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Applying SERVQUAL Model in Library Service Delivery to Attain Students Satisfaction at a Private University in Kenya

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ABSTRACT

This study examined the extent to which application of SERVQUAL model in delivery of services attains student satisfaction with library services at Gretsia University, a private university in Kenya. The study utilized a descriptive and qualitative research design. A self-administered questionnaire with a five-point Likert-type scale was used to collect data from 100 final-year bachelor's degree students. Data analysis was done using descriptive statistics, simple linear regression and partial correlation. The hypotheses were tested at 0.05 confidence level. Study findings demonstrate a significant positive relationship between SERVQUAL guided library service delivery and student satisfaction with library services. An increase in service delivery results in an increase in customer satisfaction. The findings also revealed that student factors do not moderate the relationship between SERVQUAL guided library service delivery and student satisfaction with library services. In addition, there is a significant relationship between students' factors and customer satisfaction. Students who reside in university hostels were more satisfied with the quality of library services compared to those residing outside the university. The study focused on final year bachelor degree students. The study recommends improvement of physical facilities in the Gretsia University Library so as to increase customer satisfaction levels.

Keywords: SERVQUAL Model, Service Quality, Customer Satisfaction, Academic Library, Private University

INTRODUCTION

Quality has been the aspiration of many organizations for decades. In today's competitive world, organizations all over the world are concerned about their product and service quality which is key to their survival. Today's consumers are well informed and can easily compare prices for different

products and from multiple sales point; hence non-price competitive advantages, such as service quality, have become vital in attracting and retaining customers (Moses et al. 2016). Given the critical role of quality in attracting and retaining customers, organizations need to know how customers perceive their product and service quality.

The measure of quality in the library in the past decades focused on the total library holdings rather than on services offered. Failure to differentiate between library quality and Service quality made evaluators to focus on the size of the building, the number of collections and the total costs of developing and maintaining the library (Hernon & Altman, 2010). However, Mukuvi (2017) notes that these measures hardly reveal whether library customers are satisfied. For librarians to talk about quality services, customer satisfaction must come into play. Therefore, offering quality service in the library would mean providing satisfaction to the customers by meeting their expectations. When the library users are not satisfied, it is an indication that the library services are not satisfactory (Wang & Shieh, 2006). Meeting the needs and expectations of customers means that librarians are conversant with the needs and expectations of the clients and are willing to meet them. Customers should help shape the services that libraries offer and as such, it is important to listen to customers.

Libraries have adopted various service evaluation approaches in an effort to meet user expectations. The ISO 9001 is one of the possible ways of managing quality in libraries. The ISO standards attempt to encourage libraries to perform to the well-outlined principles of total quality management. In Spain, academic libraries have adopted ISO 9001 and are mandated to conduct at least one formal service quality evaluation every year, which also details the plan to enhance the quality of library services. In Finland, higher education institutions have been mandated by law to ensure quality management. Although ISO 9001 is not popular, some institutions have opted to use it to aid in providing quality services (Balagué, & Saarti, 2017).

Libraries in developing countries have relied on usage statistics as the accepted tool to establish service quality. Librarians have always used this measure to showcase their contributions to the institutional mission. This method involves analyzing the size of library collections, number of users, circulation statistics, total number of successful downloads of subscribed e-books and e-journals, size of library budget and staff numbers and their qualifications (Asogwa et al., 2014). These measures have been in use in academic libraries as far back as the beginning of the 20th century. The measures provided data that helps librarians to benchmark with other institutions and demonstrate their contribution to the parent institution.

According to Gathoni & Van der Walt (2019), African libraries focus their attention on employees' competencies and library quality when evaluating library service quality, ignoring the importance of meeting user expectations. The majority tend to believe that users cannot judge the quality of service because users do not actually know what they want or what would be more useful to them.

In Kenya, assessing the quality of services is based on the national standards set by the Commission for University Education (CUE) with which academic libraries should comply. The CUE standards make use of library usage statistics such as circulation statistics, daily library visitors, and number successful downloads for online resources (Gathoni & Van der Walt, 2019). In the contemporary world new ways to measure library service quality have emerged and changed the emphasis of libraries from library quality to service quality.

The Role of Libraries in Universities

Traditionally, academic library's role includes selection, acquisition, classification, cataloguing, archiving, and supporting users with free and equal access to information resources. However, in contemporary world, the role of academic libraries has shifted to supporting new services such as scholarly communication, intensive use and delivery of digital resources, service delivery to heterogeneous students, supporting new modes of study such as ICT- based and distance learning, and, supporting the continuous demand for traditional services (Hossain, 2019).

The library offers resources that support critical and creative thinking to make learning more productive. Another role of the library is to provide textbooks, reference sources, and current research work to students, faculty and researchers (Bhagvanhai, 2018).

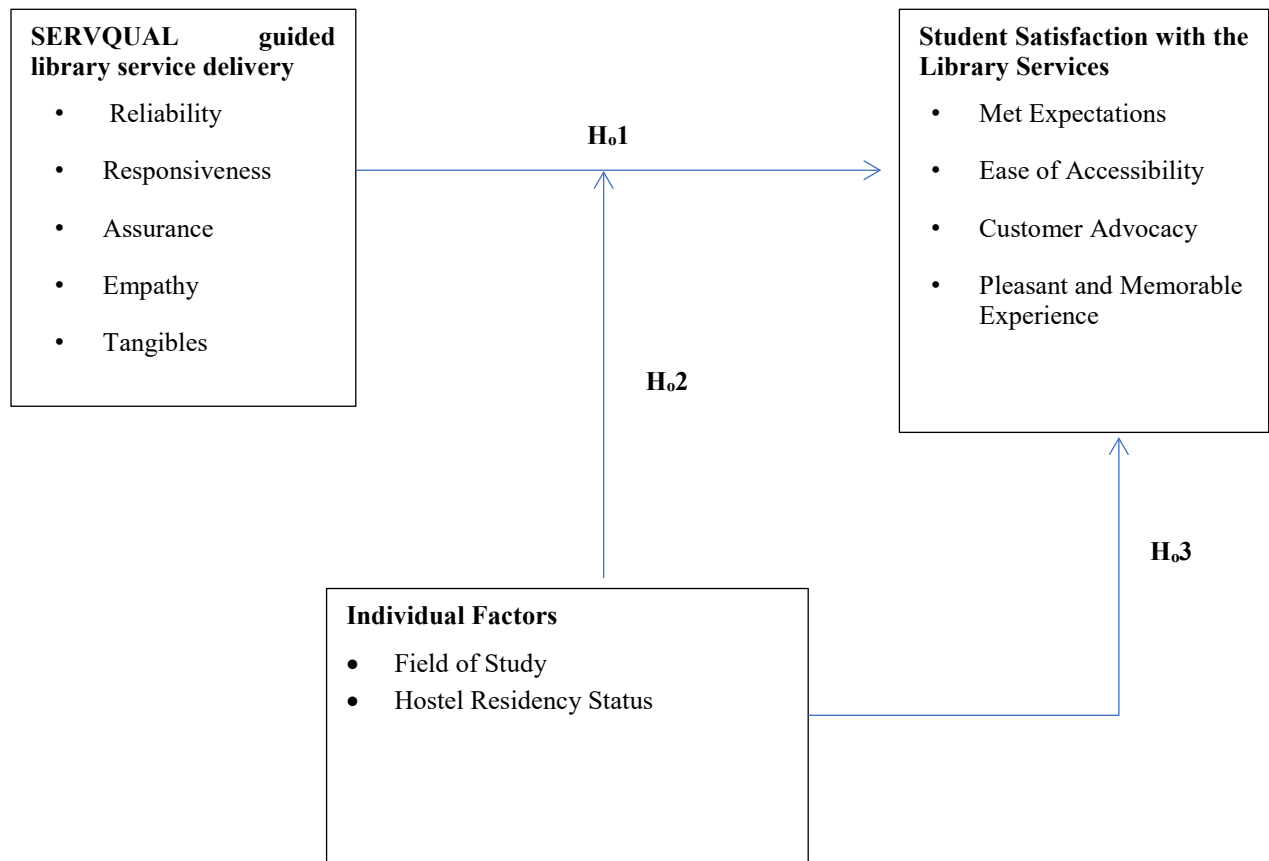
Libraries also have an emerging role of data curation and e-science. The process of curating is no longer painstaking and by use of computers, academic libraries can collect, curate and disseminate huge volumes scientific data promptly (Bryan, 2011). Academic libraries also have the responsibility of developing data and information literacy programs for their clientele. Skills acquired through data and information literacy enables students to become lifelong learners (Masinde, 2024).

A Review of Gretsia University Library

Gretsia University is a private university located in Thika town, Kiambu County, Kenya. It was established in 2006 and is accredited by the commission for university education. The Vision of the university is to provide quality and relevant education. Its mission is to promote high standards of teaching, learning and research. The university offers degree, diploma and certificate courses in Education, Business, Computer Science, Hospitality, Community Development among others. It has alumni of over 15,000, with the current student population being 5000.

The University Library came into existence with the establishment of Gretsia University in the year 2006. The library has a physical collection of 17,000 volumes of books as well as an e-library collection made up of 24 databases hosting millions of e-journals and e-books. The library offers a wide range of services which includes: Circulation Services, Reference Services, Online Reservation System, Current Awareness Service, Orientation and Information Literacy Sessions, Audio / Visual Service, Multimedia Section, Research Services and Binding Services.

CONCEPTUAL FRAMEWORK OF SERVQUAL GUIDED LIBRARY SERVICE DELIVERY AND STUDENT SATISFACTION WITH THE LIBRARY SERVICES AT GRE TSA UNIVERSITY



OBJECTIVES

The following Objectives guided the study:

1. To assess the influence of SERVQUAL guided library service delivery on student satisfaction with the library services at Grets a University.

2. To establish the moderating effect on the relationship between the SERVQUAL guided library service delivery and student satisfaction with the library services at Grets University.
3. To determine the effect of student factors on their satisfaction with the library services at Grets University.

HYPOTHESES

H₀₁: There is no relationship between the SERVQUAL guided library service delivery and student satisfaction with the library services at Grets University

H₀₂: Individual student factors do not moderate the relationship between SERVQUAL guided library service delivery and student satisfaction with the library services at Grets University.

H₀₃: There is no relationship between student factors and their satisfaction with the library services at Grets University

METHODOLOGY

The study utilized descriptive and qualitative research design which is deemed appropriate when collecting information on people’s opinions, expectations, contributions and perceptions, and also enables hypothesis testing (Lambert & Lambert 2012). A self-administered questionnaire with a five-point Likert-type scale was used to collect data from a sample size of 100 final year bachelor degree students across the five academic schools, namely; School of Business, School of Education, School of Hospitality and Tourism Management, School of Computing and Informatics, and School of Humanities and Social Sciences. Data analyses were done using descriptive statistics, simple linear regression and partial correlation. The hypotheses were tested at 0.05 confidence level.

Table 1 shows the Hypotheses Tests and Statistical Models used for the study.

Table 1: Hypotheses Tests and Statistical Models

Hypothesis statement	Hypothesis Test	Simple Linear Regression Model
H₀₁: There is no relationship between the SERVQUAL guided library service delivery and student satisfaction with the library services at Grets University	H ₀ : β ₁ = 0 H _A : β ₁ ≠ 0 -Conduct a t test to determine individual significance of the relationship -Reject H ₀ if p-value ≤ 0.05, otherwise fail to reject H ₀ if p-value is >0.05	$Y = \beta_0 + \beta_1 X + \epsilon$ where Y= Aggregate mean score of student satisfaction with the SERVQUAL guided library service delivery X = Aggregate mean score of the SERVQUAL guided library service delivery β ₀ = y-intercept/constant β ₁ = Regression coefficient (beta) ε= error term-random variation due to other unmeasured factors

<p>H02: Individual student factors do not moderate the relationship between SERVQUAL guided library service delivery and student satisfaction with the library services at Grets University.</p>	<p>H0: $r_{xy.z} = 0$ HA: $r_{xy.z} \neq 0$ Reject H0 if p-value $\leq \alpha$, otherwise fail to reject H0 if p-value is $> \alpha$</p>	<p>$r_{xy.z} = \frac{r_{xy} - (r_{xz})(r_{yz})}{\sqrt{1 - r_{xz}^2} \sqrt{1 - r_{yz}^2}}$ Where $r_{xy.z}$ = Partial correlation coefficient of variable x and y controlling for variable z Y= Aggregate mean score of student satisfaction with the SERVQUAL guided library service delivery X = Aggregate mean score of the SERVQUAL guided library service delivery Z= Individual student factors</p>
<p>H03: There is no relationship between student factors and their satisfaction with the library services at Grets University</p>	<p>H0 : $\beta_1 = \beta_2 = \beta_3 = 0$ HA: At least one of the β_i's $\neq 0$ -Conduct a t test to determine individual significance of each parameter -Conduct an F test (ANOVA test) to overall significance of the multiple regression model - Reject H0 if p-value ≤ 0.05, otherwise fail to reject H0 if p-value is > 0.05</p>	<p>$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$ where Y= Aggregate mean score of student satisfaction with the SERVQUAL guided library service delivery X1-X3 = individual student factors β_0 = y-intercept/constant $\beta_1 - \beta_3$ = regression coefficients (beta) ϵ = error term-random variation due to other unmeasured factors</p>

RESULTS AND DISCUSSIONS

Descriptive Findings

Study Fields Pursued by the Grets University Students

Out of 100 questionnaires distributed, 100 questionnaires were received and used in this study giving a response rate of 100%. Based on the results obtained in relation to the field of study, the Bachelor of Education students were the majority respondents at 48%, followed by Bachelor of Commerce at 21%, Bachelor of Hospitality and Tourism Management at 19%, Bachelor of Computing at 6%, and Bachelor of Community Development at 6%. The results are as shown in Table 2

Table 2: Field of Study

Academic Schools	Frequency	Percent	Valid Percent	Cumulative Percent
Business	21	21.0	21.0	21.0
Community Development	6	6.0	6.0	27.0
Computing	6	6.0	6.0	33.0
Education	48	48.0	48.0	81.0
Hospitality management	19	19.0	19.0	100.0

Total	100	100.0	100.0
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Accommodation Preference by the Gretsas University Students

From the study results it is evident that majority of the students (95%) are residing outside the university. This may be attributed to limited hostel accommodation at the university.

Table 3: Residence Status of Students in Gretsas University

Residing in Gretsas University Hostels	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	5	5.0	5.0	5.0
No	95	95.0	95.0	100.0
Total	100	100.0	100.0	

Gender of the Gretsas University Students

Females were the majority respondents at 53% followed by males at 47% as shown in Table 4 below.

Table 4: Gender of the Gretsas University Students

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	47	47.0	47.0	47.0
Female	53	53.0	53.0	100.0
Total	100	100.0	100.0	

SERVQUAL Guided Library Service Delivery

The SERVQUAL guided library service delivery was measured in a Likert scale of 1-5 with Value 1 representing Very great extent, 2= great extent, 3= moderate extent, 4= small extent, 5= Not at all. The mean results of the data is as tabulated in table 5

Table 5: SERVQUAL Guided Library Service Delivery

SERVQUAL guided service delivery	Library employees have the ability to perform promised dependably accurately	Library employees willing to provide services to the students	The knowledge and courtesy of library employees and inspires trust and confidence	Library employees caring and provide attention to customers	The appearance of physical facilities (e.g. individual equipment), personnel and communication material are excellent
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Mean	2.25	1.94	2.13	2.06	2.48
Std. Deviation	1.086	1.071	1.195	1.135	1.403
Minimum	1	1	1	1	1
Maximum	5	5	5	5	5

Table 6: Cumulative mean on SERVQUAL guided library service delivery

Mean	2.1720
Std. Deviation	1.01942

The questionnaire which was administered to the respondents had 5 SERVQUAL guided quality statements under the following 5 variables: reliability, responsiveness, assurance, empathy and tangibles. The respondents were required to rate each statement on a Likert scale of 1 to 5 whereby 1 indicated that the respondent strongly agrees and 5 indicated that the respondent strongly disagrees to the statement in order to show the extent of their expectation of library service quality. The verbal qualifier assigned for 2 on the Likert Scale was the term “To great extent” therefore based on the mean value of 2.17, it is clear that majority of the library users to a great extent agrees that the library offers quality services.

The two SERVQUAL guided service delivery statements that scored highly can be interpreted to mean that these are the service areas that Gretsas Library meets or exceeds the expectations of its users. These services are:

- a. Library employees are willing to help students and provide prompt services
- b. Library employees are caring and provide individual attention to customers

From the above two SERVQUAL guided quality statements it can be noted that the service quality variables that meet or exceed Gretsas library users’ expectations are the reliability and empathy. These findings are in tandem with those of previous studies (Wang & Shieh, 2006; Kiran, 2010; Afthanorhan, Awang, Rashid, Foziah & Ghazali, 2019).

Notably, out of the five SERVQUAL guided quality items, the least scored was “The appearance of physical facilities (e.g. equipment), personnel and communication material are excellent”. The service item referring to the tangibles attribute. This can be interpreted to mean that the tangibles of Gretsas library are below its users’ expectations. The findings are consistent with those of Gathoni and Van der Walt (2019) who adopted SERVQUAL model to evaluate service quality at Agha Khan University Library and found out that tangibles had the least score while reliability had the highest score.

Student Satisfaction with the Library Services

The level of customer satisfaction was measured on a Likert scale of 1-5 with Value 1 representing Very great extent, 2= great extent, 3= moderate extent, 4= small extent, 5= Not at all. The mean results of the data is as tabulated in table 5

Table 7: Student Satisfaction with the Library Services

Customer Satisfaction Aspect	The library provides me with books, other reading materials and services I expect to get	The library makes it easy for me to access what I am looking for	I am likely to suggest and promote the library to my friend	My general experience with greetsa university library is pleasantly memorable
Mean	2.49	2.35	2.26	2.06
Std. Deviation	1.227	1.373	1.244	1.099
Minimum	1	1	1	1
Maximum	5	5	5	5

Table 8: Cumulative mean on Customer satisfaction

Mean	2.2900
Std. Deviation	1.07233
Minimum	1.00
Maximum	5.00

From the above table, the mean value on customer satisfaction is 2.29. Based on the results, there is an indication that, to a great extent, the library users at Gretsas university library are satisfied by the services offered.

The findings show that all the customer satisfaction statements had a positive score. However, the statement “the library provides me with books, other reading materials and services I expect to get” had the least score among the five customer satisfaction items. The findings correlate with those of Kitana and Saydam, (2014) who investigated users’ perception of library facilities at the University of Cape Coast and found that library users were least satisfied with library resources. This is one of the areas that Gretsas university library may need to explore to find out the actual needs of its users.

Hypothesis Tests

The SERVQUAL Guided Library Service Delivery on Student Satisfaction with the Library Services at Grets University

H₀₁ was testing relationship between SERVQUAL guided library service delivery and customer satisfaction at Grets University Library. It stated that there is no relationship between SERVQUAL guided library service delivery and customer satisfaction. The H₀₁ would be rejected if the significant value was ≤ 0.05 .

To test the relationship between service quality and user satisfaction, a simple regression analysis was performed. The results are displayed in table 9.

Table 9: Regression of SERVQUAL guided library service delivery and student satisfaction with the library services at Grets University

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	.723	.185		3.901	.000
ServiceQuality SERVQUAL guided library service delivery	.721	.077	.686	9.327	.000

Based on the results, the significant p value = 0.00 which is less than 0.05. The null hypothesis was therefore rejected and the study adopted the alternative hypothesis. This means that there exists a positive relationship between SERVQUAL guided library service delivery and student satisfaction level. The strength of the relationship is moderate ($r^2 = 0.46$).

Moderating Effect of Student Factors on the Relationship between SERVQUAL Guided Library Service Delivery and Student Satisfaction with the Library Services at Grets University

H₀₂ states that individual student factors do not moderate the relationship between the SERVQUAL guided library service delivery and student satisfaction with the library services at Grets University. Null hypothesis would be rejected if the significant p value was $> \alpha$

To test the moderating effect of individual student factors, partial correlation was performed. The test results for hypothesis H₀₂ shows significance level at 0.00 as displayed in table 10.

Table 10: Simple Bivariate Correlation between SERVQUAL guided library service delivery and student satisfaction with the library services at Grets University

Variables	SERVQUAL guided library service delivery	student satisfaction with the library services
SERVQUAL guided library service delivery	Pearson Correlation	1
	Sig. (2-tailed)	.686**
		.000

	N	100	100
student satisfaction with the library services	Pearson Correlation	.686**	1
	Sig. (2-tailed)	.000	
	N	100	100

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

When the two variables get controlled by the field of study, significance value remains constant at .000 as shown in table 11. This means that the field of study has no moderating effect on customer satisfaction.

Table 11: Results of Partial Correlations Analysis with Field of Study as Control Variable

Control Variables		SERVQUAL guided library service delivery	student satisfaction with the library services
SERVQUAL guided library service delivery	Correlation	1.000	.686
	Significance (2-tailed)	.	.000
	df	0	97
Field of Study student satisfaction with the library services	Correlation	.686	1.000
	Significance (2-tailed)	.000	.
	df	97	0

Similarly, when the same variables get controlled by the residence of students in University hostels, the significance value remains constant at .000 as shown in table 12 below. This means that the choice of residence of students has no moderating effect on customer satisfaction.

Table 12: Results of Partial Correlations Analysis with Hostel Residency as Control Variable

Control Variables		SERVQUAL guided library service delivery	student satisfaction with the library services
Residing in Gretsia University Hostels	SERVQUAL guided library service delivery	Correlation	1.000
	Significance (2-tailed)	.	.000
	df	0	97
student satisfaction with the library services	Correlation	.689	1.000
	Significance (2-tailed)	.000	.

the library services df 97 0

Based on the above results, the study failed to reject the null hypothesis and concluded that individual student factors do not moderate the relationship between SERVQUAL guided library service delivery and student satisfaction with the library services at Gretsia University.

Relationship between Student Factors and their Satisfaction with the Library Services at Gretsia University

H₀₃ states that there is no relationship between individual student factors and their satisfaction with the library services at Gretsia University. H₀₃ would be rejected if p-value ≤ 0.05, otherwise fail to reject H₀₃ if p-value is > 0.05

Table 13: Simple Linear Regression of Students Factors and Satisfaction with the Library Services at Gretsia University

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.185	.399		5.470	.000
Individual factor	-.005	.145	-.003	-.033	.974

a. Dependent Variable: SERVQUAL guided library service delivery

Based on the results as indicated in Table13, significance value is at .000 which shows that individual factors have a positive effect on customer satisfaction with the library service quality. The null hypothesis is therefore rejected, to mean individual factors affect customer satisfaction levels on the services offered at Gretsia University Library.

The findings are in line with those of Eke et al. (2019) who in their study on determination of satisfaction with university student residence at the University of Johannesburg, South Africa, found that student’s accommodation residence and its proximity to the university library had an impact on the level of student’s satisfaction with library services. Students who were residing within 600 meters from the library reported high level of satisfaction with library services compared to those residing 5 Kilometers away from the library. Similarly when residential satisfaction was measured, among the contributing factors perceived by students to be contributing to a large extent to their level of satisfaction were, safety, cleanliness and proximity to the library.

However the findings contradict those of Rani (2018), who in a study on library service satisfaction at Anna University, India, established that there was no relationship between field of study and student’s satisfaction with library services.

CONCLUSIONS

The study examined the SERVQUAL guided library service delivery and student satisfaction with library services at Gretsia University. The findings of the study demonstrate a significant positive relationship between SERVQUAL guided library service delivery and student satisfaction with the

library services which means that an increase in service delivery will lead to an increase in customer satisfaction. The findings also revealed that individual student factors do not moderate the relationship between library service quality and student satisfaction at Grets University. In addition, there is a significant relationship between individual students' factors and customer satisfaction at Grets university library. Students who reside in university hostels were found to be more satisfied with the quality of library services compared to their colleagues residing outside the university. In summary, the attention is drawn to the tangibles, that is library ambience, facilities and resources. Customers expect to find relevant information resources and library facilities that provide conducive learning environment.

RECOMMENDATIONS

The study focused on final year bachelor degree students but ignored the thoughts and perceptions of other students as well as staff who are also library users. Future studies should include other students and staff to enable comprehensiveness and generalizability.

Feedback from the study was purposed to inform library administrators on areas that needed improvement. Based on the results of the study, service quality aspects that had lower performance included;

- i. Appearance of physical facilities and,
- ii. Accuracy of library employees in performing promised services.

In relation to customer satisfaction, aspects with low performance were;

- i. Ease of information accessibility and,
- ii. Provision of books that customers expect to get.

To that effect, the researcher recommends the following;

- i. The library should improve on housekeeping practices and organization of resources to improve library ambience
- ii. The library should organize capacity building trainings for the library staff to improve their service delivery
- iii. The library should conduct more user needs surveys to capture accurate user information needs. This will allow the administration to acquire books that meet user needs.
- iv. The library should improve on the organization of information resources to allow easier access.

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