

The Impact of Delivering Quality Service: The Case of the Registrar's Office at Kotebe University of Education (KUE)

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Abstract

This study aimed to evaluate the service quality of the Registrar's Office at Kotebe University of Education in Addis Ababa, Ethiopia. The researcher used an explanatory sequential design with a mixed method of research approach. Service quality model questionnaires and interviews were administered to gather data. The collected data was analyzed using SPSS and various statistical techniques. Qualitative data obtained from the semi-structured interviews were analyzed and coded thematically. This study used linear regression models to examine how various aspects of service quality affect customer satisfaction with the University's Registrar. The findings show that assurance, tangibility, reliability, responsiveness and personal interaction have positive effect on members' satisfaction whereas empathy does not. The analysis of linear regression result indicated that the R² value is 0.5408, i.e. the independent variable of service quality and explained 54.1% of the variation in customer satisfaction, indicating a moderate impact. However, the qualitative data and document analysis results confirmed that the provision of service quality did not satisfy students' expectations. Based on the findings, the study concludes that, overall, the Registrar's office's performance not pragmatic to meet customers' expectations. Based on this, the study recommends that the office makes efforts to improve its services and ensure customer satisfaction.

Keywords: Customer satisfaction, Service Quality, Improvement, online service, customer perspective

Background

The relationship between service quality and customer satisfaction is still debatable in any literature review including this one. Some researchers argue that high service quality leads to customer satisfaction and intention to continue using the service (Chia et al., 2008; Ott, 2008; Molinari et al., 2008). This concept has gained recognition as a way to gain a competitive advantage and has been extensively studied. Previous research has shown a positive relationship between service quality, and organizational performance (Parasuraman et al., 1988). Both scholars and practitioners consider service quality and customer satisfaction important for improving overall organizational performance. There is a need for the cooperative to regain the trust of its members and improve the quality of its service. In recent years, student satisfaction with educational services has become increasingly important for educational institutions (Kipngetich, V. and Kipkebut, D.J., 2015). However, there is limited research on service quality in higher education in African countries, particularly in Ethiopia.

Several research centers have focused on studying the satisfaction and quality of benefits for students at the undergraduate and postgraduate levels. One study conducted by Solomon (2012) examined how students and academic staff in Ethiopian public higher education institutions perceived the improvement of benefit quality. The study used the SERVQUAL Model to collect data from undergraduate students and academic staff of four universities. The results

showed that both students and academic staff considered all aspects of services to be very poor in quality. This was attributed to high expectations from stakeholders, the government's desire for improvement, lack of knowledge about the implementation of the method, lack of motivation from service providers, and other factors.

A study conducted in Dire Dawa University in Ethiopia found out that while most students were happy with the university's services, there were still a significant number of dissatisfied students. The study suggests that more effort should be done to improve student satisfaction (Dawit, Getachew and Ashenafi, 2017). The study in Ethiopia examined how students perceived the quality of postgraduate programs at Addis Ababa University (Christian, 2013). The researcher surveyed students and measured service quality using specific dimensions. The study concluded that there was room for improvement in delivering education and service, and emphasized the importance of various aspects such as facilities and staff competence. The researcher suggested that other universities should conduct similar studies to identify areas for improvement.

Lodesso, Niekerk, Jansen, and Müller (2018) surveyed final-year undergraduate students at six public universities in Ethiopia. They used the SERVQUAL model and found that students were generally dissatisfied with the quality of service provided by the institutions. The authors noted that students perceived most service quality characteristics to be of very poor quality. Similarly, Abraham Legas (2018) conducted a study in Oromia State University in Ethiopia to investigate service quality and customer satisfaction. Using the SERVQUAL model, Legas discovered that students were content with safety and empathy, but not pleased with the reliability, objectivity, and responsiveness. The study involved undergraduate and graduate students, as well as input from university leaders and other stakeholders. It was more extensive and had a larger number of participants compared to previous studies conducted in Ethiopia.

Previous research has yielded valuable insights into customer satisfaction and service quality in different universities. However, these findings may not be universally applicable as service quality perception is unique to each university. Thus, individual studies are needed to understand service quality in higher education. Furthermore, there is a lack of research using similar methodology on the factors influencing public university students' satisfaction with service quality, and it remains unclear which aspects should be assessed in relation to this topic.

The Registrar's Office at Kotebe University of Education has received many complaints from students, prompting the need for research to improve the university's services, specifically the registrar service. There is a lack of clear methods and practical information about the current level of service and student satisfaction. This study aims to fill those gaps by comparing and interpreting the results of different research methods, theories, and practices. The study seeks to answer specific research questions.

1. How does the registrar's office at Kotebe University of Education deliver satisfactory service to students?
2. To what extent are students satisfied with the delivery of service qualities in the KUE's Registrar's Office?

The purpose of this study was to examine how the quality of service provided by the registrar's office at Kotebe University of Education (KUE) affects its overall impact.

Literature Review

The SERVQUAL Model, developed by Parasuraman, Zeithaml, and Berry (1985), based on a study have identified 10 dimensions of service quality. These dimensions include reliability, responsiveness, competence, and tangibles. Service quality refers to providing exceptional service that meets or exceeds customer expectations (Zeithaml and Bitner, 1996, p. 117). It is a multi-dimensional concept that includes outcome quality, interaction quality, and physical service environment quality. Outcome quality refers to how customers perceive the excellence of their service experience.

The Value-Percept Disparity theory explains why consumers choose certain brands, products, and services, even if there are better options available (Westbrook, 1992). It suggests that customer satisfaction is influenced by both the actual quality of a product and the quality that customers expect. The difference between these two is known as Perceptual Discrepancy. This theory is applied in this study of service quality and customer satisfaction.

Although SERVQUAL has become popular and widely used, it has faced numerous theoretical and operational criticisms. For theoretical aspects, Francis Buttle (1996) provided several critiques of SERVQUAL. He argued that the Gaps model, which measures the difference between customer perception and expectation, does not effectively measure quality. He also criticized SERVQUAL for focusing on the process of service delivery rather than the outcomes, which means it overlooks technical aspects of the service (Kang and James, 2004). Furthermore, Buttle (Buttle, 1996) claimed that the five dimensions of SERVQUAL are not universally applicable and do not always align with expectations.

Under operational aspects, the SERVQUAL model is criticized for not accurately measuring customer perception of service quality in some industries (Cronin & Taylor, 1992). Gronroos (1984) introduced two attributes of service quality based on the difference between customer expectations and perceived service. Rust and Oliver (1994) expanded on this model by including a three-component model that explains service quality through service product, delivery, and environment. Brady and Cronin (2001) suggested three dimensions of service quality, which align Gronroos' model.

In the conceptual framework developed by Parasuraman et al. (1985), 10 factors that determine service quality, including reliability, responsiveness, competence, and communication. These factors can only be evaluated based on personal experience and can range from excellent to poor quality. Customer satisfaction with service quality depends on how it compares to their expectations. If the level of service is lower than expected, it is considered unsatisfactory. If it meets expectations, it is considered satisfactory, and if it exceeds expectations, it is considered ideal.

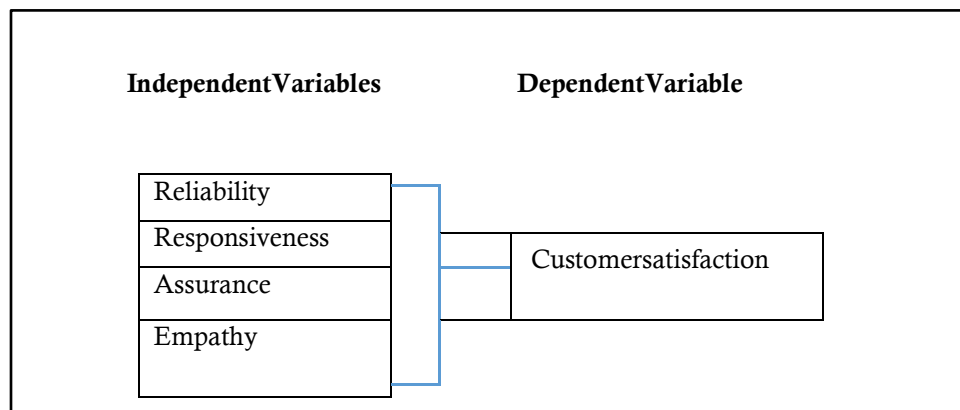


Figure 1: The Conceptual Framework of the SERVQUAL model and customer satisfaction

Figure 1 shows the proposed framework modified from the Parasuraman et al. (1991). The purpose of this study is to examine the influence of service quality elements, which are reliability, responsiveness, assurance, and empathy, towards customer satisfaction. Four hypotheses which have been established to be tested are as follows:

- H1: Reliability positively influences customer satisfaction.
- H2: Responsiveness positively influence customer satisfaction.
- H3: Empathy positively influences customer satisfaction.
- H4: Assurance positively influences customer satisfaction.

This study looks at how customer feedback can be used to assess the quality of service at Kotebe University of Education. It suggests that businesses should concentrate on enhancing areas that receive lower satisfaction ratings from customers. By doing so, businesses can identify the specific aspects of service quality that customers are satisfied with. The study highlights the significance of customer satisfaction for achieving long-term success in business

(Arsanam & Yousapronpaiboon,2014). To maintain and attract satisfied customers, organizations must offer high-quality services (Muala, 2016).

Methodology

The research paradigm indicated using structured questions based on the SERVQUAL model in their research, and they approach their work with objectivity with respondents. In the second stage, researchers attempt to make inferences about the subjective outcomes of the study, thereby displaying further focus on interpretive perspectives through in-depth interviews with participants. The study used explanatory sequential design, a mixed method which includes quantitative and qualitative research approaches to collect and analyze data. In this study, an explanatory sequential design was chosen to obtain different, but complementary data on the same topic and to better understand and answer the research questions (Moore, 2009; Creswell, 2017). The study chose this approach to gain different perspectives and better understand their research questions. They analyzed the first research question using descriptive statistics and linear regression with SPSS version 23. The second research question focused on understanding, how satisfactory service was delivered and analyzed data from interviews and focus group discussions.

Data Analysis, Results and Discussion

Introduction

This chapter discusses the main findings from the descriptive and econometric analysis of Service Quality Dimensions and Students' Satisfaction and other important variables using a data collected from respondents. Data was collected in three weeks' time, including enumerator orientation and the return rate of papers was 100 percent.

Reliability Test

The reliability test was conducted to ensure that the data collection instruments used to gather information from students at KUE's Registrar offices were consistent. The analysis showed that the items used in the instruments were reliable in collecting consistent information from the selected respondents. In this regard, table 4.1 summarizes the result of reliability analysis as follows:

Table 4. 1 Reliability Test Results

<i>Statements</i>	<i>Number of Items</i>	<i>Reliability Test (Cronbach's Alpha)</i>
Tangibility	4	0.864
Reliability	4	0.847
Responsiveness	4	0.844
Assurance	4	0.863
Empathy	4	0.798
Students' satisfaction	5	0.878
Overall	25	0.849

Source: Field Survey, 2023

According to Table 4.1, the Cronbach's Alpha value of all 25 items in the data collection instrument is 84.9%, which is considered acceptable for ensuring consistent data. The reliability analysis results for the different categories of service quality (tangibility, reliability, responsiveness, assurance, and empathy) range from 0 to 1. Additionally, the reliability level for the items related to factors affecting students' satisfaction is 87.8%. Overall, the reliability test confirms that the data, surveys were collected from all respondents, ensuring that the discussions based on these surveys reflect consistent views.

Demographic Characteristics of Respondents

✓ Gender Composition

The demographic statistics of respondents by gender is reported in Table 4.2. Participants were asked to indicate their gender by selecting the appropriate option provided (male or female). Accordingly, 76 (50.67%) of the respondents were males, while the remaining 74 (49.33%) were females, which assures that the study considered both sexes and the sample contains a good proportion of both genders.

✓ Educational Background

From the analysis of educational background of the respondents, it was found out that 87 respondents (58%) have a Bachelor Degree, 60 respondents (40%) have a Master's Degree student and the remaining 3 respondents (2%) have a Masters graduate in Education. This profile shows that the majority of the respondents have a bachelor or BA levels of education which assures that the participants qualify to give accurate information that can make the result more plausible or credible.

Table 4.2 Demographic characteristics of respondents

Variable	Category	Frequency	Percent (%)
Gender	Male	76	50.67
	Female	74	49.33
Level of Education	1 st Degree	87	58.00
	Masters students	60	40.00
	A Masters graduate of Education	3	2.00
No. of Years in KUE	1-3 Years	49	32.67
	4-7 Years	8	5.3
	8-10 Years	2	1.33
	> 11 Years	91	60.67
Services used in KUE Registrar	Online Registration	52	34.67
	Student Copy	30	20.00
	students semester result	43	28.67
	Original Document	17	11.33
	Other service	8	5.33
Time taken for the KUE Registrar Service	Less than ten minutes	8	5.33
	Ten to thirty minutes	50	33.33
	Thirty-one minutes to one Hour	28	18.67
	More than one hour	64	42.67
Importance of customer satisfaction for service delivery and service quality	Extremely important	71	47.34
	Important	43	28.67
	Fairly important	25	16.67
	Not important	11	7.33
Total		150	100

Source; Own Survey, July, 2023

Students' Perception towards Service Quality in KUE's Registrar Office

As is explained from the very beginning, this study sought to examine the students' perception towards service quality in KUE's Registrar Office. The responses were placed on the five Likert scale where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5= strongly agree. One statistical approach to determine equivalence between groups is to use simple analyses of means and standard deviations for the variables of interest for each of the study groups (Marczyk, et al., 2005). The mean indicates the average degree to which the sample group agrees or disagrees with the different statement. The mean values were explained by applying the criteria proposed by Landell (1977) and MohdNajib (1994), for a Likert scale ranging from 1 to 5, the interpretation of the mean must be of the type: 1.00 to 2.33 meaning low; an average of 2.34 to 3.64 means moderates and 3.68 to 5.00 means high.

✓ Tangibility of Quality Service Dimension

Tangibility refers to the physical facilities, equipment, and appearance of personnel in the process of service delivery. In regard to this, the study examined the perception of customers toward the conditions of physical facilities, the use of modern equipment for delivery of required services, ethical neatness of employees, and cleanness of the physical environment. In line with this, Table 4.3 presents the expectation and perception of customers toward tangibility using different attributes.

Table 4.3: Perception of Customers on Tangibility of Service

Statements	Mean	Standard deviation	% of Agreement
Kotebe University of Education Registrar has required update in technology equipment to provide quick and quality service delivery	2.433	.10636	48.667
Kotebe University Registrar employees have required knowledge and skills to deliver quality and speedy services to its customers.	2.600	.1119284	52.000
Physical environment of the classes is clean provides adequate space	2.506	.1022112	50.133
Employees are well dressed and appear neat.	3.046	.1186564	60.933
Composite Mean (Tangibility)	2.586	.073312	51.733
Total Obs. 150			

Source: own Survey, June, 2023

Note: The mean is derived from the scale of 1=strongly disagree to 5=strongly agree

The students' average perception of the tangibility of service quality in the KUE's Registrar's Office is 2.587, indicating that they recognize the office's efforts in providing quality service. It is important for employees to have the necessary knowledge and skills and to be well-dressed and neat in order to effectively address students' perception of service quality. The average scores for knowledge and skills and employee appearance are 2.6 and 3.047, respectively, indicating moderate levels of students' perception of service quality qualifications. The low standard deviation of 1.022 suggests that there is little variation among the respondents. Overall, the tangibility of services in the registrar's office meets 51.733 percent of customers' perception. However, The tangible dimension regarding the physical

dimension/appearance of any of the service deliverables or process, like premises, equipment, people etc. participants in interview remarked:

University registrar lacks required and modern equipment to provide quick and quality service delivery. Registrar employees need or require more knowledge and skills to deliver quality and quick services to their customers. The room should be clean and should have adequate space, and employees' uniforms should be attractive (St1-In01).

Student B, in agreement with Student A, stated,

We need appropriate services apart from helping them to have an excellent service. The service provided by the registrar using Online/internet/ neither takes our' satisfaction into account nor is fulfilled. There might be a policy and regulation, but what practically observed has deviated from what is expected of them as they have not been guided using a well-organized plan. Since the registrar lacks well planned system, the registration and exam time has all the time been lopsided or distorted. No task has been run following plan.(StB-In2)

Technology is crucial for improving service quality in higher education. It is essential for businesses to stay competitive in today's digital economy. Service excellence, especially in the registrar service sector, can give a competitive advantage. The registrar employees believe that technology availability and utilization are important in achieving this.

The relationship between students and the registrar is not keeping up with the necessary technology and current working environment. This is affecting students' ability to smoothly engage in the learning process. The workers are not fulfilling their responsibilities properly and often blame each other in front of customers/students. Additionally, the time and money spent by service recipients are not accurately accounted for E1-In1).

The data from both quantitative and qualitative sources indicates that the physical facilities at the KUE Registrar do not meet customer expectations in terms of cleanliness and professionalism. The computer equipment, staff, and communication materials do not have the desired appearance. Moreover, employees seem unkempt and the menus, websites, and signs are not up to the standard expected by customers.

Reliability in Quality Service Dimension

Reliability refers to the ability to consistently and accurately provide the promised services to meet customers' expectations. The study focused on the University's commitment to addressing customer issues, delivering services correctly on the first attempt, maintaining accurate data records, delivering services on time as promised, and providing clear communication about when services will be performed. Table 4.4 summarizes and presents the perception of service reliability.

Table 4.4: Perception of Customers on Reliability of Service

Statements	Mean	Standard deviation	% of Agreement
Kotebe University Registrar provides its services at promised times.	3	.1053385	60.000
Registrar Employees show sincere interest in solving the problem when students have a problem,	2.66	.1146261	53.200
The employees handled customer's complaints effectively	2.833333	.1046638	56.667
Employees provide accurate information to customers.	2.793333	.1096248	55.867
Composite Mean (Reliability)	2.87	.0849306	57.400
Total Obs. 150			

Source: own Survey, June, 2023

Note: The mean is derived from the scale of 1=strongly disagree to 5=strongly agree

The average score for students' perception of the reliability of service quality at the KUE's Registrar's Office is 2.87, with a variance of 0.849 (Table 4.4). This indicates a moderate level of satisfaction. It is important for the Office to focus on providing services on time and addressing customers' complaints, as these areas have average scores of 3.0 and 2.833 respectively. Overall, the reliability of the Office's services meets 57.4 percent of customers' expectations.

The reliability dimension regarding the ability to execute the promised service accurately and in a time bound manner is less effective than the expectation of customers. Regarding these participants stated:

In my view, the workers in the registrar office at Kotebe University of Education lack the necessary skills and knowledge to effectively serve students through online registration. They struggle with computer handling, which hinders their ability to provide quality service. This slow adoption of online processes has hindered progress in modernizing and improving the service. As a result the result, we complain frequently with registrar to improve service deliver on time and addressing customer (St1&2-In01).

Likewise, during the focus group discussion, employees of the Registrar agreed that:-

The Registrar's Office at the University is facing delays in their work due to being extremely busy and not having sufficient technological skills and knowledge to efficiently assist students with online registration. This has led to issues such as delayed issuance of ID cards and grades for students. As an example, the first-semester grade and status of students were not determined until the middle of the second semester, despite the second semester starting two months earlier (EGDE-G1).

This shows that the employees are not effectively delivering the expected service in a timely manner. It also suggests that the employees in the Registrar's Office lack proper training in entering students' data into computer systems and

using software for records administration. In connection to this, one of the employees from the Registrar Office confirms that:

We're not familiar with computer science regarding the use of computers to use them for the purpose of registration. We get initial training only in Excel, so that we are still in trouble to serve students as expected. Students have been complaining because of our poor service(FGD1-In1).

Based on the information provided, it can be argued that the University did not adequately consider the applicant's previous work experience as a registrar and their strong organizational skills in maintaining academic records, as well as their proficiency in computer literacy and database familiarity during the recruitment and selection process. As a result, the employees lack the necessary computer skills to effectively assist students.

In assembly to participants (St2In02) reported that:

Collecting data to differentiate students' satisfaction with service quality based on their personal characteristics requires timely submission of grade reports and probation status determination for both regular and continuing education students. However, there have been instances where these processes have been delayed, causing some students to face difficulties in continuing their education. Additionally, obtaining an Identification Card (ID) through the registrar's service is challenging and time-consuming, taking over a year and involving a repetitive process. Surprisingly, the registrar's office does not prioritize serving students promptly and efficiently. (St2In02).

Therefore, it can be inferred from both quantitative and qualitative data there are significant problem regarding the ability to perform the promised service dependably and accurately within the given set requirements between the registrar and the customer

✓ **Responsiveness, Quality Service Dimension**

Responsiveness refers to the willingness to help customers and provide prompt service to meet their perception. In line with this, Table 4.5 presents the expectation and perceptions of customers for the services they received.

Table 4.5: Perception of Customers on the Responsiveness of Service

Statements	Mean	Standard deviation	% of Agreement
Employees are happy and willing to serve the customers.	2.766667	.1124933	55.333
Kotebe University Registrar provides diversified service to customers	2.586667	.1058413	51.733
Kotebe University Registrar gives quality and quick service	2.393333	.0950199	47.867
Kotebe University registrar employees are always willing to help customers.	2.566667	.0952645	51.333
Composite Mean (Responsiveness)	2.901667	.0824301	58.033
Total Obs. 150			

Source: own Survey, July, 2023

Note: The mean is derived from the scale of 1=strongly disagree to 5=strongly agree

The overall mean score of the students' perception towards responsiveness of service quality is found to be 2.902 with a variance of 0.824 (Table 4.5). This indicates a moderate level of students' perception towards responsiveness of service quality in KUE's Registrar Office. This clearly confirms that the responsiveness of services of the registrar office meets 58.033 percent of the perception of customers.

Regarding the responsiveness dimensions in response to customer issues and provision of prompt service, a student participant argues:-

As far as the standard of the service of the Registrar is concerned, it has not followed the manner to serve customers as per the set time and typical elegance, and even get students to participate in some circumstances. Employees are not generally happy and willing to serve customers in good behavior and timeliness wise, they don't serve as quickly as they are expected to do so. It has not any information conveying means like flyers and brochures to make customers or students well aware of the details of its services (FGDS-G2y2).

Students FGD G2 and G3, about the responsiveness dimensions in response to customer issues and provision of prompt service admitted.

Many say that even they do not have the right to ask questions about the shortcomings witnessed in due course delivering registrar service in response to customer. As a result of the ruined service that is run under standard, the University is on the verge of being loathed. They also not deliver services in one stop shopping. It is really high time for the university to revisit its service delivery model and replace the malfunctioned one with a prompt, timely and efficient serves (FGD G2 and G3).

In summary, the data shows that the registrar's assistance to students does not align with customers' feedback and involvement. This has led customers to feel unappreciated due to the registrar's inability to provide quality service.

Quality Assurance Service Dimension

Assurance deals with **knowledge and courtesy of employees** and their ability to inspire trust and confidence that meet the perception of customers in the process of service delivery. Accordingly, Table 4.6 present perceptions of customers for the services received from the corporation.

Table 4.6: Perception of Customers with Assurance Service

Statements	Mean	Standard deviation	% of Agreement
The employee has the required skills to provide services.	2.393333	.0911751	47.867
The employees have sufficient knowledge of service information	2.426667	.0952316	48.533
The employees make customers feel safe while providing services	2.206667	.099797	44.133
Employees have required knowledge to answer customers'	2.42	.087863	48.400
Composite mean (Assurance)	2.405	.0581053	48.100
Total Obs. 150			

Source: own Survey, July, 2023

Note: The mean is derived from the scale of 1=strongly disagree to 5=strongly agree

The overall mean score of the students' perception towards Assurance of service quality is found to be 2.405 with a variance of 0.581. This indicates a moderate level of students' perception towards Assurance of service quality in KUE registrar office. This clearly confirms that the Assurance of the services of the registrar office meets 48.1 percent of the perception of customers. Moreover, participants in the focus group discussion forwarded that:

Apart from the provision of documents and processing of credentials, other activities are run as per the schedule and they have required computer skills to provide services. However, the registrar does not have new technologies during registering students and applies proper technology and personnel who are capable of utilizing the technology to make it quite

modernized. As a result, the employees lack sufficient knowledge of service information and are expected to make customers feel safe while providing services there is no regular conversation reviews to help and improve your team's performance and overall support process. (FGD- A).

Participants in FGD B, in agreement with Participants A, remarked,

Employees should have the required knowledge to answer customers' demands since their service could hardly be given using other skills, workers have to be well trained and skilled. They have to use even beyond GIGA. In general, the University should have well trained and ethically shaped human power to make its future rewarding and rosy. It is also advisable to hire workers with better knowledge and experience as well as with technological skills and advanced knowledge, they are expected to work a full day. In so doing, its service will be improved and regain its reputation (In02HU). (FGD-B)

In order to provide effective service, it is crucial to deliver services accurately and efficiently. If services are missing or lost, they cannot be replaced. Our research indicates that students have higher expectations for service quality than what is actually being provided by the Office. This suggests that the Registrar's service falls short of expectations. Failing to provide effective service can have a long-term impact on how an institution is perceived. Therefore, it is essential to make an extra effort and pay attention to service delivery, especially in terms of employee understanding and politeness, as well as their ability to inspire trust and confidence.

✓ **Empathy Quality Service Dimension**

The concept of empathy in this study refers to the way a service organization cares for and pays individualized attention to its customers to meet their expectations. The study looked at different aspects of empathy, such as giving personalized attention, understanding customer needs, prioritizing customer interests, providing desired personal services, and having convenient operating hours. Table 4.7 displays the customers' expectations and perceptions of the services provided by the organization.

Table 4.7: Perception of Customers on Empathy of Service

Statements	Mean	Standard deviation	% of Agreement
Employees always treat customers in a friendly manner.	2.48	.0981803	49.600
Employees treat customers with great respect.	2.52	.1102042	50.400
Employees give individual attention to customers.	2.506667	.0999985	50.133
The employees understand the specific needs of their customers.	2.706667	.0990093	54.133
Composite mean (Empathy)	2.588333	.067354	51.767
Total Obs. 150			

Source: own Survey, July, 2023

Note: The mean is derived from the scale of 1=strongly disagree to 5=strongly agree

The overall mean score of the students' perception towards Empathy of service quality is found to be 2.588 with a variance of 0.067. This indicates a moderate level of students' perception towards Empathy of service quality in KUE's Registrar Office. This clearly confirms that the Empathy of the services of the Registrar Office meets 51.767 percent of the perception of customers.

The employees are expected to understand and give due attention and care to students. In the case of readiness, some, if not all, employees were found to be ready to help students. Nevertheless, any readiness is vain unless it is depicted or shown in practice. To the best of their understanding, the participants asserted that there was complaint in this regard. In relation to empathy, an interviewee responded the following.

I am not sure who the Registrar Office is intended to serve. I don't think it understood its professional obligation to respect students and other customers when they go there to get its services.. It seems that they did not perceive their work to be constructive and positive, they are not likely partaking in and foster the simplest social good: generosity of thought and action treating customers in a friendly manner. They have not understood, individual due attention gives customers. And care for students in treating customers with great respect. As a result, they did not maintain integrity and fairness in all aspects. (FGDB, G3).

FGDC-G4 emphasizes the comment raised by FGDC- G3 by saying,

The current internet service lacks effective communication and is only focused on giving commands. To improve the service, certain aspects need to be addressed. Communication should be two-way instead of one-way, and workers should be well-trained and knowledgeable in serving the public. They also need to improve their computer management skills. Additionally, telephone and telegram usage should be updated as they do not satisfy customers. Surprisingly, there are many complaints about serious issues with the registrar's work, such as incorrectly filling in semester grades and altering results. For example, if someone receives an 'A', it is changed to a 'B'. Furthermore, there is no opportunity to correct any mistakes that have been made.

Another respondent added that there was individually different but we advised our employees to give individual attention as well as equal treatment of students (In07). The next participant said that it is OK (Std. In8). This means that no clear indication of whether individual attention was given or not. This was also true for FGD participants, as they were of similar opinions as most expect, although they did not face for themselves.

The Registrar is in charge of handling student academic records, including collecting and maintaining information for analysis. However, the current system for storing records lacks the necessary technology and employee skills to effectively use computers for data analysis. Additionally, many customers feel that the registrar does not provide enough personal attention and does not prioritize building friendly relationships with them.

Level of Students' Satisfaction at Kotebe University Education

Assessing the degree of the customers' satisfaction from the provided services is one of the objectives of the study. These include having the modern technology equipment and provide speedy service, giving individual attention, communicative ability of the employees, communicative ability of the employees and handling compliant questions of effectiveness of the services of the registrar as presented in Table 4.8 below.

Table 4.8: Overall Satisfaction Level of Customers

Statements	Mean	Standard deviation	% of Satisfaction
Your level of satisfaction having the modern technology equipment and provide speedy service to its customer.	2.533333	.1051968	50.667
Your level of satisfaction on giving individual attention to customers of the registrar staffs.	2.486667	.110211	49.733
Your level of satisfaction on the communicative ability of the employees of the registrar.	2.42	.1079688	48.400
Your level of satisfaction on the performance of the registrar staffs.	2.426667	.1120669	48.533
Your level of satisfaction in handling compliant questions of effectiveness of the services of the registrar.	2.54	.1172504	50.800
Overall Satisfaction Level	2.502667	.0577191	50.053
Total Obs. 150			

Source: own Survey, July, 2023

Note: The mean is derived from the scale of 1=strongly disagree to 5=strongly agree

Table 4.8 shows the overall satisfaction level of students for the services they received from KUE's Registrar's Office.

Accordingly, the overall satisfaction level of students has been computed on average as about 2.503 for a 5- Likert scale measurement which is equal to 50.053 percent. This level of satisfaction can be considered as moderate satisfaction as the standard of 2.34 to 3.64 represents a slight/moderate level of satisfaction.

Econometric Analysis

✓ Econometric Analysis of Factors Affecting Students' Satisfaction at KUE

The purpose of this study is to examine how different factors, such as Tangibility, Reliability, Responsiveness, Assurance, and Empathy, relate to students' satisfaction. To analyze this, the study uses multiple regression models and categorical outcome variables related to students' perception of service quality. After the regression analysis, the study also predicts the marginal effect for easier understanding of the results (Annex B).

Table 4.9 Marginal Effect after regression model for factors that affect students' satisfaction

Variable	Coefficient	P> z
Tangibility	0.0859717	0.013**
Reliability	0.3412531	0.000***
Responsiveness	0.2219049	0.000***
Assurance	0.3228881	0.000***
Empathy	0.021882	0.037**
_Cons	-0.1362749	0.000
Number of obs = 150 Adj R-squared = 0.5248		
Prob> F = 0.0000 R-squared = 0.5408		

Source: Own computation based on STATA survey, 2023

*** and ** indicates significance at 1 and 5% significance level respectively.

As with the simple regression Table, we look at the p-value of the F- test to see if the overall model is significant. With a p-value of zero to four decimal places, the model is statistically significant. The R- squared value is 0.5408, meaning that approximately 54.1% of the variability of the dependent variable (students' satisfaction) is accounted for by the variables in the model (Annex A). Regarding individual significant level variable, tangibility, reliability, responsiveness, assurance and empathy are found to be statistically moderate.

The above regression model can be written as follows:

$$\text{Customer satisfaction (Custsat)} = \beta_0 + \beta_1 \text{Tangibility} + \beta_2 \text{Reliability} + \beta_3 \text{Responsiveness} + \beta_4 \text{Assurance} + \beta_5 \text{Empathy}$$

$$\text{Custsat} = -0.1362749 + 0.0859717 \text{Tangibility} + 0.3412531 \text{Reliability} + 0.2219049 \text{Responsiveness} + 0.3228881 \beta_4 \text{Assurance} + 0.021882 \text{Empathy}$$

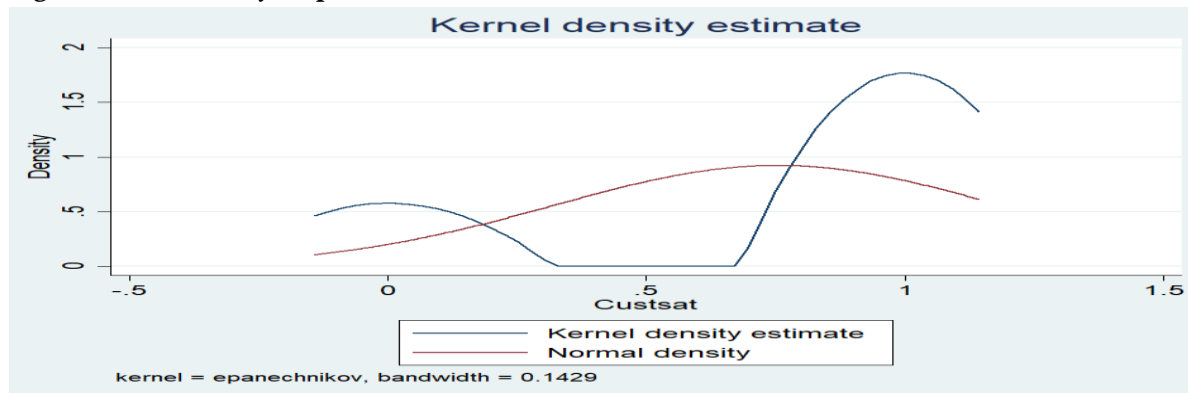
Before the discussion part, post estimation, tests are presented to be sure that the selected model is consistent and efficient. The study conducts Multicollinearity test in order to check for the correlation among independent variables or not. The variance inflation factor (VIF) result is 1.13 which is lower than the threshold of 10. This evidenced the absence of multi-collinearity problem (Annex C).

In order for inferential statistics to be accurate, the error terms of the continuous variable must be normally distributed. The Shapiro-Wilk test, which tests for normality, yielded a p-value of 0.00007, indicating that there is no violation of the normality assumption (Annex, D). The hetero-skedasticity test, which checks if the variance of the error term is consistent for all observations, can detect the presence of hetero-skedasticity. The result of this test for the stochastic frontier model revealed a probability greater than the chi-squared value of 0.0000, indicating that there is no hetero-skedasticity problem (Annex, E).

4.7.2 Customer Satisfaction and Pattern of Independent Variables

Shapiro-Wilk normality test, the result of Kurtosis test was found and pre (kurtosis) = 0.1429, showed there is no normality assumption violation.

Figure. Kernel density output



Discussion and Interpretation of Coefficients

The econometric result table 4.7 shows that all five independent variables affect students' satisfaction of service quality: namely, tangibility, reliability, responsiveness, assurance and empathy.

Tangibility: The presence of tangible aspects in service quality positively impacts students' satisfaction. This relationship is statistically significant at a 5% level. After conducting a regression analysis, it was found that a one-unit increase in tangibility increases the probability of student satisfaction. This suggests that registrar offices with tangible service quality are more inclined to adopt more advanced methods.

H1: Tangibility positively influences customer satisfaction.

From table 4.9 above the exact p-value for Tangibility is 0.013 which is less than 5% (0.05); and hence we reject the null hypothesis (Ho) and conclude that Tangibility has a moderate and positive effect on customer satisfaction in KUE registrar office.

Reliability: The reliability of service quality has a positive impact on students' satisfaction, and this impact is statistically significant. The coefficient indicates that for a one unit increase in a reliable, there is a 0.341 increase in the probability of students' satisfaction. This suggests that students who utilized the education registrar offices at Kotebe University have high levels of satisfaction compared to those who did not.

H2: Reliability positively influences customer satisfaction.

As we have seen from table 4.9 above the exact p-value for Reliability is 0.000 which is less than 5% (0.05); and hence we reject the null hypothesis (Ho) and conclude that Reliability has a significant and positive effect on customer satisfaction in KUE registrar office.

Responsiveness: The level of responsiveness has a positive impact on students' satisfaction with service quality, which is statistically significant at a 1 percent level of significance. The marginal effect coefficient indicates that for a one unit increase in responsiveness leads to a 0.222 increase in the probability of students' satisfaction. Additionally, research shows that responsiveness play a significant role in customer satisfaction. Customers prefer a friendly and helpful environment where service providers are willing to assist them.

H3: Responsiveness positively influence customers' satisfaction.

From table 4.9 above the exact p-value for Responsiveness is 0.000 which is less than 5% (0.05); and hence we reject the null hypothesis (Ho) and conclude that Responsiveness has a significant and positive effect on customer satisfaction in KUE registrar office.

Assurance: the level of assurance provided to students positively affects their satisfaction with service quality. This relationship is statistically significant at a 1 percent level of significance. Specifically, for every increase in assurance, the likelihood of students being satisfied increases by 0.323. In other words, an increase in satisfaction is observed for every increase in an assurance.

H4: Assurance positively influences customer satisfaction.

From table 4.9 above the exact p-value for Assurance is 0.000 which is less than 5% (0.05); and hence we reject the null hypothesis (Ho) and conclude that Assurance has a significant and positive effect on customer satisfaction in KUE registrar office.

Empathy: empathy affects students’ satisfaction with service quality positively which is significant at a 5 percent of significant level. The marginal effect coefficient interpreted as an empathy increases the probability of students’ satisfaction by 0.022. This is interpreted as, when empathy increases the likelihood of students’ satisfaction increases.

H5: Empathy positively influences customer satisfaction.

From table 4.9 above the exact p-value for Empathy is 0.000 which is less than 5% (0.05); and hence we reject the null hypothesis (Ho) and conclude that Empathy has a moderate and positive effect on customer satisfaction in KUE registrar office.

✓ **Summary of Hypotheses Testing**

The study summarized the hypothesis test results after the analysis of all survey results as follows.

Table 4.10 Summary of hypothesis testing

Hypothesis	Test	Result
Tangibility is positively influences customer satisfaction	Regression	Supported
Reliability is positively influences customer satisfaction	Regression	Supported
Responsiveness is positively influences customer satisfaction	Regression	Supported
Assurance is positively influences customer satisfaction	Regression	Supported
Empathy is positively influences customer satisfaction	Regression	Supported

Source: Compiled from Field Survey, using STATA V 14, (2023)

The results of coefficient variable tests the p-value indicate that more independent variables is 0.000, and concluded that the independent variables like Tangibility, Responsiveness, Assurance, and Empathy, have a significant and positive impact on customer satisfaction in KUE's Registrar Office. This suggests that implementing more service quality dimensions will lead to higher levels of customer satisfaction.

Prioritizing Service Quality which has more Influence on Students’ Satisfaction

After analyzing the coefficients individually, it was found that none of the service quality dimensions had a significant and equal impact on students' satisfaction in KUE's Registrar's Office. Each dimension had different percentage points. Among the five dimensions, reliability and assurance had a moderate effect on students' satisfaction, while empathy had the least impact.

Correlation Analysis of Factors of Service Quality that Affect Students’ Satisfaction

The correlation analysis is aiming to see the extent of strength or weakness relationship among variables. A correlation approach to 1 shows a strong correlation and the one approach to 0 shows weak relationship. Correlation analysis could have three important advantages. First, it tells whether the relationship between the dependent variable

is positive or negative. Second, it tells whether the relationship is strong or not. Third, it tells about whether there is a multi-collinearity problem or not.

The correlation between students' satisfaction and empathy is 0.2080 which implies that there is weak correlation. A moderate relationship is observed between **assurance and students' satisfaction** 0.5470 (Annex F).

Discussion of Results

The results of the research indicate that the five aspects of service quality (physical appearance, promptness, consistency, trustworthiness, and understanding) are strongly correlated with student satisfaction which also found a significant connection between service quality and student satisfaction. Khan et al., (2011) and Tan et al., (2010) discovered that tangibles do not have a significant impact on student satisfaction.

This study found a moderate correlation between reliability and student satisfaction, similar to previous studies by Zeithaml et al. (2000) and Khan et al. (2011) which also found a significant relationship between reliability and student satisfaction. According to (Al-Hawary, Al-Hawary & Malik, 2011), reliability has a positive and a moderate effect on customer satisfaction. On the other hand, Munusamy (2010) revealed that reliability has a negative and insignificant effect on customer satisfaction. The results from the econometric analysis of the current study also revealed that reliability has a positive and a moderate effect on customer satisfaction.

The finding of this study indicates that responsiveness has a positive and significant effect on customer satisfaction. The findings are in line with a study conducted by Gao and Wei (2004) on a Chinese business school, which found that student satisfaction is significantly influenced by responsiveness. This result is also supported by (Mohammad, Al-Hawary and Alhamadani; 2011). However, Tan et al. (2010) found no significant correlation between responsiveness and student satisfaction. The discrepancy in results could be attributed to variations in the educational system or the location of the study.

The results from the econometric analysis of the current study also revealed that empathy has a positive and a moderate effect on customer satisfaction. This finding is supported by (Mohammad and Alhamadani; 2011). On the contrary, Munusamy, (2010) found that empathy has a negative effect on customer satisfaction. The current study shows that assurance has a positive and significant impact on customer satisfaction. This is consistent with previous research conducted by Al-Hawary, Malik et al. (2011), which also found a positive correlation between assurance and satisfaction. The study also found that assurance is significantly correlated with student satisfaction.

A study found that customer satisfaction is influenced by factors such as tangibility, reliability, responsiveness, assurance, and empathy. The study revealed that reliability and assurance have the strongest impact on customer satisfaction. Additionally, the study showed that registrar services have a moderate level of service quality and customer satisfaction. Therefore, organizations should prioritize customer satisfaction to build a loyal customer base, as it can give them a competitive advantage in today's highly competitive market.

Previous research has shown that different aspects of service quality have a positive impact on customer satisfaction, although their level of influence may vary (Tan & Maran, 2014). This finding is supported by other studies that have found a positive relationship between perceived quality and student satisfaction in higher education institutions (Chandra, et al. , 2018). Similar results have been found in studies conducted in various countries, including Colombia, Jordan, Italy, and Portugal (Romanazzi, 2006; Brochado, 2009; Mwiya et al., 2017).

With more validation and future investigations to prove, this study revealed that assurance (Hamza, 2009) is a predictor of students' satisfaction. This study found that assurance is a strong predictor of student satisfaction. It means that students are more satisfied when they receive reliable and accurate college services. It is important to note that efforts to improve the assurance in service quality have been proven to enhance student satisfaction. Conversely, ignoring assurance can negatively impact students' level of satisfaction.

Conclusion and Recommendations

Conclusions

The quality of service provided by the registrar's office has an impact on student satisfaction. If the service quality improves, student satisfaction will increase in a linear manner. The analysis of linear regression result indicated that the R² value is 0.5408, i.e. the independent variable of service quality and explained 54.1% of the variation in customer satisfaction. This indicates that the correlation between service quality and student satisfaction is moderate, but the qualitative analysis revealed that students are actually dissatisfied with the service provided by the registrar's office. To support this finding, the researcher observed and documents and determined that the registrar's office lacks the ability to effectively serve students. Based on the findings, it can be concluded that the registrar's office at KUE did not meet the expectations of students, resulting in a gap between the services provided and student satisfaction.

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Appendixes

(Annex A): Regression Analysis

```
. regress Custsat Tangibeles Reliability Responsiveness Assurance Empathy
```

Source	SS	df	MS	Number of obs	=	150
Model	15.0733933	5	3.01467866	F(5, 144)	=	33.92
Residual	12.79994	144	.088888472	Prob > F	=	0.0000
				R-squared	=	0.5408
				Adj R-squared	=	0.5248
Total	27.8733333	149	.187069351	Root MSE	=	.29814

Custsat	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Tangibeles	.0859717	.0345433	2.49	0.014	.0176943 .1542492
Reliability	.3412531	.0592902	5.76	0.000	.2240616 .4584446
Responsiveness	.2219049	.0517958	4.28	0.000	.1195266 .3242833
Assurance	.3228881	.0575821	5.61	0.000	.2090728 .4367034
Empathy	.021882	.010476	2.09	0.038	.0011755 .0425885
_cons	-.1362749	.0955251	-1.43	0.156	-.3250875 .0525376

(Annex B): Margional Effect

```
. mfx
Marginal effects after regress
y = Fitted values (predict)
= .75333333
```

variable	dy/dx	Std. Err.	z	P> z	[95% C.I.]	x
Tangib~s	.0859717	.03454	2.49	0.013	.018268 .153675	1.62667
Reliab~y*	.3412531	.05929	5.76	0.000	.225046 .45746	.76
Respon~s*	.2219049	.0518	4.28	0.000	.120387 .323423	.466667
Assura~e*	.3228881	.05758	5.61	0.000	.210029 .435747	.686667
Empathy	.021882	.01048	2.09	0.037	.00135 .042415	7.54667

(Annex C). Multicollinearity Test

. vif

Variable	VIF	1/VIF
Assurance	1.20	0.830667
Tangibeles	1.17	0.855328
Responsive~s	1.13	0.887481
Reliability	1.08	0.924195
Empathy	1.06	0.940519
Mean VIF	1.13	

(Annex D): Normality Test

. predict e
(option **xb** assumed; fitted values)

. swilk e

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
e	150	0.95371	5.386	3.817	0.00007

(Annex E). Heteroskedasticity Test

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of Custsat

chi2(1) = 35.40

Prob > chi2 = 0.0000

(Annex F): Correlation tests

. corr Custsat Tangibeles Reliability Responsiveness Assurance Empathy
(obs=150)

	Custsat	Tangib~s	Reliab~y	Respon~s	Assura~e	Empathy
Custsat	1.0000					
Tangibeles	0.3894	1.0000				
Reliability	0.4751	0.2368	1.0000			
Responsive~s	0.4113	0.1426	0.0876	1.0000		
Assurance	0.5470	0.2726	0.1925	0.3150	1.0000	
Empathy	0.2080	0.2140	0.0956	-0.0517	0.1001	1.0000