	5
<b>Empathy</b>					
IE operating hours are convenient for all customers	1	2	3	4	5
IE employees give customers personal attention	1	2	3	4	5
IE customers' best interests are at the heart	1	2	3	4	5
IE employees understand the needs of customers	1	2	3	4	5

**Part Three:**

**Overall service quality of IE**

Overall service quality of IE	Worst	Poor	Neutral	Good	Excellent
1. The overall service quality of IE	1	2	3	4	5

**Level of Customer Satisfaction**

Your overall satisfaction on the providing/provided service of IE	Strongly dissatisfied	dissatisfied	Neutral	Satisfied	Strongly Satisfied
---	-----------------------	--------------	---------	-----------	--------------------

1. Your overall satisfaction on the providing/provided service of IE delivers	1	2	3	4	5
---	---	---	---	---	---

***Thank you for your time***