



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

**THE IMPACT SERVICE QUALITY ON CUSTOMER SATISFACTION: THE CASE OF
ETHIOPIAN ELECTRIC UTILITY, WESTERN ADDIS ABABA DISTRICT, SERVICE
CENTER NUMBER SIX**

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DECLARATION

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

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ENDORSEMENT

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

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ABSTRACT

The main objective of this study was to examine the impact of service quality on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district service center number 6. Quantitative research approaches, explanatory and descriptive research design were used to investigate the relationship between customer satisfaction and service quality dimensions. Both primary and secondary data were collected from respondents (using questionnaire) and related literatures & books. To select representative respondents, the research used a non-probability sampling technique of convenience sampling. Statistical Package for the Social Sciences (SPSS) version 21 was used to analyze the data and the study had a 92.8% response rate. The finding shows that responsiveness has the highest mean value of 3.79. The correlation analysis also indicates that all service quality dimensions have strong positive and significant association with customer satisfaction and responsiveness has the highest Pearson correlation coefficient (0.696). As per the regression analysis, responsiveness, reliability, assurance, and tangibility have strong positive and statistically significant effect on customer satisfaction with standard β value of 0.552, 0.313, 0.214, and 0.204 respectively. Although empathy has negative effect on customer satisfaction, it is not statistically significant ($\beta=-0.026$, p value 0.447). Therefore; the managers of EEU west Addis Ababa district in general and the customer service department of the service center in particular, should be aware that, responsiveness is the most significant in increasing their customers' satisfaction. In addition, the department should further increase its reliability by properly delivering its promises about service delivery and problem resolution, works on improving its assurance services differ mechanisms such as on job training to further increase employees' skills, periodically assess the availabilities and accessibilities of tangibility services and introduces improvements over time.

Key Words: Service Quality, Customer Satisfaction, and Ethiopian Electric Utility

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ABBREVIATIONS

EEP: Ethiopian Electric Power

EEPCO: Ethiopian Electric Power Corporation

EEU: Ethiopian Electric Utility

EELPA: Ethiopia electric power authority

FDRE: The Federal Democratic & Republic of Ethiopia

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Today, service industry has reached to corner of the world. Its prominence can be judged by the fact that no economy can flourish without the service industry whether it is electricity utility, transportation, health care or education. The industrial world has witnessed the major turn from the manufacturing to service sector. With this turn, attention towards service quality has increased drastically in all the service industries. For the efficiency analysis of any service industry, level of service quality has become a significant parameter. Service quality is as important as other factors like price and cost etc. Now, customers have started demanding the better service quality in all the spheres (Saini, 2018). Higher demand of better service quality has been supported by the presence of many companies in the same service industry leading to the competition in the market. Choice with the customer to choose the company freely on their own has pushed all the companies to upgrade its service quality. Enhancement of their services and emphasis on its desirability has become a major challenge for the service utilities as these inefficient services indirectly lead to their financial losses (Singh and Satpal, 2016).

Public sector organizations have to face many challenges in hyper competitive environment. Further, public sector should focus on service quality and also frame strategic aspects with help of the concept as service quality (Sotirakou & Zeppou, 2005; Wright & Pandey, 2010). Due to the above mentioned reasons, public sector organizations in developed and developing countries have to modernize their functions and work more efficiently (Pal & Ireland, 2009; Torres et al., 2005).

Utility companies, having a dominant role and contribution in the global economy, strive to provide services of “optimal quality standards” (Holt, 2005). Their objective is to satisfy their customers, by developing mutual relationships that will protect their corporate future. In that direction, they try to provide services that are proportional to customer expectations and develop positive feelings for these services (Shaw and Ivens, 2002).

The Ethiopian Electric Utility (EEU) is one of the public enterprises assigned both to widen and modernize universal access to electricity. The purpose of the EEU is to engage in the business of

distributing and selling electrical energy in accordance with economic and social development policies and priorities of the government and to carry out any other related activities that would enable it achieve its purpose. Currently, the annual electricity production capacity of the company is about 2378 MW and the number of customer is more than 2.26 million.

Service quality has become a major area of attention during the past few decades for managers, researchers, practitioners because of its huge impact on business performance of firms. According to Brown and Swartz (1989) think that customers prefer and value companies that provide high service quality. Thus, the attainment of quality in products and services has become a drive concern of the 1980s. Customers judge service quality relative to what they want by comparing their perceptions of service experiences with their expectations of what the service performance should be. Marketers described and measured only quality with tangible goods, whereas quality in services was largely undefined and un-researched (Parasuraman, et.al. 1985).

Service quality is defined as a measure of how well the service level that is delivered by an organization matches the overall expectations of its customers (Parasuraman, et al., 1985). Service quality means that the organization is conforming to customer expectations on a consistent basis.

In competitive environment delivering high quality service is the key for a sustainable competitive advantage. Customer satisfaction does have a positive effect on an organization's profitability. Satisfied customers form the foundation of any successful business because customer satisfaction leads to repeat purchases, brand loyalty, and positive word of mouth. There are numerous studies that have looked at the impact of customer satisfaction on repeat purchases, loyalty and retention. Many researchers point out the fact that satisfied customers share their experiences with other people to the order of perhaps five or six people. On the contrary, dissatisfied customers are more likely to tell another ten people of their experience with product or service. Customer satisfaction is the outcome felt by those that have experienced a company's performance that have fulfilled their expectations.

Many researchers and academicians highlight the importance of customer satisfaction. Many researchers see that customer satisfaction has a positive effect on organization's

profitability. Much empirical evidence also shows the positive connection between customer satisfaction, loyalty and retention.

Customer satisfaction is considered a crucial factor for business survival and development (Blut, et al., 2015; Zhao, et al., 2012). Moreover, it has become one of the main elements for improving quality in the global competitive marketplace (Ryu, et al., 2012). Customer satisfaction can be seen either as a goal or a measurement tool. It affects customer retention and, therefore, profitability and competitiveness (Shi, et al., 2014).

Nowadays all companies are realizing the significance of delivering and managing service quality, which leads to customer satisfaction. Service quality that is delivered can meet or exceed customers' expectations are mainly influenced by customer's prior expectations. According to Hansemark and Albinson (2004) "satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some needs, goals or desire".

Regarding the study organization, the Ethiopian Electric Utility (EEU) as public utility enterprise was established for indefinite duration with a vision of "Energizing Ethiopia's sustainable growth and enabling it to be power hub of Africa" by regulation No. 303/2013. The enterprise shall be governed by the Public Enterprises Proclamation No. 25/1992 and it shall have its head office in Addis Ababa and may have 15 regional offices and more than 430 district customer service centers throughout the country. The purpose of the Utility is described on Federal Negarit Gazeta of FDRE, 20th Year No.5 Addis Ababa, 27th December, 2013 as follows:

1. To construct and maintain electric distribution networks; to contract out the distribution networks construction to contractors as required;
2. To determine electric distribution networks, to purchase bulk electric power Ethiopian Electric power (EEP) and sell electric energy to customers;
3. To administer electric distribution networks, to purchase bulk electric power Ethiopian
4. Electric Power (EEP) and sell electric energy to customers:
5. To initiate electric tariff amendments and, upon approval, to implement same;

6. In line with directives and policy guidelines issued by the Ministry of Finance and Economic Development, to sell and pledge bonds and to negotiate and sign loan agreements with local and international financial sources.
7. To undertake any other related activities necessary for the attainment of its purposes.

Therefore, the main objective of this study was to examine the effect of service quality dimensions on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district crevice center number six.

1.2. Statement of the Problem

In the globalized level, the service industry is viewed as the back bone of the economy and it has prominent place in the economic structure to support to the agriculture and industrial sector. In hyper competitive environment, delivering quality service is considered as an essential strategy for the success and survival (Parasuraman, Zeithmal & Berry, 1985; Reichheld & Sasser, 1990).

In today's turbulent environment, the competition to acquire and satisfy customers become to a requirement for organizations and this issue has dedicated a very important part in the strategy of company. Customer satisfaction is largely dependent on the customers' expectations from service and whether the service provided by the company meets their expectations or not. By measuring customer satisfaction, organizations will be able to determine their real success rate in providing service and products our customers want and need in the market (Munteanu, et al., 2010). Researchers have found that customer satisfaction is effective part to do a successful business and almost any business cannot survive without customer satisfaction (Yuksel, et al., 2010).

Nowadays achieving customer satisfaction has been allocated a crucial role in targets of organizations and managers as well know their success in achieving the overall goals of the organization is dependent on customer satisfaction. In recent decades, the importance of customer in organizations increased so that orientation of organizations has changed from product orientation to customer orientation. Unlike in the past, customers have found the opportunity that compare different products in high number and variety from the around world, together (Taleghani & Rastegar, 2012).

A service is an activity or series of activities of more or less intangible that usually but not necessarily is done in the interaction between customer and employees or physical resources or

goods or systems of services supplier but are provided as solutions to customer problems (Gronroos, 2001). Based on view of Parasuraman (1985), Quality of service based on a comparison between what the customer feels should be offered to them and what is actually provided for them. In elsewhere he defined service quality as sustained compatibility with customer expectations and understanding customer expectations from particular service (Yeh Shao and Li, 2009).

Service and its quality have closely relationship with customer satisfaction (Firman & Bo, 2003). Ever since role of service was revealed in daily life, categories of service quality were considered main characteristic competition among organizations. Attention to service quality has distinguished the organization from its competitors and is caused to gain a competitive advantage (Hosseini & Ghaderi, 2010).

Actually quality of service has closely related to customer satisfaction. So that by improving service quality increases the likelihood of customer satisfaction. Increasing customer satisfaction leads to behavioral outcomes such as commitment, a desire to remain, a two-way link between providing the service and the customer, increasing the customer's tolerance to failures in service delivery and positive oral advertising about organization (Firman & Bo, 2003). Nowadays quality of service plays a vital role in the success of the organization in competitive edge and increasing competitive power (Rod and Shao et al., 2009).

Generally, electricity power supply for domestic, commercial and industrial sector took a vital role in economic development. In nutshell, electricity services are recognized as the live blood to the nation and its development. Further, it provides the power or energy to other industries to do the functions properly and perfectly. If there is a problem in terms of power supply, whole economy will be in question mark. Due to that, government should focalize electricity services as prominent and fundamental one. Furthermore, in the third world countries, many cases of violations of the rights, such as incorrect calculation of bills (increasing penalties, calculation on power capability, etc.), an unreasonable restriction of power supply, are not adequately addressed by the electricity consumers (Balakrishnan, Kanet, & Sridharan, 1999).

To the best of the researcher's knowledge, the impact of quality service on customer satisfaction is not studied closely. Since EEU is a huge company, service quality delivery needs to investigate to enhance the level of service quality being offered by the company on distribution

service to its consumers. Therefore; the aim of this study was to fill this gap by investigating the effect of service quality on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district crevice center number six.

1.3. Research Question

To achieve the purpose of the study, the researcher formulated the following research questions by relying on the background and problem statement of the study. The following research question was answered:

- ✓ How does service quality dimension affect customer satisfaction in Ethiopian Electric Utility, west Addis Ababa district service center number six?

1.4. Objectives of the Study

1.4.1. General Objectives

The general objective of this study was to examine the effect of service quality on customer satisfaction in Ethiopian Electric Utility, west Addis Ababa district service center number six.

1.4.2. Specific Objectives

- ✓ To determine the effect of responsiveness on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district service center number six.
- ✓ To examine the effect of reliability on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district service center number six
- ✓ To identify the effect of assurance on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district service center number six.
- ✓ To analyze the effect of empathy on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district service center number six.
- ✓ To identify the effect of tangibility on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district service center number six.

1.5. Significance of the Study

The purpose of this study is to examine the effects of service quality on customer satisfaction. Therefore; based on the finding, the EEU top management & customer service department will get an insight about the effect service quality dimensions on customer satisfaction. In addition, as

per the finding, the EEU management will design their service practice strategies to make their customers delighted.

This study will also contribute to fill the literature gaps on the very interesting and attractive topic on customer service in developing countries which will be valuable to academicians, who may be able to find a useful research gaps that may stimulate interest in further research in future. Moreover, this study will be used as a baseline for further research.

1.6. Scope of the Study

This study was conducted from April 5 to 19 2021. The study has three main delimitations; namely; geographical, conceptual and methodological delimitations.

Due to cost and difficulty to maintain large number of population throughout the four districts of Addis Ababa as study participant, geographically, this study was delimited to west Addis Ababa district service centers number 6. In addition, the study targeted only customers of west Addis Ababa district service center number 6 as study population, and did not include customers of other service centers in the district, which is its methodological delimitation. Therefore, the findings might not be the reflection of customers of the whole service centers of west Addis Ababa, as a district.

Finally, the researcher decided to examine the effect service quality dimensions such as; tangibility, reliability, assurance, responsiveness, and empathy on customer satisfaction; which is considered as its conceptual scope.

1.7. Definition of Terms

Reliability: is defined as the ability to perform the promised service dependably and accurately.

Responsiveness: the willingness to help customers and to provide prompt service.

Assurance: the knowledge and courtesy of employees as well as their ability to convey trust and confidence.

Empathy: the provision of caring and individualized attention to customers.

Service: is an act or performance that one partly can offer to another that is essentially intangible and doesn't result in the ownership of a thing (Kotler, 1998).

Service Quality: refers to degree and direction of discrepancy between the consumer's perceptions and expectations, or the extent to which a service meets or exceeds customer expectations (Parasuraman, et al., 1988).

Tangibles: appearance of physical facilities, equipment, personnel, and communication materials.

1.8. Organization of the Study

The study is organized in to five chapters. Chapter one provides a brief background to the study, discusses statement of the problem, basic research questions, objective of the study, significance and scope of the study and definition of terms. Chapter two presents related review of literatures followed by chapter three which presents the research methodology in which the research methods, data collection procedures, the sources of data and the methods of data analysis. The fourth chapter focuses on presentation, analysis, interpretation and discussion of the research findings. Finally, chapter 5 provides summary, conclusions and recommendations of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In this chapter, a detailed discussion of related literature works about service quality and customer satisfaction will be presented. Theoretical review, empirical review and conceptual framework of the study will be discussed in detail to support this study.

2.1. Theoretical Literature

Services are deeds, performances and processes provided or coproduced by one entity or person for and with another entity or person (Zeithaml, et al, 2009). This definition of service includes core service, products and product-service bundles. Vargo & Lusch (2004) provided a more inclusive definition of service with the derived service perspective, suggesting that all products and physical goods are valued for the inherent service (value derived) they provide not the goods itself. Services differ from product due to their intangibility, heterogeneity, simultaneous production and consumption and perishability (Zeithaml, et al, 2009).

Service Quality is a customer perception that occurs when the need of service is met above average, more than just adequate. In other words service quality is the ability of service that meets a customer's expectations for that service. It represents of the service valued by the customer.

Service quality has been defined in services marketing literature as an overall assessment of service by the customers. Perceived service quality is believed to be resulting from comparison between customers' prior expectations about the service and their perceptions after actual experience of service performance (Parasuraman, et al., 1985). Service quality has been defined by the practitioners in terms of key dimensions that customers use while evaluating the services. Conceptualization of service quality should include both the service delivery process (Parasuraman et al., 1985) as well as the service outcomes (Gronroos, 1984) offered a service quality measurement instruments with dimensions of technical quality (what consumer gets), functional quality (how consumer gets the service) and corporate image (how consumers perceive the firm and its services).

2.1.1. Characteristics of Services

The services have unique characteristics which make them different from that of goods. The service literature highlights differences in the nature of services versus products which are believed to create special challenges for service marketers and for consumers buying services.

Although there has been debate on the effectiveness of the four characteristics in distinguishing between products and services (Regan 1963) these are nevertheless widely accepted by scholars and marketers (Zeithmal 1978; Levitt 1981) and used both as the basis for examining services buyer behavior and developing services marketing strategies.

a. Intangibility

The literature highlights intangibility as one of the key characteristics of services. Regan (1963) introduces the idea of services being activities, benefits or satisfactions which are offered for sale, or are provided with the sale of goods. Services are activities provided performed physical by the provider, unlike physical products they cannot be seen, tasted ,felt, heard or smelt before they are to that appeal to customer's senses, their evaluation unlike goods, is not possible before actual purchase and consumption. The marketer of service cannot rely on product-based that the buyer generally employs in alternative evaluation prior to purchase. So, as a result of the services which are not known to the customer's before they take them? For example: teaching, Consulting, legal advices, restaurants, fast food centers, hotels and hospitals.

b. Inseparability

Inseparability is taken to reflect the simultaneous delivery and consumption of services (Regan 1963) and is believed to enable consumers to affect or shape the performance and quality of service, (Gronroos, 1978; Zeithmal 1981). Services are typically produced and consumed simultaneously. In case of physical goods, they are manufactured into products, distributed through multiple resellers and consumed later. But, in case of services, it cannot be separated from the service provider. Thus, the service provider would become a part of a service. For example: taxi operator drives taxi, and the passenger uses it. The presence of taxi driver is essential to provide the service. The services cannot be produced now for consumption at a later stage time. This produces a new dimension to service marketing. The physical presence of consumer is essential in services. For example: to use the services of an airline, hotel, doctor a

customer must be physically present. Inseparability of production and consumption increases the importance of the quality in services. Therefore, service marketers not only need to develop task-related, technical competence of service personnel, but also require a great input of skilled personnel to improve their marketing and inter personal skills.

c. Heterogeneity/variability

Heterogeneity reflects the potential for high variability in service delivery (Zeithmal et al 1985). This is a particular problem for services with high labor content, as the service performance is delivered by different people and the performance of people can vary from day to day (Zeithmal 1985). Since services are performed by human beings, they have different performances at different times of the day unlike tangible goods are standardized. Hence service offered vary accordingly to performances or change in humor by those providing them. The idea of heterogeneity arises from the assumption that no two customers are alike, hence their demands are unique and the way they will experience the service will differ from another person. So, the service firms should make an effort to deliver high and consistent quality in their service; and this is attained by selecting good and qualified personnel for rendering the service.

d. Perishability

The fourth characteristic of services highlighted in the literature is perish-ability. In general, services cannot be stored and carried forward to a future time period (Rathmell 1966). Services are time dependent and time important which make them very perishable. Services are deeds, performance or act whose consumption take place simultaneously; they tend to perish on the absence of consumption. Hence, services cannot be stored. The services go waste if they are not consumed simultaneously i.e. value of service exists at the point when it is required. The perishable character of services adds to the service marketer's problems. The inability of service sector to regulate supply with the changes in demand; poses many quality management problems. Hence, service quality level deteriorates during peak hours in restaurants, banks, transportation. This is a challenge for a service marketer. Therefore, a marketer should effectively utilize the capacity without deteriorating the quality to meet the demand.

2.1.2. Concept of Service Quality

In the service industry, definitions of service quality tend to focus on meeting customers' needs and requirements and how well the service delivered meets their expectations (Lewis and Booms 1983). In order to deliver and maintain service quality, an organization must first identify what it is that constitutes quality to those whom it serves (Gronross 1984).

Gronross (1984) classified service quality into two categories: technical quality, primarily focused on what consumers actually received from the service; and functional quality, focused on the process of service delivery.

Perceptions of quality by those who provide services and those who consume them have been defined as the outcome of comparison between expectations of a service and what is perceived to be received (Czepiel et al.1985; Parasuraman et al 1985)

Delivering quality service is one of the major challenges facing hospitality sector. It is an essential condition for success in the emerging keenly competitive and global hospitality markets. Quality is the key to achieving customer satisfaction. Quality is a dynamic state associated with products, services, people and environments that meets or exceeds expectations. Quality is also rapidly embracing the nature or degree of impact an organization has of its stakeholders, environment and society. Your customers of your business are based on the product or service you deliver and on the day-to-day contact they have with your staff. (Munro and Jones 1993)

The key to ensuring good service quality is meeting or exceeding what customers expect from the service. It was clear to us that judgments of low and high quality service depend on how customers expect from the service. It was clear to us that judgments of high and low service quality depend on how customers perceive the actual service performance in the context of what they expected. Service quality as perceived by customers can be defined as the extent of discrepancy between customer's expectations or desires and their perceptions. Service delivery is concerned with where, when and how the service product is delivered to the customer.

Philip Kotler (1997) defined service as 'an action or an activity which can be offered by a party to another party, which is basically intangible and cannot affect any ownership. Service may be related to tangible product or intangible product' On the other hand, Zeithaml & Bitner (2003)

mentioned that, 'Service quality is a focused evaluation that reflects the customer's perception of specific dimensions of service namely reliability, responsiveness, assurance, empathy, tangibles.' Based on the assessment of service quality provided to the customers, business operators are able to identify problem quickly, improve their service and better assess client expectation.

Service Quality is defined as an evaluation of how well the delivered service matches consumer expectations. It is done to assess the deviations that are occurring while delivering the services to potential customers.

Businesses that meet or succeed expectations are considered to have high service quality. Service quality defines the retention power of the company concerning its customers. Customer retention is the best measure of service quality.

Moreover, service quality is a perceived judgment resulting from an evaluation process where customers compare their expectations with the service they have received (Gronroos 1984 a). Bolton and Drew argued that while service quality is an overall attitude towards a service firm, customer satisfaction is specific to an individual service encounter.

Therefore, it is very difficult to come to a consensus as to a definition of service quality. We can however conclude the perspectives of different authors that is about providing something intangible in a way that pleases the consumer and that preferably gives some value to that consumer.

Londe, et al, (1988) stated that it is the customer service management that will derive the importance of service. In services marketing, customer service is regarded as a component of marketing mix. Zeithaml and Bitner, 1996 mentioned that high quality customer service is not just customer service department but all levels of management and staffs need to accept and have a state of mind regarding customer care. On the other hand, Payne, 1995 added that there is pressure on customer service due to competition and technological. He also stated that higher standards of service are being demanded by consumers as they are becoming more sophisticated and updated in their requirements and to them service refers as customer satisfaction, customer delight, service delivery, customer relationship, hence, to provide good service to customers, service companies need to take into consideration the important variables of service quality namely, assurance, empathy, reliability, responsiveness and tangibles. Thus as per Payne, 1995 customer service and quality improvement initiatives are closely related to each other. Moreover,

marketing, customer service and relationship marketing are brought together through relationship marketing and marketers are very concerned about the attainment of quality. (Christopher and Ballantyne, 1991)

2.1.3. Customer Satisfaction

Customer Satisfaction has been a central concept in marketing literature and is an important goal of all business activities. Today, companies face their toughest competition, because they move from a product and sales philosophy to a marketing philosophy, which gives a company a better chance of outperforming competition (Kotler, 2000). Overall customer satisfaction translates to more profits for companies and market share increase. The importance of customers has been highlighted by many researchers and academicians. The principal concern of marketing is to connect with customers by building a strong customer relationship in order to meet their expectations.

Researchers have tried to define customer satisfaction and in general they have defined it as transaction process. Oliver (1981) defined satisfaction “as a summary of psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer’s prior feelings about the consumption experience”. Kotler (2000) defined satisfaction as: “a person’s feelings of pleasure or disappointment resulting from comparing a product perceived performance (or outcome) in relation to his or her expectations”.

According to Hansemark and Albinsson (2004) “satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some need, goal or desire”. Furthermore, researchers differentiate between attitude and satisfaction. So an attitude is a perceived service quality whereas, satisfaction is related to a specific transaction. Oliver (1981) summarizes the transaction-specific nature of satisfaction, and differentiates it from attitude, as follows: Attitude is the consumer’s relatively enduring affective orientation for a product, store, or process (e.g., customer service) while satisfaction is the emotional reaction following a disconfirmation experience which acts on the base attitude level and is consumption-specific.

Parasuraman, et al. (1988) distinguish service quality and satisfaction: “perceived service quality is a global judgment, or attitude, relating to the superiority of the service, whereas

satisfaction is related to a specific transaction". Customer satisfaction as an attitude is like a judgment following a purchase act or based on series of consumer-product interactions (Yi, 1989).

Customer satisfaction has a positive effect on an organization's profitability. The more customers are satisfied with products or services offered, the more are chances for any successful business as customer satisfaction leads to repeat purchase, brand loyalty, and positive word of mouth marketing. Customer satisfaction leads to repeat purchases, loyalty and to customer retention (Zairi, 2000). Satisfied customers are more likely to repeat buying products or services. They will also tend to say good things and to recommend the product or service to others. On the other hand dissatisfied customers respond differently. Dissatisfied customers may try to reduce the dissonance by abandoning or returning the product, or they may try to reduce the dissonance by seeking information that might confirm its high value (Kotler, 2000). Companies need to develop strategies of how to handle dissatisfied customers. Businesses cannot afford under any condition to lose customers, because the cost of replacing the lost customer with a new customer is bigger. Therefore, companies must find ways of winning back the unsatisfied customers by designing special programs for service recovery. Companies should handle customer complaints with care and not seeing them as a time consuming.

Tjiptono (2001), consumer satisfaction/ dissatisfaction is the consumer's response to a perceived discrepancy / disconfirmation evaluation between the previous expectations (or other performance norms) and the actual performance of the perceived product after usage. Kotler in Mulyana (2009) suggests that "Consumer satisfaction is the level of one's feelings after comparing the performance of perceived results compared with expectations". According to Kotler "Consumer satisfaction is the feeling of pleasure or disappointment of someone who emerged after comparing the perception or the impression to the performance or the outcome of a product and its expectations" (Kotler, 1997). According to Day (in Tse and Wilton) quoted by Tjiptono "Satisfaction or consumer dissatisfaction is the consumer's response to the evaluation of discrepancy or disconfirmation that is felt between previous expectations (or other performance norms) and the actual performance of the perceived product after its use". Indicator of satisfaction according to Selnes (1993): Experience, Expectation and Overall Satisfaction

2.1.4. The SERVQUAL Model

Customer satisfaction and service quality are inter-related. The higher the service quality, the higher is the customer satisfaction and competitive advantage through high quality service is an increasingly important weapon to survive. Measuring service quality seems to pose difficulties to service providers because of the unique characteristics of services: intangibility, heterogeneity, inseparability and perishability. Because of these complexities, various measuring models have been developed for measuring perceptions of service quality (Parasuraman, et. al., 1988).

The service quality model of Parasuraman et al. (1988) proposes a five-dimensional construct of perceived service quality: tangibles, reliability, responsiveness, assurance and empathy- with items reflecting both expectations and perceived performance.

Service quality has become an important research topic because of its apparent relationship to costs, profitability, customer satisfaction, customer retention and positive word of mouth (Reichheld & Sasser, 1990).

There are many research instruments developed to measure the perceived service quality. Among such general instruments, the most popular being the service quality model, a well-known scale developed by (Parasuraman et al., 1998). SERVQUAL, as it has been frequently used in the literature has been widely acknowledged and applied in various services setting for variety of industries in the past decade. Examples include: health care setting, dental school patient clinic, business school placement centre, large retail chains, banking, pest control, dry cleaning, and fast food restaurants (Cronin & Tayler, 1992).

According to Olaleke (2010), the SERVQUAL measuring tool “remains the most complete attempt to conceptualize and measure service quality because of its number of benefits”. Incidentally, the SERVQUAL measuring tool’s main benefit is its ability that allows researchers to examine numerous service industries such as; healthcare, banking, financial services, and education (Olaleke, 2010). The fact that SERVQUAL has critics does not render the measuring tool inconsequential; rather, the criticism received concerning SERVQUAL measuring tool may have more to do with how researchers use the tool.

Originally, SERVQUAL formulated by Parasuraman et al. (1985) showcased ten various components of service quality. Later in 1988, these ten components were collapsed into five different dimensions, namely:

1. Tangibles: physical facilities, equipment, and appearance of personnel;
2. Reliability: ability to perform the promised service dependably and accurately;
3. Responsiveness: willingness to help customers and provide prompt service;
4. Assurance: knowledge and courtesy of employees as well as their ability to convey trust and confidence
5. Empathy: individual care and attention that a company provides its customers.

2.1.5. The Gap Model of Service Quality

In 1985, Parasuraman and his colleagues propose the GAP Model. In-service industry, the GAP Model is widely used to understand the various deviations that are occurring in the process of service delivery to potential customers. GAP Model creates a roadmap for the overall service delivery process and identifies the gap between the processes so that the complete model works efficiently and effectively. The GAP Model of Service quality helps to identify the gaps between the perceived service and the expected service. Five Gaps occur in the service delivery process.

GAP 1: Gap between Management Perception and Customer Expectation

This gap arises when the management or service provider does not correctly analyze what the customer wants or needs. It also arises due to insufficient communication between contact employees and managers. There is a lack of market segmentation. This Gap occurs due to insufficient market research. For Instance- A café owner may think that the consumer wants a better ambience in the café, but the consumer is more concerned about the coffee and food they serve.

GAP 2: Gap between Service Quality Specification and Management Perception

This gap arises when the management or service provider might correctly comprehend what the customer requires, but may not set a performance standard. It can be due to poor service design, Inappropriate Physical evidence, and Unsystematic new service Development process.

An example would be restaurant Managers who may tell the waiters to provide the order of the consumer quick, but do not specify “How Quick”.

GAP 3: Gap between Service Quality Specification and Service Delivery

This gap may arise in situations existing to the service personnel. It may occur due to improper training, incapability or unwillingness to meet the set service standards. It can be due to inappropriate evaluation and compensation systems. Ineffective Recruitment is the main cause of this gap.

The failure to match the supply and demand can create this gap. There is also a lack of empowerment, Perceived Control, and framework. An example would be a restaurant having very specific standards of the food communicated but the restaurant staff may not be given proper instruction as to how to follow these standards.

GAP 4: Gap between External Communication and Service Delivery

Consumer Expectations are highly influenced by the statements made by the company representatives and advertisements. This gap arises when these assumed expectations are not fulfilled at the time of Delivery of Service.

An example would be a restaurant that has printed on its menu that it serves 100% Vegetarian Food but in reality, it serves Non-Vegetarian Food as well. In this situation, consumer expectations are not met.

GAP 5: Gap between Experienced Service and Expected Service

This gap arises when the consumer misunderstands the service quality. For Instance, A Restaurant Manager may keep visiting their consumer to ensure quality check and consumer satisfaction, but the consumer may interpret this as an indication that something is fishy or there is something wrong in the service provided by the restaurant staff.

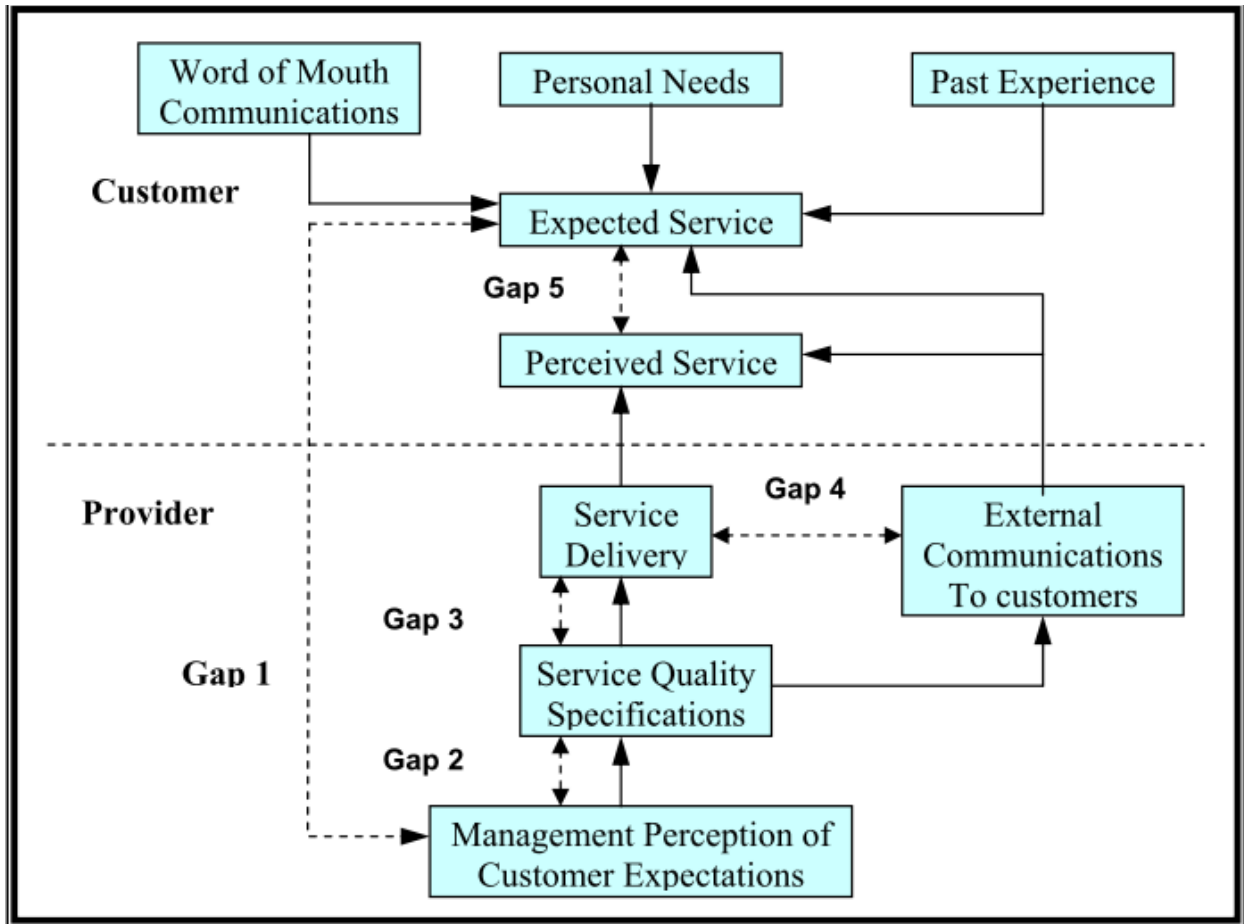


Figure 1. SERVIQUAL Model

Parasuraman, et al. (1985) developed the gap model and the subsequent SERQUAL instrument designed to identify and measure the gaps between customers' expectations and perceptions of the service received. Service quality from the consumer's perspective depends on the direction and degree of difference between the expected service and the perceived service. Thus by comparing customer's expected service with customer's perceived service, hotels, for example can determine whether its service standard is appropriate. The gap between expectations and perceptions of performance determines the level of service quality from a customer's perspective.

2.1.6. Customer Satisfaction and Service Quality

Since customer satisfaction has been considered to be based on the customer's experience on a particular service encounter, (Cronin & Taylor, 1992) it is in line with the fact that service

quality is a determinant of customer satisfaction, because service quality comes from outcome of the services from service providers in organizations. Another author stated in his theory that “definitions of consumer satisfaction relate to a specific transaction (the difference between predicted service and perceived service) in contrast with ‘attitudes’, which are more enduring and less situational-oriented,” (Lewis, 1993) This is in line with the idea of (Zeithaml et al 2006).

Regarding the relationship between customer satisfaction and service quality, Oliver (1993) first suggested that service quality would be antecedent to customer satisfaction regardless of whether these constructs were cumulative or transaction-specific. Some researchers have found empirical supports for the view of the point mentioned above (Anderson & Sullivan, 1993; Fornell et al 1996; Spreng & Macky 1996); where customer satisfaction came as a result of service quality.

In relating customer satisfaction and service quality, researchers have been more precise about the meaning and measurements of satisfaction and service quality. 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, et al., 2008). Although it is stated that other factors such as price and product quality can affect customer satisfaction, perceived service quality is a component of customer satisfaction (Zeithaml et al. 2006). This theory complies with the idea of Wilson et al. (2008) and has been confirmed by the definition of customer satisfaction presented by other researchers.

Some authors have agreed to the fact that service quality determines customer satisfaction. Parasuraman et al., (1985) in their study, proposed that when perceived service quality is high, then it will lead to increase in customer satisfaction. Some other authors did comprehend with the idea brought up by Parasuraman (1995) and they acknowledged that “Customer satisfaction is based upon the level of service quality that is provided by the service providers” (Saravana & Rao, 2007, Lee et al., 2000).

2.2. Empirical Review

According to the study by Tensae & Sisay (2020) on the effect of service quality on customer satisfaction at Federal attorney general of Ethiopia, all service quality dimensions have positive and significant relationship with customer satisfaction. The Pearson’s correlation coefficient for the service quality dimensions (assurance, empathy, tangibility, reliability, and responsiveness)

are 0.795, 0.795, 0.543, 0.529 and 0.492 respectively. This implies that, assurance of customers has the strongest correlation with customer satisfaction than the other service quality dimensions.

In addition, Abdisa (2019) also reported in his study which was done on the impact of service quality on customer satisfaction: a case study on Nekemte municipality, Oromia Region, that there is a significant positive relationship between the five dimensions of service quality and customer satisfaction. The finding shows that, responsiveness (0.788) has a relatively the highest correlation with customer satisfaction followed by reliability (0.768), empathy (0.699) and the remaining dimension tangibility and assurance (0.673) and (0.659) respectively. The result also shows that all predictor variables or service quality dimensions (tangibility, reliability, responsiveness, and assurance), except empathy have statistically significant contribution on combined influence the satisfaction of customers. On the other hand, although empathy has no positive effect on customer satisfaction, it's not statistically significant.

The study done in Hossana town, Ethiopia on the Effect of Service quality on customer satisfaction: a study on four selected insurance companies, responsiveness is the most correlated variable with customer satisfaction (with the r value of 0.687) and it was followed by assurance (with the r value of 0.611), reliability (with the r value of 0.596), empathy (with the r value of 0.47) and tangibility (with the r value of 0.355) respectively. The regression analysis also shows that all service quality dimensions have positive and significant effects on customer satisfaction and responsiveness has a relatively strongest effect on customer satisfaction at β value of .376 and followed by reliability at β value of .327, tangibles at β value of .187, empathy at β value of .149, and assurance at β value of .113 respectively (Addisalem & Desta, 2019).

According to the study done in Bahrain on the impact of customer service quality on customer satisfaction in Islamic banking, all the five service quality dimensions (assurance, tangibility, reliability, empathy and responsiveness) have positive impact on customer satisfaction in Islamic banking (Janahi & Almubarak, 2015).

Zelege (2013) also reported in his study conducted on the impact of service quality on customer satisfaction: a study aimed to analyze whether perceived customer service directly related to customer satisfaction regarding the national alcohol & liquor factory, the five service dimensions were positively related to overall service quality and are indeed drivers of service quality which in turn has an impact on customer satisfaction.

Another scholar reported in his study done on the impact of quality service on customer satisfaction in the banking sector of Pakistan, all service quality dimensions have significant and positive impact on customer satisfaction (Hassan, 2019).

According to a study conducted in Pakistan on the Impact of service quality on customer satisfaction and customer loyalty: Evidence from banking sector all service quality dimensions (tangibility, reliability, assurance and empathy) have positive and significant association with customer satisfaction. The finding also shows that reliability, assurance and empathy have positive and significant effect on banks' customer satisfaction in Pakistan. Even though tangibility has positive effect on customer satisfaction, it's not statistically significant (Munawar & Mariam, 2014).

Owusu (2015) also reported in his study conducted on examining the effects of service quality on customer satisfaction in the Ghanaian banking sector, using UBA as a case study area that the correlation analysis shows that service quality dimensions of responsiveness, reliability, and assurance have negative association with customer satisfaction, while tangible has a positive association with satisfaction of bank customers. The regression analysis also shows that only empathy and reliability have significant effect on customer's satisfaction. On the other hand responsiveness, tangibles and assurance don't bear any direct effect with customer's satisfaction.

Pakurár, et al. (2019) also reported in their study which was conducted in Jordan on the service quality dimensions that affect customer satisfaction in the Jordanian banking sector, all service quality dimensions (tangibility, reliability, assurance, responsiveness and empathy) have positive and significant effect on satisfaction customer of Jordanian banking sector.

2.3. Conceptual Framework

The conceptual framework indicates the crucial process, which is useful to show the direction of the study. The study shows the relationship between the five service quality dimensions (reliability, responsiveness, assurance, empathy and tangible) and customer satisfaction. So, based on the above related literatures and concepts, the following conceptual frame work was developed.

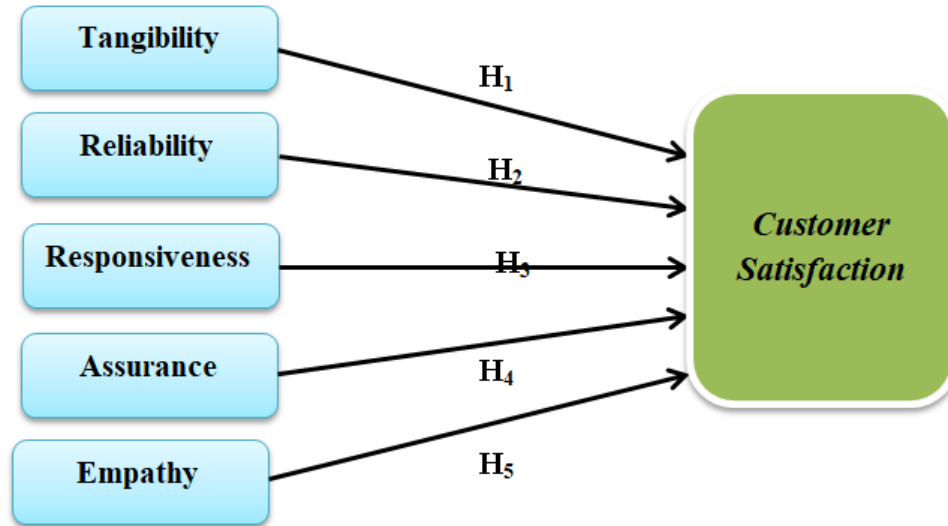


Figure 2. Conceptual Framework [Adopted from (Tensae & Sisay, 2020), (Abdisa, 2019), (Addisalem & Desta, 2019), (Janahi & Almubarak, 2015), (Zelege, 2013), (Hassan, 2019), and (Munawar & Mariam, 2014)]

2.4. Research Hypothesis

H₁: Reliability of EEU has positive and significant effect on its customer satisfaction.

H₂: Tangibility aspect of the EEU has positive and significant effect on its customer satisfaction.

H₃: Responsiveness of the EEU has positive and significant effect on its customer satisfaction.

H₄: Empathy of the EEU has positive and significant effect on customer its satisfaction.

H₅: Assurance of the EEU has positive and significant effect on customer its satisfaction.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter discuss the research design, research approach, type of data that will be gathered, study population, sample size and sampling techniques, data collection procedures, data analysis, ethical consideration, and validity and reliability of the study.

3.1. The Research Approach

This study used a quantitative research approach to test the impact of service quality on customer satisfaction. Quantitative research approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion. In general, quantitative research is the systematic and scientific investigation of quantitative properties and phenomena and relationships (Kothari, 2004).

The objective of quantitative research is to develop and employ mathematical models, theories and hypotheses pertaining to natural phenomena. It usually starts a general statement proposing a general relationship between variables. Quantitative researchers favor methods such as surveys and experiments, and will attempt to test hypotheses or statements with a view to infer from the particular to the general (Bhattacharjee, 2012).

3.2. Research Design

To achieve the objective of the study, the researcher used both descriptive and explanatory research designs to investigate the effect of service quality dimensions on customer satisfaction, and the relationship between each independent and dependent variables.

According to Kothari (2004), a social research can be divided in three types, depending on its purposes. (1) Exploratory research; much of social research is conducted to explore a topic, that is, to start to familiarize a researcher with that topic. This approach typically occurs when a researcher examines a new interest or when the subject of study itself is relatively new. (2) Descriptive research; in this research the researcher observes and then describes what was observed. Because scientific observation is careful and deliberate, however, scientific descriptions are typically more accurate and precise than are casual ones. (3) Explanatory research; is used to investigate relationships between certain causes and effects. Hypotheses are

formed to reject or support the relationship. Descriptive studies answer questions of what, where, when, and how; explanatory studies address questions of why.

3.3. Data Types and Sources

To make the study complete and achieve its predetermined objectives, both primary and secondary data were collected from various sources using data gathering instruments. All sample respondents were the primary source of data while available documents such as books, past literature reviews and relevant articles were used as secondary data sources.

3.4. Population

3.4.1 Source Population

The source population of this study was all customers of Ethiopian electric utility, west Addis Ababa district service centers.

3.4.2. Target Population

The target population of this study was all customers of the EEU west Addis Ababa district number 6 service center. According to the data obtained from customer service department until April 02/2021, there are a total of 12,280 domestic, commercial and industry customers who has been served in the service center.

3.5. Sample Size Determination

Sample size determination is a process of selecting a sufficient portion of the population for the purposes of generalizing the findings. The aim of using sampling method is to adequately manipulate the large number and reduce the cost of producing the questionnaire to the entire population. Using the sample size calculation formula of Yamane (1973), 387 customers were taken as a representative sample

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

Where

- ✓ n = required sample size
- ✓ N = the population size
- ✓ 1= constant
- ✓ e = acceptance error (0.05)

3.6. Sampling Technique

There are two known sampling techniques; probability sampling and non-probability sampling. The non-probability sampling is a method in which sampling units are taken purposely by the researcher whereas under probability sampling each sample units in the target population has an equal chance to be included in the sample (Kothari, 2004).

The researcher used convenience sampling methods to select representative sample from the available population. The researchers decides to use convenience sampling method because it is actually impossible to carry on a probability sampling because there is no point in time during which all customers are available due to different reasons and it is not possible to contact everyone who may be sampled.

3.7. Data Collection Procedure

Data collection was conducted by a self-administered questionnaire. The questionnaire is carefully developed in a way that used to measure the effect of the proposed independent variables on the dependent variable. This self-administered questionnaire was developed with a five point Likert scale. The type of questions, form, wording and sequences were also considered carefully.

The questionnaire had two sections. The first section covered the demographic profile of the participants. The second section was structured on a Likert scale of 1-5 to show customers' degree of agreement or disagreement to the sentences about the constructs under study. Since the study participants are customers of EEU of service center # 6, who are with different educational background, it was necessary to translate the questionnaire into Amharic language before distributing the questionnaire to help easy comprehension and accurate response of respondents. The questionnaires were distributed to customers from April 05 to 19/2021 and they were intercepted at service center immediately after the service was delivered.

3.8. Reliability and Validity

Reliabilities of questionnaires were checked by computing Cronbach's alpha coefficients for each scale to determine the internal consistency of the instruments used in the study. According to Hair, et al. (1998), alpha coefficients ranges (< 0.6 is poor), (0.6 to < 0.7 is moderate), (0.7 to < 0.8 is good), (0.8 to < 0.9 is very good), and (> 0.9 is considered as excellent). The value of

0.60 is considered as in the lower limit of acceptability for Cronbach's alpha. As per the finding, All variables in this study have Cronbach's alpha value above 0.60 and the overall alpha value is 0.877 which shows the highly acceptability of the measurement scales used. The following table has the details.

Table 1. Reliability Analysis

Reliability Statistics

	Cronbach's Alpha	N of Items
Tangibility	.727	4
Reliability	.838	4
Responsiveness	.795	4
Assurance	.901	4
Empathy	.618	4
Customer Satisfaction	.696	5
Over all	.877	25

Source: *Survey Result (March, 2021)*

Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study. If the instrument contains a representative sample of the universe, the content validity is good. Its determination is primarily judgmental and intuitive. It can also be determined by using a panel of persons who shall judge how well the measuring instrument meets the standards, but there is no numerical way to express it (Kothari, 2004). The validity of this study, therefore; is as it was stated in the conceptual framework part; all the variables are adopted from previous research works.

3.9. Data Analysis Method

The finding of the study was analyzed using SPSS version 21. The variables' reliability and validity of the constructs was verified, descriptive statistics for quantitative data (both univariate; frequency, and multivariate analysis, correlation) was analyzed and then linear regression analysis was done to examine the interdependence between dependent and independent variables.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

This chapter presents the finding and discussion of the study. Statistical Package for Social Science (SPSS) software version 21.0 was used for data analysis. To examine the influence of independent variables on customer satisfaction, correlation and regression analysis were conducted.

4.1. Response Rate

Out of 387 questionnaires distributed to customers at convenience, only 359 questionnaires were complete, valid and appropriate for analysis, which represent 92.8% valid response rate.

4.2. Demographic Characteristics of Respondents

Table 2. Demographic Characteristics of Respondents

<i>Items</i>		<i>Frequency</i>	<i>Percent</i>
Gender	Male	257	71.6
	Female	102	28.4
	Total	359	100.0
Age (Year)	< 25	129	35.9
	25-35	107	29.8
	36-45	68	18.9
	> 45	55	15.3
	Total	359	100.0
Marital Status	Married	246	68.5
	Single	102	28.4
	Divorced	11	3.1
	Total	359	100.0
Educational Level	Primary school completed	102	28.4
	High School completed	128	35.7
	Diploma	59	16.4
	First Degree	57	15.9

	Master's Degree & above	13	3.6
	Total	359	100.0
Customers' year of Experience in EEU	< 2	56	15.6
	2-5	74	20.6
	6-10	137	38.2
	> 10	92	25.6
	Total	359	100.0

Source: Survey Result (March, 2021)

The finding shows that out of 359 respondents, majority (71.6%) of them was males and the remaining respondents were females. When we see the age group of study participants, 129 (35.9%) of respondents' age was less than 25 years while only 15.3% of them were above 45 years old. Out of the 359 study participants majorities (68.5%) of respondents were married while there were only 3.1% of respondents who divorced. With respect to educational level, 102(28.4%) respondents were completed their primary education only while there were only 3.6% of respondents who graduated with Master's degree and above. According to the finding, 137(38.2%) of the respondents have been getting EEU's service for the last 6 to 10 years while 15.6% of them were getting EEU's service just for less than two years.

4.3. Descriptive Analysis of Variables

Table 3. Descriptive Statistics of the Variables

Descriptive Statistics				
S.N.	Variables	N	Mean	Std. Deviation
1	Tangibility	359	3.03	.880
2	Reliability	359	3.14	.823
3	Responsiveness	359	3.79	.782
4	Assurance	359	3.22	.936
5	Empathy	359	3.41	.772
6	Customer Satisfaction	359	3.44	.599
	Valid N (listwise)	359		

Source: Survey Result (March, 2021)

Descriptive statistic of means and standard deviations were obtained from the independent and dependent variables. The descriptive analysis is used to look at the data collected and describe that information. Mean value provides the idea about the central tendency of the values of a variable. On the other hand, Standard deviation gives the idea about the dispersion of the values of a variable from its mean value. Mean scores is interpreted as follows; mean scores 4.51-5.00 is excellent or very good, 3.51-4.50 is good, 2.51-3.50 is average or moderate, 1.51-2.50 is fair, and 1.00-1.50 is poor. As the above table 3 shows, the mean score of all variables are in the good and very good ranges and this implies that service quality dimensions are important in determining customer satisfaction in EEU west Addis Ababa district service center 6.

4.4. Correlation Analysis

Table 4. Correlation between the Independent variables and the Dependent variable

		Correlations					Customer Satisfaction
		Tangibility	Reliability	Responsiveness	Assurance	Empathy	
Tangibility	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	359					
Reliability	Pearson Correlation	.182**	1				
	Sig. (2-tailed)	.001					
	N	359	359				
Responsiveness	Pearson Correlation	.377**	.146**	1			
	Sig. (2-tailed)	.000	.006				
	N	359	359	359			
Assurance	Pearson Correlation	.131*	.378**	.152**	1		
	Sig. (2-tailed)	.013	.000	.004			
	N	359	359	359	359		
Empathy	Pearson Correlation	.436**	.253**	.443**	.283**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	359	359	359	359	359	
Customer Satisfaction	Pearson Correlation	.486**	.505**	.696**	.435**	.447**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	359	359	359	359	359	359

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

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Survey Result (March, 2021)

Correlation is a measure of association between two variables and a positive value of 'r' indicates positive association between the two variables (i.e., changes in both variables take place in the stated direction), whereas negative a value of 'r' indicate negative association (i.e., changes in the two variables taking place in the opposite directions). A zero value of 'r' indicates that there is no association between the two variables. Accordingly, when 'r' is (+1), it indicates perfect positive association and when 'r' is (-1), it indicates perfect negative association (Kothari, 2004). Therefore; in order to examine the association between independent and the dependent variable, the researcher computed Pearson correlation. As table 8 shows, all services quality dimensions are positively and significantly correlated with customer satisfaction. Responsiveness and reliability have strong association with customer satisfaction with r value of 0.697 & 0.505 respectively. The finding also shows that service tangibility, empathy, and service assurance have moderate association with customer satisfaction with r value of 0.486, 0.447, and 0.435 respectively. In general, as per the finding, responsiveness has the strongest association with overall customer satisfaction (r= 0.697).

4.5. Regression Analysis

4.5.1. Assumption Tests for Multiple Regressions

To confirm that the obtained data truly represented the sample and that the researcher has obtained the best results meeting the assumptions of regression analysis is necessary (Hair, et al., 1998). The assumptions for multiple regressions include; Linearity (the relationship between each of the predictor variables and the dependent variable is linear), Normality (the error, or residual, is normally distributed), and Multi-collinearity (uncorrelated with the predictors/independent variables).

a. Multi- Collinearity

Table 5. Multicollinearity problem test of VIF and Tolerance

Coefficients ^a		Collinearity Statistics	
		Tolerance	VIF
1	Tangibility	.763	1.311
	Reliability	.828	1.208
	Responsiveness	.761	1.313
	Assurance	.819	1.221
	Empathy	.673	1.485

a. Dependent Variable: Customer Satisfaction

Source: *Survey Result (March, 2021)*

When there is a high degree of correlation between independent variables, the problem of what is commonly described is the problem of multicollinearity (Kothari, 2004). If tolerance value closed to 1 and VIF value is around 1 and not more than 10, it can be concluded that there is not multi-collinearity between independent variable in the regression model (Pallant, 2011). As the below table 5 indicates both the values of tolerance and VIF calculated for each independent variable on both regression analyses fulfills the criteria discussed above, which indicate the non-existence of multi-collinearity.

c. Linearity

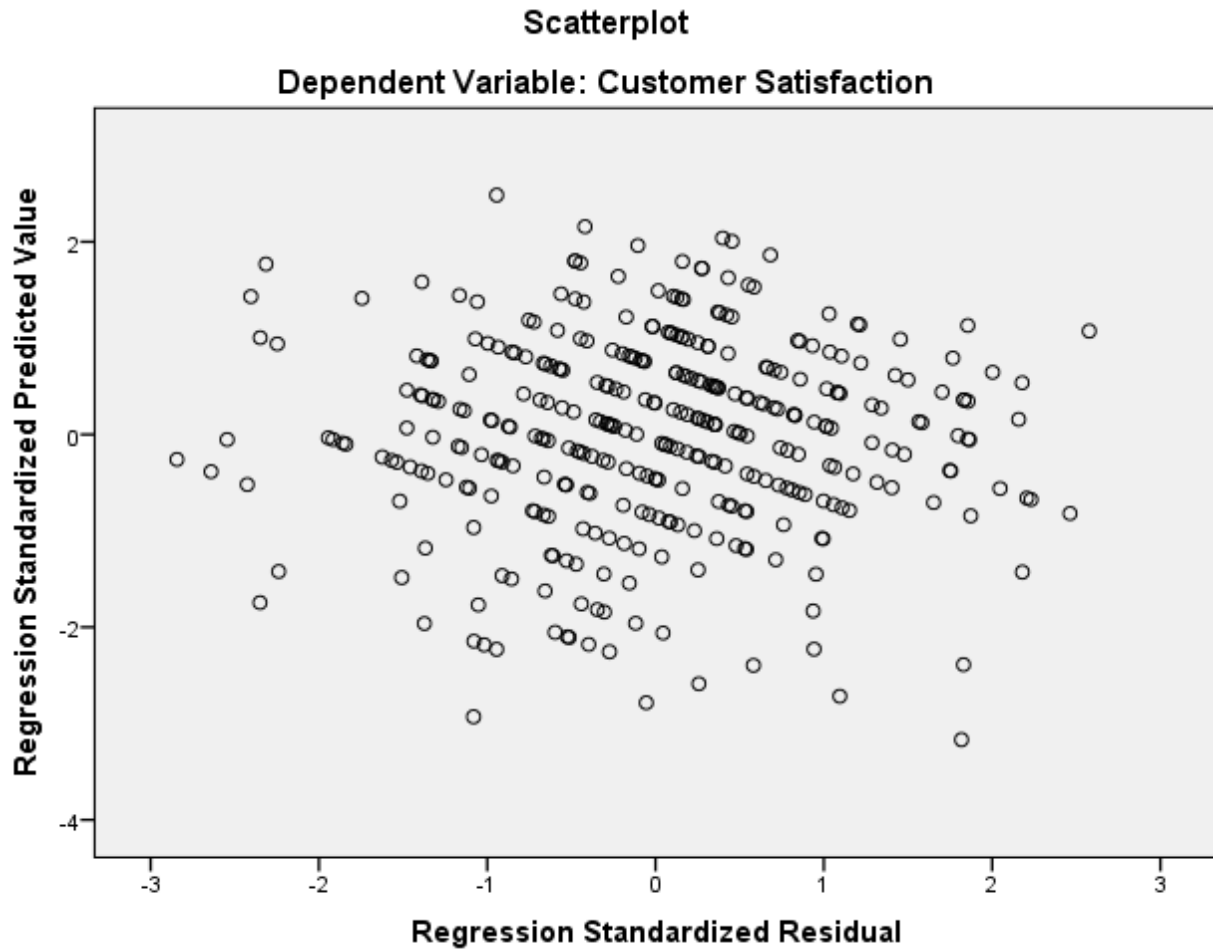


Figure 3. Linearity scatter plot of regression standardized residual

Source: *Survey Result (March, 2021)*

Linearity refers to the degree to which the change in the dependent variable is related to the change in the independent variables. Linearity can easily be examined through residual plots (Saunders, et. al., 2009). The linearity assumption can easily be checked using scatterplots or residual plots: plots of the residuals vs. either the predicted values of the dependent variable or against (one of) the independent variable(s) (Hoekstra, et al., 2014). The scatter plots of standardized residuals versus the fitted values for the regression models were visually inspected from the below figure.

d. Normality

Table 6. Skewness and Kurtosis

	Descriptive Statistics				
	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Tangibility	359	.085	.129	-.981	.257
Reliability	359	.039	.129	-.941	.257
Responsiveness	359	-1.005	.129	.991	.257
Assurance	359	-.361	.129	-.570	.257
Empathy	359	-.465	.129	-.283	.257
Customer Satisfaction	359	-.420	.129	-.196	.257
Valid N (listwise)	359				

Source: Survey Result (March, 2021)

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Customer Satisfaction

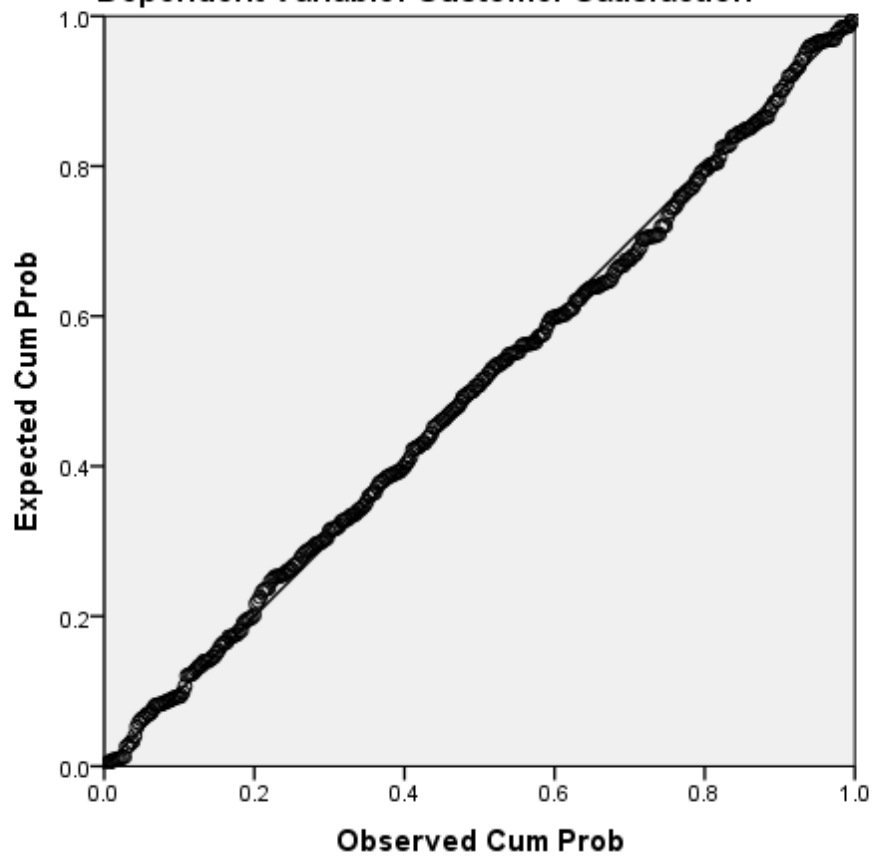


Figure 4. Normality plot of regression standardized residual

Source: *Survey Result (March, 2021)*

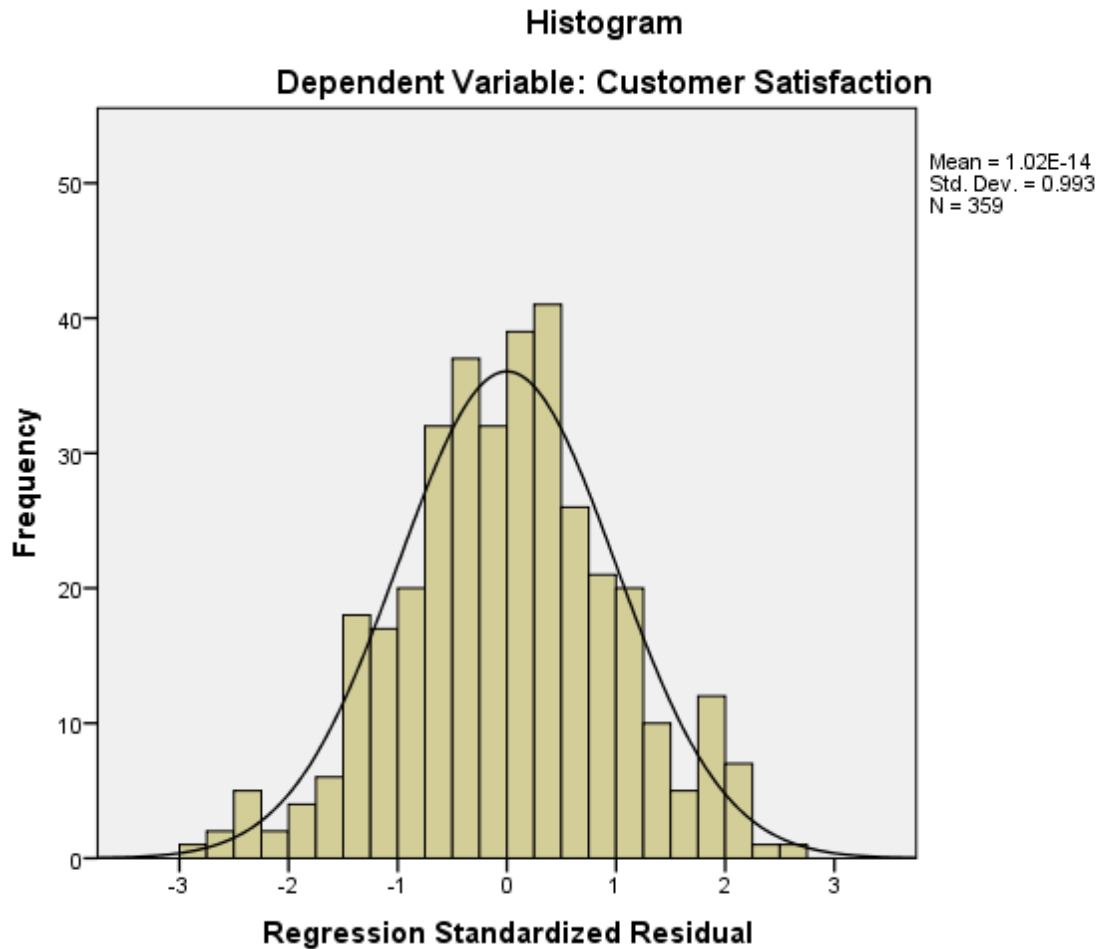


Figure 5. Histogram plot for regression standardized residual

Source: Survey Result (March, 2021)

Tests are based on the assumption of normality i.e., the source of data is considered to be normally distributed. Kurtosis is also used to measure the peakedness of the curve of the frequency distribution (Kothari, 2004). The index of skewness takes the value zero for a symmetrical distribution. A positive skewness value indicates right skew while a negative value indicates left skew. The kurtosis index measures the extent to which the peak of a unimodal frequency distribution departs from the shape of normal distribution. A value of zero corresponds to a normal distribution; positive values indicate a distribution that is more pointed than a normal distribution and a negative value a flatter distribution. As shown in table 6 below, all items show close to normal distribution considering the criteria proposed by George and Mallery (2010) of Skewness and kurtosis values between -2 and 2. In general, the normal distribution makes a

straight diagonal line, and the plotted residuals are compared with the diagonal (Hair, et al., 1998). Therefore, the data used in this study is normally distributed. According to the above diagnosis test preformed, there is no data problem that violates the assumptions of multiple regressions.

4.5.1. Regression Result

According to Marczyk, et al. (2005), linear regression is a method to estimate or predict a value on some dependent variables given the values of one or more independent variables.

Multiple linear regressions was conducted to identify the relationship and to determine the most dominant variables that influenced customer satisfactions of EEU west Addis Ababa service center number 6. In order to examine the impact that each dimension has on the dependent variable, the researcher checked the Standardized Coefficients. Large values of the multiple regressions represent a large correlation between the predicted and observed values of the outcome.

Table 7. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.850a	.723	.719	.318

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

b. Dependent Variable: Customer Satisfaction

Source: Survey Result (March, 2021)

Adjusted R² is used to measure the percentage of variance in the dependent variable explained by the independent variables. From the multiple regression equation, the standard regression coefficient (beta weight) is determined to compare the effect of each independent variable that had on the variability of the overall customer satisfaction.

As the above table 7 depicted, when the overall customer satisfaction was regressed on independent variables, the service quality dimensions contribute to statistically significant effect ($p < 0.01$) on overall customer satisfaction. The coefficient of determination R² is a measure of how good a prediction of the criterion variable we can make by knowing the predictor variables.

Table 8. Regression Analysis of Independent and Dependent Variables

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.325	.107		3.039	.003
	Tangibility	.139	.022	.204	6.366	.000
	Reliability	.228	.022	.313	10.145	.000
	Responsiveness	.423	.025	.552	17.187	.000
	Assurance	.137	.020	.214	6.904	.000
	Empathy	-.020	.026	-.026	-.762	.447

a. Dependent Variable: Customer Satisfaction

Source: Survey Result (March, 2021)

Accordingly, 72.3% of the variation accounted for the dependent variable is due to the combined effect of the mentioned independent variables. But, sometimes R^2 tends to somewhat overestimate the success of the model when applied to real world. Therefore, to see the success of our model in the real world, adjusted R^2 is more preferable than R^2 . Therefore; the variation explained by the regression of all the predictor variables on customer satisfaction is 71.9%.

As the above table 8 depicted, the β values tell us about the relationship between employee job satisfaction and each predictor. If the value is positive, we can tell that there is positive relationship between predictor and the outcome, whereas a negative coefficient represents negative relationship. As per the finding, the standardize beta values show the impact of service quality dimensions on customer satisfaction. Responsiveness ($\beta=0.552$), reliability ($\beta=0.313$), assurance ($\beta=0.214$), and tangibility ($\beta=0.204$) have strong positive and statistically significant effect on customer satisfaction. Since, coefficient of the predictor variables are statistically at < 5% level of significance, alternative hypotheses related with responsiveness, reliability, assurance, and tangibility are confirmed. Even though empathy has negative effect on customer satisfaction, it is not statistically significant ($\beta=-0.026$, p value 0.447) and this negative beta value suggests that when empathy is not in accordance with expectations (with negative

deviation), customer satisfaction declines. Therefore; alternative hypotheses related with empathy is rejected.

Table 9. ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	92.784	5	18.557	183.933	.000b
	Residual	35.614	353	.101		
	Total	128.398	358			

a. Dependent Variable: Customer Satisfaction

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

Source: Survey Result (March, 2021)

ANOVA tests whether the model is significantly better at predicting the outcome than using the mean as a best guess; specifically, the F ratio (systematic variation to unsystematic variation) represents the ratio of the improvements in prediction that results from fitting the model, relative to the inaccuracy that still exists in the model. The F ratio greater than one explains systematic variation is greater than unsystematic, in addition, the ratio also indicated whether the result of the regression model could have occurred by chance. In this study, the value of F ratio is 183.933 and is significant at 0.000. Therefore, it is possible to say the regression model adopted in this study could have not occurred by chance and a significant relationship was present. In other words, the regression model shows that there is significantly better prediction of customer satisfaction than if we used its mean value.

The objective of the regression in this study is to find such an equation that could be used to find the impact of predictors on dependent variable. The specified regression equation takes the following form:

$$\beta_0 + \beta_1x$$

The specified regression equation for this study takes the following form;

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5$$

In the above equation, predictor variables x_i may represent independent variables (Bhattacharjee, 2012).

Equation;

$$Y = \alpha + \beta_1 (TA) + \beta_2 (RL) + \beta_3 (RS) + \beta_4 (AS) + \beta_5 (EM)$$

Where:

Y = Customer Satisfaction (CS)

TA= Tangibility

RL = Reliability

RS = Responsiveness

AS = Assurance

EM= Empathy

4.6. Discussion of the Finding and Hypothesis

H₁: Responsiveness of Ethiopian electric utility, service center number six of west Addis Ababa district has positive and significant effect on its customer satisfaction, is confirmed.

This is because the survey shows that among the five service quality dimensions, responsiveness has the strongest positive and significant effect on customer satisfaction. This finding is consistent with the finding of Abdisa (2019), Janahi & Almubarak (2015), Addisalem & Desta (2019), and Tensae & Sisay (2020). But this finding is in contrary to the work of Owusu (2015) who reported as responsiveness, tangibility and assurance don't have any direct effect with customer's satisfaction in Ghanaian banking sector.

H₂: Reliability of Ethiopian electric utility, service center number six of west Addis Ababa district has positive and significant effect on its customer satisfaction, is confirmed.

As per the finding, reliability has a positive and significant effect on customer satisfaction. This result is supported by Zeleke (2013), Hassan (2019), Abdisa (2019), Janahi & Almubarak (2015), Addisalem & Desta (2019), and Tensae & Sisay (2020). This finding is also consistent with the work of Owusu (2015) which shows that empathy and reliability have significant effect on customer's satisfaction in Ghanaian banking sector and that of Munawar & Mariam (2014) &

Pakurár, et al. (2019); reliability, assurance and empathy have positive and significant effect on banks' customer satisfaction in Pakistan & Jordanian respectively.

H₃: Assurance of Ethiopian electric utility, service center number six of west Addis Ababa district has positive and significant effect on its customer satisfaction, is confirmed.

Assurance has also positive and significant effect on customer satisfaction in EEU west Addis Ababa service center number six. The finding is consistent with the findings of Tensae & Sisay (2020), Addisalem & Desta (2019), Zeleke (2013), Hassan (2019), Abdisa (2019), and Janahi & Almubarak (2015). This finding is also supported by Pakurár, et al. (2019) who reported assurance has a positive and significant effect on satisfaction customer of Jordanian banking sector. But the finding is in contrary to Owusu (2015) which argues that assurance does not have any direct effect with customer's satisfaction in bank sector of Ghana.

H₄: Tangibility of Ethiopian electric utility, service center number six of west Addis Ababa district has positive and significant effect on its customer satisfaction, is confirmed.

According to the survey, tangibility has positive and significant effect on customer satisfaction. The finding is supported by Tensae & Sisay (2020), Addisalem & Desta (2019), Zeleke (2013), Hassan (2019), Abdisa (2019), Pakurár, et al. (2019), and Janahi & Almubarak (2015). But this finding is not related with the report of Owusu (2015) who argues that tangibility has not any direct effect with customer's satisfaction in bank sector of Ghana.

H₅: Empathy of Ethiopian electric utility, service center number six of west Addis Ababa district employees has positive and significant effect on its customer satisfaction, is rejected.

This is because, empathy has negative effect on customer satisfaction in EEU west Addis Ababa service center number six, it is not statistically significant. This finding is in contrary to the reports of Tensae & Sisay (2020), Addisalem & Desta (2019), Zeleke (2013), Hassan (2019), and Janahi & Almubarak (2015) who reported that all service quality dimensions (including empathy) have positive and significant effect on customer satisfaction. On the other hand the finding is supported by Abdisa (2019) who conducted his study on the impact of service quality on customer satisfaction: a case study on Nekemte municipality, Oromia Region and concluded that although empathy has not positive effect on customer satisfaction, it's not statistically significant.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter presents summary, conclusion and recommendations of the study based on the analysis of the research data, interpretation and discussion of the results.

5.1. Summary of Major Findings

The purpose of this research was to examine the impact of service quality on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district service center number six.

Research questions were developed from research specific objective with the purpose of leading and constructing this study. For the purpose of answering those research questions a questionnaire was employed. A non-probability sampling technique of convenience sampling was used to select a representative sample population of the company's customers. Reliability test was done and Cronbach alpha values were checked to assure the internal consistency of the research instrument. As a result, the overall Cronbach alpha value was 0.877 which indicates that there is high internal consistency of the measurement scales.

As per the finding, majority (71.6%) of the respondents was male and most of the respondents (35.9%) were less than 25 years old. Out of 359 respondents, majority (68.5%) of them were married while only 3.1% of respondents were divorced. When we see their educational background, 28.4% of respondents were completed their primary education while there were 3.6% of respondents who were Master's degree and above level. And 38.2% of the respondents have been getting EEU's service for the last 6 to 10 years while 15.6% of them were getting EEU's service just for less than two years.

The correlation analysis shows that, all services quality dimensions are positively and significantly correlated with customer satisfaction. Responsiveness has the highest association with customer satisfaction while assurance has the least association.

From regression analysis of service quality dimensions with the customer satisfaction, responsiveness, reliability, assurance, and tangibility have strong positive and statistically significant effect on customer satisfaction. As a result, alternative hypotheses related with responsiveness, reliability, assurance, and tangibility are confirmed. Though empathy has

negative effect on customer satisfaction, it is not statistically significant. Therefore; alternative hypotheses related with empathy is rejected.

Finally, 71.9% of the variation accounted for customers satisfaction was due to the combined effect of the overall service quality dimensions and β weight score indicated that the effect of responsiveness is greater than that of other service quality dimensions.

5.2. Conclusions

To maintain a good quality service and develop a better-integrated system, it is important to understand the attitudes of the customers. Development of a tool to measure the satisfaction of customers is essential for services industries. The SERVQUAL model is generally applied to evaluate customer satisfaction, which has five dimensions: tangibles, responsiveness, empathy, assurance, and reliability. Study of the literature revealed that by adding three dimensions-access, financial aspects and employee competencies-to the SERVQUAL model, we can create a better tool for assessing customer satisfaction.

Therefore; the main objective of this study was to examine the impact of service quality on customer satisfaction in Ethiopian Electric Utility west Addis Ababa district service center number six. As per the finding, the mean value of service quality dimension and customer satisfaction is above average, it can be generalized that over all service quality of west Addis Ababa district service center is in a good position and customers are satisfied with the services delivered by the service centers. The regression and correlation analysis shows that reliability, assurance, tangibility, and responsiveness have positive and significant effect on customer satisfaction. From this finding it is clear that the customer expectation exceeds well in tangibility, reliability, responsiveness and in assurance. Though it is not significant, there was a problem in EEU of west Addis Ababa district service center 6 to meet the expected customer service regarding employee empathy. It indicate that, customer were not received the expected help from employees.

5.3. Recommendations

By relaying on the findings and conclusions made, the researcher forwards the following recommendations;

- The managers of EEU west Addis Ababa district in general and the customer service department of service center number 6 in particular, should be aware that, among the various service quality dimensions, responsiveness is the most significant in increasing their customers' satisfaction. It is apparent that focusing on delivering high quality services and improve service quality effectively is critical for customer satisfaction.
- The customer service department should further increase its reliability by properly delivering its promises about service delivery and problem resolution. Even though unreliable service providers are extremely frustrating their customers, a number of organizations still fail to keep their promises regarding service delivery.
- The customer service department of west Addis Ababa district service center number 6 should also work on improving its assurance services such as trustworthiness, ability to safe service delivery & building customers' self-confidence, and further increase employees' skills through job training.
- The customers service department should also assess the availabilities and accessibilities of tangibility services such as latest office types of equipment, clean & adequate of space for service delivery, neat and disciplined employees, well-organized staffs, adequate and convenience support facilities (such as receptionist, gust chairs & compliance box) in the organization periodically and introduces improvements over time.
- Lastly, the researcher recommends further study on empathy to examine its impact on customer satisfaction in EEU west Addis Ababa district service center number 6.

5.4. Ethical Considerations

The entire study participant was informed about the purpose of the study and finally their oral consent was obtained before giving the questioner. The information provided by each respondent will be kept confidential and will only be used for research purpose.

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APPENDIX I
QUESTIONNAIRES

Dear respondent,

This study is part of the requirements for a Master's Degree in Business Administration at Saint Mary's University. This questionnaire is designed to measure the service quality of Ethiopian electric utility west Addis Ababa district, service number 6 and its relationship to customer satisfaction. Therefore please give an honest answer to all the questions. I assure you that the responses will be treated confidentially.

Dawit Woldemariam

Part I: General Information

Please complete the items by placing the answers in the spaces provided or by applying (√) when required.

1. Gender

a) Male

b) Female

2. Age in Year

a) < 25

c) 36-45

b) 25-35

d) >45

3. Marital Status

a) Single

c) Divorced

b) Married

4. Educational Background

a) Primary School completed

e) Master's degree and above

b) High School completed

f) Others, _____

c) Diploma

d) First Degree

5. How long have you been as EEU customer?

a) < 2 years

c) 6-10 years

b) 2-5 years

d) > 10 years

Part II: Questions Related to Service Quality and Customer Satisfaction

The following questions are prepared on a 5 five-point Likert Scale. If the item indicated strongly matches with your response choose strongly agree (5) and if you completely disagree with the item choose strongly disagree (1). This is to know how you feel about the quality service delivery Ethiopian Electric Utility Western Addis Ababa District Service Center no 6. Be honest and give a true picture of your feelings.

Please check (✓) or Circle that applies and answer open ended question under each heading.

Instruction: Please indicate the extent to which you either agree or disagree with the following statements

1= Strongly Disagree 2= Disagree 3=Neutral 4=Agree 5=Strongly Agree

<i>S.N.</i>	<i>Factors</i>	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
<i>Tangibility</i>						
1	The service center has modern looking equipment.	1	2	3	4	5
2	The service center physical facilities are visually appealing.	1	2	3	4	5
3	The location office of the service center is convenient to its customers.	1	2	3	4	5
4	The service center employees have a neat and professional appearance.	1	2	3	4	5
<i>Reliability</i>						
1	When I have a problem, the service center employees show sincere interest in solving the problem.	1	2	3	4	5
2	The Service center staffs are ready to resolve customer issues.	1	2	3	4	5
3	The service center keeps customer record correctly	1	2	3	4	5
4	The services that are provided by the service center are	1	2	3	4	5

	performed within the promised time.					
Responsiveness						
1	In the service center I do not spent much time waiting in line.	1	2	3	4	5
2	The service center staffs are always willing to help.	1	2	3	4	5
3	Service center employees quickly response to my requests	1	2	3	4	5
4	Service center employees are quick in eliminating potential errors.	1	2	3	4	5
Assurance						
1	I feel safe in using electricity power	1	2	3	4	5
2	The Service center employees are trustworthy.	1	2	3	4	5
3	Service center employees have adequate knowledge to serve customers.	1	2	3	4	5
4	The service center employees are polite service provider.	1	2	3	4	5
Empathy						
1	The service center has convenience operating hours to my needs	1	2	3	4	5
2	The service center employees are given me personal attention.	1	2	3	4	5
3	Service center employees understand of my specific needs.	1	2	3	4	5
4	The service center employees consider my wishes and needs.	1	2	3	4	5
Customer Satisfaction						
1	I am satisfied with respectful behavior of the service center staffs.	1	2	3	4	5
2	I am satisfied with the performance of the employees and the service center.	1	2	3	4	5
3	I am satisfied with the quick service of this service center.	1	2	3	4	5
4	I am satisfied with the facilities the service center is provided with.	1	2	3	4	5
5	I am satisfied with the way treatment the staffs give.	1	2	3	4	5

Thank you.