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# Effect of Service Quality on Customer Satisfaction: The Case of Ethiopian Electric Utility in South Western Region

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**Abstract:** *This study aimed to evaluate the impact of service quality on customer satisfaction in selected customer service centers within the southwestern region's electric utility sector. A combination of descriptive and explanatory research designs utilizing both qualitative and quantitative methodologies was employed. The study's population consisted of 37,258 customers across four customer service centers, with a sample size of 396 respondents, of which 389 completed and returned the questionnaires. A multistage sampling technique was utilized for sample selection, and data collection was performed through interviews and questionnaires. The collected data was analyzed using SPSS 25, employing descriptive and inferential statistical analyses, including frequency, percentage, mean calculations, Pearson correlations, and multiple linear regressions to ascertain the causal relationship between service quality and customer satisfaction. The study's findings revealed that responsiveness was the service quality dimension exerting the most significant influence on customer satisfaction. Additionally, all service quality coefficients associated with customer satisfaction demonstrated positive and statistically significant correlations. Therefore, enhancing responsiveness and continuous improvement initiatives are critical factors to enhance overall customer satisfaction levels. Furthermore, the study determined that all five service quality dimensions (Tangibility, Reliability, Responsiveness, Assurance, and Empathy) positively and significantly influenced customer satisfaction. Consequently, it is recommended that managers and employees within the Ethiopian Electric Utility should actively collaborate to enhance service quality levels, consequently elevating customer satisfaction levels.*

**Keywords:** *Customer, Service Center, Satisfaction, Quality Dimension, Utility.*

## 1. INTRODUCTION

In well-developed nations, services contribute significantly to GDP, while in underdeveloped nations like Ethiopia; the contribution is lower due to various challenges in service delivery.



According to Sriyam (2010) and Hamilton et al. (2019), poor quality, service, and behavior are leading causes of customer dissatisfaction globally.

A service is an economic activity that provides utilities to customers, with examples ranging from airports to financial institutions. Marketers are focusing on enhancing service quality to improve customer satisfaction and loyalty, as discussed by Parsadi (2022). Building lasting relationships with customers is crucial for businesses, as satisfied customers are more likely to repurchase, promote the brand, and exhibit brand loyalty.

The SERVQUAL model by Parasuraman (1988) and Cronin, et al. (1992) provides a framework to evaluate service quality based on tangibles, reliability, responsiveness, empathy, and assurance. Numerous studies in African nations, including Nigeria, emphasize the importance of meeting customer expectations to maintain satisfaction and gain a competitive edge.

Customer satisfaction is crucial in evaluating service performance. Ethiopia's rapid population growth poses challenges in expanding access to power, especially in rural areas, as discussed by ESMAP (2018). The country predominantly relies on renewable energy sources, mainly hydroelectric, but faces issues with inadequate service delivery from the Ethiopian Electric Utility (Zeritu, 2010). Despite efforts to improve service quality, challenges persist in meeting customer needs, suggesting the need for continued research and improvement initiatives in the region.

Overall, addressing customer expectations, enhancing service quality, and improving service delivery are key elements in achieving customer satisfaction and loyalty in the electric utility sector of Ethiopia.

## **2. RELATED WORK**

- a. (Gobena, 2019). Research on the provision of consistently high-quality services remains a significant challenge for service organizations globally, essential for building credibility and a positive reputation among the public.
- b. Zeritu (2010) Studies have highlighted the shortcomings of the Ethiopian Electric Utility (EEU) in delivering quality services to customers, with specifically pointing out deficiencies in responsiveness, handling of complaints, and overall customer-centric approach.
- c. The objective of the study, according to Tesfaye (2016), is to evaluate how the SERVQUAL model affects customer satisfaction. The survey conducted by EEPSCO in the Addis Ababa region also covers the issues of quality gaps. Frontline managers and visitors to customer service centers served as the respondents in this study, which was carried out utilizing a descriptive survey and explanatory research design. According to the report, EEPSCO's performance in meeting consumers' expectations for high-quality service is subpar. There is a negative difference between service expectations and service perceptions in all of the SERVQUAL aspects, including tangibles, reliability, responsiveness, empathy, and assurance.
- d. Lidya S (2017), is to determine how customer satisfaction is affected by service quality in the context of an Ethiopian telecom call center. Additionally, the study employed both descriptive and causal research approaches. The study's findings demonstrate that the ethio-telecom call center's service quality is below average and that its consumers are



dissatisfied with the service. According to the findings, all aspects of service quality have a considerable impact on both service quality and customer satisfaction. The investigation concluded that customers are unsatisfied with the services provided by the ethio telecom call center and that the call center's overall service quality is subpar. The analyst suggested that Ethiopian Telecom works hard on all of these service quality criteria.

- e. Asnaku F. ( 2018), the major goal of this study is to look into how customer satisfaction is affected by service quality in the context of the billing systems used by Ethiopia's electric utility sector. An explanatory survey design was used in the study, which utilized a quantitative research methodology. According to the study's findings, customer satisfaction is positively and significantly correlated with each of the four service quality aspects (tangibility, assurance, empathy, and responsiveness), except reliability.
- f. In contrast to the reliability, the results also show that the four service quality dimensions tangibility, empathy, assurance, and responsiveness have a positive and noteworthy influence on customer satisfaction. The goals of this study take into account how Service Quality affects Customer Satisfaction in the Case of Hibret Bank (Tesfaye, 2021). An explanatory technique was applied in this study, which used a descriptive survey as its method of collection. The four service quality characteristics (tangibility, reliability, responsiveness, and empathy) had significant positive effects on customer satisfaction, according to the results of multiple regression analysis. Assurance, however, lowers client happiness. Empathy was one of five factors that affected service quality, and it significantly correlated with client satisfaction.
- g. Zerfu (2021), the study examined the effect of service quality on customer satisfaction in Debre Birhan City, and the study Qualitative and quantitative research approaches and explanatory research design were applied. Correlation and regression were used. The study finding shows that the performance of Ethiopian electric utility in providing quality service to its customers is not in a situation to meet their expectations and all variables of the SERVPERF; found that there is a (dissatisfaction) negative gap between service expectations and service perceptions.
- h. Afdel & Lemma (2013), uses the SERVQUAL model to measure industrial clients' satisfaction with service quality. It also solves the issues with quality gaps thanks to a survey conducted among South Addis Abeba Region Industrial clients of Ethiopia's electric company. The respondents to the study were front-line managers and industrial clients, and both methods a descriptive survey and an explanatory one were used. The study demonstrates that EEPSCO's performance in providing high-quality service to its industrial clients falls short of their expectations. It is discovered that there is a negative gap between service expectations and service perceptions across all SERVQUAL dimensions, including tangibles, reliability, responsiveness, empathy, and assurance. Even while providing quality service and ensuring customer satisfaction are important issues for all types of clients, it is crucial to look at the issues faced by industrial customers. However, industrial customers of Ethiopian Electric Power Corporation have complained about frequent power outages, a lack of reaction, an inability to deliver the promised service reliably and properly, and similar concerns. The main suggestion of this study is that it is crucial to measure industrial clients' satisfaction with service quality so that EEPSCO can determine the severity of the issue and provide appropriate solutions.



- i. Berhanu I (2015) noted that exceeding customer expectations leads to satisfaction and retention.
- j. (Mengste et al., 2020). Conducted while customer dissatisfaction arises when expectations are not met. Public utilities play a vital role in providing essential services, with a focus on service delivery efficiency in countries like Ethiopia

### **3. METHODOLOGY**

The research design for this study involved a mix of descriptive and explanatory research designs to examine the effect of service quality on customer satisfaction in the southwestern region electric utility. Both quantitative and qualitative research approaches were used to gather data from participants, with a focus on customer surveys and interviews to understand customer satisfaction with service quality. The study targeted a population of over 70,512 customers in four selected customer service centers, using a multistage sampling technique to reach the target group. The sampling technique involved purposive sampling in the first stage, followed by the selection of four customer service centers based on customer abundance, and the use of probability and non-probability sampling techniques to select respondents. The study aimed to provide a thorough understanding of the relationship between service quality dimensions and customer satisfaction in the EEU service centers.

The sample size was determined to be 396 out of a total population of 37,258 major customers from four selected customer service centers in the southwestern region. The sample size determination formula used was  $n = N / (1 + N(e)^2)$ , where  $n$  is the sample size,  $N$  is the population, and  $e$  is the sample error. By substituting the values into the formula, the sample size was calculated to be 396. This sample size will help in representing the whole population and obtaining accurate information for your research. If you have any more questions or need further clarification. The study utilized both primary and secondary data sources to investigate the relationship between service quality dimensions and customer satisfaction in the southwestern region electric utility. Primary data was collected through structured questionnaires using a Likert scale, while secondary data was gathered from various published and unpublished sources. The primary data collection methods included questionnaires and interviews with key informants, while secondary data was collected through literature review. The validity and reliability of the data collection instruments were ensured through various tests. Data analysis involved both quantitative and qualitative methods, with SPSS software used for statistical analysis. Descriptive and inferential analyses were conducted to examine the relationship between service quality dimensions and customer satisfaction. The study employed a multiple linear regression model to determine the effect of service quality dimensions on customer satisfaction. Ethical considerations were taken into account throughout the research process to protect the rights of participants.

### **4. RESULTS AND DISCUSSION**

Based on analysis tangibility has a positive and significant effect on customer satisfaction. The result of the analysis complies with a study done by Mesay (2012), that proved tangibility is the most important predictor or determinant of customer satisfaction. Contrary



to this result Gaem (2018), found that tangibility aspects of service quality dimension are not significant determinants of customer satisfaction.

The result of the analysis also shows that customer satisfaction is positively and significantly impacted by the reliability dimension of service quality. The result of this study complies with a study done by Million (2017), which reported that customer satisfaction is positively and significantly influenced by reliability aspects of service quality. Furthermore, this result also fits with a study conducted by Zeleke (2012), which shows that the reliability dimension of service quality has a positive and significant effect on customer satisfaction at a publicly owned national alcohol and liquor factory.

On the other hand, Munusamy et al. (2010), reported that reliability has a negative and insignificant effect on customer satisfaction. Also, it is divergent from the study conducted by Asnaku (2018), results also indicate that unlike reliability the four service quality dimensions have a positive and significant effect on customer satisfaction.

The finding of this study shows that responsiveness has a positive and significant effect on customer satisfaction. This finding is supported by Abdisa G. (2019), who found that responsiveness has a positive and significant effect on customer satisfaction. Likewise, Gaem (2018), reported that responsiveness has a positive and significant effect on customer satisfaction.

Moreover, the result of this study also indicates that assurance has a positive and significant effect on customer satisfaction. Similarly, this finding is supported by (M. et Al, 2011), who reported that assurance has a positive and significant effect on customer satisfaction. Contrary to this finding (Al-Hawary, 2011), found that assurance has a negative and insignificant effect on customer satisfaction, and Melkamu (2021), this author also concluded that except assurance all quality dimensions can positively affect customer satisfaction.

The finding of this study further indicates that empathy has a positive and significant effect on customer satisfaction. This finding is supported by Muhammad Awan et al. (2011), who reported that empathy has a positive and significant effect on customer satisfaction. On the contrary, Munusamy et al. (2010), found that empathy has a negative effect on customer satisfaction.

In general, the study findings revealed that all service quality dimensions have a positive and significant effect on customer satisfaction. Among service quality dimensions Variable that responsiveness has the highest value of the Standardized Beta Coefficient is (0.325) and it has the most effect on customer satisfaction. This result also conforms to a study done by Abdisa G (2019), who reported all service quality dimensions to have a positive and significant impact on customer satisfaction in Nekemte municipality. And also (Lidya Seyoum, 2017), reported that all service quality dimensions have a significant impact on service quality and customer. However, a study done in the telecom sector in Nigeria Abimbola (2014), explored that service quality dimensions have no significant effect on customer satisfaction.

Customers are becoming more informed, demanding, involved, and active, which makes it necessary for the electric utility sector to better understand customers' needs. The pace of industrialization would depend heavily on maintaining service quality; therefore a survey conducted among customer service centers in the southwestern region revealed that EEU's service level falls far short of what customers would expect. From the result of the overall descriptive analysis of the service quality dimensions level, it was found that the perception





of the customers of the EEU southwestern region electric utility was less than they expected or below the moderate composite mean level. So, it is possible to conclude that the service quality dimension concerning tangibility, reliability, responsiveness, assurance, and empathy in the EEU southwestern region electric utility is not satisfactory to their customers.

## **5. CONCLUSION**

The overall composite mean for customer satisfaction level mean results is 2.736 which is below the moderate score i.e. 3.39. Therefore, it is possible to conclude that customers of the four selected customer service centers are not satisfied with the service provided by the respective sale points. The study's results, which were gathered via responding to research questions, lead to the following conclusion:

- The results show that the customers perceive the assurance dimension of service quality as the best among the five dimensions, followed by responsiveness, reliability, and empathy. Tangibility is the worst-performed service quality dimension.
- The Pearson correlation table shows a significant and positive relationship between customer satisfaction and all service quality dimensions (tangibility, reliability, responsiveness, assurance, and empathy).
- According to the multiple linear regression analysis, customer satisfaction is significantly influenced by all the service quality dimensions (tangibility, reliability, responsiveness, assurance, and empathy).
- The qualitative analysis results show that southwestern electric utilities faced major challenges in delivering quality service. The main problems identified by the study include: - low employee commitment, insufficient financial and non-financial resources, corruption in attitude and practice, improper use of public resources, lack of customer awareness about their rights and responsibilities, shortage of skilled manpower, high employee turnover, and transfer rates, and unsuitable working office conditions. To overcome these problems and improve service quality in the EEU under the study area, the concerned authorities should address the issues raised by the study.
- Generally, as a result of the above-identified problems and other challenges that might not be observed in this study, the level of quality service delivery which is determined through tangibility, reliability, responsiveness, assurance, and empathy is found poor. Since service quality is the antecedent to customer satisfaction, the results of this study also show the satisfaction of customers in selected customer service centers of the southwestern region electric utility (Mizan, Teppi, Bong, and Chana) is poor as a general observation.

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