ASSESSMENT OF CUSTOMERS' SATISFACTION ON
ETHIOPIAN ELECTRIC POWER CORPORATION
(THE CASE OF INDUSTRIAL CUSTOMERS IN ADDIS ABABA)

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ACRONYMS

A.A-Addis Ababa
CUS- Customer management system
EELPA- Ethiopia Electric light Power Authority
EEPCo- Ethiopia Electric Power Corporation
ETB – Ethiopian Birr
E.S.Q.S.D. Electricity service Quality storage directive
FDRE- Federal Democratic Republic of Ethiopia
GWH- Giga watt hour
HRM- Human resource management
ICS- Inter connected system
KM -kilo meter.
KV- kilo voltage
MMI- Ministry of Mine and Energy
SCS – self contained system
SNNPS – southern nation nationality peoples state
SERVQUAL – Service Quality
UG- under ground
WoM- word –of- mouth
Key Terms

Active Reactive Energy Meter: - a gauge used to measure the action reaction force energy consumption in KWHR

Commercial Customer: - Commercial power user customer.(box movers) no change on the input.

Domestic Customer: - Domestic power user customers.

Energy Meter: - a gauge used to measure energy consumption in KWHR

Industrial Customer: - a huge power user customer who change the row materials to something new.

Meter reading: - an activity to register monthly difference of energy consumption in KWHR
Abstract

The objective of this study is to assess customers' satisfaction on Ethiopian Electric Power Corporation industrial customers in Addis Ababa. Considering that it will contribute a lot for the policy makers and for Ethiopian Electric Power Corporation Higher officials to oversee the treats of customer satisfaction. To conduct this study, one structured questionnaire was used for assessing the overall level of satisfaction of Industrial customers, factors determining overall level of Industrial customers' satisfaction and level of employees' commitment. The result shows, that industrial customers were satisfied in many aspects of the service provided by the corporation. Such as: proper estimation and timely inspection, Fairness of new connection cost comparing it with its service, consultation service and electrical assistance when purchasing and installing their machines and generators, selection of quality of pole, cable, meter reading activity, quality of monthly bill, workers responsiveness for complain and questions and consumption tariff. Moreover, the findings indicate that the customers' are dissatisfied by emergency maintenance service, safety of workers and appearance of the industry; because how is the pole positioned? Line extended and meter fixed? Additionally the other factors of customer dissatisfaction are the maintenance and warranty service for damaged properties, unexpected power interruption and offensive tariff of reactive meter. For this reason it's recommended that EEPCo should improve its service to satisfy its customers.
CHAPTER ONE

INTRODUCTION

This chapter shows a general introduction and background of the study area. Further, the statement of research problem, objectives, significance, limitations and delimitations of the study are addressed. Finally, organization of the paper is incorporated.

1.1 Firm’s Profile

Electric power was introduced to Ethiopia in the late 19th century, during regime of minilik. The first generator was given to minilik around the year 1898 to light the palace. In addition to the use of generator; minilik constructed the first hydro power plant on Akaki River in the year 1912. (Corporate communication, 2007).

The emperor’s high passion for electrification; in 1904 the emperor built new dam near to the first hydro electric dam /Aba samuale dam/. Additionally extend the distribution line to the current TEYET FACTORY. (Training center graduation bulletin, 2002).

After the Italian driven out from Ethiopia in 1948, an organization that had been vested with the power to administer the enemy property was evolved to an organization called showa electric power. The new organization showa with limited capacity managed to increase power supply not only in showa but also other administrative regions. (Corporate communication, 2007).

The Ethiopian Electric Power Corporation (EEPCO) is established by “Ethiopian Electric Power Corporation Establishment Regulation No. 18/1997” for an
indefinite period as of July 07, 1997. Pursuant to Regulations No. 18/1997, all rights and obligations of the former Ethiopian Electric and Light Power Authority (EEPA), established under General Notice 213/1956, have been transferred to EEPCO. The purpose of the corporation is to engage in the business of producing transmitting, distribution and selling electrical energy in accordance with economic and social development policies and priorities of the government and to carry on any other related activities that would enable it achieve its purpose. At the time of establishment, the authorized capital of the corporation was 6.1 billion birr of which 2.67 billion birr was paid up in cash and kind. (EEPCo Annual performance Report, 2008).

The reestablishment of EELPA as EEPCO requires the Corporation to operate commercially in rendering its services in a reliable and cost effective manner. EEPCO is also expected to be self-supporting financially to cover its operations and investment costs. (Ibid).

EEPCo is currently working to speed up the expansion of the power infrastructure with equitable distribution of this important resource to all regions. The corporation is paying special attention to the emerging regions. As a result, there was a remarkable success over the past two years, in the rapid and equitable distribution of power. Although some fifty years have elapsed since its establishment, current access to electricity in the country is only about 16%. With the advent of policy change from command economy to market economy, the demand for electricity has grown sharply. This situation had demanded a new approach to the electrification program and EEPCO has embarked on strategic planning process that is nearing completion. (Hidar 29 Annual magazine, 2007) Presently the corporation maintains two different power supply systems; namely, the interconnected system (ICS), which is mainly supplied from hydro power
plants, and the self-Contained System (SCS), which consists of mini-hydro power plants and a number of isolated diesel generating units that are widely spread over the country. (Annual performance, 2006).

Number of electrified towns and rural villages under EEPCO are 1043 of which 925 are within the interconnected System (ICS) and the remaining 118 within the Self-Contained System (SCS). About 16.27% of the population has access to electricity. (Ibid).

The ICS consists of 8 hydro, 13 diesels and one geothermal power plant with total installed capacity of 662.6 MW, 112.52 MW and 7.3 MW respectively. However, due to again of the plants the dependable total capacity is only 721.1MW. Over 98% of the total generation in the country comes from the ICS. The SCS consists of three small hydro plants and several diesel power plants. Generation in this system is mainly by diesel power plants having an aggregate capacity of 25.57 MW. The contribution from the small hydropower plants is only 6.15MW. (Ibid).

Currently the corporation has more than twelve thousand six hundreds permanent employees. Additionally for rural electrification and for the new high capacity power plants under contraction the corporation employed more than twenty five thousand contract employees. (Tenama amerache, 2002). The number of permanent employees and their background and service year is depicted as follows:
Table 1: Permanent Employees year wise

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>8941</td>
<td>9340</td>
<td>9801</td>
<td>10579</td>
<td>10224</td>
</tr>
<tr>
<td>Female</td>
<td>1641</td>
<td>1715</td>
<td>1924</td>
<td>2109</td>
<td>2068</td>
</tr>
<tr>
<td>Total</td>
<td>10582</td>
<td>11055</td>
<td>11725</td>
<td>16288</td>
<td>12292</td>
</tr>
</tbody>
</table>

Transmission and sup- transmission voltages in Common winding arrangements include 5/15kV, 66/15k, 132/15/kV and 132/66/15kV. In total there are 108 transmission substations.

Figure 1: Bar graph shown Total Transmission lines in year

Power distribution in both ICS and SCS is effected at a primary voltage of 32KV and 15KV lines and step down to 380V and 220V for customers' level. The line status for the last five years is stated below.

Table 2: Total KM of Distribution Line year wise

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length in Km</td>
<td>24555</td>
<td>33000</td>
<td>65518</td>
<td>75174</td>
<td>77640</td>
</tr>
</tbody>
</table>

The distribution system consists of 1, 038.2 km of 33 kV lines, 12,171.02 km of 15 kV lines, 8,894 distribution transformers and 19,017.48 km of 380/220V liens.
In the long-term, the corporation planned to participate into per interconnection with neighboring countries. The global energy crises may help to extend its interconnection beyond the neighboring countries. So, by considering the growth of local and interconnection demand the mid and long term plan has been designed to enhance the generation and transmission capacities.

Table 3: Total Number of Customers by category year wise

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>820379</td>
<td>971411</td>
<td>1207894</td>
<td>1441304</td>
<td>1576964</td>
</tr>
<tr>
<td>Commercial</td>
<td>118494</td>
<td>138403</td>
<td>167654</td>
<td>207986</td>
<td>222698</td>
</tr>
<tr>
<td>Street light</td>
<td>1739</td>
<td>2138</td>
<td>3056</td>
<td>3060</td>
<td>3260</td>
</tr>
<tr>
<td>Industrial</td>
<td>11050</td>
<td>13366</td>
<td>15799</td>
<td>23150</td>
<td>25213</td>
</tr>
<tr>
<td>Owen consumption</td>
<td>1346</td>
<td>1466</td>
<td>1689</td>
<td>1834</td>
<td>1916</td>
</tr>
<tr>
<td>Total</td>
<td>953007</td>
<td>1126785</td>
<td>1677335</td>
<td>1677335</td>
<td>1830052</td>
</tr>
</tbody>
</table>

1.2 Statement of the Research Problem

Satisfaction is the level of a person's felt state resulting from comparing a product's perceived performance (outcome) in relation to the person's expectation. Thus the satisfaction level is the difference between perceived performance and expectations. (Kotler, 1994).

Organizations are increasingly interested in retaining existing customers while targeting non-customers: measuring customer satisfaction provides an indication
of how successful the organization is at providing products and /or services to the market place.

Satisfaction /dissatisfaction are more than a reaction to the actual performance quality of a product or service. It is influenced by prior expectations regarding the level of quality. Customers form beliefs about product performance based on prior experience with the product and / or communications about the product that imply a certain level of quality. (Solomon 2003).

According to Solomon (2003), customer satisfaction is a measure of how products and services supplied by a company meet or surpass customer expectation. It is seen as a key performance indicator within business. In a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy.

In order to achieve business success; the culture of every organization should embrace the concept of service and customer care. The satisfaction of customer requirements should be the number one priority. For everyone whatever their role in the organization the concept of service should permeate through all layers of the organization. (Palline faster, 2000).

Satisfaction isn’t an easy feeling since the customers are always in question to meet their limitless needs. Recently, Customer satisfaction is the daily issues of many people and institutions. The reason is that it is being widely used on the progress for economic, business and social activities. Customers are the main actors in these activities. (Ibid).
The organization and customers should have close relationship to provide and receive service respectively. EEPCo renders numerous services to its stakeholders. Regarding the organization's function, it provides the services of new connection, power improvement, maintenance of damage, relocation of pole, meter, line and the like. The adequacy of the provision of these services shouldn't only be seen at their final out puts, but also should be seen at their process. For example, to get the service of power improvement, there are different steps (process) to reach the final service (i.e. starting from application). At each process of this and other services, transparency, accountability, appropriate handling of customers, responsiveness, and courtesy to customers must be widely and deeply applied to satisfy the customers.

As known that EEPCo is the only service provider in electric power sector of the economy. Customers have no choice to go beyond its operations and services. However, they may have an opportunity to be aware of, and compare the corporation's offerings with other international operators. Besides all efforts that EEPCo exerts in delivering quality service in order to satisfy its customers, the corporation still encountered with some visible problems those may probably affect customer satisfaction. According to the researches done by electric agency and federal ethics and anti corruption commission At each process of services, transparency, accountability, responsiveness, employee commitment and customers' negative perception of company's monopoly, are few problem areas.

Thus carrying out a research in order to determine the customer satisfaction of EEPCo's Industrial customers seems to be significant in providing insights on major issues related to service. And this in turn, will contribute to the company in achieving its goals.
By investigating the customer satisfaction, the study, intensively, attempted to answer the following major research questions:

1. What are the major factors of EEPCo's industrial customer satisfaction?
2. What is the level of overall EEPCo's industrial customer satisfaction?
3. How is the commitment of EEPCo's workers to satisfy their customers?

1.3 Research Objectives

1.3.1 General objective

The general objective of the study is to assess customer satisfaction of Ethiopian Electric Power Corporation industrial customers in Addis Ababa. To address this concern, the study has the following specific objectives:

1.3.2 Specific objectives

The study principally focuses on achieving the following specific objective:

1. To identify the factors determining overall level of Industrial customers' satisfaction.

2. To examine the overall level of satisfaction of Industrial customers at EEPCo.

3. To identify the level of employees' commitment.
1.4 Significance of the study

This study, as it evaluated customer satisfaction of Ethiopian electric power corporation's industrial customers in Addis Ababa,

First, it is useful source for those policy makers.

Second, it also insight and provokes the Ethiopian Electric Power Corporation higher officials to oversee the treats of customer satisfaction; to make decision that improves it.

Finally, it can be used for further referencing and study in relation to customer satisfaction.

1.5 Scope of the study

The study focused only in Addis Ababa, and it did not include regional industrial customers. Moreover, the study focused only the sales service activity of the organization.

1.6 Limitation of the study

There were some variables, which limited the reliability of this study. First time was the main factor in hindering the researcher to refer many relevant documents in-depth for analysis. Second, finance was another factor in limiting the sample size and techniques of the study.

1.7 Delimitation of the Study

The study covered only those customers who have legally registered for electrical service of EEPCo before March 2008 and to the sales service operations of EEPCo. Moreover the study is delimited to industrial customers who are registered to electrical services in four regions (eastern, western,
northern and southern) of Addis Ababa. EEPCo divides Addis Ababa into four
regions, and the nation into fifteen. The selection of the regions (four) for the
study was made on the basis of simplicity. The total numbers of customer include
industrial customers, domestic customers, commercial customers and straight
light customers etc. However, the study targets only industrial customers due to
their high consumption of electrical energy. (Around 70%)

1.8 Organization of the paper

The paper had five chapters. The first chapter which included firm's profile,
statement of the problem, objectives of the study, significance of the study, scope
of the study, limitation of the study, delimitation of the study and organization of
the paper. The second chapter covered literatures which were relevant on the
subject matter under study. The third chapter covered the research
methodologies followed to attain the objectives of the study. The fourth chapter
incisively presented, analyzed and interpreted the data. Finally, the fifth chapter
covered summary, conclusions and recommendations.
CHAPTER TWO

REVIEW OF LITERATURE AND RESEARCH FRAMEWORK

This chapter explores the available literature on customer satisfaction, major electric power service of EEPCo, customer loyalty, electric power service quality standards and job satisfaction.

2 Review of Literature

2.1. Customer

The word 'customer' can mean very different things. It could be referring individual consumer, user or clients, employees of the organization / service provider/. According to Johnston and Clark, (2005) customers are the individuals or groups of people, external to the organization, who is receiving services, and, internal to the organization, who is a part of the same organization but from different units or operations. This expression shows that customers are both external and internal who are providing service and receiving service respectively.

2.2. Customer satisfaction

Customer satisfaction/ dissatisfaction are determined by the overall feelings or attitude a person has about a product after it has been purchased. Consumers are in a constant process of evaluating the things they buy; as these products are integrated in to their daily consumption activities. (Solomon, 2003).

According to SNNPS customer service reform office (1996), the purpose of trying to understand customer's expectation is to try to enjoy that service can be designed and delivered in order to meet those expectations. If the operation
meets the expectations, or indeed exceeds them, then customers are satisfied with the service. If they are satisfied they are more likely to use the service again, happily, and may even recommend it to others.

McCarthy and Perrault (1990), stated that since consumer satisfaction is our objective; marketing's effectiveness must be measured by how well it satisfies consumers. Unfortunately consumer satisfaction is hard to define- and even harder to measure.

In simple terms satisfaction is the result of a customer's assessment of a service based on a comparison of their perception of service delivery with their prior expectations. (Bitnet and Rlubert, 1994)

According to Schrelder and Bower (1999), if the customer's perception of the service, the experience and the outcome matches their expectations then they should be satisfied. If their perception of the service exceeds the expectation they will be more than satisfied, even delighted. If their perceptions of the service don't meet their expectations then they may be dissatisfied, even outraged

2.3. Acting on Dissatisfaction

Solomon (2003), states that if a person is not happy with a product or service, what can be done? A consumer has three possible courses of action (more than one can be taken)

- Voice response: - the consumer can appeal directly to the retailer for redress (e.g. refund)
- Private response: - express dissatisfaction about the store or product to friends and / or boycott the store. Negative word -of- mouth (wom) can be very damaging to a store's reputation.
Third-party response: The consumer can take legal action against the merchant, register a complaint with the Better Business Bureau, or perhaps write a letter to the newspaper. (Solomon, 2003)

2.4. Service

Service is separately identifiable, intangible activities that provide want satisfaction, and that are not necessarily tied to sale of a product or another service. Services possess several unique characteristics that often have a significant impact on marketing program development. These special features of services may cause unique problems and often result in marketing mix decisions that are substantially different from those found in connection with the marketing of goods. (Peter and Donnelly, 1989).

Intangibility
Services cannot be seen, tasted, felt, heard, or smelled before purchase.

Variability
Quality of services depends on who provides them and when, where, and how.

Inseparability
Services cannot be separated from their provider.

Perishability
Services cannot be stored for later sales or use.

Source (Kotler and Armstrong 2001)

Figure 2: Service Characteristics

The intangible nature of service quality standards is reflected in the difficulty that service companies have in designing quality standards that will be readily accepted by potential customers. Customer expectations form an important
element of quality. A service that fails to meet the expectation of one customer may be considered to be of poor quality. (Solomon, 2003).

According to Adrian and Catherine (1995), quality is all about fitness for use. Such definitions are based on primarily on satisfying customer’s needs. Quality can be defined only by customer and occurs when an organization supplies goods or services to a specification that satisfies their needs. Customer satisfaction/dissatisfaction is determined by the overall feelings of attitude, a person has about a product after it has been purchased. Customers are enjoyed in a constant process of evaluating the things they buy as these products are integrated in to their daily consumption activities.

2.5. Major Electrical Service Rendered by EEPCo

According to the annual report (2007), currently, the annual electricity production capacity of the corporation is about 4781 GWH and the number of customers is about 2.1 million. The corporation has been increasing the number of customers by more than 15% annually.

EEPCo renders numerous services to its stakeholders. Regarding the organization’s function, it provides the services of new connection, power improvement, maintenance of damage, relocation of pole, meter, line and the like. (Business document, 2008).

2.5.1. Service disconnection and reconnection

This process is done by customer request or if the customers are unable to settle their arrears. Even though, it is not a preferred option from good customer communication point of view, it is a means of enforcing revenue collection. (Ibid).
2.5.2. Billing and collection

Billing is significant to both customers and EEPCO. For EEPCo it is a source of revenue for the delivered service, where as for the customer it is a cost for the service provided. The ideal model for such give and take situation is that the customer is satisfied with the service delivery and pay for accurate bill willingly. (Ibid).

2.5.3. Customer Service

According to the Annual performance report (2007), Customer Services are operational services that are given to customers based on customer requests. Customer appeals to the service centers for many reasons. Among this new connection service request, billing, information supply, appointments, customer complaints, emergency service.

2.5.4. Inspection Service

Service inspection and control process is carried out to strength the corporation revenue collection and proper service delivery to the customer. The process adds value to the customer and the corporation.

These values are the following

- To have a controlling mechanism for verifying the proper and correct functioning of installed consumption reading meters;

- To educate those customers who have been found fraudulently using electric supply in violation of the contract of supply;

- To educate and create awareness about illegal acts to those consumers who have been found tampering with meters, cables and other accessories;
• To adjust unwanted payments made mistakenly either of the corporation or the consumer.

• To have rulers, regulations and procedures for measures to be taken when electrical equipment, apparatus and appliances installed by the consumer are not in compliance with the standards and specifications as per proclamation No.213/1956. (Business document 2008).

2.5.5. New and existing customer service connection process

New connection:- is a customer service request initialized when the customer wants to get new electric power service.

Power improvement: - is a customer service request initialized when the customer wants to get additional electric power service. Due to existing power is not enough for the industry. So, upgrading of the existing power is needed.

Relocation is a customer service request initialized when the customer wants to relocate meters, poles, transformers and UG Cables due to many reasons.

Estimator is responsible to estimate the material required for the service and prepare sketch which shows right place of the industry. (Ibid).

2.5.6. Meter reading

Reading energy meter is a time consuming job and sometimes prone to mistakes. It is done in every month by visiting each customer’s energy meter of the corporations. It is very critical to have accurate and timely meter reading data for accurate bill production. It is very clear that meter reading is the cash pulse of EEPCO business. The more efficient this can be done, the greater the chance of success and customer reputation.
Meter reading is a must to undergo data processing and collection activity, which is the main source of incorrect bills and customer complain, rather than seeking of collecting customer information in a perfect and cost effective manner. (Ibid).

### 2.5.7. Emergency maintenance

According to the Business document (2008), it is a process that ensures safe service delivery of the supply system. This process includes safety consideration of employees, equipment, and customer property and power supply reliability to customer.

Proper planning of distribution network design and construction is conducted to reduce the frequent interruption and duration of the network. This will be ensured by conducting commissioning of the distribution components during and after construction. Proper documentation of the network data is a key factor for managing planned service delivery to the customer. Scheduled inspection and maintenance of the distribution network is very critical to sustainable and reliable supply for ensuring smooth operation and continuous service delivery to the customers. (Ibid).

### 2.5.8. Compliant handling

Customers may complain about the service rendered by the corporation. This helps to ensure fairness in the service delivery and give better opportunities to customers to express unfair practices. The aim is to minimize the compliant so that good relationship will be maintained with the customers and helps the corporation to improve the service delivery and to perform according to the level required by the industry.

This process takes customer request for service and compliant and make sure that the customer get what he/she expects. It entails and the interaction with the
customer, from selling the service to keep the customer satisfied by responding service requests, complaints and so forth. This process is vast and includes the following new processes.

These are: -

- Compliant handling (Bill compliant service quality compliant, power quality compliant, insurance compliant, tariff compliant)
- General service (relocation, reconnection, disconnection based on customer request)

Service queries (Name amendment, Name or contract transfer, Deposit refund and Miscellaneous) (Business document, 2008).

2.5.9. Information

The annual performance (2007), information is an important resource to execute some activities very quickly. Customers need and have the right to have access for any information regarding the service given by the corporation. There is an information channeling mechanism. Service queries are activities executed at office by referring existing customer file. It includes a service queries like name amendment, name or contract transfer, deposit refund and miscellaneous. Since these service queries have been expected to be executed at office, customer demand prompt response.

2.6. Models of Customer satisfaction

Quinn and Byron (2006), have designed a model known as “the PROMPT Model of customers’ service practice.” They believe that this model helps managers to improve the services. Kano designed a model known as “Kano Model of customer satisfaction.” This model of customer requirements directs the
product/service provider to pay attention to two dimensions and three types of customer requirement.

2.6.1. The "PROMPT" Model

Quinn and Byron (2006), have designed a model known as "the PROMPT Model of customers' service practice." They believe that this model helps managers to improve the services, which their organizations provide to their customers. Each of the components of the model has its own detail explanations indicating how to identify and satisfy customer needs and expectations.

2.6.1.1. Prioritize Customers needs

"To really satisfy your customers, you have to understand their needs. What really motivates them and how to provide for those needs?" Quinn and Byron said. This expression holds true that the customers should be initially identified and their needs should be known in order to provide their right service that can satisfy their needs (Quinn and Byron, 2006).

2.6.1.2. Reliability is crucial

Service reliability can be obtained by concerning to: design the services, recover well from service mishaps, calculate the life time value of a customer and consider service guarantees (Quinn and Byron, 2006). These ideas depict that service organization should:

1. Structure the critical activities in service delivery by avoiding the unnecessary activities to render quality services,
2. Come out of failures that make customers unhappy or dissatisfied.
3. Think and take in to account about the benefits of retaining customers for long time
4. Make customers be confident that they can get services as promised.

2.6.1.3. Organize to serve customer

Quinn and Byron (2006) said, "In order to compete in a service business environment companies need to organize to suit the customers, focus on the entire customer chain and empower front line employees."

According to them organization and management should be rearranged in a way that considers customers as determinant aspect for its survival and hence provide quality services.

2.6.1.4. Measure customer Satisfaction

As is cited by Quinn and Byron (2006), organizations should:

- "listen to the voice of the customer
- Measure their performance on customer satisfaction loyalty
- Fix service problems and processes
- Set standards for key services areas."

2.6.1.5. People must be trained

"To complete effectively, service organizations must:

Invest in training

Eliminate role ambiguity and conflict

Select employees carefully for service."
2.6.1.6. Technology must be focused

The last component of the "PROMPT" model also tells us that technology has its own role in improving the working conditions. Regarding with this aspect, Quinn and Byron (2006) said, "management can use technology strategically to:

1. Serve customers better (get and keep)
2. Personalize the service encounter
3. Sustains customers' loyalty and
4. Utilize the world wide web."

2.6.2. Kano Model

Eva chen (2009), demonstrates Kano's model that blindly fulfilling customer requirements has risk associated with it If the product/service provider is not aware that there are different types of customer requirement. Without this understanding and measurement, providers risk:

1. Providing superfluous quality
2. Wowing the customer in one area, and driving them to competitors in another
3. Focusing only on what customers say, and not what they think

This model of customer requirements directs the product/service provider to pay attention to two dimensions and three types of customer requirement.

The first dimension is need fulfillment. Measure the degree to which the customers' requirements are fulfilled. The dimensions range, naturally, from completely unfulfilled to completely fulfill.
The second dimensions are the customers' subjective response to the first dimension. It is the dependent variable of customer satisfaction. This may range from "irate" to "delighted" This model of customer satisfaction predicts that the degree of customer satisfaction is dependent upon the degree of fulfillment, but is different for different types of customer expectations.

2.6.2.1. Expected

Expected requirements are those that are so obvious to the customer that they do not state requirements overtly. They are normally very obviously essential to the customer that stating these requirements is a bit silly. When these requirements are met, the customer says nothing, and probably doesn't even notice. If these features of the services not present, the customer will complaints. Continually improving on meeting these kinds of needs will not elicit customer loyalty or delight.

2.6.2.2. Normal

Sometimes referred to as "fundamental" quality; Customers overtly state these needs and are quite cognizant of them. When these needs are met, customers are satisfied, when they are not met, customers are dissatisfied. For many types of requirements in this category, it is possible to deliver more than customer requirements and generate additional perceived benefit.

Example: Price, performance, delivery.
2.6.2.3. Delightful

Customers have needs that they are not aware of. These are referred to as "latent" needs. They are real, but not yet in the customers' awareness. If these needs are not met by a provider, there is no customer response. They are not dissatisfied, because the need is unknown to them. If a provider understands such a need and fulfills it, the customer is rapidly delighted. Some articles describe this kind of need fulfillment as having "attractive" quality. It delights and excites customers and inspires loyalty.

Source: - (Eva and Chen, 2009)

**Figure 3:** Kano’s Model of Customer Satisfaction

2.7 Service Quality

Stanton et al. (1994), one description of quality is the absence of variation. The most obvious application of variance control is in manufacturing. In fact, most
manufacturers have had quality control departments for many years. However, the title "quality control" was misleading since the job was limited to inspecting finished products to prevent defective ones from leaving the plant. But meeting specifications in production did not ensure quality if the product was poorly designed or improperly serviced after it was sold. Thus, we discovered that the real indication of quality is how well product meets the expectation of the customer.

According to Solomon (2003), quality is all important factor used by customers to evaluate the services of one organization in comparison with the offers of others. In fact, customers may judge not so much the quality of an individual service offer but the quality of the service provider.

According to Kotler and Armstrong (2001), Quality has a direct impact on product performance and hence on customer satisfaction. In its narrowest sense quality can be defined as "freedom from defects".

2.7.1 Total Quality management

The American society for quality control defines quality as the totality of features and characteristics of a product or service that bear on its ability to satisfy customer needs. It suggests that a company achieved total quality only when its products or services meet or exceed customer expectations. Thus the fundamental aim of today's total quality movement has become total consumer satisfaction. Quality begins with customer needs and ends with customer satisfaction. (Kotler and Armstrong, 2001).
2.7.2 SERVQUAL

According to Palline faster (2000), SERVQUAL model highlights the difficulties in ensuring a high quality of service for all customers in all situations. More specifically, it identifies five gaps where there may be a shortfall between expectation of service level and perception of actual service delivery.

Gap 1:- Gap between consumer Expectations and Management perception. Management may think that they know what consumers want and proceed to deliver it when in fact consumers may expect something quite different.

Gap 2:- Gap between management Perception and Service Quality Specification. Management may not set quality specifications or may not set them clearly. Alternatively, management may set clear quality specifications, but they may not be achievable.

Gap 3:- Gap between Service Quality Specifications and Service Delivery. Unforeseen problems or poor management can lead to failure of a service provider to meet service quality specifications. This may be due to human error but also to mechanical breakdown of facilitating or support goods.

Gap 4:- Gap between Service Delivery and External Communications. There may be dissatisfaction with a service because of the excessively heightened expectations developed through the service provider's communications efforts. Dissatisfaction occurs when actual delivery does not meet up to the expectations held out in a company's communications.

Gap 5:- Gap between perceived service and Expected Service. This gap occurs as a result of one or more of the previous gaps. The way in which customers perceive actual service delivery does not match up with their initial expectations.
2.8 Electric Power Service Quality Standards

The ministry of mine and energy in 2005 issued "Electric Service Quality Standards directive No 2/2005". The objective of the directive is to determine the quality standards of electricity services provided by the licensee (EEPCo).

2.8.1 Restoring a supply following a distribution system failure

When the supply to a customer is disconnected as a result of a failure of the distribution system, the licensee shall restore supply within 2 hours if the licensee is made aware of the supply interruption.

2.8.2 Giving notice of supply interruption

Where the licensee requires interrupting supply to carry out planned maintenance or other activities on the network, the licensee shall notify the customers 24 hours before the interruption is to take place.

2.8.3 Voltage problem

Where the customer requests the licensee to rectify voltage problems of his supply, the licensee shall, within 10 days, investigate and prove that there is no voltage problem or where there is a problem and the solution only requires improvement to the low voltage network, give a solution within 3 months to the problem. If however the problem concerns the high and medium voltage networks, then the licensee must solve the problem within maximum of 1 year.

2.8.4 Complaint handling

The complaints handling procedure shall include the provision that the licensee will register all complaints and respond to all complaints within 10 days.
2.8.5 Providing a new supply, improving or relocating existing supply installations

When requested to, the licensee shall provide a power supply to a new customer or improve or relocate the existing power supply 4 days for single phase and 13 days for three phases. It runs from the time that the applicant has made the necessary payment to the licensee and for areas with prior installations of low voltage single or three phase feeder lines.

2.8.6 Meter reading

Customers shall have their meter read at least once in a month.

2.8.7 Reconnection supply following payment

Where a customer has been disconnected for default in consumption bill payment the licensee reconnect the supply within 24 hours after the customer has effected payment of owed invoices and service charges.

2.9. Customer satisfaction and Job satisfaction

Kuipper and Steijn (2009), stated that customer satisfaction is closely related to individual employee’s behavior. The service delivery takes place during the contact moments between employee and customer. Employee behavior and attitude are of particular relevance with respect to customer satisfaction. With respect to this there is a considerable chance that dissatisfied employees will perform worse.

There appears some positive relation between front line service provider job satisfaction and the quality of the transaction moment in terms of customer satisfaction. This supports the idea that it is relevant to focus on HRM to influence employee’s attitude and behavior and subsequently the organizational performance. (Viney and Shauntys, 1997).
The challenge is to create a company culture such that everyone within the company aims to delight the customer. Companies seeking to win in today's markets must track their customer's expectations, perceived company performance, and customer satisfaction. For customer centered companies, customer satisfaction is both a goal and a marketing tool. Companies that achieve high customer satisfaction ratings make sure that their target market knows it. (Kotler, 1994).

Customers relate to the people they speak to or come in contact with and impression of the company is formed on that basis. Service to the customer doesn't begin or end with the quality of the product or service being sold. Customer's expectation becoming high as their preference increases and firms compete to provide a total package of sound and accurate advice before and during the selling process and a good after sale service to deal with difficulties and complaints (office of government commerce, 2001).

2.10. Customer satisfaction, retention and loyalty

Customer satisfaction is an important factor of influences in the long term success of a company. Quality management is a central process of a product management. Customer satisfaction is based on an interaction between customer's expectations concerning the product as their experience with the product. (Alian and Hans, 2007).

Acquiring customers can be expensive; usually it involves certain one-off costs. Such as: advertising, promotion.... Thus, every customer represents an investment, the level of which will vary from business to business. If they are treated correctly remain customers over a long period. There is strong evidence that they will generate more profits for the organization. In addition; the more that
is known about the customer as the relationship develops, the more offers can be tailored effectively to meet their needs. By understanding in depth what is happening to its customers and market; the company can select those opportunities which offer best prospects for long term success. (Bodmin and Cornwall, 1998).

According to Kotler (1994), the consumers’ satisfaction or dissatisfaction with the product will influence subsequent behavior. If the consumer is satisfied he or she will exhibit a higher probability of purchasing the product again and will also tend to say good things about the brand to others.

Highly satisfied customers produce several benefits for a company. Satisfied customers are less price sensitive, talk favorably about the company and its products and remain loyal for long period. However the relationship between customer satisfaction and loyalty varies greatly across industries and competitive situations. In all cases as satisfaction increases so do loyalty. In highly competitive markets, such those for automobile and personal computer, there is surprisingly little difference between the loyalties of less satisfied customers as those who are merely satisfied. However there is a tremendous difference between the loyalties of satisfied customers and completely dissatisfied Customers. Thus customer satisfaction remains an extremely important component in customer loyalty. A company will find it difficult to earn customer loyalty without first earning high levels is of customer satisfaction. (Kotler and Armstrong 2001), after all, satisfaction usually leads to a customer returning and buying more, they in turn tell other people about their experiences.
CHAPTER THREE

RESEARCH METHODOLOGY

The study used instrument of data collection, sampling and data analysis. This chapter deals with the specific steps followed while collecting data, sample selection and data analysis to accomplishing research objectives.

3.1. Research Approach

The objective of the study was to assess the customer's satisfaction of EEPCo's Industrial customers in Addis Ababa. To carry out the study, descriptive survey method was employed. This method was preferred on the ground that customer satisfaction is mainly perceived and existed situation.

3.2. Population and Sampling

The sample population for the study was Industrial customers in Addis Ababa. The total number of EEPCo's industrial customers in Ethiopia up to March 2008 was 15209. The targeted regions (Northern Addis Ababa, Western Addis Ababa, Eastern Addis Ababa and Southern Addis Ababa) maintain total population of 2048 industrial customers. These regions were selected on the basis of simplicity for accessing industrial customers. The percentage of industrial customers from these four regions covers approximately 18% of the total. Industrial customers were targeted because they use resources for further processing. The sample of customers consists of 224 respondents, 11% of the four targeted regions industrial customers. Malhotra (2005), affirms that more than 200 sample respondents are appropriate to make generalization towards the total population for the problem under study. Then distribution was made based on number of
industrial customers' proportion of the four regions and systematic random sampling is used to select 36, 61, 50 and 77 from NAAR, WAAR, EAAR and SAAR industrial customers respectively. The first industry was selected randomly from the first 10 industries of the list because $10 \times 204 = 2045$ is around the population size. Number 6 is selected from the first 10 sample. Then every 10th industry is selected 6th, 16th, 26th, 36th, 46th ... is selected from the list of customer service number. This approach is selected for its simplicity and less costly.

One hundred and fifty six questioners were filled and returned by one hundred and thirty two male customers and twenty four female customers. Forty two questionnaires cannot return and twenty six questionnaires lacked either background information or partially completed or did not have any meaningful information that can be used in the analysis.

3.3. Data Collection Instruments

Both secondary and primary sources were explored to obtain the data relevant for the study. Secondary data source include Reports, Journal articles, books, proclamation of FDRE, Ethiopian electric agency research papers, ministry of mine and energy service quality standards, strategic plan of EEPCo, reports and records of EEPCo, published and unpublished research papers, and the corporate communication publications. However, in order to gather primary data, self-administered questionnaire- directed to the industrial customers was developed and used. The questionnaire was constructed in English language. The first draft was issued arbitrarily in four regions on twenty customers for pilot testing; In order to ensure that the wording, format, and sequencing of questions were appropriate. During pilot study, respondents were provided with sufficient
space to make any further comments on the study area and additional factors that they may find relevant to determine their satisfaction with the service. Feedback from the pilot study had been used to improve questions which were ambiguous, difficult to understand, or irrelevant for Industrial customers.

In this way, the instrument is developed to be used for the final study and administered with 224 respondents by using both English and Amharic versions (Annex II & III).

Questions about EEPCo's Industrial customers' satisfaction were developed to obtain the estimation, inspection, after sale service, construction, emergency service, customer handling, communication, billing, reading, tariff, power interruption, voltage drop and over.

3.4 Data Collection Procedure

The researcher hired one field assistant for all the respective regions. All of these assistants were meter readers in EEPCo. They are familiar to the industrial customers as they had long years of experience in Addis Ababa. The assistants were briefed about the purpose of the study and discussed on each item by reading the questionnaire. Before the distribution of the questionnaire, all region chief officers were contacted to get permeation. The assistants directly contacted the customers at the regional payment offices. However, most of the individuals who visited the payment offices were not the required respondents (most of them were customers' representatives) therefore, the assistants were obliged to visit industrial customers directly in the work station. The assistants directly contacted the customers from service number regardless of type of customer as
sex, and briefed them about the questionnaire and purpose of the study and general explanation were give to them how to fill the questionnaire.

3.5 Data Analysis Approach

The data which was collected using different data collection instruments organized, tabulated and analyzed in view of the descriptive realm. The data analysis was done using percentage method. The findings was presented using data presentation tool with narrative discussions.
CHAPTER FOUR
DATA PRESENTATION, ANALYSIS AND INTERPRETATIONS

This chapter analyzes the data associated with general profile of the respondent industrial customers, electric service quality, factors of customer satisfaction, employee commitment and overall level of customer satisfaction.

4 Data Presentation, Analysis and Interpretations

4.1 Concerning estimation and inspection

Table 4: Percentage Analysis on Estimation and Inspection

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Vary Satisfied</th>
<th>%</th>
<th>Satisfied</th>
<th>%</th>
<th>Neutral</th>
<th>%</th>
<th>Dissatisfied</th>
<th>%</th>
<th>Vary dissatisfied</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How satisfied are you when comparing the service provided by EEPCo and the price which you paid for new connection?</td>
<td>33</td>
<td>21.15</td>
<td>50</td>
<td>32.05</td>
<td>12</td>
<td>7.692</td>
<td>52</td>
<td>33.33</td>
<td>9</td>
<td>5.769</td>
<td>156</td>
</tr>
<tr>
<td>2</td>
<td>How satisfied are you with service provided by the estimator? (EEPCo)</td>
<td>15</td>
<td>9.615</td>
<td>65</td>
<td>41.67</td>
<td>16</td>
<td>10.26</td>
<td>41</td>
<td>26.28</td>
<td>19</td>
<td>12.18</td>
<td>156</td>
</tr>
<tr>
<td>3</td>
<td>How satisfied are you with service provided by the inspectors?</td>
<td>27</td>
<td>17.31</td>
<td>76</td>
<td>48.72</td>
<td>9</td>
<td>5.769</td>
<td>40</td>
<td>25.64</td>
<td>4</td>
<td>2.564</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
<td>16.03</td>
<td>191</td>
<td>40.81</td>
<td>37</td>
<td>7.906</td>
<td>133</td>
<td>28.42</td>
<td>32</td>
<td>6.838</td>
<td>468</td>
</tr>
</tbody>
</table>

Source: customer satisfaction survey, (March April 2010)

With regard to new connection price; as observed on the table (4) above, about 33(21.15%) of the respondents said that they were very satisfied when
comparing the service they got with the price they paid, 50 (32.05%) of them have satisfied and 12 (7.69%) of them have no response. whereas the remaining 52(33.33%) and 9(5.76%) of them were dissatisfied and very dissatisfy respectively. From this we can infer that the majority of industrial customers (53%) are satisfied and very satisfied comparing the service with its cost. Nevertheless the majority are satisfied more than one third of the respondents are dissatisfied and very dissatisfied.

Concerning the perception of the respondent's on the service provided by the estimator about 15(9.61%), 65(41.66%) and 16(10.26%) were very satisfied, satisfied and no response respectively. However, the remaining 41(26.28%) were dissatisfied and 19(12.18%) were very dissatisfied as well. Eventhough more than half of the customers are satisfied, a significant number of customers (38%) are dissatisfied.

Around 27(17.30%) of the respondents replied that they were very satisfied, 76(48.71%) of them were satisfied and 9(5.76%) of them have no response on the service provided by the inspectors. whereas, the remaining 40(25.64%) and 4(2.57%) of them were dissatisfied and very dissatisfied respectively.

Eventhough some customers argued that the price or the cost of (pole, cable...) for the new connection service should not be covered by the customer. Because the mission of the corporation is to sale, transmit and distribute electrical energy. Therefore the cost of everything from the generation to the meter should be covered by the corporation. Like in a restaurant we pay for the food not for the serving plate (dish).Therefore from the above table we can infer that the majority 266(56.83%) of industrial customers in Addis Ababa are satisfied and very satisfied by the new connection, estimation and inspection service they got. However, the remaining 165(35.25%) are dissatisfied and very dissatisfied.
### 4.2 Concerning after sale service

**Table 5: Percentage Analysis on after sale Service**

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Vary Satisfied</th>
<th>%</th>
<th>Satisfied</th>
<th>%</th>
<th>Neutral</th>
<th>%</th>
<th>Dissatisfied</th>
<th>%</th>
<th>Vary Dissatisfied</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How satisfied are you with EEPCo Responsiveness; providing after sale service? When purchasing and installation of new machines, generators...etc</td>
<td>13</td>
<td>8.33</td>
<td>82</td>
<td>52.5</td>
<td>8</td>
<td>5.12</td>
<td>43</td>
<td>27.5</td>
<td>10</td>
<td>6.41</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>How satisfied were you to use by individuals and organizations out of EEPCo for installation of your machine and generator?</td>
<td>26</td>
<td>16.7</td>
<td>86</td>
<td>55.1</td>
<td>2</td>
<td>1.28</td>
<td>30</td>
<td>19.2</td>
<td>12</td>
<td>7.69</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>For your any electrical assistance request, how satisfied were you by the corporation service provision?</td>
<td>18</td>
<td>11.5</td>
<td>68</td>
<td>43.5</td>
<td>5</td>
<td>3.20</td>
<td>45</td>
<td>28.8</td>
<td>20</td>
<td>12.8</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>57</td>
<td>12.2</td>
<td>236</td>
<td>50.4</td>
<td>15</td>
<td>3.20</td>
<td>118</td>
<td>25.2</td>
<td>42</td>
<td>8.97</td>
<td>468</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: customer satisfaction survey, (March April 2010)

As depicted on the table (5) above, about 13(8.33%) of the respondents said that they were very satisfied by after sale service of the organization when purchasing and installation of machines, generators and the like, 82(52.56%) of them have satisfied and 8 (5.12%) of them have no response. whereas the remaining 43(27.56%) and 10(6.41%) of them were dissatisfied and very dissatisfy respectively.
Concerning the perception of the respondent’s on the service provided by individuals and organizations outside of EEPCo for installation of machines and generators about 26(16.70%), 86(55.13%) and 2(1.28%) were very satisfied, satisfied and no response respectively. However, the remaining 30(19.23%) were dissatisfied and 12(7.69%) were very dissatisfied as well.

Regarding electrical assistance around 18(11.50%) of the respondents replied that they were very satisfied, 68(43.59%) of them were satisfied and 5(3.20%) of them have no response on the service provided by the organization for their any electrical assistance. whereas, the remaining 45(28.84%) and 20(12.82%) of them were dissatisfied and very dissatisfied respectively.

Therefore from the above table we can infer that the majority (56.83%) of industrial customers in Addis Ababa are satisfied and very satisfied by the after sale service of the organization. However, the remaining (34%) are dissatisfied and very dissatisfied.
### 4.3 Concerning construction and emergency service

**Table 6: Percentage Analysis on Construction and Emergency service**

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Very Satisfied</th>
<th>%</th>
<th>Satisfied</th>
<th>%</th>
<th>Neutral</th>
<th>%</th>
<th>Dissatisfied</th>
<th>%</th>
<th>Very dissatisfied</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How satisfied are you with the length of time it takes to receive the requested service from emergency maintenance team?</td>
<td>22</td>
<td>14.1</td>
<td>40</td>
<td>25.64</td>
<td>11</td>
<td>7.05</td>
<td>59</td>
<td>37.82</td>
<td>24</td>
<td>15.38</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>How satisfied are you with the services provided by to emergency maintenance team?</td>
<td>22</td>
<td>14.1</td>
<td>54</td>
<td>34.62</td>
<td>1</td>
<td>0.64</td>
<td>44</td>
<td>28.21</td>
<td>35</td>
<td>22.44</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>How satisfied are you with the selection of quality of cable, pole and meter?</td>
<td>29</td>
<td>18.5</td>
<td>9</td>
<td>80</td>
<td>51.28</td>
<td>7</td>
<td>4.49</td>
<td>12.18</td>
<td>21</td>
<td>13.46</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>How satisfied are you when you see the pole standing, line extension and meter fixing done by EEPCo? Considering appearance of your compound</td>
<td>20</td>
<td>12.8</td>
<td>2</td>
<td>49</td>
<td>31.41</td>
<td>2</td>
<td>1.28</td>
<td>37.82</td>
<td>26</td>
<td>16.67</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Over all, how satisfied are you when you see the pole standing, line extension and meter fixing done by EEPCo? Considering safety for you and your workers.</td>
<td>15</td>
<td>9.61</td>
<td>57</td>
<td>36.54</td>
<td>3</td>
<td>1.92</td>
<td>39</td>
<td>25</td>
<td>42</td>
<td>26.92</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>108</td>
<td>13.8</td>
<td>5</td>
<td>280</td>
<td>35.9</td>
<td>24</td>
<td>3.08</td>
<td>220</td>
<td>28.21</td>
<td>148</td>
<td>18.97</td>
<td>780</td>
</tr>
</tbody>
</table>
As observed on the table (6) above, about 22(14.10%) of the respondents said that they were very satisfied when comparing the length of time taken to get the requested emergency service, 40(25.64%) of them have satisfied and 11(7.05%) of them have no response. Whereas the remaining 59(37.38%) and 24(15.82%) of them were dissatisfied and very dissatisfy respectively. This implies that the majority (53.20%) of industrial customers are dissatisfied by the time taken to maintain power failure.

In relation to the perception of the respondent's on the general service rendered by the emergency maintenance team about 22(14.1%), 54(34.61%) and 1(0.64%) were very satisfied, satisfied and no response respectively. However, the remaining 44(28.21%) were dissatisfied and 35(22.44%) were very dissatisfied as well. This implies that the majority (50.5%) of industrial customers are dissatisfied by emergency maintenance service.

With regard to the quality of materials around 29(18.59%) of the respondents replied that they were very satisfied, 80(51.28%) of them were satisfied and 7(4.49%) of them have no response on the quality of cable, pole as well as the meter. Whereas, the remaining 19(12.18%) and 21(13.46%) of them were dissatisfied and very dissatisfied respectively. This implies that the majority (69.87%) of industrial customers are satisfied by the quality of cable, pole and meter.

Pertaining to the perception of the respondent’s; considering the appearance of their compound how the pole was erected and the meter was fixed by the organization about 20(12.82%), 49(31%) and 2(1.28%) were very satisfied and no response respectively. However the remaining 59(37.82%) were dissatisfied and 26 (16.67%) were very dissatisfied well. This implies that the majority (54%)
of industrial customers are not glad because of the line extension, pole standing, and meter fixing on their compound appearance. They don’t like to see it and prefer it to be underground.

Around 15(9.61%) of the respondents replied that they were very satisfied, 57(36.53%) of them were satisfied and 3(1.92%) of them have no response considering the safety for their compound when looking how the pole was erected and the meter was fixed by the organization. whereas, the remaining 39(25%) and 42(26.92%) of them were dissatisfied and very dissatisfied respectively. This implies that the majority (51%) of industrial customers are not glad because of the line extension, pole standing, and meter fixing for their safety. From the above discussion we can infer that eventhough the corporation uses a high quality of material the construction work is not safe and attractive.
4.4 Customer handling and communication

**Table 7:** Percentage Analysis on Customer service and Communication

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Vary Satisfied</th>
<th>%</th>
<th>Satisfied %</th>
<th>%</th>
<th>Neutral %</th>
<th>%</th>
<th>Dissatisfied %</th>
<th>%</th>
<th>Vary dissatisfied %</th>
<th>%</th>
<th>Total %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How satisfied are you with the services provided by the workers of EEPCo?</td>
<td>32</td>
<td>20.5</td>
<td>95</td>
<td>60.9</td>
<td>5</td>
<td>3.21</td>
<td>14</td>
<td>8.97</td>
<td>10</td>
<td>6.41</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>How satisfied were you with the EEPCo workers responsiveness to answer your question and complain?</td>
<td>21</td>
<td>13.5</td>
<td>82</td>
<td>52.6</td>
<td>3</td>
<td>1.92</td>
<td>34</td>
<td>21.8</td>
<td>16</td>
<td>10.3</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>How satisfied were you, with your expectation and the service EEPCo provide?</td>
<td>14</td>
<td>8.97</td>
<td>72</td>
<td>46.2</td>
<td>10</td>
<td>6.41</td>
<td>29</td>
<td>18.6</td>
<td>31</td>
<td>19.9</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>How satisfied were you with EEPCo Responsiveness; providing maintenances and warranty service for the damaged property problems?</td>
<td>9</td>
<td>5.77</td>
<td>20</td>
<td>12.8</td>
<td>6</td>
<td>3.85</td>
<td>81</td>
<td>51.9</td>
<td>40</td>
<td>25.6</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>76</td>
<td>12.2</td>
<td>269</td>
<td>43.1</td>
<td>24</td>
<td>3.85</td>
<td>158</td>
<td>25.3</td>
<td>97</td>
<td>15.5</td>
<td>624</td>
<td></td>
</tr>
</tbody>
</table>

Source: customer satisfaction survey, (March April 2010)

As depicted on the table (7) above, about 32(20.51%) of the respondents said that they were very satisfied when looking the service provided by the workers of
the organization, 95(60.9%) of them have satisfied and 5(3.21%) of them have no response. Whereas the remaining 14(8.97%) and 10(6.41%) of them were dissatisfied and very dissatisfy respectively. This implies that the majority (81%) of industrial customers satisfied and very satisfied by the workers of EEPCo service provisions.

Regarding the perception of the respondent’s on the workers responsiveness to solve their question and complain about 21(13.46%), 82(52.56%) and 3(1.92%) were very satisfied, satisfied and no response respectively. However, the remaining 34(21.79%) were dissatisfied and 16(10.3%) were very dissatisfied as well. This implies that the majority (65%) of industrial customers satisfied and very satisfied by the workers of EEPCo responsiveness to solve customers' complains and questions. However (31%) of customers are dissatisfied and very dissatisfied.

Around 14(8.97%) of the respondents replied that they were very satisfied, 72(46.15%) of them were satisfied and 10(6.41%) of them have no response when comparing their expectation and the service provided by the organization. Whereas, the remaining 29(18.59%) and 31(19.9%) of them were dissatisfied and very dissatisfied respectively. This implies that the greater part (55%) of customers got the service better than their expectation. This means most of the customers expect less from the organization.

Relating to the perception of the respondent’s on the warranty and maintenance service provided by the organization for damaged property because of over voltage and voltage drop about 9(5.76%), 20(12.82%) and 6(3.85%) were very satisfied, satisfied and no response respectively. However, the remaining 81(51.92%) were dissatisfied and 40(25.6%) were very dissatisfied. This implies that the majorities (76%) of industrial customers are dissatisfied by the
maintenance and warranty service of the organization. From this we can infer that the organization’s maintenance and warranty service for damaged property is time taking, very long and cumbersome.

4.5 Concerning bill sales and meter reading

Table 8: Percentage Analysis on Bill sale and Meter reading

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Vary Satisfied</th>
<th>Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied</th>
<th>Vary dissatisfied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How satisfied are you with the meter reading programs provide by EEPCO?</td>
<td>38</td>
<td>97</td>
<td>7</td>
<td>12</td>
<td>2</td>
<td>156</td>
</tr>
<tr>
<td>2</td>
<td>How satisfied are you with the meter reader behavior and manner?</td>
<td>61</td>
<td>75</td>
<td>10</td>
<td>9</td>
<td>1</td>
<td>156</td>
</tr>
<tr>
<td>3</td>
<td>How satisfied are you, when you see your monthly bill quality? Did your monthly bill correctly reflect your consumption?</td>
<td>15</td>
<td>95</td>
<td>1</td>
<td>40</td>
<td>5</td>
<td>156</td>
</tr>
</tbody>
</table>

Source: customer satisfaction survey, (March April 2010)

As observed on the table (8) above, about 38(24.36%) of the respondents said that they were very satisfied by the organization meter reading program, 97(62.17%) of them satisfied and 7(4.48%) of them have no reply. Whereas the
remaining 12(7.69%) and 2(1.28%) of them were dissatisfied and very dissatisfy respectively. This implies that the majority (86%) of industrial customers are satisfied by the meter reading program of the organization.

Concerning the perception of the respondent's on the meter readers behavior and manner about 61(39.1%), 75(48.07%) and 10(6.41%) were very satisfied, satisfied and no response respectively. However, the remaining 9(5.76%) were dissatisfied and 1(0.46%) were very dissatisfied as well. This implies that the majority (87%) of industrial customers were satisfied by the meter readers behavior and manner.

Around 15(9.61%) of the respondents replied that they were very satisfied, 95(60.89%) of them were satisfied and 1(0.46%) of them have no response on the quality of their monthly bill and the bill correctly reflect the consumption. Whereas, the remaining 40(25.64%) and 5(3.21%) of them were dissatisfied and very dissatisfied respectively. This implies that the majority (69%) of industrial customers satisfied by the quality of their monthly bill and the bill correctly reflects their monthly consumption. However, (28%) of them were dissatisfied.
4.6 Awareness of customers on Tariff, meter type and interruption.

Table 9: Awareness of Customers on Tariff, Meter type and Interruption

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Strongly agree</th>
<th>%</th>
<th>Agree</th>
<th>%</th>
<th>Neutral</th>
<th>%</th>
<th>Disagree</th>
<th>%</th>
<th>Strongly disagree</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The consumption tariff for industrial customers is encouraging? Considering domestic and commercial customers?</td>
<td>11</td>
<td>7.0</td>
<td>5</td>
<td>89</td>
<td>57.05</td>
<td>10</td>
<td>6.41</td>
<td>42</td>
<td>26.92</td>
<td>4</td>
<td>2.5</td>
<td>156</td>
</tr>
<tr>
<td>2</td>
<td>Unlike domestic and commercial customers there is a reactive meter on you. Is it proper to be paid?</td>
<td>13</td>
<td>8.3</td>
<td>3</td>
<td>58</td>
<td>37.18</td>
<td>37</td>
<td>23.7</td>
<td>33</td>
<td>21.15</td>
<td>15</td>
<td>9.6</td>
<td>156</td>
</tr>
<tr>
<td>3</td>
<td>Do you have information when there is interruption of power?</td>
<td>10</td>
<td>6.4</td>
<td>1</td>
<td>20</td>
<td>12.82</td>
<td>4</td>
<td>2.56</td>
<td>65</td>
<td>41.67</td>
<td>57</td>
<td>36.5</td>
<td>156</td>
</tr>
<tr>
<td>4</td>
<td>Do you understand all the information on your monthly consumption bill?</td>
<td>23</td>
<td>14.7</td>
<td>94</td>
<td>60.26</td>
<td>13</td>
<td>8.33</td>
<td>18</td>
<td>11.54</td>
<td>8</td>
<td>5.1</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>57</td>
<td>9.1</td>
<td>3</td>
<td>261</td>
<td>41.83</td>
<td>64</td>
<td>10.3</td>
<td>158</td>
<td>25.32</td>
<td>84</td>
<td>13.5</td>
<td>624</td>
</tr>
</tbody>
</table>

Source: customer satisfaction survey, (March April 2010)

As depicted on the table (9) above, about 11(7.05%) of the respondents said that they strongly agreed on the payment tariff when comparing it with domestic and commercial customers, 89(57.05%) of them agreed and 10(6.41%) of them are neutral. Whereas the remaining 42(26.92%) and 4(2.56%) of them disagreed and
strongly disagreed respectively. This implies that the majority (63%) of industrial customers were agreed on the payment tariff when comparing it with domestic and commercial customers. The remaining (29%) of them disagreed on the tariff.

Regarding the perception of the respondent's on the appropriateness of the reactive meter to be paid like that about 13(8.33%), 58(37.17%) and 37(23.72%) strongly agreed, agreed and neutral respectively. However, the remaining 33(21.15%) disagreed and 15(9.61%) strongly disagreed as well. This implies that the majority (45%) of industrial customers agreed on the appropriateness reactive meter to be paid. However, the (23%) of them have no information about it. The remaining (30%) of them disagreed. From this we can infer that a number of customers have no enough information about reactive meter.

Around 10(6.41%) of the respondents replied that they strongly agreed, 20(12.82%) of them agreed and 4(2.56%) of them are neutral on the access of information when there is interruption of power. Whereas, the remaining 65(41.67%) and 57(36.54%) of them disagreed and strongly disagreed respectively. This implies that the majority (76%) of industrial customers disagreed on the access of information when there is interruption of power. However, (18%) of them have information when there is interruption of power. From this we can infer that customers have no enough information about interruption of power.

Concerning the perception of the respondent's on the understandability of all the information on monthly bill; about 23(14.70%), 94(60.25%) and 13(8.33%) strongly agreed, agreed and neutral respectively. However, the remaining 18(11.54%) disagreed and 8(5.12%) strongly disagreed as well. This implies that the majority (74%) of industrial customers understand all the information on their monthly consumption bill. However, (16%) of them didn't understand the information on their monthly consumption bill.
4.7 Percentage analysis on frequency of power failure, voltage drop and over and corruption

Table 10: Percentage Analysis on frequency of power failure, voltage drop and over and corruption

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Often</th>
<th>%</th>
<th>Sometimes</th>
<th>%</th>
<th>Rarely</th>
<th>%</th>
<th>Never</th>
<th>%</th>
<th>Don’t know</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How often do you request assistance from the emergency service? because of; breaker, meter, line... etc failure.</td>
<td>15</td>
<td>9.62</td>
<td>91</td>
<td>58.33</td>
<td>23</td>
<td>14.74</td>
<td>27</td>
<td>17.31</td>
<td>0</td>
<td>0</td>
<td>156</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>How often do you face (encounter) under voltage / voltage drop?</td>
<td>15</td>
<td>9.62</td>
<td>95</td>
<td>60.9</td>
<td>19</td>
<td>12.18</td>
<td>19</td>
<td>12.18</td>
<td>8</td>
<td>5.13</td>
<td>156</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>How often do you face (encounter) over voltage?</td>
<td>8</td>
<td>5.13</td>
<td>57</td>
<td>36.54</td>
<td>11</td>
<td>7.051</td>
<td>57</td>
<td>36.54</td>
<td>23</td>
<td>14.7</td>
<td>156</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>How often were you requested to pay improper and illegal payment for your service request (need)?</td>
<td>8</td>
<td>5.13</td>
<td>53</td>
<td>33.97</td>
<td>23</td>
<td>14.74</td>
<td>72</td>
<td>46.15</td>
<td>0</td>
<td>0</td>
<td>156</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>46</td>
<td>7.37</td>
<td>296</td>
<td>47.44</td>
<td>76</td>
<td>12.18</td>
<td>175</td>
<td>28.04</td>
<td>31</td>
<td>4.97</td>
<td>624</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: customer satisfaction survey, (March April 2010)

As observed on the table (10) above, about 15(9.61%) of the respondents said that they often request emergency maintenance, 91(58.33%) of them said some times and 23 (14.74%) of them said rarely. whereas the remaining 27(17.31%) and 0(0%) of them said never request of emergency maintenance and do not know respectively. This implies that the majorities (67%) of industrial customers come across power failure and requested emergency maintenance service. however,
(17%) of them have not come across power failure. From this we can infer that the there is poor construction work because; the source of power failure is improper and unscientific technical quality work.

Concerning the perception of the respondent’s on frequency of voltage drop (go down) about 15(9.61%), 95(60.90%) and 19(12.17%) said often, some times and rarely respectively. However, the remaining 19(12.18%) said never and 8(5.13%) said do not known as well. This implies that the majorities (70%) of industrial customers come across power drop. However, (12%) of them have not come across power drop. From this we can infer that the there is poor construction work because; the source of power failure is improper and unscientific technical quality work.

Around 8(5.18%) of the respondents replied that they said often, 57(36.54%) of them said some times and 11(7.05%) of them said rarely on frequency of over voltage. Whereas, the remaining 57(36.97%) and 23(14.70%) of them said never dissatisfied and do not known respectively. This implies that the majorities (41%) of industrial customers come across power overage. However, (36%) of them have not come across power overage. Eventhough the power overage problem is healthier than the power drop problem, we can infer that the there is poor construction work because; the source of power failure is improper and unscientific technical quality work.

Concerning the perception of the respondent’s on the request for illegal payment about 8(5.125%), 53(33.97%) and 23(14.74%) said often, some times and rarely respectively. However, the remaining 72(46.15%) said never and 0(0%) said do not known as well. This implies that the majorities (54%) of industrial customers requested illegal payment. however, (46%) of them not requested illegal payment.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis carried out, this chapter of the paper tries to summarize the findings and discussions in the conclusion. Then, the recommendation makes out potential therapy to solve the weakness of customer satisfaction.

5.1 Summary

- The majority (56.83%) of industrial customers in Addis Ababa are satisfied and very satisfied by the new connection, estimation, inspection and by the after sale service of the organization. However, the remaining (35.25%) are dissatisfied and very dissatisfied.
- Eventhough the corporation uses a high quality of material for the construction work; 51% of industrial customers are not delighted because of the line extension, pole standing, and meter fixing for their safety and their compound appearance. They don't like to see it and prefer it to be underground.
- The greater parts (53.20%) of industrial customers are dissatisfied by the emergency maintenance service and the time taken to maintain power failure.
- The majority (65%) of industrial customers satisfied and very satisfied by the workers of EEPCo responsiveness to solve customers' complains and questions and their service provisions. customers got enhanced service than their expectation.
- The majority (86%) of industrial customers are satisfied by the meter reading program of the organization and the meter readers behavior and manner.
The large number (63%) of industrial customers agreed on the encouragement of the payment tariff when comparing it with domestic and commercial customers and the appropriateness of the reactive meter to be paid. However, the (23%) of the customers have no information about active reactive meter.

Customers have no enough information about interruption of power and the majorities (74%) of industrial customers understand all the information on their monthly consumption bill. Moreover, the majorities (70%) of industrial customers come across power drop. Eventhough the power overage problem is better than the power drop problem; it is because of poor construction work.

5.2 Conclusions

From the study finding, we can conclude that:

- First, the majority of industrial customers are greatly satisfied condition in many aspects of the service provided by the corporation. Such as: proper estimation and timely inspection. Fairness of new connection cost comparing it with its service. Eventhough some customers questioned the logic behind this cost; it is one of the items which increase their extent of satisfaction. The finding shows that Customers are more satisfied because they got consultation service and electrical assistance when purchasing and installing their machines and generators. Additionally the following activities increase the extent of customer satisfaction to high level. this are selection of quality of pole, cable and other materials, meter reading activity, quality of monthly bill, workers responsiveness for complain and
questions, consumption tariff. Yet there are some factors which affects the corporation customer’s satisfaction extremely.

The major factors of EEPCo industrial customers satisfactions are proper and fair estimation, timely and proper inspection, fairness of new connection price, any electrical assistance, selection of quality of pole, cable, insulator, pin, meter, board, and other materials. The other factors of industrial customer satisfaction are meter reading program, meter readers behavior and manner. Additionally the monthly bill truly reflects the consumption; without exaggerated and unexpected amount. The organization workers are highly responsiveness for complain and questions. Even though some industrial customers questioned that, why the tariff is progressive? (The more you consume the more you pay), while we are exporters, reduce unemployment, contribute a great role for the national economy development and market balance; the majority of industrial customers are satisfied by consumption tariff.

The major factor of industrial customer’s dissatisfaction is emergency maintenance service; beginning from accessibility of the team to its faulty maintenance service. The other factors of industrial customers’ dissatisfaction considering safety of workers and appearance of the industry; how is the pole positioned? Line extended and meter fixed? Most of the customers do not like the appearance of their electricity system. They thought that they are in danger when observing how the pole positioned. Line extended. In addition, meter fixed. The finding shows that, the maintenance and warranty service for damaged properties because of over voltage and voltage drop is time taking and cumbersome. The other
factors of customer dissatisfaction are unexpected power interruption and offensive tariff of reactive meter.

Regarding to the Human Resource Management (HRM) of the customer satisfaction, as the study indicates that significant numbers of customers are satisfied on the service provided by workers. According to the customers, this was originated from good employee commitment and integration; existence of code of conduct in the organization. On the other hand, as the research findings proved that some customers complain on, workers welcoming and Work over load, improper payment and compensation leads to corruption and lacks motivation. This implies that the software part of the corporation got some problem. Therefore, the capacity of the organization is not functioning well to serve aggressively growing demands in service.

5.3 Recommendations

In light of the findings of the study to cure the situation the following possible solutions recommended:

 ✓ Most of the distributions lines constructed overhead due to cost reasons. They exposed to interruption as trees fall over and car and other accidents frequently occur to them in one way or the other. Therefore, the organization should do planned, periodical and proper maintenances service. Most of the power failure problems occurred due to absence of quality of work. To solve or minimize the emergency service problem the corporation should focus on the source of the problem. Which is the preliminary construction; line extension, pole standing, new connection,
power improvement and pole, line, transformer, cable relocation. The corporation should give these primary services with high control, inspection and commissioning; provide quality and adequate materials, recourses, well-trained human resource. Underground (without pole) work should be given emphasis. In addition the corporation should try to reduce unexpected power interruption and if it is a must, it should be revealed publicly.

✓ How the pole positioned, line extended and meter fixed? Considering safety of workers and appearance of the industry; the corporation should do computerized preliminary construction; line extension, pole standing, new connection, power improvement and pole, line, transformer, cable relocation. In this way, the organization knows and control how each pole positioned? Line extended and meter is fixed? In addition, the organization should begin consultation service on design, technique, construction, machines and generators not only for the customers but also for itself. Consultation on energy saving machines, consultation on design will controls inappropriate installation and reduce power loss....

✓ The corporation should create favorable condition for applicability of the laws, rules and regulations for the maintenance and guarantee service for damaged properties. In addition to this, the corporation should create awareness for both the employees and the customers.

✓ The finding shows that, most of industrial customers do not like the offensive tariff of reactive meter and a significant number of customers do not know about it. So, the corporation should create awareness for both
the employees and the customers about the meter; "the more the loss of power the more the penalty".

✓ In Addis Ababa generally in each month a total of (300,000) three hundred thousand customers come to pay monthly bill. Observe the effect of this on the national economy, transportation over load, fuel, time of all these customers, and load on EEPCo workers.... At the payment time to avoid the long queue for industrial customers particularly and the total customers generally, Therefore the corporation should outsource its meter reading and bill sale activities to small-scale industries or privet investors. it can give best service not only for industrial but also for the general customers.

✓ The performance of human resource management determines the success of the organization. As indicated of the study findings, the performance of HRM in customer satisfaction is very high. In order to keep the situation, the corporation should balance the workload between districts and between workers, motivate, fair and appropriate payment and compensation, in such away, that the commitment of the employee will increase.
4.7 Percentage analysis on frequency of power failure, voltage drop and over and corruption

Table 10: Percentage Analysis on frequency of power failure, voltage drop and

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Often</th>
<th>Some times</th>
<th>Rarely</th>
<th>Never</th>
<th>Don’t know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How often do you request assistance from the emergency service? because of; breaker, meter, line... etc failure.</td>
<td>15</td>
<td>91</td>
<td>58.33</td>
<td>23</td>
<td>14.74</td>
<td>156</td>
</tr>
<tr>
<td>2</td>
<td>How often do you face (encounter) under voltage / voltage drop?</td>
<td>15</td>
<td>95</td>
<td>60.9</td>
<td>19</td>
<td>12.18</td>
<td>156</td>
</tr>
<tr>
<td>3</td>
<td>How often do you face (encounter) over voltage?</td>
<td>8</td>
<td>57</td>
<td>36.54</td>
<td>11</td>
<td>7.051</td>
<td>156</td>
</tr>
<tr>
<td>4</td>
<td>How often were you requested to pay improper and illegal payment for your service request (need)?</td>
<td>8</td>
<td>53</td>
<td>33.97</td>
<td>23</td>
<td>14.74</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>46</td>
<td>296</td>
<td>47.44</td>
<td>76</td>
<td>12.18</td>
<td>624</td>
</tr>
</tbody>
</table>

Source: customer satisfaction survey, (March April 2010)

As observed on the table (10) above, about 15(9.61%) of the respondents said that they often request emergency maintenance, 91(58.33%) of them said some times and 23 (14.74%) of them said rarely. whereas the remaining 27(17.31%) and 0(0%) of them said never request of emergency maintenance and do not know respectively. This implies that the majorities (67%) of industrial customers come across power failure and requested emergency maintenance service. however,
(17%) of them have not come across power failure. From this we can infer that the there is poor construction work because; the source of power failure is improper and unscientific technical quality work.

Concerning the perception of the respondent’s on frequency of voltage drop (go down) about 15(9.61%), 95(60.90%) and 19(12.17%) said often, some times and rarely respectively. However, the remaining 19(12.18%) said never and 8(5.13%) said do not known as well. This implies that the majorities (70%) of industrial customers come across power drop. However, (12%) of them have not come across power drop. From this we can infer that the there is poor construction work because; the source of power failure is improper and unscientific technical quality work.

Around 8(5.18%) of the respondents replied that they said often, 57(36.54%) of them said some times and 11(7.05%) of them said rarely on frequency of over voltage. Whereas, the remaining 57(36.97%) and 23(14.70%) of them said never dissatisfied and do not known respectively. This implies that the majorities (41%) of industrial customers come across power overage. However, (36%) of them have not come across power overage. Eventhough the power overage problem is healthier than the power drop problem, we can infer that the there is poor construction work because; the source of power failure is improper and unscientific technical quality work.

Concerning the perception of the respondent’s on the request for illegal payment about 8(5.125%), 53(33.97%) and 23(14.74%) said often, some times and rarely respectively. However, the remaining 72(46.15%) said never and 0(0%) said do not known as well. This implies that the majorities (54%) of industrial customers requested illegal payment. however, (46%) of them not requested illegal payment.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis carried out, this chapter of the paper tries to summarize the findings and discussions in the conclusion. Then, the recommendation makes out potential therapy to solve the weakness of customer satisfaction.

5.1 Summary

- The majority (56.83%) of industrial customers in Addis Ababa are satisfied and very satisfied by the new connection, estimation, inspection and by the after sale service of the organization. However, the remaining (35.25%) are dissatisfied and very dissatisfied.
- Eventhough the corporation uses a high quality of material for the construction work; 51% of industrial customers are not delighted because of the line extension, pole standing, and meter fixing for their safety and their compound appearance. They don't like to see it and prefer it to be underground.
- The greater parts (53.20%) of industrial customers are dissatisfied by the emergency maintenance service and the time taken to maintain power failure.
- The majority (65%) of industrial customers satisfied and very satisfied by the workers of EEPCo responsiveness to solve customers' complains and questions and their service provisions. customers got enhanced service than their expectation.
- The majority (86%) of industrial customers are satisfied by the meter reading program of the organization and the meter readers behavior and manner.
• The large number (63%) of industrial customers agreed on the encouragement of the payment tariff when comparing it with domestic and commercial customers and the appropriateness of the reactive meter to be paid. However, the (23%) of the customers have no information about active reactive meter.

• Customers have no enough information about interruption of power and the majorities (74%) of industrial customers understand all the information on their monthly consumption bill. Moreover, the majorities (70%) of industrial customers come across power drop. Eventhough the power overage problem is better than the power drop problem; it is because of poor construction work.

5.2 Conclusions

From the study finding, we can conclude that:

➢ First, the majority of industrial customers are greatly satisfied condition in many aspects of the service provided by the corporation. Such as: proper estimation and timely inspection. Fairness of new connection cost comparing it with its service. Eventhough some customers questioned the logic behind this cost; it is one of the items which increase their extent of satisfaction. The finding shows that Customers are more satisfied because they got consultation service and electrical assistance when purchasing and installing their machines and generators. Additionally the following activities increase the extent of customer satisfaction to high level. this are selection of quality of pole, cable and other materials, meter reading activity, quality of monthly bill, workers responsiveness for complain and
questions, consumption tariff. Yet there are some factors which affects the corporation customer's satisfaction extremely.

- The major factors of EEPCo industrial customers satisfactions are proper and fair estimation, timely and proper inspection, fairness of new connection price, any electrical assistance, selection of quality of pole, cable, insulator, pin, meter, board, and other materials. The other factors of industrial customer satisfaction are meter reading program, meter readers behavior and manner. Additionally the monthly bill truly reflects the consumption; without exaggerated and unexpected amount. The organization workers are highly responsiveness for complain and questions. Eventhough some industrial customers questioned that, why the tariff is progressive? (The more you consume the more you pay), while we are exporters, reduce unemployment, contribute a great role for the national economy development and market balance; the majority of industrial customers are satisfied by consumption tariff.

- The major factor of industrial customer's dissatisfaction is emergency maintenance service; beginning from accessibility of the team to its faulty maintenance service. The other factors of industrial customers' dissatisfaction considering safety of workers and appearance of the industry; how is the pole positioned? Line extended and meter fixed? Most of the customers do not like the appearance of their electricity system. They thought that they are in danger when observing how the pole positioned. Line extended. In addition, meter fixed. The finding shows that, the maintenance and warranty service for damaged properties because of over voltage and voltage drop is time taking and cumbersome. The other
factors of customer dissatisfaction are unexpected power interruption and offensive tariff of reactive meter.

Regarding to the Human Resource Management (HRM) of the customer satisfaction, as the study indicates that significant numbers of customers are satisfied on the service provided by workers. According to the customers, this was originated from good employee commitment and integration; existence of code of conduct in the organization. On the other hand, as the research findings proved that some customers complain on, workers welcoming and Work over load, improper payment and compensation leads to corruption and lacks motivation. This implies that the software part of the corporation got some problem. Therefore, the capacity of the organization is not functioning well to serve aggressively growing demands in service.

5.3 Recommendations

In light of the findings of the study to cure the situation the following possible solutions recommended:

✔ Most of the distributions lines constructed overhead due to cost reasons. They exposed to interruption as trees fall over and car and other accidents frequently occur to them in one way or the other. Therefore, the organization should do planned, periodical and proper maintenances service. Most of the power failure problems occurred due to absence of quality of work. To solve or minimize the emergency service problem the corporation should focus on the source of the problem. Which is the preliminary construction; line extension, pole standing, new connection,
power improvement and pole, line, transformer, cable relocation. The corporation should give these primary services with high control, inspection and commissioning; provide quality and adequate materials, recourses, well-trained human resource. Underground (without pole) work should be given emphasis. In addition the corporation should try to reduce unexpected power interruption and if it is a must, it should be revealed publicly.

✓ How the pole positioned, line extended and meter fixed? Considering safety of workers and appearance of the industry; the corporation should do computerized preliminary construction; line extension, pole standing, new connection, power improvement and pole, line, transformer, cable relocation. In this way, the organization knows and control how each pole positioned? Line extended and meter is fixed? In addition, the organization should begin consultation service on design, technique, construction, machines and generators not only for the customers but also for itself. Consultation on energy saving machines, consultation on design will controls inappropriate installation and reduce power loss....

✓ The corporation should create favorable condition for applicability of the laws, rules and regulations for the maintenance and guarantee service for damaged properties. In addition to this, the corporation should create awareness for both the employees and the customers.

✓ The finding shows that, most of industrial customers do not like the offensive tariff of reactive meter and a significant number of customers do not know about it. So, the corporation should create awareness for both
the employees and the customers about the meter; "the more the loss of power the more the penalty".

✓ In Addis Ababa generally in each month a total of (300,000) three hundred thousand customers come to pay monthly bill. Observe the effect of this on the national economy, transportation overload, fuel, time of all these customers, and load on EEPCo workers.... At the payment time to avoid the long queue for industrial customers particularly and the total customers generally, Therefore the corporation should outsource its meter reading and bill sale activities to small-scale industries or private investors. it can give best service not only for industrial but also for the general customers.

✓ The performance of human resource management determines the success of the organization. As indicated of the study findings, the performance of HRM in customer satisfaction is very high. In order to keep the situation, the corporation should balance the workload between districts and between workers, motivate, fair and appropriate payment and compensation, in such away, that the commitment of the employee will increase.
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Annex I

Questionnaire for Industrial customers

Dear Respondent.

This questionnaire is designed to collect data about customers’ satisfaction of EEPCo Industrial customers in Addis Ababa. Its purpose is to analyze the collected data and recommend the alternative measures that can be used to improve the customer satisfaction.

Therefore, since your genuine and accurate answer to each question has a great contribution to this research outcome; you are kindly requested to give your responses to all questions honestly and sincerely.

1. **Demographic information**

Instruction 1: Encircle your choice from of each option you select.

No need to write your Name

1. sex: A Male B Female
2. Age: A 18-30 B 31-40 C 41-50 D above 50
3. marital Status: A Married B single C Divorce
5. How often do you request assistance from the emergency service because of; breaker, meter, line... etc failure.
   a. Often
   b. Some times
   c. Rarely
   d. Never
   e. Don’t know
6. To what extent did the service that you got meet the specifications on the contract/ 220V/380V?
   a. meet all of my specifications
   b. meet most of my specifications
   c. Some of my specifications
   d. meet a few of my specification
   e. Meet none of my specification

7. How often do you face (encounter) under voltage / voltage drop and over voltage?
   a. Often
   b. Some times
   c. Rarely
   d. Never
   e. Don’t know

8. Because of the above problems what do you lose?
   a. Quality of product
   b. Appearance of the product
   c. Problem to meet deadline.
   d. Misconception of customers on our organization.

9. How often do you face (encounter) under voltage / voltage drop and over voltage?
   a. Often
   b. Some times
   c. Rarely
   d. Never
   e. Don’t know

10. Because of the above problems what do you lose?
11. How do you install your machine and generator?
   a. Individual technician
   b. PLC consultant
   c. From EEPCo
   d. Yourself

12. How would you rate the overall consumption tariff for industrial customers? Considering domestic and commercial customers?
   a. Strongly agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly disagree

13. Do you know that the consumption tariff progressive. The more you consume/use the more you pay.
   a. Yes    b. No    c. Not sure

What do you think about it?

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
14. Unlike domestic and commercial customers there is a reactive meter on you. Is it proper to be paid?
   a. Strongly agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly disagree

15. What is your main concern, when you are coming to pay your monthly consumption bill?
   a. Very long queue
   b. Over exaggerated and unexpected consumption bill
   c. Unwell coming face of bill cashers.
   d. Electricity Disconnection

16. How often were you requested to pay improper and illegal payment for your service request (need?)
   a. Often
   b. Some times
   c. Rarely
   d. Never
   e. Don't know

What do you think the cause for the above question?

17. Do you have information when there is interruption of power?
<table>
<thead>
<tr>
<th></th>
<th>very satisfied</th>
<th>satisfied</th>
<th>neutral</th>
<th>dissatisfied</th>
<th>very dissatisfied</th>
</tr>
</thead>
</table>

18. Do you understand all the information on your monthly consumption bill?
   a. Strongly agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly disagree

19. How satisfied are you with the meter reading programs provided by EEPCO.

20. How satisfied are you with the meter reader behavior and manner?

21. Overall, how satisfied are you with service provided by the estimator (EEPCo)?
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>22. How satisfied are you with service provide by the inspectors?</td>
<td></td>
</tr>
<tr>
<td>23. How satisfied are you with the length of time it takes to receive the requested service from emergency maintenance team?</td>
<td></td>
</tr>
<tr>
<td>24. Overall how satisfied are you with the services provided by to emergency maintenance team?</td>
<td></td>
</tr>
<tr>
<td>25. How satisfied were you with EEPCo Responsiveness; providing maintenances and warranty service for the above problems?</td>
<td></td>
</tr>
<tr>
<td>26. How satisfied were you with EEPCo Responsiveness; providing after sale service? When purchasing and installation of machines...etc</td>
<td></td>
</tr>
<tr>
<td>27. Overall, How satisfied were you to use installation of your machine and generator by individuals and organizations out of EEPCo</td>
<td></td>
</tr>
<tr>
<td>28. For your any electrical assistance request, how satisfied were you by the corporation service provision?</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Response</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>29. How satisfied are you with the selection of quality of cable, pole and place (pole and meter) fixed.</td>
<td></td>
</tr>
<tr>
<td>30. How satisfied are you when you see the pole standing, line extension and meter fixing done by EEPCo. Considering appearance of your compound.</td>
<td></td>
</tr>
<tr>
<td>31. Over all, how satisfied are you when you see the pole standing, line extension and meter fixing done by EEPCo. Considering safety for you and your workers.</td>
<td></td>
</tr>
<tr>
<td>32. How satisfied are you when you see your monthly bill quality? Did your monthly bill correctly reflect your consumption?</td>
<td></td>
</tr>
<tr>
<td>33. Over all, how satisfied are you with the services provided by the workers of EEPCo?</td>
<td></td>
</tr>
<tr>
<td>34. How satisfied were you with the EEPCo workers responsiveness to answering your question and complain</td>
<td></td>
</tr>
<tr>
<td>35. How satisfied were you, with your expectation and the service EEPCo provide?</td>
<td></td>
</tr>
</tbody>
</table>
36. How satisfied were you, with your expectation and the service EEPCo provide?

37. What suggestions do you have for EEPCo regarding improving its service?

38. What do you think about the major problems of EEPCo in service delivery to customers...?
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is the device operating at 220V or 380V?</td>
<td>220V, 380V, Both 220V and 380V, Neither 220V nor 380V</td>
</tr>
<tr>
<td>2. Is the device operating at 1-8, 9-12, or 40-50 meters of water?</td>
<td>1-8, 9-12, 40-50, Different ranges, Unknown</td>
</tr>
<tr>
<td>3. Is the device operating at 0.18-30, 0.31-40, or 0.40-50 meters of water?</td>
<td>0.18-30, 0.31-40, 0.40-50, Different ranges, Unknown</td>
</tr>
<tr>
<td>4. Is the device operating at 1, 2, or 3 meters of water?</td>
<td>1, 2, 3, Different ranges, Unknown</td>
</tr>
<tr>
<td>5. Is the current at the pump station 220V or 380V?</td>
<td>220V, 380V, Both 220V and 380V, Neither 220V nor 380V</td>
</tr>
</tbody>
</table>

The device is operating at 220V.
7. ස්තානයෙන් ඉල්ලිම් ගනිමු?  
   a. මේ මේ  
   b. මේ මේ මේ  
   c. මේ මේ මේ  
   d. මේ මේ මේ  
   e. කොටස්කාරය කුඩාතුරමේ  
   f. හෝ හෝ හෝ  

8. භූමියේ ඉන්දු ඉල්ලිම් ගනිමු?  
   a. මේ මේ මේ  
   b. කොටස්කාරය කුඩාතුරමේ  
   c. කොටස්කාරය කුඩාතුරමේ  
   d. කොටස්කාරය කුඩාතුරමේ  
   e. කොටස්කාරය කුඩාතුරමේ  
   f. හෝ හෝ හෝ  

9. භූමියෙන් ඉල්ලිම් ගනිමු?  
   a. මේ මේ මේ  
   b. කොටස්කාරය කුඩාතුරමේ  
   c. කොටස්කාරය කුඩාතුරමේ  
   d. කොටස්කාරය කුඩාතුරමේ  
   e. කොටස්කාරය කුඩාතුරමේ  
   f. හෝ හෝ හෝ  

10. භූමියේ ඉන්දු ඉල්ලිම් ගනිමු?  
    a. මේ මේ මේ  
    b. කොටස්කාරය කුඩාතුරමේ  
    c. කොටස්කාරය කුඩාතුරමේ  
    d. කොටස්කාරය කුඩාතුරමේ  
    e. කොටස්කාරය කුඩාතුරමේ  
    f. හෝ හෝ හෝ  

11. කොටස්කාරයේ හෝ විශේෂ කුඩාතුරමේ ඉල්ලිම් ගනිමු?  
    a. මේ මේ මේ  

12. huvitab ma hooa edastikus tingimustest katkeva tema, kes olen ohutuslik. Linna- ja piirkondade riikmed /tänapäev, 2018:: muu kahjustumiskiirus:

   u. nõue hää tellimust
   l. hää tellimust
   d. sõltuvalta

13. huvitab see, et kahjustus tingimustest katkeva üha üksik videolõik: ega sõnali

   u. nõue hää tellimust
   l. hää tellimust
   d. sõltuvalta

14. miks see huvitab anda häätellimustest kahjustust? mill kahjustust mõni häätellimust?

   u. hip    l. hip    d. häätellimust

15. milte see huvitab anda tema tingimustest kahjustust? 

   u. nõue hää tellimust
   l. hää tellimust
   d. sõltuvalta
16. ይህ የጉለ የአንድ ግለም ይህ ሰራ ይህ እንጂ ይታይታል ይወስወል?:

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<th>ለ. ከአማራ ለወድ</th>
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17. የወለ ውስጥ ከር ይለሰ ለወድ ይቻላል:: የወሉ የአማራል::

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<th>ለ. ወላለ ለወድ</th>
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18. ከበር ለወድ ለወድ ዝግጅት ወለ ወለ ወለ ወለ ይቻላል:: የወሉ የአማራል::

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<th>ወ. ለወድ ለወድ</th>
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|----------|----------|----------------|----------------|

19. ያስ.አ.ለ.አ ውስጥ የአንድ ግለም ይህ ሰራ ይታይታል?
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<tbody>
<tr>
<td>20. የፋጢ ከማበላ ውፋ ከምህርት ከፋ ያህኔ የማ ከወ ዋጋ ይችላል መታታል?</td>
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<tr>
<td>21. ከእነ ተሸጆ ከማበላ የክብረት ያ. ያክ ከሸጆ ከማበላ ያласт ያን ከማ ከወ ዋጋ ይችላል መታታል?</td>
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<td>22. ይህም የሸጆ የግራ የስፋ ከማ ከወ ዋጋ ይችላል መታታል?</td>
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<tr>
<td>23. ይህም የሸጆ የግራ የስፋ ከማ ከወ ዋጋ ይችላል መታታል?</td>
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| 36. **Külgtegevused** (unterm külgtegevused)
   | [ ]

| 37. **Külgtegevused** (unterm külgtegevused) | [ ]

| 38. **Külgtegevused** (unterm külgtegevused) | [ ]

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**Annex II**

**1.8 Budget Plan/ Cost breakdown**

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<th>Quantity/ amount</th>
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Contingency allowance (5% of total) | 340.38
Total estimated budget | 7147.98

1.9 Plan activities / Work plane of the research

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Declaration

I, Abdurahman Hussan, declare that this study entitled “Assessment of Customer Satisfaction on Ethiopian Electric Power Corporation – A case of Industrial Customers in Addis Ababa” is my effort and study. This study has not been submitted for any degree /diploma in this or any other university. It is offered here in partial fulfillment of the requirements of the degree of Master of Marketing Management Education.

Abdurahman Hussan