

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



**FACTORS AFFECTING CALL CENTER
AGENTS PERFORMANCE: THE CASE OF ETHIOPIAN
ELECTRIC UTILITY (EEU)**

BY

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**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY SCHOOL OF
GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE
REQUIREMENT FOR THE DEGREE OF MASTERS OF BUSINESS
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ADDIS ABABA, ETHIOPIA

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DECLARATION

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

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St. Mary's University, Addis Ababa,

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Endorsement

This thesis entitled “factors affecting call center agent’s performance: the case of Ethiopian electric utility (EEU)’’has been submitted to St. Mary’s University, School of Graduate Studies for examination with my approval as a university advisor.

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Advisor Signature

St. Mary’s University, Addis Ababa,
FEBRUARY, 2022

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ACRONYMS / ABBREVIATIONS

ACD	Automatic Call Distributor
CC	Call Centers
CSR	Customer Service Representative
EEPCO	Ethiopian Electric Power Corporation
EEU	Ethiopian Electric Utility
ELPA	Ethiopian Electric Light and Power Authority
IVR	Interactive voice response
KPI	Key performance indicator
PABX	Private Automated Business Exchanges
SPSS	Statistical Package for Social Science
URCOT	Union Research Centre on Organization and Technology

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ABSTRACT

The study sought to assess the determinant factors affecting call center agents performance: the case of Ethiopian electric utility (EEU). For the analysis performance factors are proxy with five variables; employee related factor, system related factors, managerial related factors, customer related factors and performance measurement factor. The study adopted both descriptive and cause-effect (Experimental) research method because it is best for collecting original data as it gives a certain degree of accuracy. The population of this study was formed from EEU call center, whose total sample respondents was 200. The sample frame for the study was a list of management staff, and agents. This study applied census method. Primary data was collected by directly administering questionnaires to the respondents. Prior to launching of the study survey, a pre-testing on randomly selected 25 agents was carried out in the EEU call center. The collected data was edited and entered into the Statistical Package for the Social Sciences (SPSS) version 24 software to enable the carrying out of the analysis. Data were analyzed via descriptive and inferential statistics (regression analysis). The study revealed that the call center agents are motivation and eager to improve their performance as well as their service. The study showed that the call center was fully supported in terms of technology and processes. The study revealed that Agents have a huge trust issue with their company. Cooperatively most of the agents have poor work satisfaction. The study concludes that, the call center use one of the latest version of the industry which generate service request number that helps both the customer and the company. This study recommends that the call center needs to start reward and compensation program for the agents who performs the highest.

Keywords: *call center, service performance, factors*

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The call center industry service sector is one of the largest and fastest growing sector globally; contributing more to the global output and creating more jobs than any other sector. At present, it is not easy for organizations to satisfy their customers as customers' expectations are growing rapidly(Goyal et al, 2016).

Employees are viewed as an asset in the organization, because without them, an organization may struggle to maintain its competitiveness. Employee performance management is an organizational process that aligns the employee measures, skills, competency, development plans and delivery of results. In an organizational setting, there are different types of resources that are used to enhance the smooth operations of an organization such as human capital, money, machinery and raw materials. Out of all these resources, human capital is the only living resource that an organization has. Any organization can be able to afford the right materials or enough money or even up-to-date machinery to conduct their operations smoothly but not every organization can afford the right human capital. Human resource is a very vital asset to an organization because it helps an organization achieve its competitive edge against its competition in the same industry, “no technology can replace skilled communication, problem solving, and customer focus” (Jacobs & Roodt 2011, p. 1). For this reason, employee performance is very important to the twenty first century organizations for this will enable them compete favorably against the changing environment with other organizations.

According to Pierre & Tremblay (2011, p. 53), call center agents are the main mediators of business by means of computer-based and telephone-based technology. The computer-based and telephone-based technologies enable the fast and efficient distribution of incoming calls and/or allocation of outgoing calls to available staff, and allows for interaction between customer and call center agent along with interactive voice response (IVR). Calls are distributed automatically to agents and sophisticated telephony systems provide an infinite collection of statistics, which form the basis of call center metrics and individual work performance measures. Work performance measures that are looked at include the number of calls handled by each agent,

adherence to schedules, time taken to wrap up after calls (thus after the call center agent has finished his/her call with the customer). There is a concern that call center managers are managing productivity over service quality because of the readily available system data.

High performers play an important role for organizations success (Yamamoto, 2011). For most organizations, the high cost of recruitment and selection, possible hold-ups and productivity loss during the assimilation period, potential loss of business opportunity (Walker, 2001), poor customer relationship (Clarke, 2001), and hidden cost of lost productivity (Dee, 2005) associated with turnover have subsequently heightened the importance of retaining committed employees. High job satisfaction is also linked to performance, those employees who feel happy and content in their roles are much more likely to approach the tasks that they need to carry out with enthusiasm and dedication. Employee turnover in call centers is a significant issue for these organizations with an annual turnover reportedly ranging from 50% to 300% across industries (LeBreton, Binning, Adorno, & Melcher, 2012), a rate that is considerably higher than the total workforce monthly average of less than 2% (HR Focus, 2008).

Taylor and Bain (1999: 104) are well-known for their definition of a call center as an “assembly line in the head”, where the call center agent always works under stress and is aware the whole time that when he/she finishes the current task, another one will follow immediately. The fact that call center agents are expected to work in a controlled environment that expects of them to give up all initiative and perform all their tasks in a specific manner as set up by their managers, thus they experience low quality and “Tayloristic” principles (Gorjup, Valverde and Ryan, 2008:50-52). In order to boost the performance of call center services, there is a need to conduct a study which unlocks the determining factors affecting the performance of call centers.

1.2. Background of the organization

Ethiopian Electric Light and Power Authority (ELPA) which was founded in 1956 is the predecessor of EEPCO. In 2013 EEPCO was again split up into two companies, Ethiopian electric utility and Ethiopian power. EEU is a government owned company established to handle the distribution and service of electric energy all over Ethiopia.

EEPCO was managing all power related activities such as generation, distribution as well as end user service. However, since the formation of EEU, the power generation and power distribution

duties are splited and two autonomous organizations are established. EEU is responsible for the power distribution to customers as well as service& maintenance management. The utility has to distribute the generated power and sell electrical energy to consumers in line with the policies and priorities of the Ethiopian government. EEU employs over 18,000 people, of which 21 percent are women and more than 2.7 million customers and aims to connect 100 percent of the country to the grid by 2025 (ibid).

EEU has a call center accessed through 905. The current call center is located at Addis Ababa, paisa at head office. It operates with 80 seats and 211 agents. Call Centre 905 is free of charge and serves in four shifts for 24 hours. The researcher has attempted to use the call center service to assess the major factors that affect the performance of the EEU call center service.

1.3. Statement of the Problem

Now a day for every day to day activity we need electricity. The home appliances, the ICT industry, the school, the hospital, the financial sector, government and private organizations, the manufacturing sector, the train industry, all require electricity to operate and provide the intended service. So, there is no doubt that electricity is one of the key necessities in our day to day life (Lindeman, 2015). Therefore, customers demand uninterrupted power supply. When there is interruption, customers demand very quick resolution and they cannot wait to contact their service provider through the call center and they need good customer services from the center.

Numerous studies have shown that call centers are characterized by high-pressure and stressful work environments, highly routine work, lack of control, intensity of electronic performance monitoring, meeting of performance targets, high turnover, and absenteeism (Holman, 2003; Ocasio, Lowenstein & Nigam, 2015). The call center agents are the ambassador of the company as their performance affected it will also affect the output of the company. The good relationship between the company and the employee provide a helping hand for employees to build up awareness and understanding of being treated wrongly which in turn causes lower self-esteem and abilities (Shahzad & Rehman, 2011).

EEU rebuild its call center in 2011 E.C with new technologies in order to make more user friendly for the customers. All the employees are fresh electrical engineer graduates who start

work for the first time. The working environment is most of the time not arranged according to the ergonomic principle of the company such as: the equipment's designed to reduce worker discomfort, working principles, and so on. (The Ethiopian Herald, 2017; AllAfrica.com, 2017). There are many unsafe conditions which make the call center employees stressed and unsafe. Among these, the monitoring mechanism which is aided by system which means every conversation is recorded for evaluation and their movement is limited due to time limitation and work ethics of the call center. The job itself is monotonous and is repetitive which doesn't require any skill that results in a question of why they have graduated since they don't use their theoretical and practical knowledge. The career path is not clear as how many years must an employee work there, in the case of promotion there is high rate of corruption so and there is little chance of promotion.

The job itself has created health problem on employees' ear, throat, headache, eye and spinal cord pain as a result of long hours of work, in addition to this as we all know COVID 19 is killing a lot of peoples in our country too and it need social distance but in the call center more than 60 agents work in one room at a time and also one equipment is shared by four agents in a day which really make the agents unsafe. The shift schedule has also created social problems which also forced agents to work at night. The employees' daily performance is measured using a key performance indicator (KPI) like their working time, taking duration, ideal time and productivity in general. As we know most of EEU customers are dissatisfied about the service of the organization, some peoples use improper words. These conditions lead to develop job stress, job dissatisfaction, became careless and which results in low performance rate, the annual yearly report of EEU call center performance was 56 % as compared to that of 80% which set by the company.

Several studies on the subject of call centers have been conducted all over the world, research based on a lack in job control, performance monitoring, emotional labor and a lack in team leader support all lead to job stress including depression and even burnout (Bakker, Demerouti & Schaufeli, 2003). Also, social support, coaching and adequate performance feedback can lead to involved and committed employees (Bakker et al., 2003). But just a few unpublished studies on Ethiopian call centers were discovered by the researcher. However, not all of them explicitly address the researcher's subject. A study by Muez (2018) assessed the factors affecting incoming calls at 905 call center (EEU call center) mainly on employee perspective. However,

researcher doesn't consider what affects the performance of the call center service. Another study was made by ALFIA (2019) to determine the effect of contact center on customer satisfaction in Ethio telecom enterprise call center. Similarly, the researcher only concerned about the effect of customer satisfaction. Another study made by Tesfaye (2015) was focused on the impact of job stress on turnover intentions and found out that there was high job stress and turn over in Ethio telecom call center. Tesfaye's (2015) research did not address factors that affect the performance of the call center and made specifically for Ethio telecom call center. Therefore; the researcher was interested in this topic to bridge the current gap on the area by assessing the determinant factors that affect the performance of Ethiopian Electric Utility call center service.

1.4 Research Question

The study attempts to answers the following research questions

1. How does employee related factors affect the performance of EEU call center service?
2. How system related factors affect the performance of EEU call center service?
3. To what extent does the working environment affect the performance of EEU call center service?
4. Do customer perception related factors have an effect the performance of EEU call center service?
5. In what way does managerial related factor influence the performance of EEU call center service?
6. In which way the performance measuring factors affect the performance of EEU call center service?

1.5 Objectives of the Study

1.5.1 General objective

The general objective of this research is to determine the factors that affect the call center agent's performance at Ethiopian Electric Utility.

1.5.2 Specific objectives

The specific objectives of this research are to:

1. To test the effect of the agents on the performance of EEU call center service.
2. To determine how the system related factors affect the performance of EEU call center service
3. To examine the effect of working environment on the performance EEU call center service?
4. To investigate the effect of customer's perception on the performance of EEU call center service
5. To examine the effect of management style on the performance of EEU call center service
6. To determine how performance measurement system influence the performance of EEU call center service

1.6. Scope and limitation of the study

1.6.1 Scope of the Study

To fulfill the intended purpose of the research, a number of delimitations have been made that reinforce and facilitate the investigation. The researchers gather different sources from different authors about the factors that affect the performance of call center service. The study is conducted in one organization called Ethiopian Electric Utility (EEU) located in Addis Ababa, Ethiopia. The utility has a centralized national call center located in Addis Ababa, at paisa area, and the study mainly focused on this center. The study considered all 227 agents of EEU call center and 12 supervisors and the department managers interviewed. Both primary and secondary data collected were used. Primary data were gathered via structured questionnaire and interview.

1.6.2 Limitations of the Study

There are certain drawbacks to the research. The scope of this study was limited to the EEU call center due to cost and time constraints. As a result, extrapolating the results to other organizations could be difficult. A similar analysis on other call centers may be conducted by other researchers.

1.7. Significance of the Study

The significance of the study was attempted to provide contextual contribution to the current body of knowledge in the practices of call center services by assessing the determinant factor that affect the performance of the call center agent's service in EEU. This research will help top managers of call center to take decision about the current performance problems. The study can also serve as additional reference for future researchers on the role of call center service, especially, for those who are interested in Ethiopian situation.

1.8. Definition of key terms

- **Call center-** a place where calls are placed in a high volume for the purpose of sales, marketing, customer's service, telemarketing, technical support or other specialized business activity calls (Lola, 2016).
- **Call Centre Agent** - a call center employee, also referred to as a Customer Service Representative (CSR) which are the participants of this study,
- **Quotas** – a goal being set by the management for the call center agents to achieve its daily, weekly or monthly goal.
- **Call Monitoring** - is the practice of listening to, recording and assessing interactions between call center agents and callers. This practice is generally used for staff training and development, customer quality control and liability protection.
- **Speed Service Level** - measures the average speed of answer of an agent's performance.
- **Level of Performance** - it is measures the extent level of outbound call center agent's performance.
- **Level of Factors** – It measures the extent level of factors affecting the performance of outbound call centers
- **905:** is a number through which customers call and access EEU call center.

1.9. Organization of the Study

The research thesis is organized into five chapters. Chapter one provides a general introduction of the research, including background of the study, statement of the problem, research questions, objective (general and specific objectives) of the study, scope and limitations of the study,

significance of the study and definition of key terms. Chapter Two presents literature review and discusses the different subtopics related issues in the study topic. In the third chapter; types and design of the research, source of data, data collection method, reliability and validity test, method of data analysis, and ethical considerations were discussed. In the fourth chapter, data presentation, results and discussion were included. The last chapter, chapter five includes conclusion, recommendations and directions for further study. References and appendices are appended at the end of the last chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Literature

In theoretical review part how the concept are defined by different authors and what the relevant variables functions, importance, advantage and limitation related to the variables will be discussed.

2.1.1 Concept Briefing

2.1.1.1 The Call Centre, Its Evolution and Prospects: An Overview

In its research report on call centers, the Union Research Centre on Organization and Technology (URCOT) of Royal Melbourne Institute of Technology (2000:1) adopted the definition of the call center as an operation that uses telephone and computer technology to deliver services to customers. The report primarily emphasized inbound or outbound telephone traffic handled by call center employees.

Call center is an office staffed and equipped to handle large numbers of telephone calls, using computer technology to assist in the management of calls, supply of information, etc. especially such an office providing the centralized customer contact and customer service functions of a large organization.

According to a UK magazine called helper, call centers as we know them today originate from the Automatic Call Distributor developed in 1973 by US firm Rockwell (the Rockwell Galaxy) to allow Continental Airlines to run a telephone booking system. As it turns out, this was all good marketing baloney. Rockwell did indeed develop their ACD (Automatic Call Distributor) in 1973 and it was installed that year. But it certainly was not the first. Rockwell's claim to the first ACD installation may be inaccurate, but they were certainly amongst the first and most successful manufacturers. The basic features of the modern call center can be recognized almost ten years before this, in the mid-1960s. Private Automated Business Exchanges (PABX) began to be used to handle large numbers of customer contacts.

The invention of ACD technology made the concept of a call center possible. That computer technology is the Automatic Call Distributor, and its development is closely linked to that of the call center. ACD systems allow calls to be filtered and assigned to the best possible agents

available at the time. An algorithm determines which agent receives which call. The invention of ACD technology made the concept of a call center possible. Essentially it replaced the human operator with a far more flexible automated system capable of handling much greater numbers of calls. The first ACD systems would probably have emerged in the 1950s to handle central operator enquiries at the main telephone companies.

In May 1972, the New Scientist magazine reported that Barclaycard had installed a Plessey PABX at its Northampton processing center. This included an ACD to allow up to 72 enquiries to be dealt in cyclic order. The agents on this system were able to check the credit card records of Barclaycard 1.6 million customers via a microfiche reference system. In the 1990s the call center industry continued to grow, spurred on by the rise of the internet. From 1995 onwards internet-based “dot com” companies attracted vast amounts of investment from venture capitalists excited by the potential for rapid growth offered by the online economy.

The call center has now been an invaluable business facility for three decades. With the recent rise of social media and technology that may allow call centers to become virtual networks. The early 2000s saw a trend for large companies to transfer customer service departments overseas. Cheaper labor costs and in some cases better skills in the workforce made offshore call centers attractive to businesses seeking to cut costs. Locations in India, the Philippines and South Africa aggressively marketed themselves as offshore call center destinations. India was particularly popular, as a large number of graduates available for call center work made for cheaper and technically able agents for technical support phone lines.

2.1.1.2 Roles of contact center

A call center is traditionally defined as a physical location where calls are placed or received in high volume for the purpose of sales, marketing, customer service, telemarketing, technical support, or other specialized business activity (Dawson, 1999). It is a complex environment that must effectively combine knowledge, technology, and workflow to provide quality customer service.

The functions or roles that call centers provide are varied. Multiple functions are blended into one office and according to a United Kingdom call center study (Babel, 2004), call centers may offer a wide range of services ranging from customer queries, telesales, marketing and information services, to reservations and balance enquiries. Call centers can be categorized in

several dimensions in all sectors of business, for example banking, insurance and health care; have become an important part of the global economy.

Most major businesses use call centers to interact with their customers. Examples include utility companies, mail order catalogue firms, and customer support for computer hardware and software. Some businesses even service internal functions through call centers. Examples of this include help desks and sales support. Starting with the minimum requirement of using telephones, call Centre activities may extend to include the use of the Internet in the era of technological advancement primarily through the use of e-mail and VoIP (Lola, 2016).

2.1.1.3 Development of Ethiopia Electric Utility Call Center

Ethiopian Electric Light and Power Authority (ELPA) which was founded in 1956 is the predecessor of EEPCO. In 2013 EEPCO was again split up into two companies, Ethiopian electric utility and Ethiopian power. EEU is a government owned company established to handle the distribution, service & maintenance management of electric energy all over Ethiopia.

Rapid population growth in Ethiopia has strained government efforts to expand access to electricity, especially in rural regions. While the country's grid covers 80 percent of the population, only 44 percent of urban and 31 percent of rural Ethiopians have access to electricity. The government adopted a National Electrification Program in 2017 with the goal of achieving universal access to electricity by 2025.

As the researcher was not able to access EEU website at different times, information from key informants and EEU's social media account is used here. The first EEU call center was located at Addis Ababa, Jemmo area through 905. It was operates with 50 seats and 159 agents with two shifts during the day and evening time. Current EEU rebuild in 2011 E.C and also accessed through 905 and the current call center is located at Addis Ababa, paisa at head office. It operates with 80 seats and 211 agents in four shifts for 24 hours.

2.2. Factors affecting the performance of call centers

There are several factors that affect the performance of the call center service. This study describes five main factors. These are employee related factor that directly affect the performance of the center, as employees are the center's primary resource. The other is system related factor that directly affects the performance of the center. Without system the center

cannot do anything. And the third is managerial related factor that has indirectly impact on the performance of the center because it has direct effect on the employees. The fourth factor is customer related factor, which is designed to serve customers and therefore has an indirect impact on call center performance. And the last factor is the performance measurement related factor that directly affects performance. Without a clear performance measurement, it is difficult to judge the performance of the center. All of the main factors above are explained in detail below.

2.2.1. Employee related factors

Employee satisfaction indicates overall that influencing the working conditions, capabilities and working atmosphere of the employees may influence their responsiveness for customers. (Kantsperger & Kunz, 2005).

According to Terhi, (2013), Agent related factors that have been found to have an impact on customer satisfaction are: Employee satisfaction, Employee mood, Performance monitoring & feedback, Efficiency demands on call center work, Employee-job fit, HR management issues: recognition; rewarding and Managerial attitudes.

Performance monitoring and feedback refers to the communication for feedback and monitoring purposes and conducting observation as it is described by Dean and Rainnie (2009). In addition; Raz & Blank (2007) used covert monitoring of calls by management as one factor in their research. By it they refer to the typical contact center practice of inspecting calls and giving feedback to the employees for their conclusion which indicates Performance monitoring

According to Rothbard & Wilk (2011), the willingness, politeness and friendliness of agents can be retrieved from their mood so Agents mood in work is found to influence performance of the center. Regarding the third highest factor in Dean and Rainnies (2009) list, the efficiency demands on call center work, they state that it is linked with workload, time pressures and the conflict between productivity demands and service quality. More specifically, their research indicates that the agents become less able to handle interactions with customers due to the negative influence of the pressure of obeying key performance indicators and efficiency demands have negative influence on the level of service quality and performance.

The employee-job fit is about the ability of employees in solving problems and acting positively in all situations on his/her job. Also, it encompasses feelings about his/her job, or in simple words, whether he/she likes it or not Terhi, (2013).

i. Job Stress

Job stress results from a combination of high levels of workload demands, and low levels of autonomy and control over the job. A stress relationship exists when demand exceed an individual's resources. (Khoury (2009) provides a definition of stress based on a review of other definitions as "a perceived dynamic state involving uncertainty about something important." The dynamic state can be related to demands, opportunities or constraints. Constraints are the forces that prevent individuals from doing what they desire and demands refer to the loss of something desired, thus impacting on their effectiveness. However, for potential stress to become actual stress, individuals must feel that outcomes are important and uncertain. Stress is highest for those who perceive that there is doubt about the outcomes they seek to achieve and when the outcomes are considered important to them. Several authors point out that stress level is determined by an individual's perception of the situation rather than the situation itself (Khoury, 2009). It is contended that stressful work conditions are associated with employee tardiness, increased absenteeism, lower productivity, high labor turnover, and thus a waste of the investment made in their training and the cost of training new employees to replace those who quit. Moreover, more sick days will be claimed, more depression will result and the possibility of hurting ones-self and others will increase.

ii. Causes of Job Stress

A. Call monitoring

Call monitoring is continuous ongoing process in call centers, while talking to various employees during the survey we found, organizations think of it as a tool of quality control, they believe unless they adopt such techniques they will not be able to improve the quality of calls and ensure satisfaction of customers/clients. Advocates of call monitoring say, it enables the organization to monitor and improve employee performance, reduce costs and ensure customer satisfaction (Chalykoff & Kochan, 1989), while at the same time employees regard it as an exploitation and distrust. Employees believe that their organizations don't trust them, such practices lead to loss of privacy and employees believe their organizations want to keep track of all what and how they do at their work place so as to eliminate any kind of

rest given to them during the work. Monitoring is also considered to intensify employees' workload and increase the level of work demands. The threat of monitoring and the high level of demand are thought to impact employee well-being negatively. The primary disadvantage of employee monitoring is that it tends to increase stress levels. When employees are aware that they're being watched or listened to, they might become more conscious of their behavior. Employees might also feel pressured to behave in certain ways or perform according to a particular supervisor's standards

In call centers, performance monitoring occurs through the continuous electronic monitoring of quantitative performance indicators such as length of call, number of calls, and amount of time logged on and off the system. In addition, a call can be listened to or recorded remotely (with or without the employees knowledge) in order to assess its quality. Performance monitoring is thus a highly prominent and pervasive feature of everyday life in call centers. It is evident from the various research findings that call monitoring creates stress among employees.

B. Time Pressure

Study conducted by Meera (2011) on various Call Centers (CC) of Dehradun found irregular sleeping / working hours, time pressure, high call volume and low job security as the main stressors found among CC employees and respondents believe that their 50-75% productivity decreases due to these stressors.

Call center jobs are characterized by high degree of computerization and standardization of work. Because of these features, this type of work usually depicted as an unskilled work with high time pressure and de-humanization of work (Russell, 2002). Ensuring a low response time; continually improving the quantity and quality of customer services; reduction of cost, are key strategic objectives of call centers, but detrimental to the physical and psychological health of the employees working in call centers. There are evidences from the research that high time pressure is a source of stress for call center employees.

Study conducted by David and Sue (2000) reveals CSR's were under pressure to finish a call within a specified time. They were also required to follow a script, which limits their ability to vary the way in which they could talk to customers and these situations make the call center job stressful and CSRs dissatisfied with their job.

C. Work Overload

Call centers in general have a reputation of experiencing high call volumes, which often turn out to be higher than what the CSR's can manage and expect, which creates stress among them. This aspect of job stress experienced by call center employees is studied by some researchers. Study conducted by Meera (2011) on various call centers of Dehradun found irregular sleeping / working hours, time pressure and high call volume as the main stressors found among CCs employees and respondents believe that their 50-75% productivity decreases due to these stressors.

A study conducted by L. A. Witt, 2003 the authors examined the relationship of the interaction between emotional exhaustion and conscientiousness with objectively-measured call volume performance and subjectively-measured service quality ratings among 92 call center customer service representatives (CSRs) of a financial services institution. Results supported the interactive effects on call volume but not service quality. Specifically, the relationship between emotional exhaustion and call volume was stronger among high- than low-conscientiousness CSRs. Among CSRs reporting low levels of emotional exhaustion, those high in conscientiousness achieved higher call volumes than those low in conscientiousness. In contrast, among CSRs reporting high levels of emotional exhaustion, those high in conscientiousness achieved lower call volumes than those low in conscientiousness.

2.2.2. Customer perception related factors

Customer perception related factors that have been found to have an impact on customer satisfaction, the customer orientation behavior of anticipating customer requests necessitates the agent to utilize both empathy and knowledge. Anticipating customer requests means the ability of the agent on the prevention of customer needs and wants and provides him/her with the answer before the customer having to explicitly ask for it (Rafaeli et al. 2008)

The findings of all the parties that the researcher reviewed indicates that customer's satisfaction will be better due to the customer's perception to be served by their first call to the contact center when there is a high level of one call resolution. Additionally, prompt efficient service is appreciated by callers according the findings of Bennington et al. (2000).

Rafaeli et al.'s (2008) supported the relevance of the factors of agent demeanor for customer satisfaction. The politeness and friendliness of the contact center agent is agent demeanor as it is

defined by Boardman Liu (2010). Also, the research of Bennington et al. (2000) gives further support by the findings that providing emotional support has a positive effect on contact center assurance. This is because customer satisfaction is likely to be higher when a contact center agent show understanding and care and when the calling situation includes respect and mutual trust as well as open and effective communication.

According to Boardman Liu's (2010), Agent know-how is related to customer orientation behaviors of educating the customer and offering explanations and justifications. The expectation is that when customers feel they receive good and accurate information they feel more satisfied. This would mean that when a contact center has more knowledgeable agents, the higher the level of contact center assurance is likely to be (Terhi, 2013).

Furthermore, Terhi, (2013) found that the deviation of the estimation of customers on the length of their queuing time affects their satisfaction by affecting their trust on the contact center which can be defined as contact center assurance and the shorter queuing times lead to higher satisfaction than longer queuing times. Their study indicates that the length of queuing time have an effect on customer satisfaction and also in the performance of the agents.

2.2.3. Managerial related factors

This factor deals with the individual that rates the employees, and the sub-factors are knowledge of the employee's job, objectivity, commitment, experience, people skills, quality of feedback and whether the person has been officially trained.

HR practices vary considerably across call centers depending on the relative importance that is given to the quantitative and the qualitative criteria of calls (Taylor, Hyman, Mulvey & Bain, 2002; Holman, 2005; Holman et al., 2009). These two important calls criteria have been used to explain HR management variation in call centers (Taylor et al., 2002) but, as mentioned by Kinnie et al., (2000) most call centers present a mixture of HR practices designed to maximize employee involvement and to control employee behavior.

When call centers' priority is the quantity of calls (Taylor et al., 2002), in order to maximize volume, call centers deliver standardized services through short, standardized interactions with the clients, which, in turn, lead to the simplification of work process. Jobs tend to be narrow and well defined, with low skill requirements, low autonomy and very well

defined procedures. To assure employee compliance with the specified rules and procedures, management tends to implement HR control practices (Lepak et al., 2006; Holman, 2005)

Among the most common HR control practices in call centers, performance monitoring have been studied as HR practices designed to detect misconducts and ensure employee compliance to desired behaviors (Ball, 2010, Frenkel et al., 1998; Kinnie et al., 2000). There are two types of performance monitoring: the electronic and the traditional performance monitoring. Electronic performance monitoring involves the continuous computerized collection and analysis of quantitative indicators of calls, such as number of calls, call length, call volumes, sales; and the traditional form involves observation, listening to calls and work sampling (Holman, 2005). Traditional monitoring is usually performed to assess quality of interaction, such as accuracy of information, helpfulness, script adherence, sympathy and professional tone (Holman, 2005).

A managerial attitude is about the general attitudes of managers in contact centers experienced by the employees. This includes issues such as negative comments and lack of support or denying employees the opportunity the influence decisions affecting them or daily not giving the employees sufficient time to prepare for calls. This is thus a measure of how supported the agents feel by their managers (Dean and Rainnie, 2009).

According to Dean & Rainnie (2009) human-resource management issues include recognition, rewards and incentives as well as issues like training and shift times affects the agents ability to serve also it is touched upon by others as well. For example, DeNucci (2011) recognizes training with ongoing refreshers as one of the four important factors for call center management. Raz & Blank (2007) include employees' views about a bonus system and pre-shift debriefing as two of the factors used to study service quality and efficiency of contact centers

2.2.4. System related factors

System factors are the factors related to how the performance appraisal process works and is administered. This includes the way that the performance appraisals are benchmarked, how committed the rater is to the appraisal system, what the skills are of the rater to identify where there might be gaps pertaining to the particular call center employee. From the system process related factors found by Terhi, (2013), the system process related factors that are chosen for the study are: Queuing time, Average speed of answering a call, Average work time after call, Service levels, and the system by itself and Abandonment rate.

Contact center service level is an often measured variable among contact centers. It is indicated in Feinberg et al. (2000) the definition of service levels as the number of calls answered in less than a certain predefined number of seconds divided by the number of total calls. Also; they can prove that the higher service level lead to high level of call center responsiveness. They further state that the effectiveness on achieving calls answer goals are measured by service levels. Service level is also one of the variables identified as important in the panel study of Boardman Liu (2010).

According to Feinberg et al. (2000), Average time in queue is the total time callers wait in call queues before an agent responds divided by the total number of calls answered by agents. Companies can reduce the average time in queue by adequately staffing their call center, ensuring that more agents are working during high volume call times and providing their agents effective tools to serve callers waiting in a queue in a timely manner.

According to Feinberg et al. (2000), Average speed of answer is the average time it takes for the call to be picked up by the call centers ACD (Automatic Call Distributor). Average speed of answer can be decreased by how the company uses its contact center software ACD (Automatic Call Distributor) effectively and efficiently to insure the utilization of companies contact center softer. Moreover, the use of up to date algorithm used to route calls to the appropriate agent is an important step to reduce the average speed of answer by the contact center. Additionally, the study by Feinberg et al. (2000) suggested that, when the average speed of answer decreases the satisfaction of the caller become higher. According to Feinberg et al. (2000), Average after call work time is the time that an agent uses to complete a transaction after the caller has severed. Additionally; their research indicates that as due to different reason the system by itself lag some times. Due to this problem the performance of the agents will be affected too.

2.2.5. Performance Measurement related Factors

The performance measurement factors are the factors related to the performance of the employees being appraised, and how these are measured from a company perspective. The fact is that the rater needs to be focused on people orientation, people orientation being the ability to be open and attentive to people within the company, another critical aspect to this theme is that the performance measurements should be obtainable, and whether they are clear, does the performance management system work in terms of being effective. Other aspects that need to be

addressed are the training that the rater gets to conduct these performance appraisals, and where the link comes in between the expectations and the execution of the performance goals. Jacobs, C., & Roodt, G. (2011)

Performance monitoring and feedback refers to the communication for feedback and monitoring purposes and conducting observation as it is described by Dean and Rainnie (2009). In addition; Raz & Blank (2007) used covert monitoring of calls by management as one factor in their research. By it they refer to the typical contact center practice of inspecting calls and giving feedback to the employees for their conclusion which indicates Performance monitoring

i. Training and development

Training and development provide opportunities for employees to develop in their career (Van Dyk & Coetzee, 2012, p. 2). It has a positive psychological effect to employees since they might perceive that the organization value them and in turn they will remain committed to the organization. Döckel et al., (2006, p. 22) stated that employees will stay in the organization that provides an opportunity to grow by training and developing them and thus, applying their acquired skills and knowledge. Furthermore, companies that provide training and development opportunities to their employees may have a psychological influence on them. Training equips employees with the skills and knowledge that are required to perform their work effectively, hence employees become satisfied with their work because they know what they are doing (Armache, 2014, p. 91). Call center work is associated with minor room for progression and individual growth as vocational development is infrequent in such institutions (Coetzee & Harry 2015, p. 82). The Lack of growth and continuous development result to boredom and to employee intentions to seek alternative employment elsewhere (Harry, 2011, p. 81-92).

Generally; the empirical literature review showed that there are plenty of researches made internationally on call center area in which the presented findings of the studies that have been conducted by the reviewed researches differ from that of Ethiopia where it is difficult to find different published researches on this context. This section identified factors that influence the performance of call center based on the prior researches which consists of the factors found relevant in different studies. Therefore, the researcher try to summarize the reviewed literatures and found that, most of the influential factors are relay on the system related factors, employee

related factors, managerial related factors, and customer related factors and performance measurement related factors

2.3. Empirical Review

2.3.1. International Trends in Call Centers

D'Alleo and Santangelo (2011) the aim of study is to test the relationship between dimensions of organizational climate and the burnout syndrome in call center companies in order to verify if and how the organizational climate may put the individual at burnout. Surveyed 114 call center operators in Italy focusing on “organizational climate and burnout”. Among the findings is that 24% of the call center operators said they experience high exhaustion at the end of the working day and they feel excessively fatigued to work for the next day. 62% responded as the communication with their management is sufficient and information is delivered to them on time. More than half of the employees do not have desire for the work and they consider it less challenging work. 80% of the operators are happy dealing with customers.

A research carried out by Clark in 2014 conduct a study on the factor that affects customer satisfaction and quality of service. The study found that customers are demanding shorter on hold over the phone while contacting call center and also organization should be aware that customers tend to speak more about their negative experiences than positive ones so due to this organization needs to focus on their quality of their customer service and satisfaction. Where 1000 respondents took part showed that for complex requests such as asking for maintenance service, 37% customers chose to speak with call center employee, 19% prefer to speak face to face and 17% said they chose to contact via website or email. However; the interest of consumers to talk to employees face to face has highly decreased. The same survey also indicated that 26% of respondents in 2011, 32% in 2012 and 38% in 2014 responded as organizations are giving lower and lower focus to good customer service. In addition, 33% of customers consider that quick response to enquiries is the most vital feature of a great customer service employee. When call center employees respond quickly, they tend to handle several calls and this helps call center accessibility and reduces number of attempts. Whereas 29% said that customer service employee should handle enquiries without transferring to others.

A study carried out by Doane and Sloat (2003) which focus on the activities for achieving excellent customer service. The study states that a customer who wanted to purchase two quilts waited on call center queue for 25 minutes and heard the menu for five times with no one answering his call. The customer again tried the direct office telephone and found out even worse experience that he was transferred 10 times with no success. The customer then reaches one lady and she again transferred him to another recorded voice (IVR) after asking what he needed. The customer finally gave up and wrote a letter of frustration with a recommendation that the managers should call their own call center and experience the bad service they are offering to their customers. Knowing that customers talk more about their bad experiences, we can imagine to how many people this customer has told about his bad experience and the negative implication of this to the reputation of the company is high. Based on the complain of the customers doane and sloat (2003) suggest different solution in order to achieve excellent customer service

2.3.2. Call Center Trend in Africa

The researcher did not found many researches made on the researcher's topic in African call centers. There are some researches made on call center area but the determinant factor that affect the performance of call center service are not addressed widely. Some empirical studies carried out in African call center are listed below.

According to a research in call center carried out in South Africa outsourced call center, the ability to compete in the global economy will become increasingly reliant on the ability of organizations to satisfy the needs of customers. As organizations outsource the call center element of their businesses to dedicated call center providers, these call center providers will need to become even more competitive. This ability to compete relies on their ability to increase productivity for financial control, whilst increasing their ability to satisfy the customers of organizations they represent. This cannot be done without correctly identifying the factors that drive work performance in call center agents. (Fiona, 2009).

According to Robberts (2014) the research carried out within the South African context, for the advantage of the company identifying the main factors that affect the performance through statistical analysis specifically looking at the confidence that the employees have in the performance appraisal system, the extent to what the employees are devoted to performance management and the value that the employees receive from the self-appraisal process.

Benner et al. (2007) states a research on providing a unique understanding on employee practices, performance and business strategies in the call center. The research carried out in 64 call centers in South Africa. The finding showed that South African call centers achieve their call center targets to the level of close to global average. According to a study made in different countries within and out of Africa, the average is 87% where as in South Africa 86.5% of call center targets are achieved. This shows that the South African trend is very close to international. The turn over average of the 64 call centers is 16%. Another finding is that it is compulsory for agents to use scripts to handle calls.

A study conducted Mwendwa, & Gitonga (2017) aimed to identify the factors influencing call center agent turnover in Kenya. The study was made on 141 agents and used a descriptive research design. The findings from the study showed that the factors influencing attrition (turn over) of agents at Kenya Power are training and development, rewards management, job characteristics, supervisor support and career growth.

Muthoka (2017) carried out a study in Kenya banking industry. The main objective of the study was to define the factors influencing call center performance in Kenyan banking sector. The study addressed the impact of outsourcing on call center performance, the influence of call centers in customer satisfaction and the effect of technology on call center performance. The study was made on 340 bankers and research design deployed was descriptive design. And found out that the call center was reachable via different channels. The study also showed that the agents had sufficient knowledge and can provide adequate response to customers' requests. Also stated that that the call center was well equipped technologically and process wise.

2.3.3. Call Center Trend in Ethiopia

There is big gap with regard to empirical researches on call center in Ethiopian context. The researcher found only a few researches made on Ethiopian call centers and below is the summary of them.

Tesfaye (2015) conducted a study to determine the effect of job stress on turnover intentions: evidence from Ethio Telecom” and on a simple of 317 call center employees. He intended to evaluate the cause's job stress and the influence of job stress on the decision of employees leave the call center. Tesfaye (2015) stated that the major sources of job stress are call monitoring, dialog scripting, time pressure, work overload and job monotony. He also mentioned that there is

positive relationship between Job stress and turnover intention. Tesfaye further said that there is job stress and turnover intention are high in Ethio Telecom.

Another research in Ethiopian context was made Muez (2018) on Factors affecting incoming calls at Ethiopian electric utility call center. The study was made on 159 agents, 3 EEU managers in EEU call center and To gain an insight on customer perspective, three customers who represent big enterprises, government organizations and residential customers, respectively, were interviewed. Muez (2018) shows that the highest two reasons for call to the call center are power interruption and fallen electricity pole. The top two factors for high incoming calls are unavailability of adequate information in the call center and inability to address the root causes of customers' problems. he also recommended that EEU should focus on providing permanent solution to repeated problems such as rehabilitation of old power cables and preventive maintenance of old transformers.

Alifa (2019) made research on the “The effect of contact center on customer satisfaction the case of ethio telecom contact center “the main objective of this study was to assess the effect of contact center on customer satisfaction in ethio telecom enterprise call center. The collected data was analyzed using descriptive and inferential statistical analyses techniques. The findings of this study show that contact center responsiveness, assurance, process related factors, and agent related factors and customer perception related factors have significant impact on customer satisfaction. This study contributes in ethio telecom to improve its call center service to improve customer satisfaction.

Table 2. 1 Summary of empirical literature

Researchers	Focus	Finding	knowledge gap
Clark (2014)	Global Customer Service Barometer	It shows that the call center service is much more time consuming than the pace to pace service	The research based on in which way the customer's briefers to get service only in USA.
D'Alleo and Santanelo (2011)	Organizational climate and burnout in call center	24% of the call centers operators experience high exhaustion at the end of work and 62%	This research needs more focus on the cause for their work interest and performance decrease.

		communication with their managers sufficiently on the time	And the study was done only for Italy.
Doane and Sloat (2003)	Activities for Achieving Excellent Customer Service.	suggest different solution in order to achieve excellent customer service	The study only focus in which way that it achieve good customer service in US and Canada
Benner et. At. (2007)	The South African Call Centre Industry	The study shows that south African call centers achieve their call center targets to the level of close to global average.	This Study addressed mainly about the Strategy, Human Resource Practices and Performance in south Africa.
Fiona (2008)	The factors that drive work performance in call center agents.	The research shows that the ability to satisfy the customers of an organization.	The study mainly give emphasize about how to satisfy the customers of the company in South Africa context
Muthoka (2017)	factors influencing call center performance	Showed that the agents had sufficient knowledge and provide adequate response to customers' requests.	This research was focused only on the impact of outsourcing call center in Kenya bank sectors.
Mwendwa and Gitonga (2017)	the factors influencing call center agent turnover	study showed clearly that the factors influencing attrition	In this study, it doesn't address the factors that affect the performance of the agents and it was made for Kenya power station only.

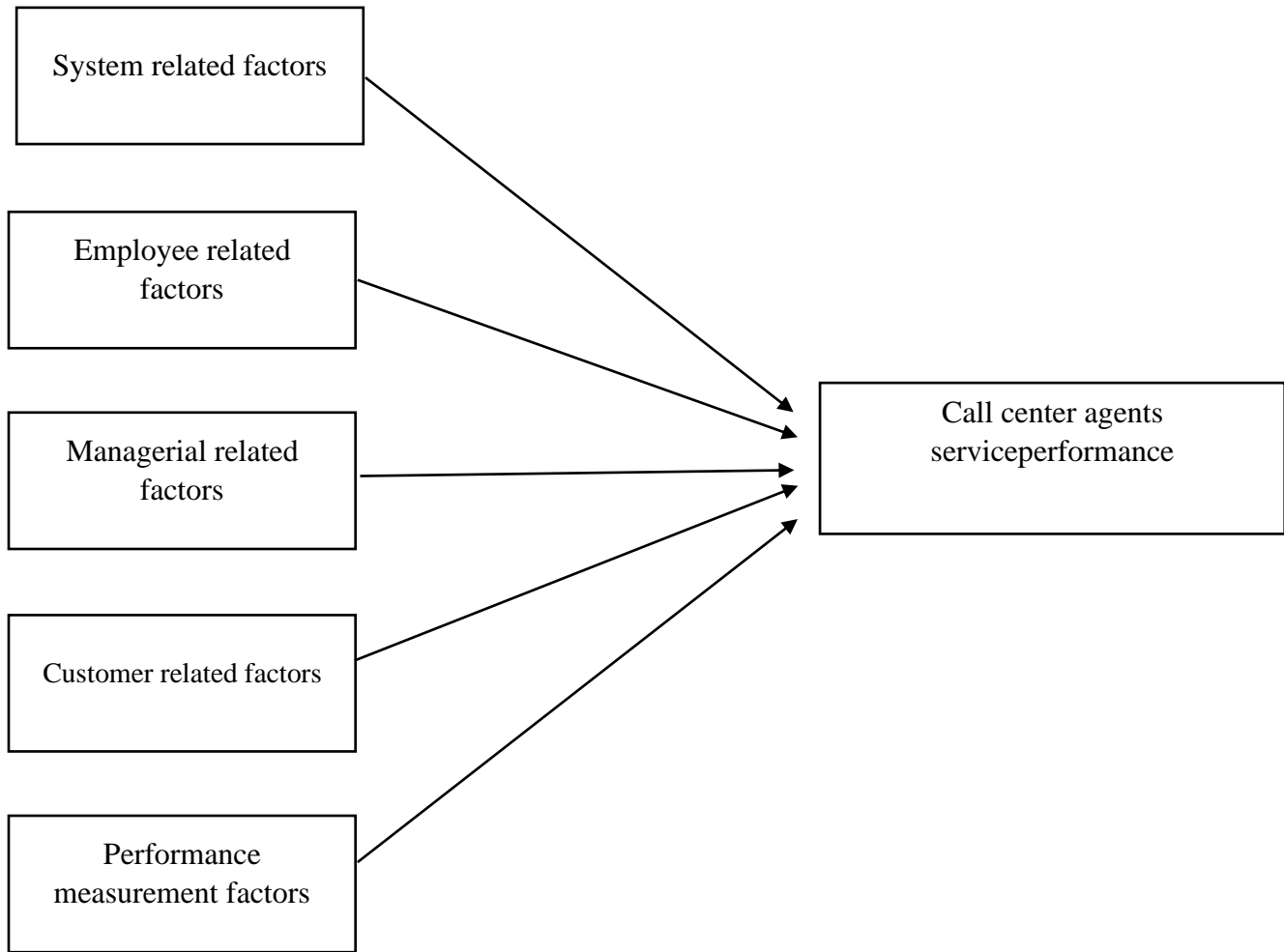
Robberts (2014)	the factors that affect the performance for the advantage of the company	The study specifically looking at the confidence that the employees have in the performance appraisal system.	This research mainly focus on the performance of the appraisal system rather than the factor that affect the performance and only focus in South Africa.
Alief (2019)	The effect of contact center on customer satisfaction	It emphasize the effect of contact center on customer satisfaction in enterprise call center	It only focus on the customer satisfaction and this research made for ethio-telecom
Muez (2018)	The factor that affect the incoming calls	It identified the highest reason for call to the call centers.	It only focus on the incoming calls
Tesfaye (2015)	The effect of job stress on turn over intention	Evaluate the cause and influence of job stress and positive relationship between job stress and turnover intention	It only focus on the cause of turnover and also this research made only for ethio-telecom

Source: Composed from deferent literatures (2021)

2.4. Conceptual Frame Work of the study

The aim of this section is to summarize the researcher's findings from previous literature and to highlight the study's contributions. As a result, the study's aim is to identify the factors that influence call center service efficiency in the EEU, and the diagram below depicts the clear idea of relationships and variables identified so far. The relationship between system related factors, employee related factors, customer related factors, managerial related factors, and performance measurement related factors is depicted in the following conceptual framework.

Figure 2. 1 Conceptual Framework



Source: Own designed (2021)

2.5. Hypothesis of Research

The following are the research hypotheses formulated to be tested.

- Hypothesis 1: system related factors have a positive and significant effect on the performance of the call center service.
- Hypothesis 2: employee related factors have a positive and significant effect on the performance of the call center service.
- Hypothesis 3: customer perception related factors have a positive and significant effect on the performance of the call center service.

- Hypothesis 4: Managerial related factors have positive and significant effect on the performance of the call center service.
- Hypothesis 5: Performance Measurement Factors have positive and significant effect on the performance of the call center service.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter presents the practical method of the thesis. The research design, data collection and sample selection of the study. Further, a questionnaire design and chosen analytical data was represented. The ethical consideration of the study was wind up in this chapter.

3.1 Research Area

This research is conducted on Ethiopian Electric Utility call center, which is found in Addis Ababa around paisa. This research is specifically focused on the determinant factors that affect the performance of call center employees.

3.2 Research approach and Design

The main focus of this research is to investigate the determinant factors that affect the performance of call center agents service in EEU call center (905 call center). This research used mixed research approach (both qualitative and quantitative). The qualitative research approach is used to analyze the qualitative data collected from different literatures, from interview. Whereas quantitative approach is used to analyze the questionnaire responses and statistical reports of EEU call center.

The study also applied an experimental research design in order to unlock the factors affecting the performance of call center service in EEU call center (905 call center).

3.3 Data Type and Source

For this study, a combination of primary and secondary data was gathered and analyzed. Primary data was gathered from EEU agents and administrators via interview and questionnaire. Secondary data was gathered from the EEP website, call center statistical studies, and various literatures (books, journals, articles and websites).

Both qualitative and quantitative data types are used to achieve the objective of the study. Qualitative data was collected through interviews and through observation. The researcher

observed the activities of the agents and the working environment of the center. Quantitative data was collected through questionnaires distributed to the call center employees.

3.4 Population, Sample Size and Sampling Techniques

The study was made at EEU call center (905) which is found at paisa head office. The call center of EEU only serves Addis Ababa region for now but they are on process to make the center nationwide with in 1 or 2 years. The target population of the study covered the EEU call center agents with total population of 227 employees. As the total population is small and manageable, census method is applied and it means all of them were considered for the study. Therefore; sampling is not made. Additionally, interview questions have been prepared and supervisors in the section were interviewed including the managers. There are 2 managers and 12 supervisors; as a result to extract valuable information the researcher interviewed twelve supervisors and the two managers as well.

3.5 Data Collection Methods and Instruments

Data collection is one of the most crucial measures that can influence the research's quality. Data collection instrument should go in conformance with methodology (Graham, 2011). Different data collection instruments were used for this research. Questionnaire, interview and document analysis were the methods used.

Self-administered questionnaires were used to collect primary data from the agents using a paper and pen, the questionnaire takes over four days. The 227 employees were organized in four groups in the call center and they work in shifts. The researcher went to the organization and distributed the questionnaires to the supervisor. This was followed by snowball effect whereby the data collectors first checked for their shifts and distributed and collected the questionnaire accordingly. The respondents completed the questionnaires during their work time. As the call center work is very stressful we late them have a lot of time to complete and hand back the questionnaires.

3.6 Reliability & Validity Test

3.6.1 Reliability Test

A reliability measure was achieved by estimating how well the items checking the same concept yield the same results. Using Cronbach's Alpha in SPSS, a reliability test is performed to ensure that the data is internally consistent. The optimal measuring degree of internal consistency according to Cronbach's Alpha is between 0.7 and 0.95 (Tavakol et al., 2011). The reliability was analyzed and is beyond the acceptable threshold of 0.7 as shown on table below.

Table 3. 1 Reliability test

Measure	Number of Likert scale items or statements	Cronbach's alpha
Employee factor	5	0.751
Performance measurement factor	5	0.839
Managerial factor	5	0.903
system factor	5	0.841
Customer related factor	5	0.855
Service performance of call center	5	0.837

Source: survey result (2021)

The 5- point Likert scale is adopted from the scholar Cj Robbert (2014) with the response format range from strongly disagree to strongly agree, with a neutral option

Cronbach Alpha was established for every objective which formed a scale. The managerial factor was the most reliable with an Alpha value of 0.903, followed by system factor with an Alpha value of 0.841 then performance measurement factor with an Alpha value of 0.839, and customer factor with an Alpha value of 0.855 while employee was the least reliable with an Alpha value of 0.751 Cj Robberts (2014). In another study, Van Dyk and Coetzee (2012) reported acceptable Cronbach's Alpha namely, compensation 0.726 Employee factor, 0.867 Performance measurement factor, 0.841 Managerial factor, 0.829 system factor, 0.781 Customer related factor.

In assessing reliability through Cronbach's Alpha, the current study illustrates that all the five variables were reliable as their reliability values exceeded the prescribed threshold of 0.7 Trochim (2006) as the level of acceptance. Nunnally and Bernstein (1994) suggest this as a rule of thumb that a level higher than 0.70 is considered for internal consistency. Therefore, depicts that the research instrument was reliable and therefore required no amendments.

3.6.2 Validity Test

According to Clause (2006), Validity refers to the extent to which an instrument can measure what the researcher intends. The questionnaire was reviewed and commented on by colleagues and the advisor to ensure its validity. There was also a pre-test conducted prior to the main questionnaire. After that adjustments were then made on wording and content of the questionnaire. In addition, to improve the validity, the researcher used a variety of field instruments for triangulation.

3.7 Methods of Data Analysis

The data collected was assessed and comparison made so as to select the most accurate and quality information from the feedback given by various respondents. This involved assessing and evaluating the questionnaires and other sources of both primary and secondary data. To code and process the collected questionnaire responses, Statistical Package for Social Science (SPSS) version 24 software was used. The result of SPSS was then taken for presentation and interpretation. Tables and graph were used to present the study findings for ease of understanding. The quantitative data was coded to enable the responses to be grouped into various categories.

More specifically; percentage, frequency and mean were used to analyze the data. The data from the call center statistical study was analyzed. Regression analysis was used to analyze the determinant factors that affect the performance of call center service with focus on EEU call center. In addition, qualitative data gathered via interview and observation reports were analyzed through thematic analysis.

3.8. Ethical Considerations

The main input for this research is response from respondents and it would be impossible to complete the study without them. The researcher approached respondents with respect and politeness. The researcher ensured that the respondents wanted to participate in the process without any feeling of being pressured. The potential respondents will not be identified in any manner. The researcher will explain to the respondents that no one will know whether they are the ones that answered the questionnaires will not be shown to the management or anyone whatsoever apart from the Research assistants that will work on the data gathered.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This chapter presents the results from the collected data has been analyzed firstly, the chapter will present the demographics of the research followed by the results needed to respond the research question. Further, an analysis of each result have been presented.

4.1 Introduction

This chapter deals with presentations, discussion and interpretation of data collected through questionnaire, interview and secondary data. The discussion particularly focuses on respondents' profile, employee related factor, system related factor, managerial related factor, customer related factor, and performance measuring factor.

Out of two hundred twenty seven (227) questionnaires distributed to respondents two hundred eight (208) were returned (accepted). From the accepted responses eight were found invalid whereas the remaining two hundred (200) responses were found valid and used for the analysis. Thus, based on the responses obtained from the respondents data presentation and analysis were made on the following sub sections.

4.2. Demographic Characteristic of Respondent

In this part the descriptive statics is presented and analysis information about the demographic information of the participant employees of EEU call center. The analysis tries to provide information related to gender, age, educational background and years of service of respondent employees.

4.2.1 Age of Respondents

Table 4. 1 Age of Respondents

Age of the Respondents				
		Frequency	Percent	Valid Percent
Valid	≤ 25	3	1.5	1.5
	26-35	192	96.0	96.0
	36-45	3	1.5	1.5
	45+	2	1.0	1.0
	Total	200	100.0	100.0

The majority 96% of employees are in the category of between 26 to 35 years age. And all the other age groups were below 5%. 1.5% of employees are in the category of below 25 years age. Other employees who are in the categories of 36 to 45 years and above 45 years are 1.5% and 1% respectively. Generally, 97.5% of the respondents are below the age 36, which shows that many of the employees are youngsters.

4.2.2 Gender of the respondents

As can be seen from the bar graph below the majority of the respondents are male that is 67.5% and 32.5% are female. This shows that there is a low number of females employed at Ethiopian Electric Utility call center. This shows that there is an unequal distribution of sex in the call center.

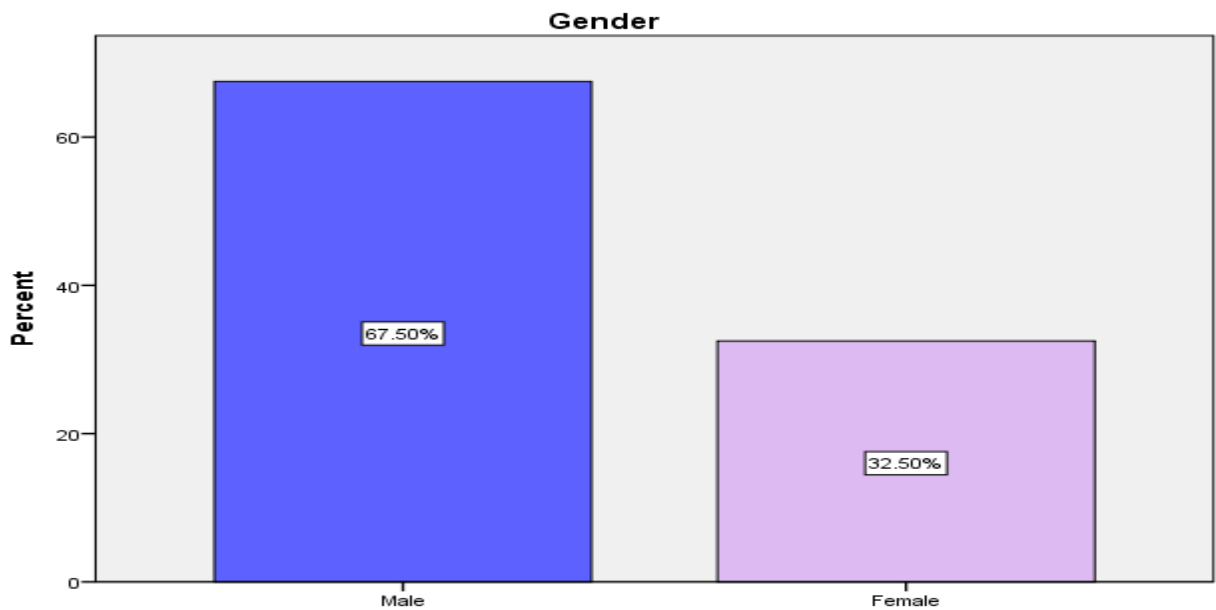


Figure 4. 1 Gender of the respondent

4.2.3 Education status

Table 4. 2 Educational status of respondents

Educational Status of the Respondents				
		Frequency	Percent	Valid Percent
Valid	Diploma	3	1.5	1.5
	Bachelor Degree	193	96.5	96.5
	Masters	4	2.0	2.0
	Total	200	100.0	100.0

It is possible to understand from the above table that the majority 96.5% of work forces are in the category of Bachelor degree, additionally the table above shows the second category is masters that is 2% and other level of educational is diploma is 1% of the respondent. This shows that majority of the employee in the call centers are well educated. Therefore, it can be concluded that almost all employee are capable of understanding and answering the questioner.

4.2.4 Work experience

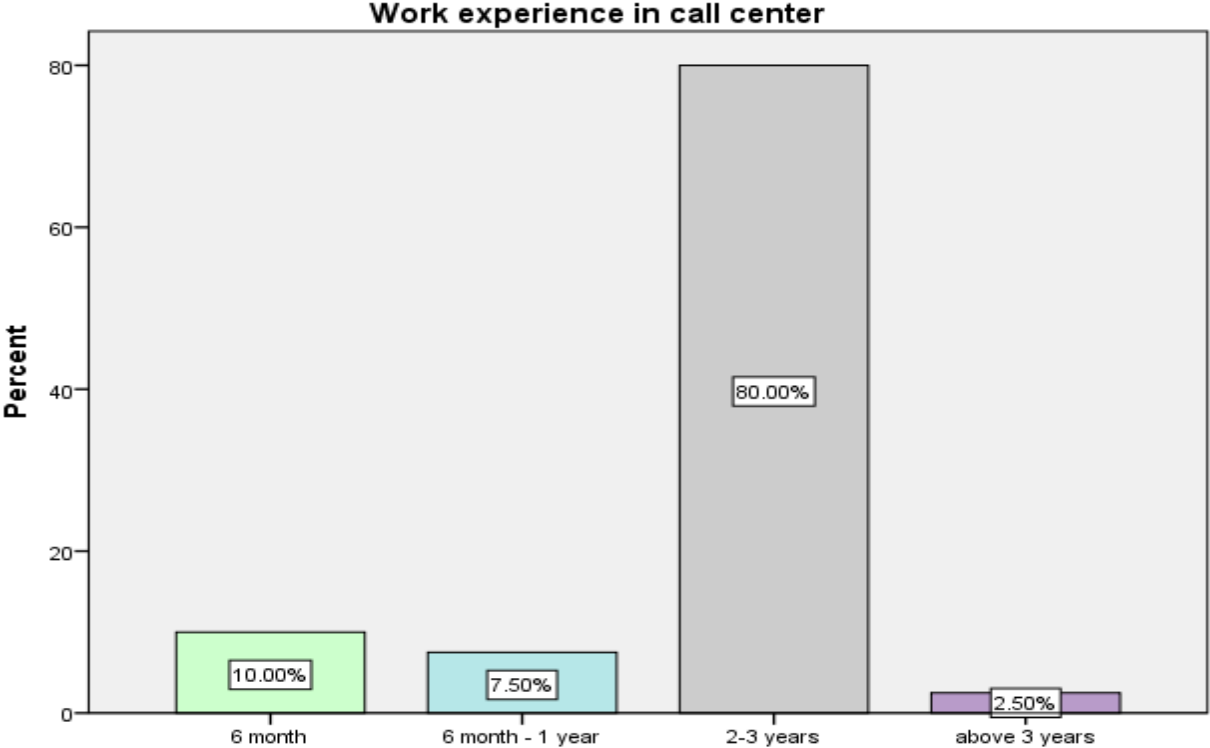


Figure 4. 2 Work experience

The majority of respondents (80%) are in the category of 2 to 3 years of experience. The second majority 10% of respondents were below 6 month and while year of experience of 6 to 1 and above 3 years constitute 7.5% and 2.5% years respectively. This means most of the respondent has experience between 2 to 3 years. Therefore, it would be better if they change the employee's position with maximum 2 year in order to have best performance in the call center.

4.3. Analysis of Collected Data

4.3.1 Descriptive statistics for factors affecting call center service performance

Descriptive statistics (frequency, percentages, mean and standard deviation) was used in order to assess the perception of survey respondents towards the factors affecting call center service performance. The following section provides descriptive statistics about each of the factors. Survey respondents were asked to state their perception towards five factors (namely employee related factors, system related factors, managerial factors, and customer related factors) by using five point Likert scale (1=strongly disagree, 5=strongly agree).

On the basis of a five points Likert scale, the overall mean (M) score between 1-2.33 is considered as low, the score between 2.34-3.67 is considered as moderate, and the mean score between 3.68-5 is taken as high value (Zaidatol et al, 2012). The interpretation of mean values is made based on this criterion.

Based on the above criterion the employee related factor scores at moderate which has 3.0375 overall mean. Customer related factor with the overall mean of 3.40028 which is also considered as moderate and also system related factor is considered as moderate with the overall mean of 3.4124. Managerial related factor has overall mean of 3.3889 which is considered as moderate, in addition to this the dependent variable performance related factor also considered as moderate with a mean of 3.0215 based on the above criterion.

4.3.1.1 Descriptive statistics for employee related factors

Table 4. 3 Employee related factors

Employee related factors	Measurement	SD	D	N	A	SA	Mean
A lot of time my job makes me very frustrate or I feel tense	Frequency (N)	20	38	54	47	41	3.26
	Percentage (%)	10	19	27	23.5	20.5	
Employees are eager to improve their performance	Frequency (N)	18	48	30	48	56	3.38
	Percentage (%)	9	24	15	24	28	

I am satisfied with my work	Frequency (N)	12	21	33	48	86	3.88
	Percentage (%)	6	10.5	16.5	24	43	
Employees in EEU call center are always willing and happy to help each other.	Frequency (N)	12	9	39	54	86	3.97
	Percentage (%)	6	4.5	19.5	27	43	
Employees are motivated and committed to improve the service	Frequency (N)	9	11	51	60	69	3.85
	Percentage (%)	4.5	5.5	25.5	30	34.5	
I encounter the same situations every day in performing my job since my duties are repetitious.	Frequency (N)	6	12	45	57	80	3.97
	Percentage (%)	3	6	22.5	28.5	40	
Employee of EEU call centers trust their company	Frequency (N)	65	24	42	30	39	2.77
	Percentage (%)	32.5	12	21	15	19.5	
Most of the agents do not have a good patience because of the work load	Frequency (N)	18	33	52	55	42	3.35
	Percentage (%)	9	16.5	26	27.5	21	
Bounded call offered vary from team to team	Frequency (N)	15	23	5	69	88	3.96
	Percentage (%)	7.5	11.5	2.5	34.5	44	
Sometime agents misplace location entered in the data	Frequency (N)	20	36	57	48	39	3.25
	Percentage (%)	10	18	28.5	24	19.5	
Mean average							3.56

Source: Computation from SPSS Result, 2021

Based on the standard that created from the scholars the employee related factor of the study is greater than the standard which indicates that this study is more spread than the standard that has been stated from the scholars.

Employee inspiration is the basic thing for the success of the work. According to the responses, 23.5% and 20.5% of respondents agree and strongly agree that their job makes them very frustrated or tensed. However, 27% remain neutral to the question and 10% and 19% strongly disagree and disagree respectively. In such a manner, 56% of respondents which comprises the majority number responded that their job doesn't make them feel tensed.

Respondents were also asked about whether they are eager to improve their performance and 52% of the respondents are eager to improve their performance, 15% are neutral and 33% fill that they are averse to improve their performance. This analysis demonstrates that the company should have to practice motivational programs

Employee positive attitude, the relationship between managers and employee and working environment associated with their work satisfaction. 67% the respondents are dissatisfied with their work due to different reasons. Whereas 16.5% are satisfied with their work and 16.5% prefer to remain neutral. This analysis demonstrates that most of the employees are not satisfied with their work so the company should have to do different things to minimum the number of unsatisfied employee.

The next question assesses whether the employee are willingness to help each other. The study found out that 43% and 27% strongly agree and agree that the current EEU call center employees are willing to help each other. On the other hand, a significant number of employees i.e., 19.5% remain neutral and 6% and 4.5% strongly disagree and disagree.

Employee motivation and commitment is assessed to determine the how the employees contribute to improve the service. Accordingly, 64.5% of the respondents believe that the employees are motivated and committed. 25.5% prefer to remain neutral whereas 10% fill that the employees are not motivated and committed to improve the service.

Respondents were also asked about if they encounter the same situation every day in performing the work and 68.5% agreed that they meet the same situation every day since their duties are repetitious. On the other hand 9% disagree while 22.5% remaining indifferent.

The seventh question was related to the trust relationship between the employee and the company in which 34.5% of respondents confirmed that they trust their company. However, the majority 44.5% replied that they do not trust their company at all and 21% of the respondents are neutral. Based on this, it can be inferred that there is trust problem between EEU call center employees and the management.

Concerning the work load the employees patience is affected, notwithstanding the data gathered from the survey questionnaire, 48.5% of the respondents answered that the work load affect their patience due to this customers become dissatisfied with their service. Whereas 26% of the respondents remain neutral and the remaining 25.5% strongly disagree and disagree with not having good patience due to the work load.

The variation of bounded call from team to team has the second highest mean (3.96) in which 44% of the respondent strongly agree and 34.5 agree. On the other hand 2.5% of the respondents are neutral and 19% of the respondents disagree with the variation of bounded calls from team to team.

The last question assessed if some agents misplace location while entering data to the system. Accordingly, 43.5% of respondents replied there is misplacing of location while entering the data to the system, 28.5% remain neutral and 28% of the respondents said they do not agree that in the agents misplacing location while entering data to the system. overall mean which is 3.56 in the employee related factors demonstrates that some of the respondents agree towards that there are some problems that has been done with the agent in that affect the performance of the call center and some of the respondents keep natural but few of the respondents believe that there is no problem with the agent that affect the performance of the call center.

4.3.1.2. Descriptive statistics for system related factors

Table 4. 4System related factors

System related factors	Measurement	SD	D	N	A	SA	Mean
I am unable to give adequate time to customers as I have to finish each of my calls within a given time.	Frequency (N)	14	31	44	45	66	3.59
	Percentage (%)	7	15.5	22	22.5	33	
The speed which call to be picked up by call center agents is affected by the system	Frequency (N)	6	18	51	69	56	3.755
	Percentage (%)	3	9	25.5	34.5	28	
Due to the busy system it hard to serve the customers at a time.	Frequency (N)	11	15	63	57	54	3.64
	Percentage (%)	5.5	7.5	31.5	28.5	27	
Because of power interruption most of the time system is not working	Frequency (N)	28	54	52	36	30	2.93
	Percentage (%)	14	27	26	18	15	
Due to Ethio telecom network system will interrupt	Frequency (N)	11	41	47	50	51	3.45
	Percentage (%)	5.5	20.5	23.5	25	25.5	
Mean average							3.472

Source: Computation from SPSS Result, 2021

The aggregate mean of the system related factor is 3.472 this is nearly equal with the standard that stated on the descriptive statistical analysis which indicate that the study have central location of the distribution of the variable.

The questions were designed to assess the system related factor that affect the performance of the call center. Based on the first question, 55.5% replied that they have unable to give adequate time to customers due to the fixed time. However 22.5% disagree that the fixed time affect their performance while 22% remain indifferent to the process.

The top one aspect for system related factor in EEU call center is the speed which call to be picked up by the call agents is affected by the system. 62.5% of the respondents either agree or strongly agreed that this is the major factor. Beside, only 3 respondents strongly disagree. It represents the highest mean score of 3.75. This despite that the speed to pick up affected by the system is the main cause for to affect the performance due to system factors.

The next highest factor is due to the busy system it hard to serve the customers at a time. This 3factor is chosen by 55.5% to be the major factor and the biggest natural respond. It has a mean of 3.64 Higher than the average mean.

Regarding to power interruption 41% of the respondents replied that the most of the time power interruption does not affect the working system but a great number of respondents which is 33% agree that due to power interruption most of the time system is not working and 26% remain neutral. It has a mean of 2.93 lowest than the average mean.

The final question was to measure the extent of how Ethio telecom network interrupt the system. Thus, the large share of respondents, 50.5% replied that Ethio telecom network system affect the call center performance. 23.5% remain neutral and the rest 26% extended their disagreement that Ethio telecom network system do not affect the performance and also it has the second lowest mean which is 3.45 than the average.

4.3.1.3. Descriptive statistics for managerial factors

Table 4. 5 Managerial related factors

Managerial related factors	Measurement	SD	D	N	A	SA	Mean
EEU evaluate employees satisfaction through survey	Frequency (N)	73	42	33	42	10	2.37
	Percentage (%)	36.5	21	16.5	21	5	
Employee suggestion have high credit in the call center	Frequency (N)	87	45	34	16	18	2.17
	Percentage (%)	43.5	22.5	17	8	9	
EEU provides an appropriate working environment conducive for work performance	Frequency (N)	59	75	41	15	10	2.21
	Percentage (%)	29.5	37.5	20.5	7.5	5	
The call center management style has an influence in my work performance	Frequency (N)	6	33	36	30	95	3.88
	Percentage (%)	3	16.5	18	15	47.5	
EEU managers follow the company policies and procedures for work promotion	Frequency (N)	62	45	45	33	15	2.47
	Percentage (%)	31	22.5	22.5	16.5	7.5	
My personal relationship with the supervisors directly affect my work performance	Frequency (N)	32	72	33	30	33	2.80
	Percentage (%)	16	36	16.5	15	16.5	
EEU call centers managers have a detailed understand or knowledge about your job.	Frequency (N)	98	33	32	29	8	2.08
	Percentage (%)	49	16.5	16	14.5	4	

EEU makes a continuous investment in training, education and development of its employees	Frequency (N)	47	63	55	22	13	2.46
		23.5	31.5	27.5	11	6.5	
Mean average							2.55

Source: Computation from SPSS Result, 2021

The managerial related factor has the lowest aggregate mean value (2.55) than all the other factors that affect the performance and also which is much less than the standard (3.3889). As presented in the above table, the first question raised issue regarding evaluation of employee satisfaction through survey. 26% of the respondents agreed that the EEU managers do survey in order to evaluate the employee satisfaction. But 57.5% of the respondents disagree with the evaluation process that the EEU managers use. Whereas 16.5% of the respondents are neutral and it has mean of 2.37.

Respondents were also asked about if they have high credit for their suggestion regarding to their work. And 66% disagreed about the high credit that EEU managers give to the employees. On the other hand 17% agree while 17% remaining indifferent and which has the lowest mean of 2.17. So we can conclude that the EEU managers do not give high credit to their employee's suggestion which is not good for their employee morale and motivation.

The good working environment plays a great role for having good customer service and work satisfaction. But only 12.5% of respondent agree with that EEU provide appropriate working environment conduction for the employees. Most of the respondents disagree about that EEU provide appropriate working environment which take 67% of the whole respondents and the remaining 20.5% is neutral.

The way managers manage their employees has a great impact in their work performance as well as on their productivity and in the success of the organization. A few numbers of respondents disagree about that the management style in the call center influence the employee performance. However, 59.5% of respondents agree that the management style of the call center has affected their working performance. While 18% remain indifferent and it has much higher than the average mean in the above table with a mean of 3.88.

Every company has its own promotion style with regarding to the company policies and procedure in which to benefit both the company and the employees. Based on this the third question was about if EEU managers follow the company policies and procedures for work promotion and 24% of the respondents agree that the managers follow fair promotion styles even if 53.5% of the respondents disagree and 22.5% remain natural.

The sixth question was related to the personal relationship between the employee and the supervisors in which 52% of respondents confirmed that they have good personal relationship with their supervisors so it does not affect their work performance. However, 31.5% replied that their relationship with the supervisors directly or indirectly affects their work performance and 16.5% of the respondents are neutral.

Respondents were also asked about if they their managers have a detailed understanding about their job and 18.5% agreed that their managers have detail knowledge about the work that has been done in the call center. On the other hand 49% of the respondents strongly disagree and 16.5% disagree, while 16% remaining indifferent.

The last question assessed if the company has a continuous investment in training, education and development for the agents. Accordingly, 17.5% of respondents replied there is a continuous investment for training and education purpose by the company for the agents, 27.5% remain neutral and on the other hand 55% of the respondents said they do not agree that the company had a continuous investment for training and educational purpose. overall mean which is 2.55 in the managerial related factors demonstrates that most of the respondents agree that the most of the problem been done by the managers that affect the performance of the call center and some of the respondents keep natural but few of the respondents believe that there is no problem with the mangers that affect the performance of the call center.

4.3.1.4. Descriptive statistics for customer related factors

Table 4. 6Customer related factors

Customer related factors	Measurement	SD	D	N	A	SA	Mean
Most of EEU customers call to the center with important documents and information	Frequency (N)	30	71	43	33	23	2.74
	Percentage (%)	15	35.5	21.5	16.5	11.5	
Some of EEU customers are aggressive and not willing to hear the agents	Frequency (N)	9	18	60	42	71	3.74
	Percentage (%)	4.5	9	30	21	35.5	
Some EEU customers take a lot of time to get the service	Frequency (N)	6	6	47	61	80	4.02
	Percentage (%)	3	3	23.5	30.5	40	
Sometime under age customers call to the center	Frequency (N)	2	12	30	54	102	4.21
	Percentage (%)	1	6	15	27	51	
Some EEU customers are dishonest about the report	Frequency (N)	3	15	60	57	65	3.83
	Percentage (%)	1.5	7.5	30	28.5	32.5	
Mean average							3.71

Source: Computation from SPSS Result, 2021

Based on the study and the aggregation mean the customer related factor has the highest mean value (3.71) than the others and also it is greater than the standard value (3.40028).

The above table illustrates about the customer related factor. Most of the respondents disagree (50.5%) about customers call to the call center with important document and information. Whereas 28% agree that most of the customers call with all important documents and 21.5% remain indifferent. It has the lowest mean of 2.74 than others.

The respondents agree that some of the customers are aggressive and non-disciplined which take 56.5% of the response, but 13.5% of the respondents disagree about the aggressive behavior of customer which affect the performance of the call center and the remain 30% is natural.

The third question was about that some customer's take a lot of time to get the services in which 70.5% of respondents confirmed that they take a lot of time to get the service. But only 6% of respondents replied that the customers do not take a lot of time to take the service. However, 23.5% of the respondents are neutral. Based on this, it can be said that customers take a lot of time to get the service.

The major aspect for customer related factor in EEU call center is because under age customers call to the center. 78% of the respondents either agree or strongly agreed that this is the major factor. Likewise, only 1 respondents strongly disagree and 15% remain indifferent. It represents the highest mean score of 4.21.

Accordingly, last question raised issue regarding that some of EEU customers are dishonest about their report or not. 61 percent of the respondents replied that agree that some of their customers are dishonest about the report due to different reason. Although, 30 percent of the respond remain neutral. However, very few amount of respondents witness that the customers are honest with their report.

4.3.1.5. Summary of aggregate mean values for determinants of call center service performance

Table 4. 7Aggregate mean value

S.No	Determinant factors	Aggregate mean values
1	Employee related factors	3.56
2	System related factors	3.47
3	Customer related factors	3.71
4	Managerial factors	2.55

From Table 4.7 the study identified that having customer related factor is an important performance factor (Mean = 3.71), this is closely followed by employee related factor (Mean = 3.56). However, employees believe that the system factor (Mean = 3.45) is as important performance factor. Furthermore, the low mean value for managerial factor (Mean = 2.74)

accounts for the aforementioned performance factor. All items received the minimum and maximum responses on the Likert scale and the mean ranged from 2.55 to 3.71

4.3.1.6. Descriptive statistics for call center service performance

Table 4. 8Performance measuring factors

Performance measuring factors	Measurement	SD	D	N	A	SA	Mean
EEU used quality assurance and measurable performance standards	Frequency (N)	59	30	63	36	12	2.56
	Percentage (%)	29.5	15	31.5	18	6	
It is difficult to reach at the performance goals in the allotted time scale.	Frequency (N)	21	18	77	42	42	3.33
	Percentage (%)	10.5	9	38.5	21	21	
The performance measuring specify deliverables and clearly defined objectives and time frames	Frequency (N)	21	30	61	53	35	3.25
	Percentage (%)	10.5	15	30.5	26.5	17.5	
The performance measuring system most of the time collect during feedback sessions.	Frequency (N)	30	48	57	42	23	2.90
	Percentage (%)	15	24	28.5	21	11.5	
Mean average							3.01

Source: Computation from SPSS Result, 2021

The aggregate mean value of the performance related factor is nearly equal with the standard that stated from the scholars which implies the study spread well along to the variables with a mean of 3.01. Based on the first question, 44.5% of the respondents attest that ratings used to have a quality assurance and measurable performance, however, most of the respondents strongly disagree (29.5%) and disagree (15%) still a significant number of employees, 41.9%, keeps neutral with lowest mean of 2.56.

The second question tries to identify whether it is difficult to reach at performance goal in allotted time scale or not. In which 42% of the respondents indicate that it is impossible to achieve the performance goal in allotted time scales. Whereas 19.5% of the respondents indicate it is possible to achieve the performance goal at the time scale. And the rest 38.5% remain neutral.

A clear and specify deliverable of performance measuring is relevant to ensure the organization objective and time frames in the system. Sense if commitment, responsibility and proactive leadership proliferate as performance rating is fair and considerate of organization objective and the employees. The research tried to assess employee’s performance rating is tangible and time frames or not and found out that 57% of the respondents addressed that the performance measuring is tangible and time frame, 30.5% were indifferent and 25.5% indicate that the performance measuring is intangible.

The last question was about assessing the performance measuring system collect during feedback session. Accordingly, the research found out that 31.5% of the employees’ agreed that the performance measuring system collect during feedback sessions, 28.5% remained indifferent and 39% opposed the performance measuring system correct during feedback session. The overall mean of the above table is 3.01.

4.4 Correlation Analysis

Correlation analysis describes about two or more variables whether they are related or not. As indicated from the methodological part, correlation analysis is used to show these relationships by the data fetched from SPSS V. 24

Table 4. 9Correlation Coefficient

Correlation coefficient	Interpretation
-1	Perfectively negatively correlated
1	Perfectively positively correlated
(1, 0.3)	Positively correlated
(-1, -0.3)	Negatively correlated
(-0.3, 0.3)	No correlation

Source: Wilkinson, 2005

Pearson correlation analysis was used to test the association between the determinant factors and call center service performance.

Table 4. 10Correlation of Dependent and Independent variables

		Correlations				
		Employee related factors	System related factors	Managerial related factors	Customer related factors	Performance measuring factors
Employee related factors	Pearson Correlation	1	.979**	.931**	.986**	.976**
	Sig. (2- tailed)		.000	.000	.000	.000
	N	200	200	200	200	200
System related factors	Pearson Correlation	.979**	1	.945**	.989**	.979**
	Sig. (2- tailed)	.000		.000	.000	.000
	N	200	200	200	200	200
Managerial related factors	Pearson Correlation	.931**	.945**	1	.932**	.973**
	Sig. (2- tailed)	.000	.000		.000	.000
	N	200	200	200	200	200
Customer related factors	Pearson Correlation	.986**	.989**	.932**	1	.969**
	Sig. (2- tailed)	.000	.000	.000		.000
	N	200	200	200	200	200
Performance measuring factors	Pearson Correlation	.976**	.979**	.973**	.969**	1
	Sig. (2- tailed)	.000	.000	.000	.000	
	N	200	200	200	200	200

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

As it can be seen in table 4.9all the independent variables have positive and higher correlation with the dependent variables. This implies that the higher and positive the level of employee, system, managerial, and customer related factors, the more and positive will be the level of call

center service performance. Also, all independent variables have positive and high correlation with each other.

4.5 Regression Analysis

Multiple regression analysis is utilized to assess the way in which a set of variables are able to predict a particular outcome (Pallant, 2007, p.148). This study shows how the dependent variable is influenced by the independent variables.

4.5.1.1 Normality

Table 4. 11Normality test

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Performance measuring	.080	200	.004	.956	200	.000
Employee related factors	.133	200	.000	.917	200	.000
System related factors	.129	200	.000	.932	200	.000
Managerial related factors	.130	200	.000	.923	200	.000
Customer related factors	.135	200	.000	.929	200	.000

a. Lilliefors Significance Correction

Table 4.11 indicates that the scores on each variable ranging from (.000 to .004) are normally distributed. The significance value (Sig.) indicated that the independent variables are making a statistical unique contribution to the prediction of the dependent variable, in order for the value to make a significant contribution the significance value has to be less than .05 (Pallant, 2010).

4.5.1.2 Linearity

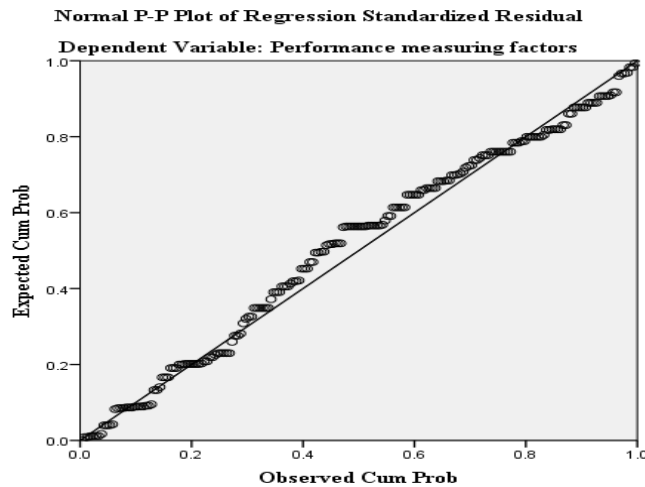


Figure 4. 3 Linearity

The above figure refers the degree to which the change in the dependent variable (performance related factor) is related to the change in the independent variables (employee related factor, system related factor, managerial related factor and customer related factor). As the plot is straight line this study fulfil the assumptions of linear regression analysis.

4.5.1.3 Homoscedasticity

The figure below is random cloud (no discernible pattern) which indicate that there is equal variances of the dependent variable (performance related factor) across levels of the independent variables (employee related factor, system related factor, managerial related factor and customer related factor). It is to mean that the error term is the same across all values of the independent variables. And also heteroscedasticity occurs when the error term differs across all values of the independent variables. Therefore; this fulfilled the assumptions of linear regression analysis.

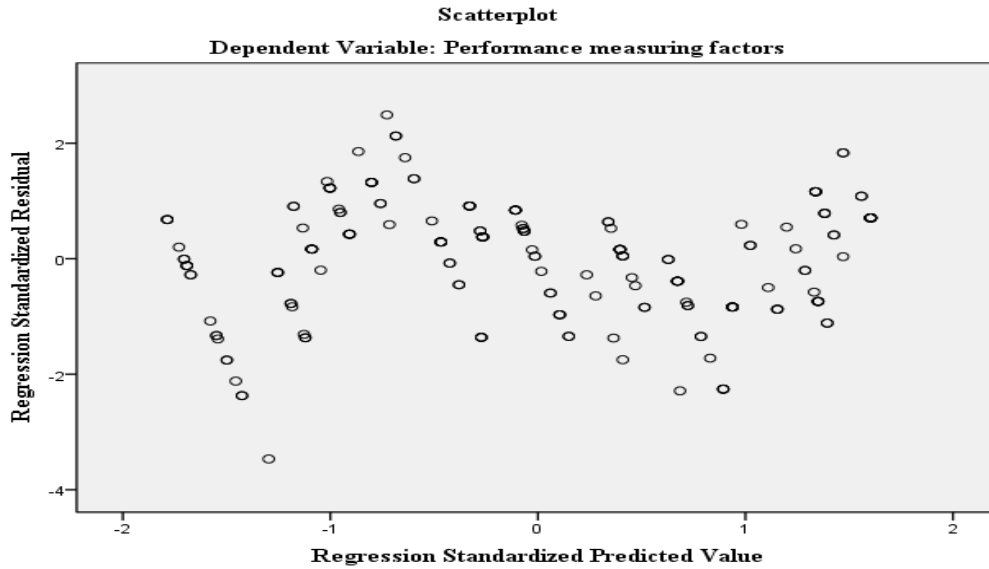


Figure 4. 4Homoscedasticity

4.5.2 Result of regression analysis

Table 4. 12Multiple Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.993 ^a	.987	.986	.13912

The model tests whether the model is fit for data. From the table 4.5.1 the independent variables were statistically significant predicting the dependent variable (performance measuring factor) since adjusted R square was 0.987 implying that employee related factor, system related factor, managerial related factor and customer related factor explains 98.7% of the variation in the performance of the call center.

Table 4. 13Anova

		ANOVA^a				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	276.638	4	69.160	3573.502	.000 ^b
	Residual	3.774	195	.019		
	Total	280.412	199			

The probability value of 0.000 indicates that the regression relationship was significant in determining how employee related factor, system related factor, managerial related factor and customer related factor influence the call center performance. The F calculated at 4 percent level of significance was 3573.502. This shows that the overall model was significant.

4.5.2.1: Coefficients of Determination

Table 4. 14 Coefficient

Model		Coefficients ^a				Sig.
		Unstandardized Coefficients		Standardized Coefficients	t	
		B	Std. Error	Beta		
1	(Constant)	.073	.061		1.187	.237
	Employee related factors	.508	.051	.513	10.001	.000
	System related factors	.373	.064	.364	5.813	.000
	Managerial related factors	.417	.026	.421	16.332	.000
	Customer related factors	-.332	.081	-.289	-4.124	.000

a. Dependent Variable: Performance measuring factors

The above table indicate that a unit increase in the employee related factor would lead to a 0.508 amount of unique variance a predictor accounts for statistically significant which is zero. The findings presented also show that taking all other independent variables at zero, a unit increase in the system related factor would lead to a 0.373 increase in the score of influencing the performance of the call center. Further it was found that a unit increase in the scores of managerial related factor would lead to a 0.417 with a unique variance a predictor account for statistically significant of zero. Furthermore the finding show that a unit increases in the score of customer related factor of would lead to -0.332 with unique variance a predictor account for statistically significant of zero. Overall, all the variables were thus significant with their p- values less than 0.05.

4.6. Summary of Responses to Open-Ended Questions

At the end of the closed ended questions, the questionnaire also had an open ended question. Few employees responded to the open questions as summarized below.

They state that there is a trust issue and communication gap between the call center employees and managers which cause a lot of problem in the call center. Some respondents mentioned they the managers do not follow honest reward system, as they mentioned the one who has good communication with the managers will be beneficial because they said they never seen anyone who have the maximum performance in the call center never been compensated. Some said that the agents do their work with all of their potential whereas the other said the agents needs to work on their time management, patience and also, they need to take full the responsibility for their work in order to increase customer satisfaction. Some

Most of the respondent's opinion is that the EEU call center is the backbone of the company but the value given for this work position is zero. In addition to this the work position is not balanced with the agents as they said they are above their position, they can do many problem-solving projects, software development and other technical things because all of the employees are electrical and computer engineers and electromechanical engineers and so on. Some of the respondents mentioned that the call center is powerless when it comes to forcing the districts to do their jobs because people lose power for more than 5 to 10 days and also for emergency problems due to this customer continuously call to the center but the call center only can transfer the information to the districts, their right and role is fenced by many unwanted regulations and rules.

They recommended that the management should have to provide all the necessary equipment's and need to create good environment, such as headset IP phone, cafeteria service, night shift issues, rest place problem and so on. The managements need to build trust towards the employee by creating clear, written, rule and regulation which will benefit the employee too and they need to pay attention to the opinion of the employees. The maintenance team is not sufficient because some case take stay more days unsolved after registration. They also recommended EEU call center should provide service in different language soon.

4.7. Summary of Interview with EEU Management

The interview was taken by 14 members of EEU managers, 12 from lower level (supervisors) and 2 head managers.

Would do you kindly explain the major factors that affect the performance of EEU Call Center?

All of the respondent mention different factors that affect the performance of the EEU call center. Most of them indicate that the information gap between the call center employees and the distribution workers and miss understanding between the call center employees and the management will take more than 65% because the work should have to done with collaboration with the district offices and the management. About 8 supervisors mention that the absence of employees due to different reason. Two of the supervisors said that frequent downfall of the system is one of the major reason. One of the coach mention that the poor service quality of that the company provide to the customers. Both the top managers said that not giving sufficient attention to the work is the major root cause for the decreasing of the performance of the call center. One of the supervisors said that because of there is no recognition or punishment system for what we need.

Do you believe the performance analysis method perfectly measure the employees? If not why?

Except one supervisors all of the said “No” because most of the measurement have no clear way of differentiating employees and also the measurements are automatically taken from the system and when the system down it will be hard to take the measurments.one mentioned that the performance analysis is against the objective of the call center because it focus on the number of call that the center receive not on the satisfaction of the customers. The one who said “yes” said that without this performance analysis it will be hard to evaluate the employees.

Is EEU call center costing more than its benefit or vice versa? Why?

Including the top managers most of them said its benefit is more than its cost, it is a great privilege for the company. Some of them said it is costing more than it benefit because it is not working with it full capacity. One of the respondent said if there is no well-ordered controlling mechanism of what and how CSC are performing their duty, putting the agents to only receive and register complain is valueless.

Are there lack of consistency in the performance analysis? Why?

All of the respondent said “Yes” that is because the performance analysis is held only at the end of half year and end of the year thus it lacks consistency fellow up throughout year.

Are you happy with the current call center technology? If not, why?

Most of the respondents are not happy with current technology even if the technology is one of the latest, because it is has so many unclear things and the system is controlled by Indian professionals.

What are your planned methods to improve the performance of the call center?

The head managers have a plan to increase the number of staff as the room has 80 seat for one shift, to make some modification on the performance analysis methods and to provide different trainings about customer handing and about the system. Most of the supervisors does not have planned method to improve the performance of the call center. Some of them have a plan to assess the pervious planned result and collect different comments from the employee in order to know the gap and to make good improvement. And some of them have a plan to modify the performance analysis method and a written principle for the call center.

Is there a reward system for achieving highest performance and what is the risk of achieving less?

As they all say there is no reward systemfor those who work hard and achieve the best performance or there is no punishment system for least performers. But all of them said that they have a plan to work on the reward system, because they believe that the reward process will encourage the agents.

4.8. Discussion

The study that done inGlobal Customer Service Barometer shows that the call center service is much more time consuming than the pace to pace serviceClark (2014). However, this research shows that call center services minimize the amount of time they spend as a step-by-step service. And Clark study survey is only conducted in the United States, based on how customer briefs are serviced. Whereas this study is based on an assessment of the determinants that affect the performance of EEU call center services.

The communication barrier and misunderstanding between the management and the agent and repetitive work found to be one of the issues affecting the performance of EEU call centers, similar to the call center survey conducted primarily in Italy. It has been. Root Causes for their work interest and performance decrease, 24% of the call centers operators experience high exhaustion at the end of work and 62% communication gap with their managers D'Alleo and Santanelo (2011). But the study difference at the managers are well educated and know the work of the center and the communication gap happen because the agents are exhausted but that managers have sufficiently time but in the study the managers are not well educated and understand the center work well.

The researcher on the factors influencing attrition which is done in call center of Kenya bank sectors. Showed that the agents had sufficient knowledge and provide adequate response to customers' requests. Muthoka (2017) similarly the EEU call center agents are well educated and have sufficient knowledge about the service they give but it is hard to say all. That major difference is the Kenya bank call center employees have good patience to serve their customers but EEU call center agents have weak patience. And the other difference muthoka research is mainly focus on attrition factor whereas the study is focus on the performance factor.

The study that has done at South Africa based on the factor that performance for the advantage of the company specifically looking at the confidence that the employees have in the performance appraisal system. Robberts (2014) the main difference of the studies, the research mainly focus on the performance of the appraisal system rather than the factor that affect the performance and only focus in South Africa. Whereas the study focus on the factor that affect the performance of the center in EEU rather than performance of the appraisal system. And the other difference is the both research are done in different countries and in different work sectors. The basic similarity both of the researchers use the same factor analysis method and in both study the employee related factor and managerial related factor have high influence in the performance measuring.

CHAPTER FIVE

Summary, Conclusion and Recommendation

As a final chapter, this part of the research provide summary of major findings of the study conclusions and recommendations that resulted from this study.

5.1 Summary of Major Findings

The primary objective of this study was to determine the factors that affect the call center agent's performance at Ethiopian Electric Utility. Ethiopian electric utility call center is one of the EEU department who faces different problems in order to increase the performance of the center. There is no doubt that electricity is one of the key necessities in our day to day life. When there is interruption, customers demand very quick resolution and they cannot wait to contact their service provider through the call center and they need good customer services from the center. And also the agents need a good working environment in order to perform high. Hence the study tried to address the six specific objective stated in chapter one, introduction part. The findings of this research have been summarized as follows.

- Based on the respondents employees have motivation and eager to improve their performance as well as their service (mean, 3.38) but because of the repetitive work situation every day and due to this most of the agents do not have good patience with mean score value of 3.26.
- 905 service becomes occupied as a result of Ethio telecom network difficulty, a power interruption, and a problem with its own system.
- Communication barrier and misunderstanding between the management and the agents.
- Agents have a huge trust issue with their company. Cooperatively most of the agents have poor work satisfaction.
- In the call center, training and development programs are accessible, but maintaining the program is the problem.
- There is lack of sufficient documentation and information in order to support the call center as well as the customer.

- The major performance measuring problem is the complexity of the performance measuring system.
- There is no reward system for those who achieve the highest performance or punishment system in call center
- There is lack of good working environment and equipment's due to several reasons
- The call center is planned to serve all customers across Ethiopia. However; practically, the call center serves nationally for information inquiry and only Addis Ababa customers for maintenance.
- All the independent variables are positive correlated to each other when one variable increase all the other variable increase or when the one variable decreases the other variable decreases.
- From the five basic assumption of regression the study fulfil three of them. (normality, linearity and homoscedasticity)
- The dependent variable (performance related factor)is positively correlated with all the independent variable (employee related factor, system related factor, managerial related factor and customer related factor).

5.2 Conclusion

The main aim of the study was to determine the factors that affect the call center agent's performance as well as to examine the impact of various factors affecting call center performance in Ethiopian electric utility. Accordingly, four independent variables (employee related factor, system related factor, managerial related factor and customer related factor) were hypothesized to assess the factor that affect the performance of the contact center agent's.

The study concluded that employee related factor has both positively and negatively influence in call center service performance at Ethiopian electric utility. The study deduced that employers are eager to increase their performance and also they are willing to share their knowledge or relevant information to each other which have a great impact to increases the performance of the call center. The study further deduced that because of the repeated work the employers are tensed and frustrated which have a negative impact on the performance of the call center agent's service performance.

The study concluded that EEU use one of the latest version of that the industry uses which generate service request number that helps both the customer and the company. As the system is dependent on electricity and telecom network when one of them is fell the call center system will also interrupted this also affect the performance of the call center agent's service.

The study concluded that the managerial related factors is one of the major factor that affect the performance of the EEU call center service mostly with the negative side. The managers and the employees have very poor relationship the employees do not trust their managers as well as the company and also the managers did not provide comfortable working environment like they pressure the employees with different things, they do not provide quality and basic work equipment's such as headset, IP phones, nap room and etc. the study further conclude that there is a knowledge gap in the management about the system, what the customers really needs and in which area they should have to focus in order to solve the customers problems and the company weakness, and also about the working environment of the call center. In addition to all the call center managers do not practice reward management process even if the company has yearly reward program.

The study conclude that the customer related factor influence the call center agent's service performance in different aspects. The study deduced that most of the customers are not aware of the number that basic for to get the service due to this and other problems the customers also take long time more than the services required. The study further deduced that the underage customers call to the center and due to this it become hard to give the service with the quality it needs and also some customers are dishonest about the information they provide/ gives to the agent this happens because of personal problem of the customer and most of all due to the poor service that the EEU technical provide to the customer.

The study conclude that performance management is tangible and time frame which is collected twice in a year with clear criteria's but as most of the respondents indicate that it is impossible to achieve the performance goal in allotted time scales but as the half year and the annual year report indicate that the time given for every criteria's enough which lead the agents to use their time of work effectively even if some of the criteria's are not good enough to evaluate the agents because of the impact they had on the performance of the call center agent's services.

Finally; the researcher concluded that Ethiopian Electric Utility should improve its service of contact center and increase the performance of the center by focusing on employee related factor, system related factor, customer related factors, managerial related factors and performance related factors of its contact center.

5.3 Recommendation

- EEU needs to give due attention for information on service procedure. EEU must minimize the repeated work by providing availing information on the company's website in a customer friendly manner such as areas which have interruption, maintenance and so on for the day. It is also good that the same information be availed in an IVR and web self-care; considering that these channels are cheaper than the telephone channel. As well as which will increase the quality of the service and the performance of the agent.
- EEU need to pay high attention to plat form which will help to solve most customer related factors by providing all the necessary information like the number that should the customer know or have before calling to the center like business partner number and customer id.
- The researcher also suggests that EEU management has to be very close to the call center. The call center is the center where the biggest transaction is made with customers every day. This implies that a lot of input can be obtained and a company that wants to satisfy its customers need to be so close to hear what customers are saying.
- The researcher also suggests that it is not good thing to declare 905 nationally and let it serve only the customers in Addis Ababa. EEU needs to study whether to centralize (as already started) or decentralize the call center service and implement either of the two. It is recommended to emphasize on the enhancement of national call center rather than letting regional customers call to districts via land lines in an isolated manner.
- The CRM system is one of the latest software that has been used by the call centers but it need some modification like the system must be fast while creating complain number or checking bill, the system need to activate the automatically to cancel

complain number with long period of time. And needs to give authorization for the agents.

- The management in call center needs to develop strong link with the customer service heads and technical supervisors to improve the operation and maintenance team because of most of the calls are related to no supply so it must get permanent solution.
- Customers must understand the work responsibility of the agents and they need to be disciplined, respect the agents and responsible for their information. Especially they need to stop the way under age children's call to center.
- Employees need to work on their patience, punctual and they need to see the customer problem as their own problem.
- EEU needs to provide a continuous training to improve the efficiency and the performance of the call center.
- EEU managers must have to start reward and compensation program for the agents who performs the highest.
- The researchers suggest that performance must not measure by the number of calls answered rather than it should be measured based on how effectively the agents serve and satisfied the customers.

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ANNEXESA

INTERVIEW QUESTIONS

Interview Questions to EEU Management

Category A: Yes/No Questions

- 1) Are there any rule and regulation for performance analysis?
- 2) Is EEU call center solving customers' complaints and providing accurate information at first contact?
- 3) Do you have a plan to improve the performance of call center?
- 4) Do you think the employees and the managers have smooth relationship?
- 5) Does the call center perform with it full capacity?

Category B: Open-Ended Questions

- 6) Would do you kindly explain the major factors that affect the performance of EEU Call Center?
- 7) Do you believe the performance analysis method perfectly measure the employees? If not why?
- 8) Is EEU call center costing more than its benefit or vice versa? Why?
- 9) Are there lack of consistency in the performance analysis? Why?
- 10) Are you happy with the current call center technology? If not, why?
- 11) What are your planned methods to improve the performance of the call center?
- 12) Is there a reward system for achieving highest performance and what is the risk of achieving less?

ANNEXESB

QUESTIONNAIRE FOR AGENT

Dear Participants of this Questionnaire

This questionnaire is prepared for a research to be carried out under the title assessing the determinant factors of call center service performance at Ethiopian Electric Utility for the partial fulfillment of the Masters of Business Administration (MBA) Program at St. Mary`s university. I would greatly appreciate your participation and request a few minutes of your time to respond to the attached questionnaire.

Your sincere participation is crucial for the effectiveness of the study. Your responses will be kept confidential. The result of this study will used for academic research and all information you provide will be kept confidential.

I kindly request you to spend some minutes of your time in answering the questionnaire

Notice

- No need of writing name
- In all cases where answer options are available please tick (√)

Please, for any clarification contact me at Bethlehem.tabi@gmail.com

Thank You! For your kind cooperation in answering the questionnaire.

Yours sincerely, Bethlehem ayele

Part I Demographic Profile of the Respondents

Please read the following questions and put a (√) mark on the box representing your agreement/choice.

1) Gender

Female Male

2) Age Group

≤ 25 26-35 36-45 above 45

3) Educational status

High School Diploma Collage

BA/BSC Masters & Above

4) Work Experience in Call Center

Below 6 months 6 months- 1 year

2-3 years above 3 years

Part II: Likert Scale Questions

Direction: The following tables contain the features that relate to your feelings on the factors which may affect the performance of the call center of EEU. Please put a checkmark (√) on the number which represent your perception.

1= Strongly Disagree 2=Disagree 3= Medium 4=Agree and 5 =Strongly Agree

S/N	Description	Scale				
		1	2	3	4	5
1	Employee related factors	1	2	3	4	5
1.1	A lot of time my job makes me very frustrate or I feel tense					
1.2	Employees are eager to improve their performance.					
1.3	Work satisfaction is associated with positive employee altitude.					
1.4	Employees in EEU call center are always willing and happy to help each other.					
1.5	Employees are motivated and committed to improve the service					
1.6	I encounter the same situations every day in performing my job since my duties are repetitious.					
1.7	Employee of EEU call centers trust their company					
1.8	Most of the agents do not have a good patience because of the work load					
1.9	Bounded call offered vary from team to team					
1.10	Sometime agents misplace location entered in the data					
2	System related factors	1	2	3	4	5
2.1	I am unable to give adequate time to customers as I have to finish each of my calls within a given time.					
2.2	The speed which call to be picked up by call center agents is affected by the system					

2.3	Due to the busy system it hard to serve the customers at a time.					
2.4	Because of power interruption most of the time system is not working					
2.5	Due to Ethio telecom network system will interrupt					
3	Managerial related factors	1	2	3	4	5
3.1	EEU evaluate employees satisfaction through survey					
3.2	Employee suggestion have high credit in the call center					
3.3	EEU provides an appropriate working environment conducive for work performance					
3.4	The call center management style has an influence in my work performance					
3.5	EEU managers follow the company policies and procedures for work promotion					
3.6	My personal relationship with the supervisors directly affect my work performance					
3.7	EEU call centers managers have a detailed understand or knowledge about your job.					
3.8	EEU makes a continuous investment in training, education and development of its employees					
4	Customer related factors	1	2	3	4	5
4.1	Most of EEU customers call to the center with important documents and information					
4.2	Some of EEU customers are aggressive and not willing to hear the agents					
4.3	Some EEU customers take a lot of time to get the service					
4.4	Sometime under age customers call to the center					

4.5	Some EEU customers are dishonest about the report					
5	Performance measuring factors	1	2	3	4	5
5.1	EEU used quality assurance and measurable performance standards					
5.2	It is difficult to reach at the performance goals in the allotted time scale.					
5.3	The performance measuring specify deliverables and clearly defined objectives and time frames					
5.4	The performance measuring system most of the time correct during feedback sessions.					

Part II: Open question.

1) How much should the employee's contribution to add achievement of his/her performance goals?

2) Do you think EEU managers follow honest reward system? If not why?

3) To what extent should your performance rating be based on the entire rating period rather than on recent performance?

4) Any additional remark you want to mention about EEU call center? Please, state below.
