ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF MANAGEMENT

ANALYSIS OF THE SERVICE DELIVERY AND CUSTOMER SATISFACTION OF THE CARD SYSTEM USERS OF THE ETHIOPIAN ELECTRIC POWER CORPORATION

A Thesis Submitted to The School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirements Masters of Business Administration(MBA)

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POST GRADUATE PROGRAM OF BUSINESS ADMINISTRATION

This is to certify that this research is entitled as "**Analysis of the service delivery and customer satisfaction of the card system users of the Ethiopian electric power** ". It is submitted to College of Business and Economics at Addis Ababa University in partial fulfillments of the requirements for the degree of Master of Business Administration in Management. The thesisdone by Rebecca Girma is an authentic study carried by her own effort under our guidance.

Approved by Board of Examiners

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Advisor	Signature	Date
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Internal Examiner	Signature	Date
_____	_____	_____
External Examiner	Signature	Date

DECLARATION

I, the undersigned, declare that this study entitled as “Analysis of the service delivery and customer satisfaction of the card system users of the Ethiopian electric power” is outcome of my own effort and study. This research has not been submitted to any other university for a degree. It is submitted to Addis Ababa University's College of Business and Economics in partial fulfillment of the Master of Business Administration degree requirements. All sources of research materials have been properly acknowledged, cited, and referenced.

Name: Rebecca Girma

Signature: .....

Date of submission: ----------

LETTER OF CERTIFICATION

This is to certify that Rebecca Girma has carried out her study under my supervision on the topic of: **Analysis of the service delivery and customer satisfaction of the card system users of the Ethiopian electric power.** This work is original in its nature and it is suitable for Submission in partial fulfillment of the requirement for the award of Degree Master of Business Administration in Management.

Asres Abitie (PHD) _____

(Advisor) Signature_____

Date_____

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Abstract

The objective of this study was to analyze the service delivery and customer satisfaction of the card system users of the Ethiopian Electric power. The conceptual framework was designed by considering service quality & prepaid meter as an independent variables and customer satisfaction as dependent variable. To achieve the objective, five research questions and eleven hypotheses tests were formulated. The study adopted a survey research design as it entails the collection of primary data to answer questions concerning the determinants of customer satisfaction and service quality of the prepaid meter of EEPCO in worda 3 area. In order to check the reliability and internal consistency of the questionnaire, cronbach's alpha was tested. Thedata were obtained by closed-ended and open ended questionnaires. The study took 4130 target population with sample of 365 respondents, out of which 340 (93.1%) were returned. The data were analyzed using SPSS (version 21). Both Descriptive and inferential statistics were used to analyze the data and interpret results. Pearson Correlation analysis shows that there was statistically significant positive relationship between all selected independent variables and dependent variable. Moreover, the regression result revealed most of the dimensions measuring the customer satisfaction of EEPCO were found to have their own significant effect except customer handling, empathy and tangibility. In regards to the results of regression analysis, it can be concluded that 74% of the variation in the customer satisfaction of EEPCO customers can be explained by the prepaid meter and the service quality dimensions. Based onthe research findings and research conclusions, the institution should observe its service quality and prepaid meter dimensions and should come up with appropriate service delivery standards to satisfy its customers.

Key words: Customer Satisfaction, Service Quality, Electricity, EEPCO, Customer handling, Bill collection, Service recovery, Complaint handling, Organizational climate, Reliability, Responsiveness, Empathy, Tangibility and Assurance.

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Acronyms

ANOVA	Analysis of Variance
CSC	Customer Service Center
EAAR	Eastern Addis Ababa Region
EEPCO	Ethiopian Electric Power Corporation
EEPROM	Electronically Erasable Programmable Read Only Memory
EEU	Ethiopian Electric Power
ETC	Ethiopian Telecommunication Corporation
ITIL	Information technology infrastructure library
POS	Point of Sell
SPSS	Statistical Package for Social Science

Definition of Key Terms

Commercial Consumers: These are customers who use electricity for business purposes, and their power consumption fluctuates depending on their needs.

Residential customers: Customers who use electricity for residential purposes are referred to as domestic customers (for house lighting only)

Industrial customers: Customers who utilize power for industrial purposes are known as industry customers.

Prepaid meter: This is a new type of meter that employs micro-electronics techniques to manage electricity fees and uses a smart card as the media for purchasing electricity. At the same time, the electronic watt-hour meter consumes electricity that has been pre-paid.

Postpaid meter: This is a common device that EEU installs at clients' homes to track how much energy they use on an hourly basis.

POS: A point of sale (POS) is a location where a customer makes a payment for goods or services, as well as where sales taxes may be due. Receipts can be printed or emailed after a POS transaction, which can take place in person or online

Chapter One
Introduction

1.1 Background of the study

Service delivery is a business term that refers to the relationship between providers and clients in which the supplier provides a service, such as information or a task, and the client gains or loses value as a result. Clients' value rises as a result of good service performance (Writer, 2020).

ITIL, or information technology infrastructure library, is one of the most used methods of service delivery. Service providers work to clearly define the content of services, the roles and duties of customers and users, the roles and obligations of service providers, and service quality expectations, as well as availability and timeliness, throughout the ITIL service delivery process (Writer, 2020).

Service delivery can be found in a variety of professions and business types, including medical hospitals and information technology firms. Most businesses adhere to a set of standard service delivery principles developed by IT. Service level management is just as important as service level delivery in these techniques. Service level management provides a framework for defining services and agreeing on service support levels. Service level agreements and operational level agreements are established. In addition, the charges of services are calculated. Service level management creates clear goals for both IT and business roles and outlines their responsibilities (Writer, 2020).

A smart card system is one of the products of an IT service. Smart cards have gained increasing popularity as a potent instrument for security, identity, and permission during the last few years. To combat counterfeiting and fraud, financial card issuers are replacing magnetic stripe cards with chip cards. The smart card has become a very strong instrument for identification thanks to developments in encryption and increased computational capacity on the chip. Smart cards have moved to the forefront of information technology with the introduction of multi-application smart card operating systems for both contact and contactless applications (Raad, Sheltami and Sallout, 2007).

A smart card, also known as an intelligent token, is a plastic card the size of a credit card that contains an integrated circuit chip. It not only has memory capacity, but also computing capabilities. A smart card typically has a ROM or flash memory, an EEPROM, and a processor. The smart card operating system regulates access to data contained on the card (Raad, Sheltami and Sallout, 2007).

The card operating system can contain a private key for a public key infrastructure system in addition to making the smart card safe for access control. In recent years, the industry has developed 32-bit smart card processors with over 400Kbytes of EEPROM and a memory management and protection unit that acts as a hardware firewall. This hardware firewall allows for the secure isolation of adjacent apps as well as secure application downloads. Smart cards are resistant to assault since they are self-contained and do not rely on potentially vulnerable external resources. Smart cards are frequently utilized in a variety of applications that demand high security protection and authentication due to this feature. Smart cards provide higher physical security of services and equipment, in addition to information security, because they restrict access to all but authorized users (Raad, Sheltami and Sallout, 2007).

The smart card can also be used as a credit or debit bank card, allowing it to be utilized in e-commerce applications. With the introduction of open platform smart card operating systems, the multi-application smart card has become the only viable alternative for managing various electronic transactions in today's world. It is a cost-effective and secure method of managing electronic transactions. The value of a single card that can handle several applications has been acknowledged by manufacturers, issuers, and users. A multi-application card will be able to update new services and existing apps instantly, change and store user profiles for each application, and be accepted by a variety of devices, including PCs, POS terminals, and mobile phones. Using the smart card to purchase electricity is one of the most valuable uses. Domestic users, for example, might buy energy from any source, wherever and whenever they wanted, at a price based on their historical consumption patterns. When a customer visits a vending machine to top up their gas or electricity credit, the machine assigns a tariff based on the consumption data recorded on their card and calculates how much energy to offer the customer for their money. Portal technology has recently begun to play a larger part in computing. Portals are being rolled out by service providers to allow users to establish personalized web sites that display only the content that they are interested in. Corporations are deploying portals to give employees and business partners configurable access to corporate information, such as external news feeds, email, calendars, and billing system access, among other web services. With the development of home networking technologies and web enabled energy services, power companies and service providers can provide value-added services supplied to homes, such as energy management, to create more money while also increasing convenience and loyalty (Raad, Sheltami and Sallout, 2007).

The Ethiopian electric power cooperation has been implementing the smart card system in the past few years as a means of supplying and billing electricity. This system has replaced the postpaid meter which is a normal device by which the institute installs at clients' places in order to measure how much

energy they consume on an hourly basis. In this way, customers only pay at the end of the month of the energy they used for the entire month. In the case of the smart card system, also known as a prepaid meter, is a kind of new style meter which adopts micro-electronics techniques and it manages electricity fee by computer, which uses smart card as media purchased electricity. At the same time the electronic watt-hour meter realizes using electric power after prepaying in advance.

From initial literature reviews, there are researches done on the general customer satisfaction of the Ethiopian electric power but there was no study that has been conducted on the service delivery and customer satisfaction of the smart card system of the Ethiopian electric power. In addition to this, the majority of researches done on the general service quality and customer satisfaction of EEPCO only did a descriptive analysis between the service quality and customer satisfaction. Hence, it is precisely in this context that the researcher aims to determine the service delivery of the smart cards and further investigates the customer satisfaction of the users of smart cards of the Ethiopian electric power corporation by involving additional service quality dimensions that were not discussed in depth in other similar studies. In particular, this proposed thesis aims to determine these two main scenarios in Addis Ababa, bole sub city wereda 3 area.

The need to determine the customer satisfaction and service delivery of the smart card users of the Ethiopian electric power will put this research in the best position to offer some alternatives to the problem if it encounters any problem. In wereda 3, Bole subcity, we can find the three main types of customers such as commercial customers, domestic and industrial customers. This makes our choice of collection of customers very suitable for the study.

According to the researcher's firsthand experience with some of the customers located around wereda 3, the usage of the smart card technology has its own advantages and disadvantages. For one, while interviewing a customer who is very old, because she can't read the digits, she always has to call for a neighbor every time when she needs to read the display. Someone has also mentioned that since the billing system is done in computers if there is no light at the billing center one has to wait for a longer time, another issue that is raised is having a working network system at the billing centers.

Given the above discussion, there are proofs that there are still issues on the use of the smart card system of the Ethiopian electric system, and hence as we can see even though the smart card system has its own advantage, it has a disadvantage that has been affecting its customers for the past years. It is for this reason that the researcher attempts to determine the lived experiences of the usage of the smart card system of the Ethiopian electric power.

1.2 Statement of the problem

Customer happiness is linked to service quality, according to many authors. Although good quality does not always equate to high customer satisfaction, it is one of many factors that go into assessing consumer satisfaction with services. Tjosvold, D. (1993), citing Chase and Bowen, identified some significant variables of service quality, which are discussed in the following paragraph.

Preparing to serve customers, coordination between back and front offices, service reliability and consistency, effective use of technology, appropriate degree of standardization in serving customers, appeal and functionality of facilities, logic and consistency of business hours, handling of non-routine demands and emergencies, customer privacy, rationality and fairness of customer queuing, availability of materials, orientation of new customers and training of employees.
Any firm can utilize these service dimensions to rate themselves. Two customer service satisfaction models are identified by Roberts-Phelps.G (2003). Customers only contact an organization when they have an issue with anything they have purchased, according to the first model. The second component of any customer service satisfaction model is that each customer must feel "special" in some way. Here, the user (consumer) decides service quality based on his level of pleasure.

In today's world, public sectors play a significant role as service providers. Electric power service is one of the primary variables that has a significant impact on people's day-to-day activities. If this sector is not properly planned and managed in order to provide excellent service, it will have a detrimental impact on the corporation's future success, people's living conditions, and the nation's development.

The decentralized ideology of the organization must be considered while assessing service excellence. Customers can be disappointed if the person who deals with them lacks discretion in order to facilitate service delivery. Customers may be unsatisfied if the person providing service has no or limited knowledge. or little knowledge about the service that they are rendering.

The usage of current technology is extremely beneficial to any individual or company, because every time a new technology is introduced to the world, it brings with it an added value that has never been discovered before, and it saves people time and money. However, if we do not update ourselves with new technologies or use old materials to provide a critical function, both society and the government will be dissatisfied.

Because assessing customer happiness can lead to a better understanding of a company's operations and continuous development, this study will attempt to analyze the quality of customer service delivery and customer satisfaction among Ethiopian electric power corporation smart card users.

1.3 Research Questions

This study tries to address the following research questions:

- What is the Ethiopian power corporation's prepaid meter service delivery like?
- What is the level of customer satisfaction in the prepaid meter service given by EEPCO?
- What is the level of customer satisfaction in regards to other services given by EEPCO?
- What are the main challenges that the Ethiopian power corporation is having in regards to prepaid meters?

1.4 Objectives of the study

The general objective of this study is

- To examine the service delivery and customer satisfaction of the smart card system of the Ethiopian Electric power corporation

The specific objective of this study

- To examine the service quality of the prepaid meter in Ethiopian power corporation
- To examine whether the prepaid meter service satisfies the customers
- To examine whether the general service provided by the corporation satisfies the customers or not
- To express the main challenges of EEPCO in regards to the smart card system

1.5 Significance of the study

Electricity is one of the most important outcomes of socio-economic development in a county. In our country Ethiopia, there is still a challenge in getting access to electricity, and has affected the population in various ways. Some of the challenges are the number of power wastages, interception of the power lines, incorrect billing etc. In order to minimize this the Ethiopian electricity cooperation has changed the old electric line system or the postpaid meter to the prepaid system. However, we haven't seen this new system either being used in all parts of the country or reducing the challenges. Therefore, the study is conducted to examine the service delivery and customer satisfaction of the card system use of the Ethiopian electric power corporation. Even though the study is carried out with limited scope, it can be helpful to have an insight on what has been the challenges in implementing it in all parts of the country. Moreover, it can contribute as an input for further research in this area and can be used for academia.

1.6 Scope of the study

The purpose of this study is to analyze the service quality and customer satisfaction of the card system users of the Ethiopian electric power cooperation.

Geographically, the study is limited to EEPCO customers who are located in the Eastern Addis Ababa Region, while the unit of analysis will focus on customer satisfaction of EAAR Customer Service Center 3. The type of customers who were part of the data collection were residential, commercial and industrial. The subscription type of these respondents is only prepaid.

1.7 Organization of the Paper

This paper was organized under five chapters: The first chapter is introduction part, which deals with the general aspect of the study, which includes background to the study, statement of the problem, research objectives, scope, and significance of the study, limitation of the study and organization of the research paper. The second chapter is devoted to the review of related literature and conceptual frame work. The methodological section of the article is covered in the third chapter, which covers the research design, data sources and collection procedures, sampling process and sample size determination, and data analysis method. Chapter four deals with result and discussion, the fifth chapter contains the summary, findings, conclusion, recommendations, limitations and future research recommendations, and policy implications and theoretical contribution.

Chapter Two

Review of Related Literatures

2.1 Introduction

This chapter attempts to examine the theoretical concepts, empirical studies and conceptual framework of the study.

2.2 Theoretical Literature Review

2.2.1. Service

The term "service" is frequently used to refer to a single type of economic activity (Silvestro and Johnston, cited in Johns, 1998) that divides service industries into financial, transportation, retail, and personal services (Office for National Statistics as cited in Johns, 1998). Health service, Civil Service, and other types of service have typically grown along bureaucratic lines and are distinct from the industrial service sector (Johns, 1998). Customer service is also defined as a set of activities aimed at increasing client satisfaction, which is defined as the sensation that a product or service has exceeded the customer's expectations (Zeithaml and Bitner as cited in Oladepo & Abimbola 2014). It entails a set of comprehensive operations aimed at improving customer satisfaction and perceptions of a service or product (Egena as cited Oladepo & Abimbola 2014). The final point to consider in respect to service is Johns' (1998) assertion that service as an output includes a significant tangible component, despite the fact that many products have intangible features. Customers purchase an offering and its value, which is made up of numerous components, some of which are actions (service) and others which are items (goods).

As a result, the aforementioned researchers contend that the traditional distinction between products and services is no longer valid (Gummesson as cited in Johns, 1998). Another aspect of service worth considering is core vs supplementary services. Many service products come in a "bundle" that comprises a number of different service elements as well as some physical things. The purpose of a cluster of supplementary services is to offer value to the core services, and the majority of services are secondary to the main service. For example, the lodging industry's primary product is a bed for the night, but the airline industry's fundamental product is a flight to the destination. In the case of lodging, a luxury hotel may provide numerous more services to improve its customers' visit, which could be provided for free or at a cost, whereas airline flights provide meals and baggage as supplementary services (Lovelok & Wright, 2001). Customization vs. Standardization is another crucial aspect of service. The degree of customisation or standardization involved in service delivery can be used to classify services. Whether all consumers should receive the same service or whether service elements (and the underlying procedures) should be tailored to match individual needs is an essential marketing question. The eye test will follow standardized standards, and the results will be analyzed by an optometrist, who will write a personalized prescription for new contact lenses to improve her vision. As a result, customization tailors services to each customer's unique demands and preferences, whereas standardization decreases variety in service operations and delivery (Lovelok & Wright, 2001). When compared to goods, the service can also be considered from the following perspective.

2.2.1.1 Service Products as Intangible Performances

Although most services have a tangible component, the service's performance is essentially ethereal and might be difficult to grasp conceptually. Because services are an experience or a performance, they cannot usually be felt, seen, tasted, or smelled. Some of the issues arising from intangibility of services include the inability to easily communicate patent rights protection and the pricing difficulty for people-based diverse services (Clemes, Mollenkop and Burn, 2000).

2.2.1.2 People as Part of the Product (Inseparability)

Services are created and consumed simultaneously. It's often tough to tell the difference between the service provider and the service itself. Because the consumer is participating in the production process, he or she might have an impact on the final product's quality (Clemes, Mollenkop and Burn, 2000).

2.2.1.3 Greater Variability in Operational Inputs and Outputs (Heterogeneity)

Because workers and other customers are involved in the operational system, standardizing and controlling variability in both service inputs and outputs is tough. Services are used and created in real time, which can differ from one consumer to the next and even from one day to the next. These issues make it difficult for service businesses to boost production, maintain quality, and provide a consistent product. Manufacturing items, on the other hand, can be created under controlled conditions, with the goal of maximizing both productivity and quality, and then evaluated for quality compliance long before they reach the customer (Clemes, Mollenkop and Burn, 2000).

2.2.1.4 Harder for Customers to Evaluate

Color, style, form, fit, feel, and scent are all high-ranking search attributes for physical objects. Services and some items, on the other hand, may place a premium on an experiential feature that is only apparent after purchase or during use (e.g. taste, wearability, ease of handling, quietness, and personal treatment). Furthermore, in other cases, such as surgery and auto repairs, where the effects of the service delivery may not be clearly evident, the credibility features of the service are difficult for customers to judge even after consumption (Clemes, Mollenkop and Burn, 2000).

2.2.1.5 No Inventories for Services (Perishability)

Rather of being a tangible commodity that the consumer keeps, service is a performance. Because it cannot be preserved or stored for future sales, it is perishable. This element of service generated the issue of demand/supply synchronization, which is a significant setback for service marketers (Parasuraman as cited in Clemes, Mollenkop and Burn, 2000). The capacity of the service is determined by the facilities, equipment, and manpower required to provide it, not by the product itself (Lovelok & Wright, 2001).

2.2.1.6 Importance of the Time Factor

Rather of being a tangible commodity that the consumer keeps, service is a performance. Because it cannot be preserved or stored for future sales, it is perishable. This element of service generated the issue of

demand/supply synchronization, which is a significant setback for service marketers (Parasuraman as cited in Clemes, Mollenkop and Burn, 2000). The capacity of the service is determined by the facilities, equipment, and manpower required to provide it, not by the product itself (Lovelok & Wright, 2001).

2.2.1.7 Different Distribution Channels

Unlike manufacturers, who rely on physical distribution channels to get goods from the factory to customers, many service businesses rely on electronic channels (such as broadcasting or electronic funds transfers) or combine the service factory, retail outlet, and point of consumption in one location (Lovelok & Wright, 2001).

2.2.1.8 Lack of Ownership Service

Customers can only visit or use a facility where a service is provided. Payment for the service is merely for access, and no tangible ownership is gained as a result of the transaction. The customer's purchase of intangibly dominant services is hampered by this service feature (Clemes, Mollenkop and Burn, 2000). According to Christopher Lovelock and Lauran Wright (2001), the essence of the word service can be summarized as follows: a. It is a service or product that is provided to the customer. Although the service process may be linked to a physical product, performance is primarily intangible and does not generally result in ownership of any of the inputs of production b. Service is an economic activity that creates value for consumers and provides advantages at certain times and locations, c. Service is an intangible commodity that may be bought and sold.

2.2.2 Service Quality

Service quality is a nebulous notion, and it's tough to come up with a comprehensive description (Philipand Hazlett, 1997). It's worth looking at a few of them in a way that helps with the discussion of the paper's topic. Service quality is defined by Parasuraman, as referenced by Oladepo & Abimbola (2014), as the degree and direction of discrepancy between the consumer's perceptions and expectations, or the extent to which a service meets or exceeds the customer's expectations. Customer expectations are views about a service that serve as benchmarks against which service performance is measured (Zeithaml et al. 1993); they are based on what a customer believes a service provider should supply, rather than what is currently available. It's how you feel about a product or service before you use it (Parasuram etal.1988). The consumer perceives service in his or her own unique, idiosyncratic, end-of-the-day, emotional, irrational, and entirely human terms...there is no such thing as fact or reality. There is only the customer's perception of reality. In terms of the customer and service quality, perceptions are, in effect, reality (Philip and Hazlett, 1997) "Identified service quality as the evaluation process outcome, in which consumers are involved and where a certain experience is always contrasted to the perceived service obtained," Gronroos (1984) said once more. As a result, definitions of service quality emphasize on meeting the needs and requirements of customers, as well as how effectively the service given meets the customers' expectations (Philip and Hazlett, 1997).

2.2.2.1 Service Quality Measurement

Many conceptual quality models have been proposed to help people better comprehend the fundamental concepts that fall under the umbrella of service quality. Despite the accumulated data in multiple service quality models,

there is still a significant lack of understanding about how consumer evaluations of a given service are generated (Philip and Hazlett, 1997). Five models of service quality that have been offered in the literature are significant to note:

2.2.2.2 Technical and Functional Quality Model

C. Gronroos established this quality model in 1984. Technical quality, functional quality, and image are the three components of service quality identified by the author: (1) Technical quality refers to the standard of what a customer obtains as a result of his or her interaction with a service provider. It is significant to the client, who uses it to assess service quality. (2) Functional quality refers to how a consumer receives a technical result that is significant to them and impacts their perceptions of the service they have gotten. (3) For service businesses, image is crucial. It is mostly the outcome of the firm's technical and functional quality of service, as well as other variables like tradition, philosophy, word of mouth, pricing, and public relations.

2.2.2.3 GAP Model

In 1985, Parasuraman et al. proposed that service quality is a function of expectation and execution along the quality dimensions. They created a gap analysis-based service quality model. The following are the numerous gaps depicted in the model:

Gap 1: Consumer expectations differ with management's impressions of those expectations, implying that management does not know what consumers expect.

Gap 2: There is a disconnect between management's beliefs of consumer expectations and service quality specifications, resulting in poor service quality standards.

Gap 3: The service performance gap is the difference between the service quality specifications and the service that is actually delivered.

Gap 4: Is there a difference between service delivery and customer communications concerning service delivery, i.e. whether promises are kept?

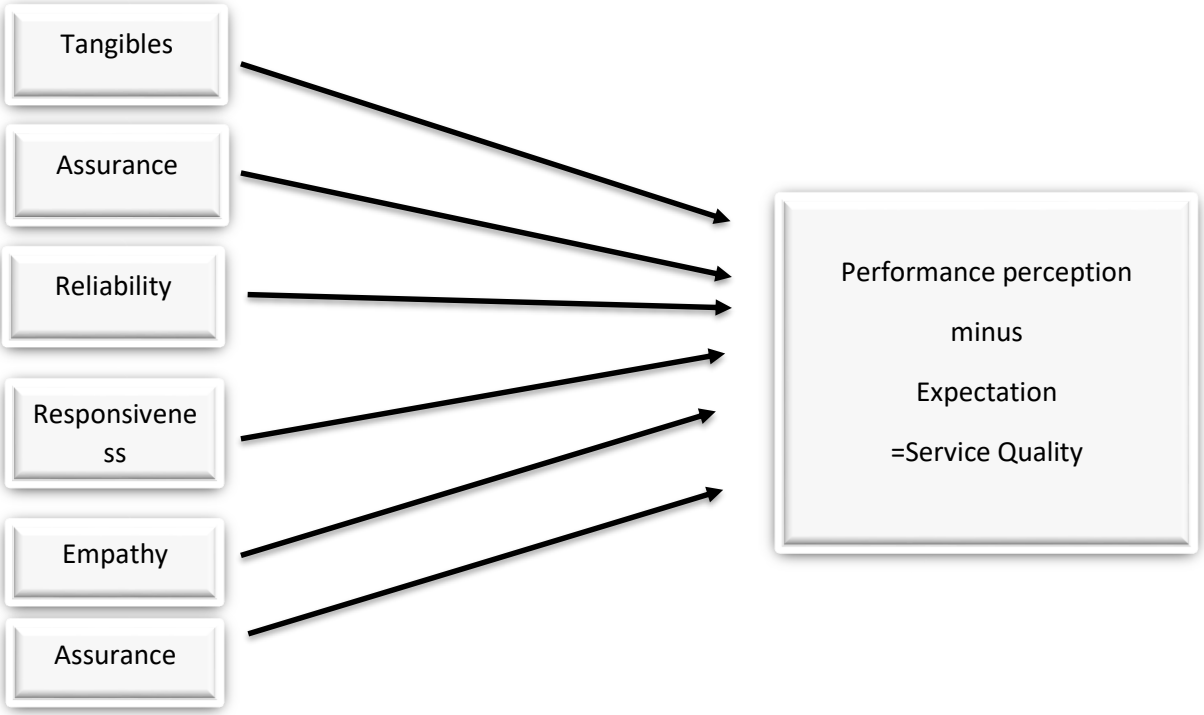
Gap 5: There is a gap between what customers expect and how they view service. This gap is determined by the magnitude and direction of the four gaps related with the marketer's delivery of service quality. This exploratory research is refined by Parasuraman et al. with their SERVQUAL scale for measuring consumers' views of service quality (Seth, N. and Deshmukh, S.G. 2005).

2.2.2.4 SERVQUAL

The SERVQUAL instrument for measuring service quality was created by Parasuraman et al. in 1985. In 1988, 1991, and 1994, they made significant improvements to the model. SERVQUAL has become a household name in the field of service quality. This model depicts the disconnect between what customers expect from service providers in terms of service quality and their assessments of that service provider's performance. The concept of service quality is portrayed as a multifaceted construct. Reliability, responsiveness, competence,

access, courtesy, communication, credibility, security, understanding/knowing the client, and tangibles are the 10 dimensions of service quality described by Parasuraman et al. (1985). These elements were compacted into five dimensions in their 1988 work (Buttle, 1996).

Fig 2.1| Dimensions, Expectations and Perception, Adapted from Parasuraman (1988)



2.3 Empirical Literature Review

2.3.1 Relationship Between IT Capability and Service Delivery Innovation

Employees, consumers, and management can all benefit from technologically triggered service delivery methods (Bitner et al., 2000; Walker et al., 2002). Customers may be offered more or even expanded services, improved service ease and command, perhaps more trustworthy information delivery, greater autonomy in accessing data, and customer support services that were previously unavailable. Using technological innovation in service shipping and delivery can benefit both purchasers and service providers in the same way (Walker et al., 2002). Service delivery innovation is strongly reliant on technology, as evidenced by the fact that 93 percent of professional services organizations surveyed heavily rely on it. Almost every aspect of service delivery innovation necessitates a flexible, adaptable, and customizable technology foundation. Furthermore, this platform should be able to easily integrate with outdoor ways and procedures in order to aid consumers and suppliers in attracting the attention of international finest product resources (Dawson & Horenkamp, 2007)

2.3.2 Relationship Between Service Delivery Innovation and Service Quality

Providing great service quality is critical to gaining a competitive advantage. Customers who are satisfied have a favorable impact on an organization's profitability, as well as positive word of mouth, brand loyalty, and repeat purchases. Customer expectations are compared against performance to determine service quality. Providing high-quality service involves consistently exceeding client expectations. Customers compare the expected services with the services they receive when evaluating service quality. It is a customer-perceived judgment that is measured by comparing the customer's expectations of the service with the customer's perception of the service level (Parasuraman et al., 2004). Customer happiness and service quality have been shown to have a favorable association in previous studies. Customer satisfaction is determined by the service provider's quality of service, which plays a major part in determining customer satisfaction (Agbor, 2011). In the contemporary literature, customer loyalty is emphasized because it is the major force driving a firm's financial performance in the current business environment. Customer loyalty is mostly determined by the level of service provided. Previous study has shown that a positive relationship exists between service quality and customer satisfaction (Cronin et al., 2000), which leads to client loyalty (Lai et al., 2009). The customer's intention to stick with the service provider is likewise intimately tied to service quality (Anton et al. 2007; Bell et al. 2005).

Service innovation is a crucial element of a company's ability to set itself apart from its competitors and increase revenue. Because innovations can improve service distinction, it is critical for managers to implement those innovations that are desired by customers while also generating income for the company (Dev et al., 2005). Recent research has discovered a direct and positive link between innovation and success in several service industries (Ordanini and Rubera, 2010; Lin, 2011). Firms that clearly outline their service innovation process are more successful and faster at generating new services. The creation of new services results in increased revenue as well as a bigger share of total revenue. In order to make the innovation process more systematic, organizations should pay greater attention to their innovation strategy and procedures, particularly their services (Schulteß et al., 2010). Successful innovation tactics are especially important during recessions, when economic activity is reduced due to less investments. For those organizations that can leverage on knowledge gathered from customers and competitors, as well as the opportunity to develop more relevant and unique services, service innovation is a significant source of competitive advantage. Because today's business market is so competitive, simply delivering high-quality services is no longer enough; businesses must search out new, innovative service offerings that are beneficial to customers (Bettencourt et al., 2013).

According to various research, being innovative can lead to improved service firm performance. In his research, Cainelli et al. (2004) looked into the relationship between service firm innovation and financial performance. He discovered that innovative businesses outperform non-innovative businesses. Matear et al. (2004) investigated the performance outcomes of several market advantage resources. They came to the conclusion that brand investments, as well as new service development, are critical in achieving positioning advantage, which leads to service company performance. Service organizations can improve their financial performance by gaining a competitive advantage, including innovative features, and providing higher-quality products (Day and Wensley, 1988). The goal of the firm's innovation strategy is to improve service quality while lowering expenses. Evangelista and Sirilli (1998; Evangelista & Sirilli, 1998). Innovation can also benefit service organizations (Kelly & Storey, 2003; Vermeulen et al. (2003).

According to (Klomp & Storey, 2000) research based on quantitative evidence from Dutch enterprises, innovation in service firms leads to revenue growth. They discovered that non-price elements such as design and quality account for the majority of sales growth in mature and established businesses. According to existing research, service innovation not only boosts business revenue but also provides other benefits to service organizations such as increased customer value and improved strategic success (Vermeulen et al, 2003). It is clear from previous studies that service innovation has a beneficial impact on consumer choice. The impact of service innovation in the hotel business is demonstrated in a study by (Dev et al., 2005). They discovered that, when compared to posh hotels, service innovation has a significant impact on visitors staying at economy hotels. In addition, they discovered that innovative services such as technical advancements and personalization have a greater influence on leisure hotels than on business hotels. Lin (2011) investigated the impact of service innovation on firm performance through direct and indirect channels, with service quality serving as a mediating factor in his research of the Chinese tourism industry. They discovered that service innovation has a beneficial impact on both service quality and business performance.

2.3.3 Value of Service Delivery Innovation in Public Service Organization

Organizational success depends on service delivery innovation. Service organizations create innovative service offerings from the perspective of either the client or the organization's delivery (Goldstein et al, 2002). The majority of innovation is reactive and proactive in nature. The goal of reactive service delivery innovation is to solve perceived abnormalities, insufficiencies, and inefficiencies identified by an organization's internal or external stakeholders. This form of service delivery innovation is problem-oriented and uses a problem-solving method to solve challenges. Employees and managers will highlight problematic practices and routines that they are responsible

to oversee, according to Sijbom et al (2015). Reactive service delivery innovation is triggered by problems observed by employees and managers who will highlight problematic practices and routines that they are responsible to oversee. This shows that reactive service delivery innovation is primarily concerned with addressing existing organizational problems recognized by internal and external stakeholders. The importance of proactive service delivery innovation is that it aims to improve organizational practices, procedures, and processes before problems arise. The efforts are aimed at improving the organization's performance over time. Today, firms' creative use of delivery modes is fast becoming a new source of uniqueness and innovation (Chen et al, 2009). According to Goldstein et al. (2002), firms must focus on proactive methods to create and deliver their service concept to ensure that the service package and service encounter match the needs of the client and the service organization itself. In addition to the aforementioned benefits, service delivery innovation is beneficial to businesses since it improves or enhances the following (Goldstein et al, 2002; Johnston & Clark, 2001):

• Service delivery method: how the service is delivered.

• Customer experience: The customer's firsthand impressions of the service.

• Service outcome: The service's benefits and outcomes for the consumer or clients.

• Service value: The customer's perception of the service's intrinsic benefits vs the cost of the service.

2.3.4 Relationship Between Customer Service and Service Quality

The ultimate purpose of service delivery, according to S-D logic, is to provide customer service by utilizing specialized competencies such as skills and knowledge (Zeithaml and Bitner, 2003; Chen et al., 2009). Firms can also achieve remarkable performance, according to RBV theory, by possessing and establishing capabilities and resources (Barney, 1991; Chen et al., 2009). Service-oriented businesses are realizing the importance of providing excellent customer service. Falling sales and more competition, as well as significantly more service-conscious customers, are pressuring businesses to rethink and improve the quality of services they provide. Customer retention, creating valuable customers, recruiting new customers, and increasing the financial situation of the firm are all aided by great service levels (Johnston and Clark, 2005). Furthermore, companies' efforts to pay attention to their clients improve their overall reputations and good impressions. Customers are more satisfied and loyal when there are multiple service channels available, which encourages them to form long-term relationships with the company. Furthermore, this organization achieves a competitive advantage, which contributes to exceptional financial performance (Chen et al., 2009). Firms' success is highly dependent on their ability to combine their understanding of their customers' demands,

preferences, and needs with their talents, creative potential, and intellectual abilities. As a result, a competitive advantage is gained through intelligent recognition and customer satisfaction through enhanced customer service tools that are faster and better than competitors (Abiodun, 2008).

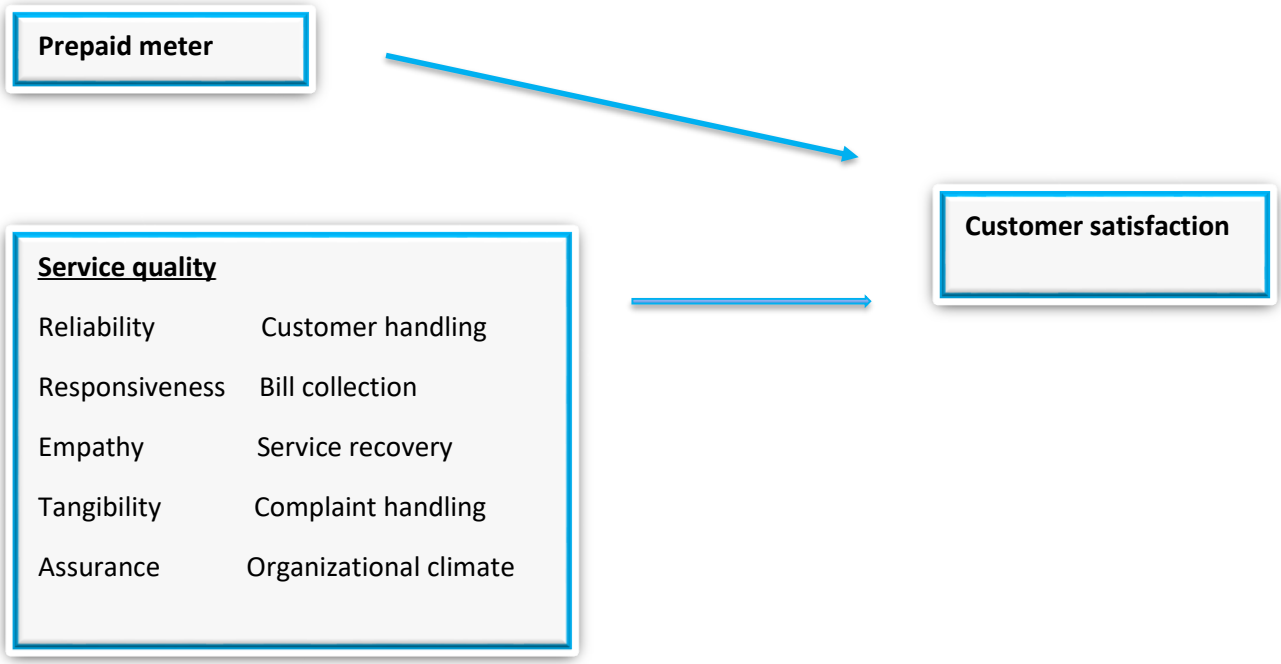
Satisfied consumers are more likely to increase a company's client base, improve its image, and increase the use of a more unpredictable customer mix. Client service is one technique to achieve customer happiness. Customer service refers to the providing of services to customers before to, during, and after a purchase order has been placed (Abiodun, 2008). Furthermore, because services are intangible, clients usually rely on employees' actions to shape the image of the service delivery (Gronroos, 1984). As a result, staff became fragments of service in the eyes of clients. Customers' repurchase intention and satisfaction have a positive link across product categories, according to Anderson and Sullivan (1993). Customers who were satisfied were also more likely to be retained and loyal. Customer happiness can be gained through retaining service interactions that allow the company to give greater service quality and set itself out from its competition ((Abiodun, 2008; Oliver, 1 999). Because they are responsible for providing a quality service that meets customers' expectations, the firm's employees play a significant role in achieving promising results in customer satisfaction and perceptions (Zeithaml et al., 1996). Because of their special properties of services such as perishability, variability, intangibility, and simultaneity, productive service providers are capable of fulfilling. According to Kong and Jogaratnam (2007), civility and employee personalization have an important impact in customer satisfaction prediction. According to Arnette et al. (2002), because most hotels rely on their workers to provide excellent service, they could give the company a competitive advantage. They went on to say that employee beliefs and behaviors have a big impact on customer happiness, service quality, and loyalty (Kattara et al., 2008).

2.4 Conceptual Framework

The study paradigm of the cause and effect relationship between the major important variables that we have studied is designed using the aforementioned information. The three variables that we have used throughout the study were the prepaid meter, service quality, and customer satisfaction.

The framework that has been adopted in this study is outlined below.

Fig 2.2 | Conceptual framework



Independent variable **Dependent variable**

Customer satisfaction is depicted as the dependent variable in this framework. The other two independent variables are prepaid meter and service quality. Service quality is described by dimensions such as customer handling, bill collection, service recovery, complaint handling, organizational climate and reliability, responsiveness, empathy, tangibility and assurance.

Prepaid meter: It uses microelectronics techniques and manages electricity fees using a computer, helps to purchase electricity. At the same time, the electronic watt-hour meter allows for the use of electric power after prepayment.

Reliability: is the trait of being dependable or constantly operating effectively. It can be described by characters such as the correct amount of service for the bill paid, keeps customers record correctly, provide service at the designed and promised time, the corporation inform any failure ahead of time.

Responsiveness: The ability to react positively and rapidly. It can be described by characters such as employees provide punctual service, employees willingness to help customers, employees are never busy to respond to customer request, employees tell customers exactly when service will be performed.

Empathy: The ability to comprehend and share another's sentiments. It can be described by dimensions such as employees know how of what customers' needs are, employees should give customers individual attention, the Corporation and its employees should give a consideration for customer's property,

Employees give orientation about the service and the cost related with the service including prepaid meter machine, The Corporation should have a working hours convenient to all of its customers

Tangibility: Able to be detect, particularly by the sense of touch, and it is described by the corporation should have up to date prepaid meter equipment's, the Corporation physical facilities should be visually attractive, the Corporation has offices at locations convenient to its customers, Employees of the Corporation at the front line position should be well dressed and appear neat.

Assurance: A positive statement designed to inspire trust; it can be described by personal behavior of the employees are excellent that the customer can trust, Customer should feel safe in the transaction with the Corporation employees, Employees are polite, Employees have adequate knowledge to serve customers in regards to the prepaid meter

Customer handling: The assistance you provide to your consumers, both before and after they purchase and use your products or services, that makes their interaction with you simple and joyful. It can be described by time Required for asking and filling new prepaid meter apparatus, cooperation and treatment of front line employee, time required for getting installation and estimation service after payment, cooperation and treatment of technical group.

Bill collection: It can be characterized by payment mechanism available to be used, time required to pay and treatment of bill collection employees.

Service recovery: It can be described by reporting mechanism of service failure, fault registration process in EEPCO, treatment of service failure reception employee, time duration to get maintenance service after reporting.

Complaint handling: It can be characterized by availability of clear policy and procedure to handle customer complain, Availability of awareness creation program on complain handling procedure for customer, Giving punctual response for customer with problem.

Organizational climate: It can be described by convenience of office location, convenience of office layout, availability of adequate staff on time.

2.5 Summary of Hypothesis

Based on the conceptual frame work and research questions, the following hypothesis were formulated

Hypothesis 1(H1): There is a significant relationship between prepaid meter(PP) and customer satisfaction(CS)

Hypothesis 2(H2): There is a significant relationship between customer handling(CH) and customer satisfaction(CS).

Hypothesis 3(H3): There is a significant relationship between bill collection(BC) and customer satisfaction(CS).

Hypothesis 4(H4): There is a significant relationship between service recovery(SR) and customer satisfaction(CS).

Hypothesis 5(H5): There is a significant relationship between complaint handling(CH) and customer satisfaction(CS).

Hypothesis 6(H6): There is a significant relationship between organizational climate(OC) and customer satisfaction(CS).

Hypothesis 7(H7): There is a significant relationship between reliability(RB) and customer satisfaction(CS).

Hypothesis 8(H8) : There is a significant relationship between responsiveness(RS) and customer satisfaction.

Hypothesis 9(H9) : There is significant relationship between Empathy(E) and the customer satisfaction(CS).

Hypothesis 10(H10) : There is significant relationship between Tangibility(T) and the customer satisfaction(CS).

Hypothesis 11(H11) : There is a significant relationship between Assurance(A) and customer satisfaction(CS).

Chapter Three

The Research Design and Methodology

3.1 Description of the study

The study has investigated the service delivery and customer satisfaction of the card system users of EEPCO ; the case of Worda 3. EEPCO is the sole provider of electricity to different types of customers in Ethiopia. It has electrified more than 6000 towns, villages, and rural communities (Worldfolio. 2016). The research was conducted in one of its service centers i.e Worda 3, service center 3. The population for the study includes all kinds of customers who are currently getting service from the company, and the study area of the population includes the customers who were visiting the service center in Worda 3, during the period of data collection. The study has implemented well-validated data gathering techniques and tools that are tested by different researches so as to reach on reliable conclusions.

3.2 Research Design

Quantitative and qualitative approaches are the two most used research methods in this study. Depending on the sort of research, the nature of the problem, and the data collected, these methodologies have been used equally and likely by researcher. According to Kothari (2004), the quantitative approach to research entails the generation of quantitative data that can be subjected to rigorous quantitative analysis in a formal and rigid manner, whereas the qualitative approach to research entails subjective assessment of attitudes, opinions, and behavior.

The methodology used in this study were both descriptive and exploratory sequential mixed methods, which involved the use of both qualitative and quantitative mixed research. The study is descriptive in that it aims to describe in detail the situation of customer satisfaction and service quality of the smart card users of EEPCO providing a comprehensive picture of customer satisfaction and service quality in the selected service center. The exploratory sequential mixed methods design includes a qualitative data collecting and analysis phase, followed by a quantitative data collection and analysis phase, and a final phase of data integration or linking from the two independent strands of data.

3.3 Source of Data

According to Kothari (2004), Primary data are fresh data that are gathered for the first time and thus happened to be original in character. For the purpose of this study, primary data is the main research method used. And, the source of primary data was EEPCO customers in Worda 3, service center 3.

3.4 Area of description

The population of this study consisted of customers of EEPCO in the Eastern Addis Ababa Region, customer service center 3, or worda 3 area. The selection of this region was based on the following factors:

- An area that is widely expanded in many directions from all the other cities in Addis Ababa

- A Larger number of customers are available in this worda

The types of customers involved in the data collection is residential, commercial and industrial. The subscription type of these customers is only prepaid customers

3.5 Data collection method

A survey was used to collect data's from customers of EECPO located in CSC 3 by using structured questioners. The questions were consisted of demographic questions of respondents, questions that related to service quality and customer satisfaction on the prepaid meter service and other services, likert scale questions, and open ended questions.

The questionnaire has been written in both English and Amharic. To validate and verify the questionnaire's validity and reliability, a survey with 25 participants was conducted. This is a self-administered survey. Self-administered questionnaires are a good approach to gather information's at initial and identify areas that needs rework or additions.

3.6 Sampling Technique

The fact that a specific group of customers, i.e prepaid clients, was chosen means that the study's populations will not be homogeneous. As a result a non-random sampling technique was applied. i.e convenient sampling. Here samples are selected from the population only because they are conveniently available for the researcher. It is used because it is straight forward, practical and cost-efficient. It can be used and done carefully.

3.7 Sampling Size

The rising value of research has necessitated the development of a sample size determination for estimating the sample size required to be representative of a given population. Yamane (1967) provided a simplified formula to calculate sample sizes of finite population, which was used to determine the sample size for this study paper. This method is appropriate since it makes obtaining a research sample from a large population much easier. It aids in the reduction of bias in sample selection. A 95% confidence level was assumed for this formula to determine the sample size, at e=0.05. The following formula can determine the sample size.

$$n = N/1+N(e)^2$$

Where N is the population size, n is the required sample size and e is the level of precision. The researcher has collected the number people who are currently using the prepaid meter apparatus in this worda, it is 4,130. Applying the above formula, the researcher has got the following number of sample size.

$$n = 4130/1+4130(0.05)^2 = 364.84 \text{ or near to } 365$$

3.8 Methods of Data Analysis

For analysis, Statistical Package for Social Science (SPSS) software version 21 was applied. Both descriptive and inferential analysis were used. Descriptive statistics such as frequencies, percentages, means, standard deviations and graph were used to summarize and present the data's of the demographic questions and each variables. Inferential statistics such as, correlation analysis and multiple regressions were applied so as to see the relationship between independent and dependent variables. Model summary and ANOVA test was used to test the significant of the model and the relationship of the dependent and independent variables. Hypothesis were tested. Open ended questions were used to reflect on the challenges and possible solutions on the prepaid meter services.

Chapter Four

Data Presentation, Analysis and Discussion

4.1 Introduction

This chapter is composed of a data presentation, analysis, interpretation and discussion on findings under each presentation, aimed at achieving the research objective. In this regard, the chapter discusses the response rate; reliability test, descriptive analysis on the demographic items, independent and dependent variables; correlation analysis, assumption tests for multiple regression analysis, regression analysis and hypothesis tests.

4.2 Data Presentation

Table 4.1 | Response rate

Number of questionnaires	**Frequency**	**Percentage**
Filled questionnaire	340	93.1%
Unfilled questionnaire	25	6.9%
Total	365	100%

Source: survey data, 2021

Three hundred sixty-five (365) questionnaires were distributed. However, the study did not achieve a response of 100% as there were some non-response incidences where the researcher found the information given was insufficient to be utilized in the study. Therefore, out of 365 responses targeted, three hundred forty (340) gave adequate information through answering the questions completely. Thus, the study realized a response rate of 93.1%.

4.3 Reliability test

In this study, Cronbach alpha coefficient was used to examine the internal consistency or reliability. In other words, it helps see to what extent do our test items measure a certain construct. Cronbach's alpha tests to see if multiple-question Likert scale surveys are reliable. The measurement scale would be considered as reliable if the α is 0.70 or higher. The interpretation of α is the following: for $\alpha \geq 0.9$ it is considered excellent, for $0.9 > \alpha \geq 0.8$ it is considered good consistency, for $0.8 > \alpha \geq 0.7$ it is acceptable consistency, for $0.7 > \alpha \geq 0.6$ it is questionable, for $0.6 > \alpha \geq 0.5$ it is poor consistency, for $0.5 > \alpha$ it is unacceptable. (Nunnally 1978|).

Table 4.2 | Reliability test result

Variables	Cronbach's Alpha
All variables	0.957
Customer handling	0.784
Bill collection	0.871
Service Recovery	0.863
Compliant handling	0.870
Organizational Climate	0.873
Reliability	0.855
Responsiveness	0.890
Empathy	0.903
Tangibility	0.8903
Assurance	0.869

Source: survey data, 2021

To ensure the reliability and consistency of the questions, a scale reliability analysis was conducted by utilizing SPSS tool, by using Cronbach‘s alpha measurement method. There are two types of scale reliability analysis conducted for this research; the whole scale of the questionnaire reliability and individual variable questions reliability. N.B the selected variables have been measured in five point Likert type scale. Based on the reliability test, Cronbach‘c alpha score for all variables is 0.957, which represents an excellent consistency among the measurement items used in the study, for Customer handling is 0.784, which indicates acceptable consistency. The Cronbach‘c alpha score for Bill collection activity is 0.871, represents good consistency.. The Cronbach‘c alpha score for service recovery, Compliant handling, Organizational climate, Reliability, Responsiveness, Tangibility and Assurance are 0.863, 0.870, 0.873, 0.855, 0.890, 0.8903 and 0.869 sequentially, showing good consistency. The Cronbach's alpha score for empathy is 0.903, which shows an excellent consistency.

4.4 Descriptive analysis

4.4.1 Basic Information

The study included analysis information for the following demographic items: Gender, Age, Occupation, Education level, Type of subscription, meter type, service year and visit purpose. These variables help to identify the background of the respondents.

Table 4.3 | Descriptive analysis on the basic information

	ITEM	FREQUENCY	PERCENT	CUMMULATIVEPERCENT
GENDER	Male	179	52.5	47.4
	Female	161	47.5	100
	Total	340	100	
	ITEM	FREQUENCY	PERCENT	CUMMULATIVE PERCENT
AGE	Between 18-25	125	36.7	36.8
	Between 25- 40	168	49.4	86.2
	Between 40 - 60	45	13.3	99.4
	Above 60	2	0.6	100
	Total	340	100	
	ITEM	FREQUENCY	PERCENT	CUMMULATIVE PERCENT
OCCUPATION	Works in government institute	113	33.3	33.2
	Works in NGO	23	6.7	40.0
	Works in private company	113	33.3	73.2
	Self-worker	34	10.0	83.2

	No work	57	16.7	100.0
	Total	340	100	
	ITEM	FREQUENCY	PERCENT	CUMMULATIVE PERCENT
EDUCATION LEVEL	Below 10th grade	17	5.0	5.0
	10th complete	64	18.8	23.8
	Technical and vocational	9	2.7	26. 5
	Diploma	72	21.1	47.6
	BA Degree	153	44.9	92.6
	Masters	23	6.8	99.4
	PHD	2	0.7	100.0
	Total	340	100.0	
	ITEM	FREQUENCY	PERCENT	CUMMULATIVE PERCENT
SUBSCRIPTION TYPE	Residential	266	78.0	78.2
	Commercial	67	19.7	97.9
	Industrial	7	2.3	100.0
	Total	340	100.0	
	ITEM	FREQUENCY	PERCENT	CUMMULATIVE PERCENT
METER TYPE	Prepaid	340	100.0	100.0
	Postpaid	0	0	
	Total	340	100.0	

	ITEM	FREQUENCY	PERCENT	CUMMULATIVE PERCENT
SERVICE YEAR	Less than 1 year	29	8.5	8.5
	Between 1-5 years	171	50.4	58.8
	Between 6 - 10 years	94	27.6	86.5
	More than 10 years	46	13.5	100.0
	Total	340	100.00	
	ITEM	FREQUENCY	PERCENT	CUMMULATIVE PERCENT
VISIT PURPOSE	To request new connection	2	0.6	2.1
	Administrative purpose	42	12.4	14.4
	To buy electricity with card	274	80.5	93.5
	To ask for maintenance	22	6.5	100.0
	Total	340	100.0	

Source: Own Survey, 2021

As shown in the above table presents basic information's of the respondents. Considering the gender of the respondents, 179 (52.5%) of the respondents are males while the rest 161 (47.5%) were females. The table also discloses that the large number respondents dominated by the age group of 26- 40 was 168 (49.4%) , respondents whose age fall in the age group of 18-25 years was 125 (36.7%), those in the age group of 41-60 years were 45 (13.3%) and those above 60 years were 2(0.6). This reveals that the largest proportions of people who came to the corporation during the data collection period are those

whose age is between 26-40.

Looking at the occupation of the respondents, from the customers who participated in the survey were 113(33.3%) of them works in government institute, 113(33.3%) works in private company, 57(16.7%) have no work, 34(10%) of them are self-worker and 23(6.7%) of them works in NGO. This revels that the largest proportion who came to the office during the data collection period are working in government institutes and private companies.

With regard to educational level of the respondents, the largest portions 153 (44.9%) have a Bachelor"s degree, 72 (21.1%) of them have Diploma, 64(18.8%) are 10^{th} complete, 23(6.8%) of them holds a master's degree, 17(5%) of them are below 10^{th} complete, 9(2.7%) of them were graduates of TVET and the remaining 2 (0.7%) of them were PHD holders. This reveals that the majority of the customers who gave a visit to the corporation in the data collection period are first degree holders.

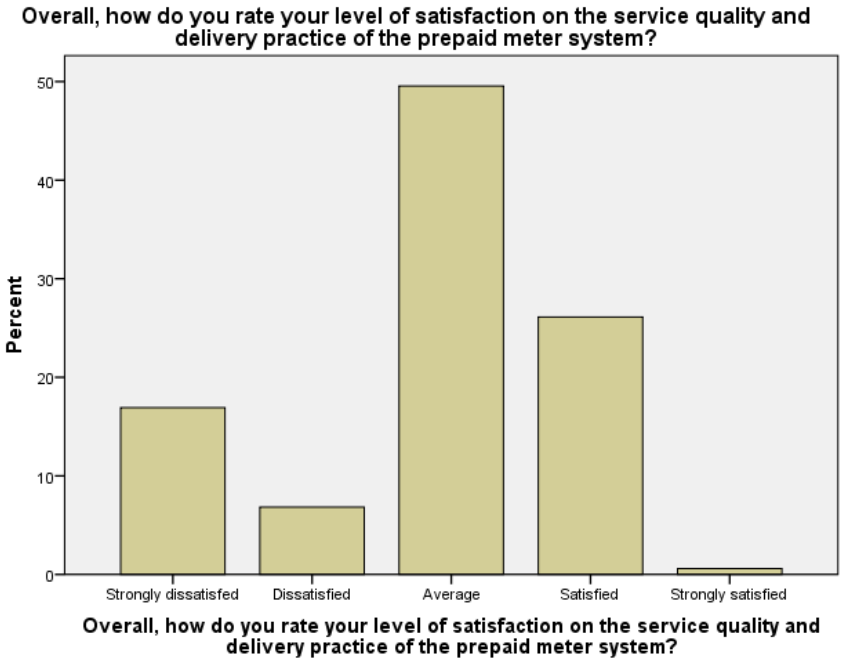
In terms of subscription type, the majority 266 (78%) of the respondents were residential customers, 67 (19.7%) of the respondents were commercial customers, and the remaining 7 (2.3%) of the respondents were industrial customers. InGeneral, the majority of respondents who came during the data collection period were residential customers

As for the meter type, I purposefully selected customers who are prepaid customers. In regards to the number of years the respondents were a customer of EEPCO, 171(50.4%) of them were customer for the period between 1-5 years, 94(27.6%) were customers for the period between 6-10 years, 46(27.6%) of them were customers for more than 10 years and the remaining 29(8.5%) were customers for less than 1 year. From this we can see that from the people who were available in the data collection period, the majority of them were customers of EEPCO for the period between 1-5 years.

In regards to purpose of visit to EEPCO, 274(80.5%) of were there to buy electricity, 42(12.4%) of them were there for administrative purpose, 22(6.5%) were there to ask for maintenance and 2(0.6%) of them were there to request new connection. This shows us that there were problems faced by customers that makes them ask for the maintenance and administrative purpose. This study has collected these problems from the customers and has presented them in its own section.

4.4.2 Descriptive analysis on Prepaid Meter

Fig 4.1 | Descriptive analysis on prepaid meter



Source: Own Survey, 2021

From the above figure Fig 4.1, we can see that around 50% of the respondent's satisfaction level on the service quality and delivery practice on the prepaid meter is average, around 25.8% of them are satisfied, around 16.7% are strongly dissatisfied, 6.7% are dissatisfied and 0.8% are strongly satisfied. This shows us that the majority of the respondent's satisfaction level is average.

4.4.3 Descriptive analysis for service quality dimensions

In order to see the general perception of the respondents regarding the service quality dimensions (i.e. customer handling, bill collection, service recovery, complaint handling, organizational climate, reliability, responsiveness, empathy, tangibility and assurance); the researcher has summarized the dimensions using frequency, percentage, mean and standard deviation. The summary of descriptive statistics of all variables that are evaluated based on a 5-point Likert scale ("1" being "Not at all satisfied" to "5" being "Extremely satisfied").

The mean value represents the average of all customer response on certain dimensions while, standard deviation shows how diverse the responses of the respondents are that means if the standard deviation shows smaller number, it indicates that the response of the respondents shows close opinions and when the standard deviation is high, it indicates the response of the respondents shows high variation.

According to Zaidaton and Bagheri (2009), the mean score below 3.39 was considered as low, the mean score from 3.40 up to 3.79 was considered as moderate, and the mean score above 3.8 was considered as high as illustrated by Comparison basis of the mean of a score of five-point Likert scale instrument. Thus, the detail of the analysis is presented as follows:

4.4.3.1 Customer Handling

Customer handling can be described by time Required for asking and filling new prepaid meter apparatus, cooperation and treatment of front line employee, time required for getting installation and estimation service after payment, cooperation and treatment of technical group.

Table 4.4 | Descriptive analysis on customer handling service

Items	Responses										Mean	Std.dev
	1 NS		2 SS		3 NNS		4 VS		5 ES			
	F	%	F	%	F	%	F	%	F	%		
Time Required for asking and filling new prepaid meter apparatus	100	29.3 %	99	29.0 %	102	29.9%	26	7.6%	10	2.9%	2.25	1.057
Cooperation and treatment of front line employee	83	24.3 %	114	33.4 %	102	29.9 %	33	9.7 %	8	2.3 %	2.32	1.022
Time required for getting installation and estimation service after payment	126	37.0 %	77	22.6 %	98	28.7 %	30	8.8 %	6	1.8 %	2.15	1.078
Cooperation and treatment of technical group	86	25.2 %	95	27.9 %	116	34.0 %	26	7.6 %	11	3.2 %	2.34	1.048
Average		28.95%		28.2%		30.62%		8.42 %		2.55 %	2.265	1.051
Overall Average Mean=2.265, Not Satisfied= 57.15%, Satisfied= 10.97%, Undecided= 30.62%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS - Neither Satisfied nor dissatisfied, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

The above table 4.4 shows that more than half of the respondents 57.15% are not satisfied towards the customer handling process of EEPCO, 10.97% of them are satisfied, and 30.62% of them are neutral towards this. We can also observe that the mean score is 2.265, which shows a low average Likert scale, this implies the existing customer handling procedure of EEPCO is not carried out well enough. The

average standard deviation 1.051, which shows there is variability in customer handling understanding with in the data

4.4.3.2 Bill collection

Bill collection can be described by payment mechanism available to be used, time required to pay and treatment of bill collection employees.

Table 4.5 | Descriptive analysis on Bill collection

Items	Responses										Mean	Std.dev
	1 NS		2 SS		3 NSS		4 VS		5 ES			
	F	%	F	%	F	%	F	%	F	%		
Payment mechanism available to be used	59	17.3 %	91	26.7 %	129	37.8%	39	11.4%	22	6.5%	2.63	1.096
Time required to pay	65	19.1%	90	26.4%	107	31.4%	52	15.2%	26	7.6%	2.66	1.173
Treatment of bill collection employee	63	18.5%	95	27.9%	109	32.0%	46	13.5%	24	7.0%	2.62	1.146
Average		18.3 %		27%		33.7 %		13.36 %		7.03%	2.63	1.138
Overall Average Mean=2.63, Not Satisfied= 45.3%, Satisfied= 20.39%, Undecided= 33.7%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS - Neither Satisfied nor disatisfied, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

Here table 4.6 shows 45.3% of respondents are not satisfied towards the bill collection procedures of EEPCO, 20.3% of them are satisfied, and 33.7% of them are neutral towards this. An average mean score of 2.63, which can be considered a low mean score. It shows that most respondents are not satisfied on bill collection activities. The standard deviation 1.138, reveal that variables have variation in respondents perception for these study questions

4.4.3.3 Service Recovery

Service recovery can be described by reporting mechanism of service failure, fault registration process in EEPCO, treatment of service failure reception employee, time duration to get maintenance service after reporting.

Table 4.6 | Descriptive analysis on Service recovery

Items	Responses										Mean	Std.dev
	1 NS		2 SS		3 NNS		4 VS		5 ES			
	F	%	F	%	F	%	F	%	F	%		
Reporting mechanism of service failure	145	42.5%	82	24.0%	70	20.5%	28	8.2%	15	4.4%	2.08	1.165
Fault registration process in the corporation	109	32.0%	99	29.0%	80	23.5 %	30	8.8%	16	4.7%	2.24	1.142
Treatment of service failure reception employee	112	32.8%	76	22.3%	119	34.9%	17	5.0%	16	4.7%	2.26	1.113
Time duration to get maintenance service after reporting	135	39.6%	81	23.8%	84	24.6 %	25	7.3%	12	3.5%	2.10	1.123
Average		36.72%		24.77%		25.87		7.32%		4.32%	2.17	1.135
Overall Average Mean=2.17, Not Satisfied= 61.49%, Satisfied= 11.64%, Undecided= 25.87%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS - Neither satisfied nor dissatisfied, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

From the above table 4.6 shows more than half of the respondents 61.49% are not satisfied in the service recovery process of EEPCO, 11.64% of are satisfied and 25.87% are undecided on this issue. an average mean score of 2.17, this is a low mean score, this tells us that most of the respondents are not happy on the service recovery tasks. The standard deviation 1.135 depicts that variables have variation in respondent's perception for these study questions

4.4.3.4 Complaint handling

Complaint handling is described by availability of clear policy and procedure to handle customer complain, Availability of awareness creation program on complain handling procedure for customer, Giving punctual response for customer with problem.

Table 4.7 | Descriptive analysis on complaint handling

Items	**Responses**											
	1 NS		**2 SS**		**3 NNS**		**4 VS**		**5 ES**		**Mean**	**Std.dev**
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**		
Availability of clear policy and procedure to handle customer complain	109	32.0 %	117	34.3 %	77	22.6 %	29	8.5%	8	2.3 %	2.20	1.075
Availability of awareness creation program on complain handling procedure for customer	110	32.3 %	100	29.3 %	95	27.9%	23	6.7%	12	3.5 %	2.15	1.04
Giving punctual response for customer with problem	122	35.8 %	107	31.4 %	71	20.8 %	26	7.6%	14	4.1 %	2.13	1.110
Average		33.36 %		31.66 %		23.76%		7.6%		3.3%	2.16	1.075
Overall average mean=2.16, Satisfied=10.9% Not satisfied=65.02% Undecided= 23.76%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS -Neither Satisfied nor dissatisfied, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

In the table 4.7 shows more than half of the respondents 65.02% are not satisfied in the complaint handling process of EEPCO, 11.64% of are satisfied and 23.76% are neutral to this scenario. an average mean score of 2.16, which is a low mean score. This manifests are not pleased on the complaint handling activities that are practiced by EEPCO. The standard deviation 1.075, informs us that variables have variation in respondent's perception for these study questions

4.4.3.5 Organizational Climate

Organizational climate can be described by Convenience of office location, Convenience of office layout, Availability of adequate staff on time.

Table 4.8 | Descriptive analysis on organizational climate

Items	Responses											
	1 NS		2 SS		3 NNS		4 VS		5 ES		Mean	Std.dev
	F	%	F	%	F	%	F	%	F	%		
Convenience of office location	64	18.8 %	107	31.4 %	111	32.6%	39	11.4 %	19	5.6%	2.54	1.092
Convenience of office layout	60	17.6 %	134	39.3 %	86	25.2 %	40	11.7 %	20	5.9%	2.49	1.093
Availability of adequate staff on time	78	22.9 %	117	34.3 %	107	31.4 %	26	7.6 %	12	3.5%	2.34	1.026
Average		19.7 6%		35%		29.7 %		10.2 %		5%	2.45	1.07
Overall average mean=2.45, Satisfied=15.2% Not satisfied=54.7% Undecided= 29.7%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS - Neither Satisfied nor dissatisfied, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

Here in the table 4.8 shows 54.7% of respondents are not satisfied in the organizational climate of EEPCO, 15.2% of are satisfied and 29.7% can't decide on the organizational climate. An average mean score of 2.45 was observed, which again is a low mean score. This depicts that most respondents are not pleased on the organizational climate provided by EEPCO.

4.4.3.6 Reliability

Reliability can be described by the correct amount of service for the bill paid, keeps customers record correctly, provide service at the designed and promised time, the Corporation inform any failure ahead of time.

Table 4.9 | Descriptive analysis on reliability

Items	Responses											
	1 NS		2 SS		3 NNS		4 VS		5 ES		Mean	Std.dev
	F	%	F	%	F	%	F	%	F	%		
Get the correct amount of service for the bill paid	83	24.3	101	29.6	99	29.0 %	25	7.3	32	9.4%	2.48	1.206

		%		%				%				
keeps customers record correctly	73	21.4 %	100	29. 3%	100	29.3 %	33	9.7 %	34	10%	2.57	1.213
Provide service at the designed and promised time	88	25.8 %	97	28. 4%	93	27.3 %	40	11. 7%	22	6.5%	2.44	1.180
The Corporation inform any failure ahead of time	130	38.1%	88	25.8 %	95	27.9%	14	4.1%	13	3.8%	2.09	1.079
		27.4 %		28.2 7%		28.3 7%		8.2 %		7.42	2.36	1.157
Overall average mean=2.36, Satisfied=15.62% Not satisfied=55.6% Undecided= 28.3%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS - Neither Satisfied nor disatisfied, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

The above table 4.9 shows 55.6% are not satisfied towards the reliability of EEPCO, 15.62% of them are satisfied, and 28.3% of them are neutral towards this. We can also observe that the mean score is 2.36, which shows a low average Likert scale, this implies the reliability of EEPCO needs more work to satisfy the customers. The standard deviation 1.157 informs us that variables have variation in respondent's perception.

4.4.3.7 Responsiveness

Responsiveness can be described by employees provide punctual service, Employees willingness to help customers, employees are never busy to respond to customer request, Employees tell customers exactly when service will be performed.

Table 4.10 | Descriptive analysis on responsiveness

Items	**Responses**											
	1 NS		**2 SS**		**3 NNS**		**4 VS**		**5 ES**		**Mean**	**Std.dev**
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**		
Employees provide punctual service	107	31. 4%	97	28.4 %	79	23. 2%	42	12.3 %	15	4.4 %	2.30	1.164
Employees willingness to help customers	104	30. 5%	93	27.3 %	70	20. 5%	57	30.2 %	16	4.7 %	2.38	1.212

Employees are never busy to respond to customer request	108	31.7	88	25.8 %	95	27. 9%	35	10.3 %	11	3.2 %	2.27	1.115
Employees tell customers exactly when service will be performed	108	31.7 %	98	28.7%	67	50%	50	14.7%	17	5.0%	2.32	1.205
Average		31.32 %		27.55 %		30.4 %		16.87 %		4.32 %	2.31	1.174
Overall average mean=2.31, Satisfied=21.19% Not satisfied=58.87% Undecided= 30.4%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS - Neither Satisfied nor dissatisfied, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

Here in the table 4.10 shows 58.87% of respondents are not satisfied in the responsiveness of EEPCO employees, 21.19% of are satisfied and 30.4% are neutral to this. An average mean score of 2.31 was detected, which illustrates a low mean score. This informs us that EEPCO really needs to work on it's responsiveness behaviors. The standard deviation 1.174, tells us that that variables have variation in respondent's perception.

4.4.3.8 Empathy

Empathy can be described by Employees know what customers' needs are, Employees give customers individual attention, The Corporation and its employees give do consideration for customer's property, Employees give orientation about the service and the cost related with the service including prepaid meter machine, The Corporation has working hours convenient to all of its customers

Table 4.11 | Descriptive analysis on empathy

Items	**Responses**											
	1 NS		**2 SS**		**3 NNS**		**4 VS**		**5 ES**		**Mean**	**Std.dev**
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**		
Employees know what customers' needs are	111	32.6 %	114	33.4 %	72	21.1%	23	6.7%	20	5.9%	2.20	1.142
Employees give customers individual attention	100	29.3 %	107	31.4 %	83	24.3%	43	12.6%	7	2.1%	2.26	1.078
The Corporation and its employees give do consideration for customers property	91	26.7 %	113	33.1 %	81	23.8%	48	14.1%	7	2.1%	2.31	1.077
Employees give orientation about the service and the cost related with the	93	27.3%			85	24.9%	35	10.3%	17	5%	2.33	1.131

service including prepaid meter machine			110	32.3%								
The Corporation has working hours convenient to all of its customers	91	26.7%	133	39.0%	54	15.8%	45	13.2 %	17	5%	2.31	1.147
Average		28.52%		33.84%		21.98%		11.38%		4.02%	2.28	1.115
Overall average mean=2.28, Satisfied=15.5% Not satisfied=62.36% Undecided= 21.98%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS - Neither Satisfied nor disatisifed, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

From the above table 4.11 we can see that more than half of the respondents i.e 62.36% are not satisfied by the empathy of EEPCO employees, 15.5% of are satisfied and 21.98% are undecided on this issue. we can indicate that the average mean score of 2.28, which shows a low mean score. This tells us that EEPCO needs to really work on empathy behavior towards it's customers. The standard deviation 1.115, depicts that that that variables have variation in respondent's perception.

4.4.3.9 Tangibility

Tangibility can be described by the Corporation has up to date prepaid meter equipment's, the Corporation physical facilities are visually attractive, the Corporation has offices at locations convenient to its customers, Employees of the Corporation at the front line position are well dressed and appear neat.

Table 4.12 | Descriptive analysis on tangibility

Items	**Responses**											
	1 NS		**2 SS**		**3 NNS**		**4 VS**		**5 ES**		**Mean**	**Std.dev**
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**		
The Corporation has up to date prepaid meter equipment's	99	29 %	117	34. 3%	73	21. 4%	36	10.6 %	15	4.4 %	2.27	1.122
The Corporation physical facilities are visually attractive	91	26.7 %	108	31. 7%	85	24. 9%	41	12.0 %	15	4.4 %	2.36	1.129
The Corporation has offices at locations convenient to its customers	89	26.1 %	100	29. 3%	88	25. 8%	50	14.7 %	13	3.8 %	2.41	1.137
Employees of the Corporation at the front line position are well	76	22.3 %	117	34.3 %	80		50	14.7%	17	5.0%	2.46	1.137

dressed and appear neat						23.5 %						
Average		26.2 %		32.4 %		23.9 %		13%		4.4 %	1.131	
Overall average mean=1.131, Satisfied=17.4 % Not satisfied=58.6% Undecided= 23.9%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS - Neither Satisfied nor dissatisfied, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

Here in the table 4.12, 58.6% of respondents are not satisfied in the tangibility of EEPCO employees, 17.4% of are satisfied and 23.9% are neutral towards this. It also shows an average mean score of 1.13, which shows a low mean score. It informs us that EEPCO really needs to work on it's tangibility dimensions.

4.4.3.10 Assurance

Assurance is described by Personal behavior of the employees are excellent that the customer can trust, Customer feel safe in the transaction with the Corporation employees, Employees are polite, Employees have adequate knowledge to serve customers in regards to the prepaid meter

Table 4.13 | Descriptive analysis on assurance

Items	**Responses**										**Mean**	**Std.dev**
	1 NS		**2 SS**		**3 NNS**		**4 VS**		**5 ES**			
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**		
Personal behavior of the employees are excellent that the customer can trust	94	27.6 %	101	29.6 %	101	29.6 %	35	10. 3%	9	2.5 %	2.31	1.065
Customer feel safe in the transaction with the Corporation employees	94	27.6 %	112	32.8 %	78	22.9 %	37	10.9 %	19	5.6 %	2.34	1.155
Employees are polite	85	24.9 %	102	29.9 %	87	25.5 %	52	15.2 %	14	4.1 %	2.44	1.141
Employees have adequate knowledge to serve customers in regards to the prepaid meter	70	20.5%	111	32.6%	84	24.6%	50	14.7 %	25	7.3%	2.56	1.182
Average		25.15 %		31.22 %		25.65 %		12.77 %		4.8%	2.41	
Overall average mean=2.42, Satisfied=17.57 % Not satisfied=56.37% Undecided= 25.65%												

NS – Not at all satisfied, SS - Somewhat satisfied, NNS - Neither Satisfied nor disatisifed, VS - Very satisfied, ES - Extremely satisfied Source: Own Survey, computed in SPSS, 2021

In the above table 4.13. 56.37% of respondents are not satisfied in the assurance of EEPCO employees, 17.57% of are satisfied and 25.65% are undecided about this. It also shows an average mean score of 2.41,

which shows a low mean score. This is very low then 3.39, it tells us that EEPCO really needs to work on the tangibility dimensions, because customers are not satisfied on them.

4.5 Correlation analysis

The degree and direction of a linear relationship between two variables are described via correlation analysis. Pearson correlation will be used because we have an interval / ratio level (continuous) variables. The correlation is stated as a coefficient, denoted by the letter r, and is reported as a decimal number ranging from -1 to +1. r = +/- (0.0 to 0.25) indicates no relationship, r = +/- (0.25 to 0.5) indicates a low degree relationship, r=+/- (0.5 to 0.75) indicates a moderate relationship, and r = +/- (0.75 to 1.0) indicates a high degree relationship. (Cohen, 1998)

Table 4.14 | Correlation coefficient between dependent variable and independent variables(prepaid meter and service qualities dimensions such as customer handling, bill collection, service recovery, complaint handling and organizational climate)

Correlations

		Customer Satisfaction	Prepaid Meter	Customer handling	Bill collection	Service recovery	Complaint handling	Organizational Climate
Customer Satisfaction	**Pearson Correlation**	1						
	Sig. (2-tailed)							
	N	340						
Prepaid meter	**Pearson Correlation**	.578**	1					
	Sig. (2-tailed)	.000	.000					
	N	337	337					
Customer handling	**Pearson Correlation**	.660**	.516**	1				
	Sig. (2-tailed)	.000	.000					
	N	340	337	340				
Bill collection	**Pearson Correlation**	.697**	.448**	.643**	1			

	Sig. (2-tailed)	.000	.000	.000				
	N	340	337	340	340			
Service recovery	**Pearson Correlation**	.771**	.409**	.595**	.580**	1		
	Sig. (2-tailed)	.000	.000	.000	.000			
	N	340	337	340	340	340		
Complaint handling	**Pearson Correlation**	.748**	.489	.538**	.575**	.690**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000		
	N	340	337	340	340	340	340	
Organizational Climate	**Pearson Correlation**	.749**	.482**	.612**	.592**	.640**	.712**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	340	337	340	340	340	340	340

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

Source: Own Survey, computed in SPSS, 2021

Pearson product correlation of the prepaid meter and customer satisfaction was found to be moderately positive and statistically significant (r= .578, p<0.001). This shows there is a positive relationship between the two variables, i.e as one increases, the other one also increases.

The correlation between customer handling and customer satisfaction was also found to be moderately positive and statistically significant (r=.660, p<0.001). This indicates that an increase in customer handling behavior would lead to an increase in customer satisfaction.

The Pearson correlation between bill collection and customer satisfaction was also found to be moderately positive and statistically significant (r= .697, p<0.001). This depicts that the more EEPCO work on bill collection behavior, the more customers will be satisfied.

The Pearson correlation between service recovery and customer satisfaction was found to be a high degree positive and statistically significant relationship (r= .771, p<0.001). This points out that if EEPCO gives greater attention to the service recovery dimensions, it can create greater customer satisfaction. This degree of relationship is the highest of all the other correlated variables.

The Pearson correlation between complaint handling and customer satisfaction was found to be moderately positive and statistically significant (r= .748, p<0.001). This demonstrates that the more we

give attention to complaint handlings of EEPCO customers, the more it can bring the satisfaction of customers.

Last, the Pearson correlation between organizational climate and customer satisfaction was also found to be moderately positive and statistically significant (r=.749, p<0.001). This reveals that the rising behaviors of the organizational climate of EEPCO, will drive greater customer satisfaction.

Table 4.14 | Correlation coefficient between dependent variable and independent variable (service qualities dimension such as reliability, responsiveness, empathy, tangibility and assurance)

Correlations

		Customer Satisfaction	Reliabilities	Responsiveness	Empathy	Tangibility	Assurance
Customer Satisfaction	**Pearson Correlation**	1					
	Sig. (2-tailed)						
	N	340					
Reliabilities	**Pearson Correlation**	.864**	1				
	Sig. (2-tailed)	.000	.000				
	N	340	340				
Responsiveness	**Pearson Correlation**	.892**	.749**	1			
	Sig. (2-tailed)	.000	.000				
	N	340	340	340			
Empathy	**Pearson Correlation**	.892**	.753**	.736**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	340	340	340	340		
Tangibility	**Pearson Correlation**	.894**	.660**	.704**	.764**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	340	340	340	340	340	

Assurance	**Pearson Correlation**	.885**	.661**	.726**	.700**	.824**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	340	337	340	340	340	340

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

Source: Own Survey, computed in SPSS, 2021

The correlation between reliability and customer satisfaction was found to be a high degree positive relations and statistically significant (r=.864, p<0.001). This indicates that an increase in reliability behavior would lead to an increase in customer satisfaction.

The Pearson correlation between responsiveness and customer satisfaction was also found to be high degree positive relation and statistically significant (r= .887, p<0.001). This depicts that the more EEPCO becomes more responsive to there work, the more customers will be satisfied.

The Pearson correlation between empathy and customer satisfaction was found to be a high degree positive and statistically significant relationship (r= .892, p<0.001). This points out that if EEPCO employees greater attention to customers feelings, if they show empathy to customers, customers will be significantly satisfied.

The Pearson correlation between tangibility and customer satisfaction was found to be high degree relation, positive and statistically significant (r= .894, p<0.001). This demonstrates that the more we give attention to tangibility, the more customers will be satisfied.

Last, the Pearson correlation between assurance and customer satisfaction was also found to be high degree relation, positive and statistically significant (r=.885, p<0.001). This reveals that the more EEPCO works in assurance behavior, i.e they show affirmation on the service they provide, the more customers will be satisfied.

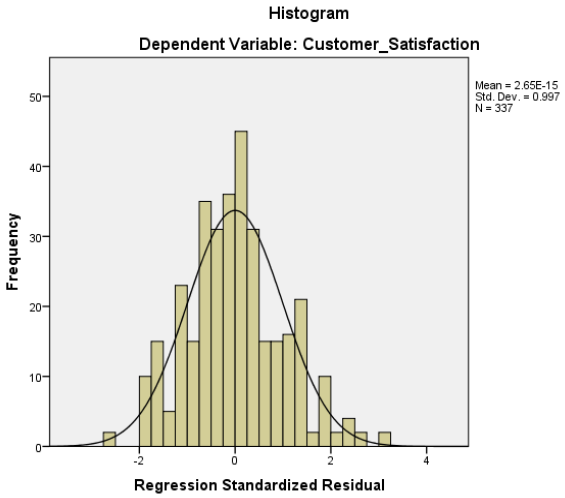
4.6 Multiple Regression Analysis

Before running multiple regression analysis we need to do the following tests. Data normality & linearity assumption tests, homoscedasity, multicollinearity and Durbin-Watson tests.

4.6.1 Normality Assumption Test

Normality refers to an asymmetrical, bell-shaped curve with the largest frequency of scores in the middle and smaller frequencies at the extremes. The normality test informs us whether the sample data is collected from normally distributed population. The normality test is used to see if the error term is distributed properly.

Fig 4.3 | Normality assumption test



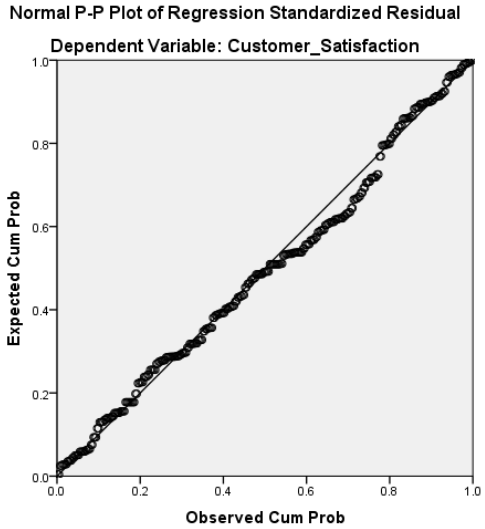
Source: Own Survey, computed in SPSS, 2021

As the figure 4.3 shows that the histogram is almost bell shaped which leads to conclude our data is normally distributed.

4.6.2 Linearity Assumption Test

Linearity defines the dependent variable as a linear function of the predictor (independent) variable (Balance, 2004). If the data are normally distributed, then the data points should be close to the diagonal line. Linearity assumption was tested by producing scatterplots of the relationship between the independent variable and the dependent variable.

Fig 4.4: Linearity assumption test



Source: Own Survey, computed in SPSS, 2021

By visually looking at the scatterplot produced by SPSS in fig 4.4, the relationship between the independent variables and the dependent variable was found to be linear, because there is a uniform distribution along with the main line.

4.6.3 Multicollinearity

Multicollinearity occurs when the independent/predictor variables are highly correlated with one another. Multicollinearity refers to the existence of a very high correlation between the study's independent variables, which is a crucial assumption to do the multiple regression analysis (Burns, 2008). If the Tolerance value is less than 0.1 and the VIF is greater than 10, the data have multicollinearity, according to Tabachnik and Fidel(2011). To put it another way, we can't do multiple regression.

Table 4.16 | Results of multicollinearity test

Coefficients		
Model	**Collinearity Statistics**	
	Tolerance	**VIF**
Prepaid Meter	.656	1.524
Customer handling	.462	2.164
Bill collection	.485	2.064
Service recovery	.455	2.195
Complaint handling	.395	2.533
Organizational Climate	.400	2.497
Reliability	.346	2.889
Responsiveness	.321	3.112
Empathy	.292	3.426
Tangibility	.246	4.062
Assurance	.271	3.696
a. Dependent Variable: Customer Satisfaction		

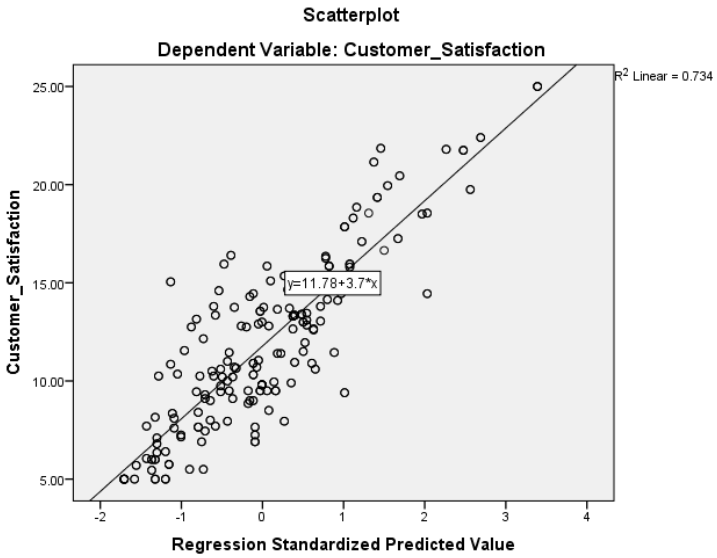
Source: Own Survey, computed in SPSS, 2021

As indicated in table 4.16, all of the independent variables (prepaid meter, customer handling, bill collection, service recovery, complaint handling, organizational climate, reliability, responsiveness, empathy, tangibility, assurance) were found to have a tolerance of more than 0.1 and a VIF value of less than 10 which indicates that there is no problem of Multicollinearity in this study, hence we can do regression analysis.

4.6.4 Homoscedasticity

Homoscedasticity assumes that the variance in the residuals (or amount of error in the model) is similar at all points in the model. To put it another way, the dispersion of the residuals at each point of the predicator variables should be pretty constant.

Fig 4.5 | Homoscedasticity test results



Source: Own Survey, computed in SPSS, 2021

Our plot of standardized residuals vs standardized predicted values showed no obvious sign of funneling, suggesting the assumption of homoscedasticity has been met.

4.6.5 Independent of Residuals Assumption Test

This is essentially the same as claiming that the observations (individual data points) are unrelated (uncorrelated). The Durbin-Watson statistic is used to determine whether or not residuals are independent. The Durbin-Watson statistic has a range of values from 0 to 4. As a general rule, if the Durbin-Watson value is near to 2, the residuals are independent (not correlated), whereas values below 1 and over 3 are cause for concern and may invalidate the analysis.

Table 4.17 | Independent Residuals Assumption test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.860[a]	.740	.735	2.17929	1.737

a. Predictors: (Constant), Climate, Prepaid, Bill_collection, service recovery, customer_handling, complaint_handling, reliability, responsiveness, empathy, tangibility and assurance

b. Dependent Variable: Customer_Satisfaction

Source: Own Survey, computed in SPSS, 2021

In this case the Durbin-Watson statistics showed (Durbin-Watson = 1.737). Hence, the result approximately approach to 2 and falls between 1 and 3, the researcher assumed independence of residuals assumption is satisfied.

4.6.6 Model Summary

The strength of the association between the predictors and the dependent variable is reported in the model summary table. The multiple correlation coefficient, R, shows the linear correlation between the observed and predicted values of the dependent variable. Its large value indicates a strong relationship. The R square is also known as the coefficient of determination, which is the proportion of variance in the dependent variable that can be explained by the independent variables.

Table 4.18 | Results of Model summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860[a]	.740	.735	2.17929

a. Predictors: (Constant), Organizational Climate, Prepaid, Bill collection, Service Recovery, Customer handling, Complaint handling, reliability, responsiveness, empathy, tangibility and assurance

b. Dependent Variable: Customer Satisfaction

Source: Own Survey, computed in SPSS, 2021

As per the table, 4.18 above R value is 0.860, which indicates a very strong correlation between customer satisfaction and prepaid meter, the service quality dimensions. Our R2 value is 0.740, which indicated 74% of the variation in the customer satisfaction of EEPCO customers can be explained by the prepaid meter and the service quality dimensions (Customer handling, Bill collection, Service recovery, customer handling, complaint handling, reliability, responsiveness, empathy, tangibility and assurance). To see if this is significant or not, we need to see the Anova model outputs.

4.7 ANOVA Model Fit

ANOVA analysis is normally used to compare the mean scores of more than two variables. It is also called analysis of variance because it compares the variance between variables and tests whether the overall regression model is a good fit for the data (Pallant, 2005).

Table 4.19 | ANOVA Model fit

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4460.906	6	743.484	156.546	.000[b]
	Residual	1567.273	330	4.749		
	Total	6028.180	336			

a. Dependent Variable: Customer_Satisfaction

b. Predictors: (Constant), Organizational_Climate, Prepaid, Bill_collection, Service_Recovery, Customer_handling, Complaint_handling, Reliability, Responsivenes, Empathy, Tangibility, Assurance.

Source: Own Survey, computed in SPSS, 2021

According to table 4.19 , the value of R and R2 found from the model summary is statistically significant at (F=156.546), (P<0.001) and it can be said that there is a significant impact of the prepaid meter & service quality dimensions on the customer satisfaction in EEPCO. Or in other words, when taking the independent variables as a group, they predict customer satisfaction significantly.

4.8 Regression coefficients

The regression coefficient is the measure of how strongly each independent variable (also known as a predictor variable) predicts the dependent variable (also known as the criterion variable). There are two types of regression coefficients.

Unstandardized coefficients and standardized coefficients. An unstandardized coefficient is used in the equation as coefficients of different independent variables along with the constant term to predict the value of the dependent variable. Standardized coefficient, is, however, are useful to know which of the different independent variables is more important. They are used in a comparison of the impact of any independent variable on the dependent variable. Hence, the strength of each independent variable influence on the dependent variable can be inquired by a standardized Beta coefficient.

Table 4.20 | Regression coefficients

Coefficients

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig**
	B	**Std Error**	**Beta**		
(Constant)	.205	.418		.490	.625
Prepaid	.637	.146	.152	1.889	.000

Customer handling	.405	.214	.078	5.448	.060
Bill collection	.923	.169	.220	4.090	.000
Service recovery	.775	.189	.170	4.765	.000
Complaint handling	.976	.205	.213	5.319	.000
Organizational Climate	1.053	.198	.236	8.735	.000
Reliability	1.576	.180	.392	7.036	.000
Responsiveness	1.266	.180	.328	1.433	.000
Empathy	.291	.203	.070	1.549	.153
Tangibility	.330	.213	.082	2.001	.122
Assurance	.415	.207	.102	1.342	.046

a. Dependent Variable: Customer_Satisfaction

Source: Own Survey, computed in SPSS, 2021

Standardized Coefficients

As per the above table 4.20, reliability is the most contributing factor in the prediction of customer satisfaction with a beta value of (B=.392), followed by responsiveness(B=3.28), organizational climate(B=.236), bill collection(B=.220), complaint handling (B=.213), service recovery(B=.170), prepaid meter(B=.152), Assurance(B=.102), tangibility(B=0.082), customer handling(B=.078) and empathy(B=070) respectively. Note that as the value of B increases, the significance of the prediction of the independent variable on the dependent variable increases.

From the regression coefficient table, all selected traits i.e Prepaid meter, Bill collection, Service recovery, Complaint handling, reliability, responsiveness, assurance and Organizational climate had a statistically significant contribution to the customer satisfaction at 95% confidence level, since all of their p-values and were less than 0.05 ($p<0.05$). However, the p-value of customer handling, tangibility and empathy are greater than 0.05, hence this trait is not significant. This tells us that the Prepaid meter, Bill collection, Service recovery, Complaint handling, reliability, responsiveness, assurance and Organizational climate variables accounts for a significant amount of unique variance in customer satisfaction.

Unstandardized Coefficients

In regards to unstandardized coefficients, the study uses the following multiple regression model to establish the statistical significance of the independent variables on the dependent variable.

Y= Bo+ B1X1 +B2X2 + B3X3…… BnXn+ e… based on this formula, we can develop a model for our study.

CS= B0+ B1PM + B2CH+ B3BC + B4CH2 + B5SR+ B6CH2 + B7OC + B8RB+B9RS+B10E+B11T+B12A+ e

Where,

CS= Dependent variable(Customer Satisfaction)

B0= Constant, PM= Prepaid Meter, CH= Customer handling, BC= Bill collection. CH2= Complaint handling, SR= Service recovery, OC= Organizational Climate, RB=Reliability, RS=Responsiveness, E=Empathy, T=Tangibility, Assurance and e= error term. Thus substituting the values, we get the constant and regression coefficients (beta coefficients), we will get the following formula

CS= B0+ B1PM + B2CH+ B3BC + B4CH2 + B5SR+ B6CH2 + B7OC + e

CS= B0+ 0.637PM + 0.405CH+ 0.923BC + 0.775SR+ 0.976CH2 + 1.05OC+ 1.57B8+1.266B9+.291B10+.33B11+.450B12 + e

4.9 High level discussion

Much previous study in the service business has focused on the relationship between service quality and customer happiness (Caruana, 2002; Oh, 1999; Cronin et al., 2000; Parasuraman et al., 1988). The purpose of this study was to analyze service delivery and customer satisfaction of the card system users of the Ethiopian electric power.

The findings in the descriptive analysis of this study showed that most of the respondents were not satisfied in all of the service quality dimensions. These dimensions are reliability, responsiveness, empathy, tangibility, assurance, customer handling, bill collection, service recovery, complaint handling and organizational climate. This tells us that EEPCO really needs to rework in all these dimensions. The descriptive analysis result on the prepaid meter showed that the level of satisfaction of respondents is average. This shows that the services and other dimensions around the prepaid meter given by the institute are averagely accepted by the customers, but still needs enhancement in order to get a very high satisfaction from customers.

This study also found that all aspects of service quality and the prepaid meter had a positive and significant correlation to the customer satisfaction. This tells us that when any of the variables increase the customer satisfaction also increases.

The study manifests that the variable reliability has a strong positive impact on customer satisfaction with beta value of 0.392 and $p<0.005$ then the other variables. This tells us that the more the

corporation works on this variable the more it can bring the customer satisfaction. The second most positive significant impact was found in the variable responsiveness with beta value of 0.328 and $p<0.005$. This informs us that the institute should give more priority this variable in order to bring the customer satisfaction. The variable organizational climate also showed a positive, significant relationship to the customer satisfaction with beta value 0.236 and $p<0.005$. This tells us that this variable also has created an impact on the customer satisfaction and should be given more attention by the institute. The next variable that created the most significant positive impact on the customer satisfaction was the bill collection variable with beta value of 0.220 and $p<0.005$. This showed that EEPCO should give attention this variable too because it creates a significant impact on the customer satisfaction. The variable complaint handling also creates the next most significant positive impact on the customer satisfaction with beta value of 0.213 and $p<0.005$. This manifests that EEPCO also needs to give focus on the different dimensions of complaint handling. The next variable that creates the most significant on customer satisfaction was service recovery with beta value of 0.170 and $p<0.005$. This shows that if EEPCO gives attention to this variable it can bring more effect on the customer satisfaction. Perpaid meter and assurance also has indicated that they have a positive significant impact on the customer satisfaction with beta values 0.152 & 0.102 consequently with $p<0.001$. This informs us EEPCO needs to give attentions to these two variables and can bring the desired customer satisfaction.

The findings on the regression analysis shows us that the variables Empathy, tangibility and customer handling doesn't create a significant impact customer satisfaction on the customer satisfaction because there p value is greater than 0.001. There beta values are also the lowest of all the other variables. This tells us that EEPCO doesn't need give that much of attention to this variables, because they don't create a significant impact on the customer satisfaction, instead, EEPCO shall give attention to the other variables.

According to (Fikre Z, 2015) research on service delivery and customer satisfaction of EEPCO the case of Eastern Addis Ababa Region, the major findings indicate that customers are dissatisfied in the recovery procedure of service failure, overall complaint handling procedures and bill collection activities. It has shown the overall satisifaction of customers in service quality is below the expected average mean, which showed that there is a service quality gap or problems in some of the activities in EEPCO.

Another research (Lemma M, 2013) on Assessment of Industrial Customers' Satisfaction at Ethiopian Electric Power Corporation: A Case of South Addis Ababa Region gave a result that all dimensions of SERVQUAL(i.e Responsiveness, reliability, empathy, assurance and tangibility) EEPCo's service

were unsatisfactory. It showed a negative gap since service perceptions are far apart from service expectations.

4.10 Testing Hypothesis with regression analysis

Hypothesis testing is a method of determining if the findings of a research study support a specific hypothesis that applies to a group of people.

Table 4.19: Summary of the hypothesis

Hypothesis	Regression Weights	Beta Coefficient	R^2	R	F	t-value	p-value	Hypothesis supported
H1	PP→ CS	.152	.740	.860	156.546	4.374	.000	Accepted
H2	CH →CS	.078	.740	.860	156.546	1.889	.060	Rejected
H3	BC→ CS	.220	.740	.860	156.546	5.448	.000	Accepted
H4	SR→ CS	.170	.740	.860	156.546	4.090	.000	Accepted
H5	CH2 →CS	.213	.740	.860	156.546	4.765	.000	Accepted
H6	OC →CS	.236	.740	.860	156.546	5.319	.000	Accepted
H7	RB →CS	.392	.740	.860	156.546	8.735	.000	Accepted
H8	RS→	.328	.7	.86	156.	7.03	.000	Acc

	CS		40	0	546	6		epted
H9	E→CS	.070	.740	.860	156.546	1.433	.153	Rejected
H10	T→CS	.082	.740	.860	156.546	1.549	.122	Rejected
H11	A→CS	.102	.740	.860	156.546	2.001	.046	Accepted

Note: *p < 0.05. PP: Prepaid meter, CH: Customer Handling, BC: Bill collection, SR: Service recovery, CH2: Complaint handling, OC: Organizational climate

Source: Own Survey, computed in SPSS, 2021

Hypothesis 1(H1): There is a significant impact of the prepaid meter(PP) on the customer satisfaction(CS)
The hypothesis tests if prepaid meter carries a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable PP to test hypothesis H1. PP significantly predicted CS, F(6,330)= 156.546, p<0.001, which indicates that the PP can play a significant role in shaping CS(B=.152, p<00.1). These results clearly direct the positive effect of prepaid meters. Moreover, R2=.740 depicts the model explains 74% of the variance in CS.

Hypothesis 2(H2): There is no significant impact of the customer handling(CH) on the customer satisfaction(CS).

The hypothesis tests if customer handling carries a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable CH to test hypothesis H2. CH can't predict CH, F(6,330)= 156.546, p>0.001, which indicates that the CH can't play a significant role in shaping CS(B=.078, p>00.1). These results clearly direct the negative effect of the customer handling dimension.

Hypothesis 3(H3): There is a significant positive impact of bill collection(BC) on customer satisfaction(CS).

The hypothesis tests if the bill collection parameter carries a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable BC to test hypothesis H3. BC significantly predicted CS, F(6,330)= 156.546, p<0.001, which indicates that BC can play a significant role in shaping CS(B=.220, p<00.1). These results clearly direct the positive effect of the bill collection. Moreover, R2=.740 depicts the model explains 74% of the variance in CS.

Hypothesis 4(H4): There is a significant positive impact of service recovery(SR) on customer satisfaction(CS).

The hypothesis tests if the service recovery parameter carries a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable SR to test hypothesis H4. SR significantly predicted CS, F(6,330)= 156.546, p<0.001, which indicates that the SR can play a significant role in shaping CS(B=.170, p<00.1). These results clearly direct the positive effect of the service recovery. Moreover, R2**=.**740 depicts the model explains 74% of the variance in CS.

Hypothesis 5(H5): There is a significant positive impact of complaint handling(CH) on customer satisfaction(CS).

The hypothesis tests if the complaint handling parameter carries a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable CH2 to test hypothesis H5. CH2 significantly predicted CS, F(6,330)= 156.546, p<0.001, which indicates that the CH2 can play a significant role in shaping CS(B=.213, p<00.1). These results clearly direct the positive effect of complaint handling. Moreover, R2**=.**740 depicts the model explains 74% of the variance in CS.

Hypothesis 6(H6): There is a significant positive impact of organizational climate(OC) on customer satisfaction(CS).

The hypothesis tests if organizational climate parameter carries a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable OC to test hypothesis H6. OC significantly predicted CS, F(6,330)= 156.546, p<0.001, which indicates that the OC can play a significant role in shaping CS(B=.236, p<00.1). These results clearly direct the positive effect of complaint handling. Moreover, R2**=.**740 depicts the model explains 74% of the variance in CS.

Hypothesis 7(H7): There is a significant positive impact of reliability(RB) dimension on customer satisfaction(CS).

The hypothesis tests if reliability parameter such as being consistent in providing an advanced customer service, or in giving information's, or their customer handling etc has a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable RB to test the hypothesis H7. RB significantly predicated CS, F(6,330)= 156.546, p<0.001, which demonstrates that the reliability can play a remarkable role in forming the customer satisfaction RB(B=.392 , P<0.001). These results clearly a positive effect of reliability. In addition to this, R2**=.**740 depicts the model explains 74% of the variance in CS.

Hypothesis 8(H8) : There is a significant positive impact of responsiveness(RS) dimension on customer satisfaction.

The hypothesis tests if responsiveness parameter such as in being active or responsive to custoemrs requests has a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable RS to test the hypothesis H8. RS significantly predicated CS, F(6,330)= 156.546, p<0.001, which depicts that the reliability can play a significant role in forming the customer satisfaction

RS(B=.328 , P<0.001). These results clearly a positive effect of responsiveness. In addition to this, R2=.740 depicts the model explains 74% of the variance in CS.

Hypothesis 9(H9) : There is no significant impact of the Empathy(E) on the customer satisfaction(CS).

The hypothesis tests if empathy carries a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable E to test hypothesis H9. E can't predict CS, F(6,330)= 156.546, p>0.001, which indicates that the E can't play a significant role in shaping CS(B=.070, p>0.001). These results shows that effect of the empathy dimension is not significant as the other varilables.

Hypothesis 10(H10) : There is no significant impact of the Tangibility(T) on the customer satisfaction(CS).

The hypothesis tests if tangibility carries a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable T to test hypothesis H10. T can't predict CS, F(6,330)= 156.546, p>0.001, which indicates that the E can't play a significant role in shaping CS(B=.082, p>0.001). These results shows that effect of the tangibility dimension is not significant.

Hypothesis 11(H11) : : There is a significant positive impact of Assurance(A) dimension on customer satisfaction(CS).

The hypothesis tests if assurance parameter such as if EEPCO shows assurance to it's customers, being certain/confident on the services they provide etc.. has a significant impact on customer satisfaction. The dependent variable CS was regressed on the predicting variable A to test the hypothesis H11. A significantly predicated CS, F(6,330)= 156.546, p<0.001, which depicts that the reliability can play a significant role in forming the customer satisfaction RS(B=.102 , P<0.001). These results clearly a positive effect of responsiveness. In addition to this, R2=.740 depicts the model explains 74% of the variance in CS.

4.11 Summary of open ended questions

This section explains results of open ended questions

1) If you are a prepaid user, have you faced a problem before in regards to it?

Table 4.20 | Results of problem occurrence test

		Frequency	Percent
Valid	Yes	114	33.3%
	No	226	66.7%

	Total	340	100.0%
Missing	System	0	0%
Total		340	100%

Source: Own Survey, computed in SPSS, 2021

The above table 4.20 shows us the frequency and percentage of problems faced by EECPO customers. It tells us that 114 customers have faced a problem during the researcher's data collection period, this percentage is 33.3%. This is not good for EEPCO, as it might decrease the satisfaction level of its customers.

2) If you have faced a problem, what was the main problem?

The problems faced by EEPCO customers are presented thematically down below.

- Apparatus problem: - The problems that are associated with the apparatus include, payment is not equivalent to the amount of power utilized. There is an estimated time that a prepaid apparatus should stay for the payment it is utilizing, but for the past 1-2 years, it kept reducing in a shorter period of time than before. This was a problem mentioned by most of the customers. Another concern raised was the apparatus gives no sign of alarm if it is going to close, one needs to go and read the apparatus very often. Especially for older people, for people who can't read or for blind people who leaves alone, this is a problem, because they have to call upon others to read for them. If the apparatus got closed on Sundays or on holidays or if there is a case where one is not allowed to go outside of the house like the Corna case or political issues in the city, there is no way to get light in that particular day or days. One must wait for the working day of EEPCO employees to start working. This will make the customers live without light for those number of days. The other obstacle is if the apparatus closes, a customer is required to pay the additional payment. What is more devastating is that most times there is no system to get the cards filled up, hence one needs to go to other EEPCO branches. As per the interviewed customers, in many cases systems is not available in most branches. If the card is closed, and no system in EEPCO branches, one customer will be without light for the number of days that the EEPCO branch doesn't have a system. Because of all these customers are wasting their time and energy.

The other issue that was raised by one particular customer was "The apparatus was unable to read the filled-up card, so the payment for it was lost, there was no way to return it. The technical people were unable to figure this out". Another difficulty raised by EEPCO customers was there was a problem in the apparatus itself, for an unknown reason and it was closed.

There was a time that the apparatus couldn't read the card and customers were unable to fill the payments. Two customers mentioned that after they get a bill for the card and went home, and insert the card into the apparatus, the amount of birr they read on the apparatus was not equivalent to what they have paid. But above all, the light goes on and off repeatedly. Because it is surrounded by so many commercial places that require light for their work, there is always an issue of interruption of lights. There is also a problem with the transformer, it always explodes every now and then. The technical guys come and work on it, but after some days, it explodes. Even though we request a change for a replacement of this transformer, there was no reply from EEPCO in regards to this, hence customers always face an interruption of lights every now and then.

- Front desk Employees & technical people:- The problems associated with the front desk employees are, they don't give full information to the customers. Some of the front desk employees and technical people don't have enough knowledge of the apparatus or other services given by EEPCO. Most of the time, there is a long line of waiting to pay bills or get the cards filled up, this is due to the lower number of front desk employees, and these employees not being active. Sometimes, employees are not available during their working hours, which leads to a long line of waiting, and not getting the service required on the day requested. One person mentioned that she has faced unethical behavior from the technical guys who came to work on the defective apparatus in their office. So she went to the office to report the issue to the branch's administrative office.

3) If your response to the question how do you rate the standards of the service provided by the corporation" is "declining or have not changed" what do you think the main reason behind it?

Reasons for this are divided thematically and explained down below.

- Organizational: - the government didn't give as much attention as the other government institutes, it needs lots of updates department-wise and in terms of how it gives services. It still doesn't interpret the use of technology that much like other institutes, still uses traditional methods to pay bills or record customers' information. The employees who work at the front desk give poor customer service, this has not been changed for so long. Even higher officials that work at the administration level are not cooperative, sincere, and active. They still couldn't bring a solution to the long waiting line to pay bills, no system issues, and other problems mentioned in the prior question. Sometimes, employees are not available in their offices during their working hours.

Another reason raised was the location of the office is far from the customer's houses. They must have a taxi to go there, during the beginning time of corna, they were walking 2-3 km to reach the office.

The other reason mentioned repeatedly by customers is that not getting a constant light/ uninterrupted light, this has affected the works of commercial places located in this worda in one way or another.

The other issue was the phone service doesn't work in most times, it is very hard to get representatives and get a service.

4) What do you think the main reason for your level of satisfaction on the service quality and delivery practice of the prepaid meter system?

The main reasons that are collected by the researcher are the following:

- Apparatus issues: the amount of bill we paid for and the power we are consuming is not the same, Some customers have mentioned that even though they have replaced the usage of light in other things for some of their in-house activities, there was no change in the time when the apparatus shows that is it going to close soon. Another drawback for their level of satisfaction is light keeps going on and off.
- Organizational issues: To get administrative purposes, we must pay the service charge first. This is not fair, instead of going on what the problem is first, they let them pay a service charge payment. Another difficulty is EEPCO still uses the old method of payment plus in most cases, there is no system in the offices. This wastes customers' time and energy
- Front line employees: - Poor customer service given by front line customers, they are not active and sincere. Some of them don't have that much knowledge of the services given by EEPCO.

5) What measures can be taken to improve the service quality to your level of strong satisfaction?

The researcher has divided the measures to be taken thematically as per the following.

Organizational: - First and for most, EEPCO needs to update the system, it needs to use the latest technologies that are available in the market. This will significantly reduce the system unavailability that was raised by customers repeatedly. This will bring speedy service to customers, and reduce time wastage by customers as well as employees of EEPCO. For paying bills, EEPCO needs to use modernized technologies like CBE birr or Tellbirr, this will again reduce the time and energy of customers.

- EEPCO needs to extend its branches, the number of working hours of employees, or use another mechanism to be reachable by customers. They can pay overtime for their employees if they work extra hours. The telephone service should work 24/7, EEPCO needs to involve more people who can work here and give in-time responses to customers.
- Another measure to be taken is, EEPCO shall work in cooperation with other governmental institutes so that whenever one is installing a line it should not affect the other line that is already existing. This will reduce the interruption of light that customers are facing from time to time.
- EEPCO seriously needs to study the relation between power consumption and payment made, and work on reducing tariffs. They can hire a consultant or by using their technical guys they must study the problems of the society that is associated with payment not equivalent to the power consumption and bring a solution to it, and lastly reduce tariffs.

- Ethiopia is the home of lots of rivers, hence EEPCO needs to create a better strategy on the utilization of these rivers for power consumption. This will reduce the light interruption.
- EEPCO Employees: EEPCO needs to train its employees from time to time. They should take advanced customer service training, technical training about the apparatus the EEPCO uses. The institute should have some sort of continuous performance measurement on its employees. This will help in reducing the drawbacks happening in service delivery. EEPCO can also award its customers that performances best, this will motivate others to work effectively and efficiently. They should take necessary measurements on people who are not performing well, for example on those who are not available at the office during their working hours. Employees also need to keep customers' information's appropriately by using computerized systems.

In all branches, management people should show strong leadership in the firm they are running. This way, employees will work effectively & efficiently, because of that strong leadership they have from their management.

- Apparatus related: EEPCO needs to update/change apparatus that are creating problems. It also needs to have an attractive instrument that can easily be understood by any kind of customer. The prepaid meter should install some kind of alarm system to warn customers if it is going to close soon.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the study by summarizing the key research findings in relation to the research aims and research questions, as well as the value and contribution thereof. It will also review the limitations of the study and propose opportunities for further research.

5.2 Summary of findings

- This study aimed to analyze the service delivery and customer satisfaction of card system users of EEPCO in the case of Worda 3. Data for the study was obtained through distribution of questionnaires to respondents who visited customer service center 3. A total of 365 questionnaires were distributed to respondents and 340 gave adequate information through answering the questions completely with a response rate of 94.8% that were used for this study. An overall value of Cronbach alpha (α =0.957) was obtained and the overall internal consistency test of research instruments was found in "excellent" reliability range.

- Regarding service delivery majority of respondents 57.1 % of them are dissatisfied on the customer handling procedures which are given by the employees of EEPCO. These are employees not giving proper information's, employees not being polite and sincere, employees not being active and effective during service delivery. In regards to the bill collection, 45.34 % of respondents are not happy on it. Customer have concerns around the amount of payment made at initials and power consumptions and methods of bill payment not being modernized. With regards to service recovery majority of respondents i.e 61.49 % of them are dissatisfied on EEPCO procedures towards the service recovery. Main problems mentioned by respondent in regards to service recovery are not getting on time response, system not being available in most of the times, poor knowledge of employees of on the services delivered by EEPCO . Majority of respondent i.e 65.2 % are not happy on the complaint handling producers given by EEPCO. Respondents have claimed that it is sometimes hard to get on time response, some have mentioned that when they make a complain on the institutes apparatus, they didn't get a response. More then half of respondents i.e 54.7% are dissatisfied on the organizational climate of EEPCO. Some respondents have reported that the institutes instruments are not attractive. Some have complained that the location of the branch is far for them.

- With regards to the SERVQUAL dimensions (Reliability, responsiveness, empathy, tangibility and assurance) , around 55.6% of respondents are not happy on the reliability characteristics of EEPCO.

From what has been collected, respondents have affirmed that they are not happy on EEPCO's responses to information's requested, or the way how they keep customer's records. 58.87% of respondents have demonstrated that they are not happy on the responsiveness parameter. This shows that EEPCO doesn't respond on time or not active on the areas where it needs to be responsiveness. EEPCO needs to make it's employees be responsive in one way or another. If they are bussy or there is a w work load, EEPCO needs to hire additional employees. More than half of respondents i.e 62.36% are not satisfied on the empathy of EEPCO's employees. This shows that EEPCO needs to work on the empathy area, they need to show sincerity and politeness to the customers. Around 58.6% respondents are not happy in the tangibility of EEPCO. EEPCO needs to make it's equipment's attractive and easily understandable. Last, 56.37% respondents are dissatisfied on the assurance of EEPCO. The organization needs to assure it's customers in the services they provide. Give correct and effective responses. Create a constant follow ups on customers have service failures, they can also collect feedbacks from customers themselves and work on it.

- In regards to the customer satisfaction level on the prepaid meter apparatus services given by EEPCO the majority of respondents i.e 50% of them show an average satisfaction, while 25.8% of them are satisfied, around 16.7% are strongly dissatisfied, 6.7% are dissatisfied and 0.8% are strongly satisfied.

- In general, all variables i.e prepaid meter, bill collection, service recovery, complaint handling, and organizational climate have showed a statistically significant contribution to the customer satisfaction at 95% confidence level, since all of their p-values 0.000, but the customer handling variable gave a slightly greater value then 0.05, and hence this trait is not statistically significant like the rest of variables. Hence EEPCO needs to give a greater attention the following parameters i.e prepaid meter, bill collection, service recovery, complaint handling, and organizational climate. This tells us that EEPCO really needs to work on these variables in order to bring the desired level of satisfaction.

- Some of the major suggestions for EEPCO given by respondents are: EEPCO needs to update the system, it needs to use the latest technologies that are available in the market for its system and bill payment mechanisms. EEPCO needs to extend its branches, the number of working hours of employees. The institution also needs to work on creating the proper amount of power delivery for the amount payment made. EEPCO needs to train its employees from time to time. They should take advanced customer service training, technical training about the apparatus the EEPCO uses.

5.3 Conclusion

In today's competitive market, evidence suggests that improving service quality is a good strategy for increasing customer satisfaction. Using the SERVQUAL model, and other additional dimensions this study investigated the perception of service quality of the prepaid meter service and other related

services offered to the customers at EEPCO.

In today's world, public sectors play a significant role as service providers. Electric power service is one of the primary services that has a significant impact on people's day-to-day activities. Ethiopian Electric Power Cooperation Organization is the sole provider of electricity in the country. Based on the indicated findings parameters such as customer handling, complaint handling, service recovery, bill collection activities, organizational climate, reliability, responsiveness, empathy, assurance and the apparatus being used are decisive factors for the customer satisfaction in the institute. The majority of respondents were unsatisfied in the EEPCO's services. Customers disagree to the quality of services that EEPCO has been offering till this day because their diverse demands has not been met yet. Based on the mean score result on the prepaid meter apparatus it has been observed that customers have an average satisfaction on it, this shows that customers are happy to some extent, but also this area needs additional work to bring the desired level of satisfaction.

From the study findings, reliability & responsibility plays the most significant dimension to enhancing customer satisfaction. This shows that if the institute works on these two major areas it can be able to create the desired service by it's customers.

From the main challenges suggested by respondents, it shows that employees and leaders of EEPCO really needs to work more, because the study shows that even though there are researches done in the past, the institute didn't do it's job very well. This shows that either the study's done luck's enough findings or leaders of the institute were reluctant to take the findings and apply it to the institute.

5.4 Recommendations

The researcher came up with several significant recommendations based on the study's findings and conclusions, which would help the company focus on service quality and customer satisfaction features that can largely contribute to the improvement level of per paid services.

- Customers requesting various types of services require the institution's employees to be courteous and cooperative. EEPCO must make its employees to undergo continues advanced customer service training in order for them to be able to provide advanced services that satisfy customers.
- Employees must be familiar with the institution's products and services. EEPCO needs to provide ongoing training to its staff about its products and services so that they can respond quickly to the many types of services they are being requested.
- The institution must conduct frequent performance evaluations of its staff in order to maintain control on their job. EEPCO can present rewards to employees that perform very well. Others

will be inspired and will do their best in their respective fields as a result of this.

- EEPCO needs have an up-to-date (modernized) pre-paid equipment that has additional functions. They can, for example, enable the device to speak, allowing it to tell/say how much money is left on the bill at the push of a button. This will assist persons who are unable to read, as well as the elderly and the blind, in determining how much money is due and when they should go to the EEPCO to purchase electricity with their card. This will assist these individuals in not having to call others who can read it on a regular basis.
- The institution should also use other payment mechanism to buy electricity such as telebirr and CBE birr. This will help in reducing the long waiting queue to pay bills at the institution. Plus, where there is a system or not at EEPCO, people can buy electricity in applications that are available on their hands. This will also help in reducing the time and energy that was about to be spent by going to the institution to buy the electricity.
- The corporations should increase the availability of it's branch, so that customers can easily get an access for any of their requests. This also will reduce the time and energy of customers significantly.
- Full-time employees' working hours should be extended, as this will assist clients in receiving services on weekends (Sunday) and holidays. For those employees who work extra, EEPCO can pay them over time.
- The 905 Phone services should be available at all times to provide clients with information and other services. EEPCO should hire more people to work in the phone services department, and they should be able to pay overtime for work done on weekends and holidays.
- Customers' needs to get the correct amount of the power consumption for the payment they paid. EEPCO needs to do a research on this and must revise the amount payment, because this has been an issue for the majority of the respondents, not one or two respondents.
- The institution must pay attention to service failures. It has been reported repeatedly in the Bole medhanialem area that they are utilizing obsolete apparatus, as a result of this, and due to the enormous volume of customers in this area, the apparatus always explodes, and the light goes out regularly.
- As it is known EEPCO is the sole provider of electricity in the country. EEPCO can invite other electricity industries to work together in different areas and can advance the service given by the institute.

5.5 Limitations and future researches directions

The delivery of services to customers encompasses all facets of an organization's success. However, due to budget and other related resources this study will limit its scope to the assessment of customer service delivery and customer satisfaction particularly by taking the Ethiopian Electric Power Corporation (EEPCO) Eastern Addis Ababa Region customer service center 3 of worada 3. As a suggestion for the future, it would be wonderful if the coverage area was expanded so that it could include all areas.

5.6 Policy implication and theoretical contribution

The theoretical contributions of this paper are concerned with analyzing the service quality and customer satisfaction in EEPCO's prepaid meter users; it will assist EEPCO in understanding the perspectives of customers who are currently using the prepaid meter services by demonstrating both the positive and negative aspects of this service, as well as making necessary recommendations in the areas that require improvement. This is especially essential because existing literatures are silent about EEPCO's prepaid service.

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Appendix

Addis Ababa University
College of Business and Economics
MBA Program
(Questionnaire for Customers)

Dear Sir/ Madam, the purpose of this questionnaire is to gather data regarding the Service delivery and Customer satisfaction in power sector the case of EEPCO Eastern Addis Ababa region. The study is purely for academic purpose and thus does not affect you in any case. Your genuine, frank, timely response is vital for the success of the study. Therefore, I kindly request you to respond to each question item carefully and oblige.

Note:

1. No need to write your name.
2. Where alternative answers are given, encircle your choice and put "√" mark where necessary.
3. Please return the completed questionnaire in time.

Thank you, in advance for your cooperation and timely response.

Thanks
Rebecca

Basic Information

1 Gender of the respondent

☐

Female Male

2 Age of respondent

Between 18-25 Between 40-60

Between 25-40 Above 60

3 Occupation

Works in governmental institutes Works in private company No work

Works in NGO Self-worker

4 Educational Level

No Education 10^{th} complete Diploma Masters

Below 10^{th} grade Technical & vocational BA degree PHD

5 Type of subscription

Residential Commercial Industrial

6 Meter Type

Prepaid Post-paid

Service related to topic

7. For how long are you a customer of the corporation?

More than 10 years 1- 5 years

6 – 10 years Less than 1 year

8. For what purpose have you come to office today?

To pay bill To buy electricity with card

To request for new connection To ask for maintenance service

Administrative purpose Others (specify)_____

9 If you are a prepaid user, have you faced any problem before in regards to it?

Yes No

10. If you have faced a problem, what was the main problem?

_____

11. How frequently did you go to the service center to get the service for the problem you mentioned in number 10?

On the first time 4- 6 times

2-3 times 7 to 1 0 times More than 10 times

How long it took to get the above mention service starting from your first arrival at the service center?

Less than ten minutes Thirty one minuets to one Hour

Ten to thirty minutes More than one hour

13. How do you rate the standards of service provided by the corporation?

Cannot rate Have improved a little
Declined Have improved a lot Have not changed

14. If your response to question number thirteen is “declining or have not changed,” what do you think the reason behind?

_____
_____
_____

15. According to your opinion to what extent is efficient service delivery and service quality important for customer satisfaction?

Extremely important Fairly important
Important Less important Has no importance

16. How do you rate the following customer satisfaction and service delivery process in the corporation? Mark “√” in their respective columns

Factors used as comparison	Not at all satisfied	Somewhat Satisfied	Satisfied	Very satisfied	Extremely Satisfied
16.1 Customer handling					
1. Time required for asking and filling new prepaid meter apparats					
2. Cooperation and treatment of front line employee					
3. Time required for getting installation and estimation service after payment					
4. Cooperation and treatment of technical group					
16.2. Bill collection					
1. Payment mechanism available to be used					
2. Time required to pay					
3. Treatment of bill collection employee					
16.3 Service Recovery					
1. Reporting mechanism of service failure					
2. Fault registration process in the corporation					
3. Treatment of service failure reception employee					
4. Time duration to get maintenance service after reporting					
16.4. Complaint handling					
1. Availability of clear policy and procedure to handle customer complain					
2. Availability of awareness creation program on complain handling procedure for customer					
3. Giving punctual response for customer with problem					
16.5. Organizational C**limate**					
1.Convenience of office location					
2. Convenience of office layout					
3. Availability of adequate staff on time is					

17. Overall, how do you rate your level of satisfaction on the service quality and delivery practice of the prepaid meter system?

Strongly dissatisfied Average Strongly satisfied

Dissatisfied Satisfied

18. What do you think the main reasons are for your level of satisfaction in the previous question?

_____

_____

_____

19 How do you rate service in the Corporation related to the following service quality dimension? Mark "√" in their respective columns

Factors used as comparison	Not at all satisfied	Somewhat E	Satisfied	Very satisfied	Extremely Satisfied
19.1Reliability					
1.Get the correct amount of service for the bill paid					
2. keeps customers record correctly					
3. Provide service at the designed and promised time					
4. The Corporation inform any failure ahead of time					
19.2 Responsiveness					
1. Employees provide punctual service					
2. Employees willingness to help customers					
3. Employees are never busy to respond to customer request					
4 Employees tell customers exactly when service will be performed					
19.3 Empathy					
1.Employees know what customers' needs are					
2. Employees give customers individual attention					
3. The Corporation and its employees give do consideration for customers property					
4. Employees give orientation about the service and the cost related with the service including prepaid meter machine					
5. The Corporation has working hours convenient to all of its customers					
19.4. Tangibility					
1. The Corporation has up to date prepaid meter equipment's					
2. The Corporation physical facilities are visually attractive					
3. The Corporation has offices at locations convenient to its customers					
4. Employees of the Corporation at the front line position are well dressed and appear neat					
19.5. Assurance					
1. Personal behavior of the employees are excellent that the customer can trust					
2. Customer feel safe in the transaction with the Corporation employees					
3. Employees are polite					
4. Employees have adequate knowledge to serve customers in regards to the prepaid meter					

20 What measures are be taken to improve service quality to your level of strong satisfaction?

_____

አዲስ አበባ ዩኒቨርሲቲ
የ ብዝነስና ኢኮኖሚክስ ኮሌጅ ድህረ ምረቃ ፕሮግራም
ለደንበኞች የተዘጋጀ መጠይቅ

ዉድ ደንበኞች፤
የዚህ መጠይቅ ዋና አላማ ጥራት ያለው አገልግሎት አሰጣጥና የደንበኞችን እርካታ በኢትዮጵያ ኤሌክትሪክ አገልግሎት ምስራቅ አዲስ አበባ ሪጅን በሚል ርዕስ መረጃ ለመሰብሰብ ነዉ፡፡ ጥናቱ የሚደረገዉ ሙሉ በሙሉ ለትምህርት አላማ ስለሆነ በየትኛዉም መልኩ እርስዎን የማይነካና የማይጎዳ ነዉ፡፡ እርስዎም የሚሰጡት መረጃ የላቀ፣ እዉነተኛ፣ ተአማኝነት ያለዉና ትክክለኛ ምላሽ ለጥናቱ መሳካት እጅግ ጠቃሚ ነዉ፡ ፡ በመሆኑም እያንዳንዱን ጥያቄ በጥንቃቄና በትክክል እንዲመልሱ በአክብሮት እጠይቆታለሁ፡ ፡
ማስታወሻ፡

- ስም መጥቀስ አያስፈልም
- ተለዋጭ ምርጫ ለቀረበላቸዉ ጥያቄዎች መልሱን በማክባብ ወይንም ይህን‘‘√’’ምልክት በማድረግ ይመልሱ
- እባክዎን የተሟላ መጠይቅ በሰዓቱ ይመልሱ ስለሚያደርጉልኝ መልካም ትብብር በቅድሚያ አመሰግናለሁ፡ ፡

ከምስጋና ጋር

ርብቃ

<u>መሰረታዊ መረጃ</u>

1, ጾታ

☐ ት ወ☐

2, እድሜ

☐ 18-25 መሃል ☐ Ö-60 መሃል

☐ 25-40 መሃል ከ☐ በላይ

3, ስራ

☐ መንግስት ሰራተኛ የ☐ ተቀጣሪ ስራ አ☐ ስራ የማይሰራ

☐ መንግስታዊ ያልሆነ ሰራተኛ የ☐ ሰራተኛ

4, የትምህርት ደረጃ

☐ 10ኛ ክፍል በታች ☐ ኒክ ና ሙያ ድ☐ ፒችለ☐

☐ 10 ያጠናቀቀ ☐ ማ ማስ☐ ስ

5 የደንበኝነት የምዝገባ አይነት

☐ የመኖሪያ ቤት የ☐ ኡ ኢዱ☐ ያዊ

6 የቆጣሪ አይነት

☐ ቅድመ ክፍያ ቆጣሪ(ባለካርድ) ☐ ረ ቆጣሪ (የመስመር ቆጣሪ)

<u>ከአገልግሎት ጋር ተያያዥነት ያላቸዉ ጥያቄዎች</u>

7 እርስዎ የድርጅቱ ደንበኛ ከሆኑ ምን ያህል ጊዜ ይሆኖታል?

☐ ከአስር ዓመት በላይ ☐ እስከ 5 ዓመት

☐ ከ 6 እስከ 10 ዓመት ☐ አንድ ዓመት በታች

8 ዛሬ ወደ ድርጅቱ የመጡበት ጉዳይ ምን ነበር?

☐ ቢል ለመክፈል ማ☐ ያ ለመጠየቅ የጥገ☐ ገልግሎት ለመጠየቅ

☐ አዲስ ቆጣሪ ለመጠየቅ ኮ☐ ት ለማስሞላት ለአ☐ ዳደራዊ ጉዳይ

ሌላ ካላ (ይግለጹ) _____

9 የቅድመ ክፍያ ቆጣሪ ተጠቃሚ ከሆኑ፣ አገልግሎቱን በሚጠቀሙበት ግዜ ችግር አጋጥምዎት ያውቃል?

☐ ዎ አያ☐ ም

10 ያጋጠሙዎት ችግር ካላ፣ ምን ነበር?

_____

11. ከላይ በተራ ቁጥር 10 ያጋጠመዎትን ነገር ለማስተካከል ምን ያህል ጊዜ ይመጣሉ?

☐ አንድ ጊዜ ከ 4 ☐ ከ 6 ጊዜ ከ 10 ጊ☐ ላይ

☐ ከ 1 እስከ 3 ጊዜ ከ☐ እስከ 1 0 ጊዜ

12. ከላይ የጠቀሱትን አገልግሎት ለማግኘት አገልግሎት መስጫ ማዕከሉን ከደረሱ በኋላ በአማካኝ ምን ያህል ጊዜ ይፈጅቦታል?

☐ ከአስር ደቂቃ በታች ከ1☐ እስከ 30 ደቂቃ

☐ ከ31 ደቂቃ እስከ አንድ ሰዓት ከ☐ ድ ሰዓት በላይ

13 የድርጅቱ የቅድመ ክፍያ ቆጣሪ አገልግሎት አሰጣጥ እንዴት ይመዝኑታል?

☐ ለመመዘን አስቻጋሪ ነዉ ☐ ምንም ለዉጥ የለበትም

☐ ቀንሷል ☐ ጥቂት ተሻሽሏል ☐ በጣም ሻሽሏል

14. ከላይ በተራ ቁጥር 13 የመለሱት መልስ "ቀንሷል ወይንም ምንም ለዉጥ የለም"
የሚል ከሆነ ምክንያቱ ምንድንነዉ ብለዉ ያስባሉ?

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15. በእርስዎ አመለካከት ጥራት ያለዉን አገልግሎት መስጠት ለደንበኛዉ ጥቅም እንዴት ያዩታል?

☐ እጅግ በጣም ጠቃሚ ነዉ ☐ ቃሚ ነዉ ☐ ጥ የለዉም

☐ በጣም ጠቃሚ ነዉ ☐ ም አይጠቅምም

16. ከዚህ በታች የተጠቀሱትን የድርጅቱን አገልግሎት አሠጣጥ ሂደት እንዴት ይመዝኑታል?በአምዱ ስር ይህን ምልክት "√" ያድርጉ

ለንጽጽር የተወሰዱ ነገሮች	በፍጹም ያልረካ	በመጠኑ ረክቻለሁ	ረክቻለሁ	በጣም ረክቻለሁ	እጅግ በጣም ረክቻለሁ
16.1 አዲስ ደንበኞችን የመቀበል አገልግሎት					
1.አዲስ የቅድመ ክፍያ ቆጣሪ ለመጠየቅ እና ለማስገባት የተቀመጠዉ ጊዜ					
2. ፊት ለፊት ላይ ያሉ ሠራተኞች ትብብርና አቀባበል					
3.የማስገመቻ ከተከፈለ በኋላ ለምርመራና ለግምት የሚፈጀዉ ጊዜ					
4. የቴክኒክ ሠራተኞች ያላቸዉ የስራ ትብብርና አቀባበል					
16.2 ቢል ክፍያ/ ባላ ካርድ ክፍያ					
1. ያለዉ የአከፋፈል ዘዴ					
2. ለክፍያ የተቀመጠዉ ጊዜ					
3. የገንዘብ ተቀባዮች አቀባበል					
16.3. የመብራት አገልግሎት ቢቋረጥ መልሶ የመገናኘት ሂደት					
1.አገልግሎት ሲቋረጥ የማሳወቂያ ዘዴ					
2.በኮርፖሬሽኑ ያለዉ የብልሽት አመዘጋገብ ሂደት					
3. አገልግሎት ሲቋረጥ የሚያስተናግዱት ሠራተኞች አያያዝ					
4. ብልሽቱን ካሳወቁ በኋላ መልሶ ለማገናኘት የተቀመጠዉ ጊዜ					
16.4 የቅሬታ አቀባበል ዘዴ					
1 . የደንበኞችን ቅሬታ አቀባበል ደንብና መመሪያ					
2. የቅሬታ አቀባበል ዘዴን ለደንበኞቹ የማሳወቅ አሰራር					
3. አቤቱታ ላላቸዉ ደንበኞች በተቀመጠዉ ጊዜ ምላሽ አሰጣጥ					
16.5 የሥራ ቦታ ሁኔታ					
1 .ቢሮዉ የሚገኝበት ሥፍራ ምቹነት					
2.ቢሮዉ ዉስጥ ያለዉ አደረጃጀት					
3.ሠራተኞቹ በሥራ ሰዓት መገኘታቸዉ					

17. በአጠቃላይ የቅድመ ክፍያ ቆጣሪ አገልግሎት አሰጣጥ ያገኙትን እርካታ እንዴት ይመዝኑታል?

☐ በጣም አጥጋቢ አይደለም ☐ አጥጋቢ ነዉ

☐ አጥጋቢ አይደለም ☐ መካከለኛ ነዉ ☐ በጣም አጥጋቢ ነዉ

18. ከላይ ለመለሱት ምላሽ ለእርካታዎ መጠን (ደረጃ) ምክንያቱ ምንድንነዉ ብለዉ ያስባሉ?_____
_____
_____

19. ከዚህ በታች የተጠቀሱትን የድርጅቱን አገልግሎት አሠጣጥ ሂደት እንዴት ይመዝኑታል?በአምዱ ስር ይህን ምልክት “√” ያድርጉ

ለንጽጽር የተወሰዱ ነገሮች	በፍጹም ያልረካ	በመጠኑ ረክቻለሁ	ረክቻለሁ	በጣም ረክቻለሁ	እጅግ በጣም ረክቻለሁ
19.1 ታማኝነት					
1 ለከፈልነው ቢል ትክክለኛ አገልግሎት እናገኛለን					
2. የደንበኞችን ማህደረ በትክክል ይይዛሉ					
3. በተቀመጠዉ መስፈርት መሠረት አገልግሎት ይሰጣሉ					
4. ድርጅቱ ማንኛዉንም ብልሽት በቅድሚያ ያሳዉቃል					
19.2 ተጠያቅነት					
1 . ሠራተኞቹ የሚገባዉን አገልግሎት ይሰጣሉ					
2. ሠራተኞቹ ደንበኞችን ለመርዳት(ለማገልገል) ፍላጎት አላቸዉ					
3. ሠራተኞች ሁሌ ጊዜ ደንበኛን ያስተናግዳሉ					
4. ሠራተኞቹ አገልግሎት መቼ እንደሚፈጸም ለደንበኞች በትክክል ያሳዉቃሉ					
19.3. የሥራ ባለቤትነት					
1 ሠራተኞቹ የደንበኞችን ፍላጎት ያዉቃሉ					
2 ሠራተኞቹ ለደንበኞች ትኩረት ይሰጣሉ					
3. ድርጅቱና ሠራተኞቹ ለደንበኛ ትኩረት ይሰጣሉ					
4. ሠራተኞቹ ስለአገልግሎቱና ከአገልግሎቱ ጋር ለተያያዘዉ ክፍያ በቂ ማብራሪያ ይሰጣሉ፣ የቅድመ ክፍያ ሂሳብ ቆጣሪን ከግምት ውስጥ በማስገባት ይመልሱ					
5. ድርጅቱ ለሁሉም ደንበኛ አመቺ የሥራ ሰዓት አለዉ					
19.4 ተጨባጭነት					
1 . ድርጅቱ ዘመናዊ የሆነ ለሥራ የሚያስፈልገዉ የቅድመ ክፍያ ቆጣሪ ዕቃ አለዉ					
2. የድርጅቱ የሥራ እቃዎች ለእይታ የሚስቡ ናቸዉ					
3. አገልግሎት መስጫ ማዕከሉ ለደንበኞት በሚያመች ቦታ አለ					
4. የኮርፖሬሽኑ የሽያጭ ሠራተኞች አለባበሳቸዉ ጥሩና ንጽህናቸዉን የጠበቁ ናቸዉ					
19.5 በራስ መተማመን					
1 . ሠራተኞቹ የኮርፖሬሽኑን እይታ የሚያስመሰክሩ ናቸዉ					
2. ከኮርፖሬሽኑ ሠራተኞች ጋር በሚያደርጉት መገበያየት እምነት ይሰማዎታል					
3. ሠራተኞቹ ቅኖች ናቸዉ					
4. ሠራተኞቹ ደንበኞችን ለማስተናገድ ባቂ እዉቀት ስለ ቅድመ ክፍያ ቆጣሪ አላቸዉ					

20. የአገልግሎት አሠጣጥ ጥራቱን ለማሻሻል ምን ነገሮች ቢወሰዱ ይመርጣሉ?

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21. የተለየ አስተያየት ከልዎት _____
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