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11-9-2021

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Paul, Arnob, "A Service Quality Analysis of Lakshminath Bezbaroa Central Library of Dibrugarh University of Assam, India" (2021). *Library Philosophy and Practice (e-journal)*. 7059.

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A Service Quality Analysis of Lakshminath Bezbaroa Central Library of Dibrugarh University of Assam, India

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ABSTRACT:

This paper is a preliminary attempt to analyze the impact of different aspects on the users' trust. With the increasing importance of service sector, the research on service quality is also increasing. However, the research on library service quality is very limited especially incorporating the aspect of user trust. Now, this study put emphasis on two issues, viz, the impact of library services quality on the level of user trust and to find the answer to the question whether there is a difference in the expectation of the user and reality in terms of service quality of the library. Our findings show that user trust on library depends on the amount of information it is providing, the knowledge of the staffs of the library and the library as a place.

Keywords: Service Quality, Linear Regression, User trust, LibQUAL.

1. INTRODUCTION:

A library is a service institution which provides numerous numbers of resources and services to fulfil the information need of its users. The academic libraries aim to satisfy the information need of its members. It is the purpose of the library to supply relevant and up to date information to its users. A library, thus, have to have a constant correspondence with its members so that their needs are met. If a library fails to provide accurate information to its user, then the user satisfaction will become very low and the library cannot achieve the purpose it is established for.

According to Charles Eliot (1873), “the university library is the heart of a university”. This statement reflects the fact that a university library exists to supports the goal of its parent institution. The core aim of a university library is to bridge the gap between information need and information availability to its users (such as students, researchers, lecturers etc.). The service quality of library is determined on the basis of the timeliness of its service with minimal error. Thus, service quality of a library measures how well the services delivered are matched with the consumer (user) expectations. In other words, service quality is an assessment of a service offered by knowing whether the service meets the expectations of the users or not. Garbarino and Johnson (1999) stated that Service quality can decrease or increase the consumer trust on service provider. The tangible and intangible attributes of a service have been found to play a crucial role in shaping a consumer’s perceptions as to quality level of that service. Further, Yieh, et al. (2007) mentioned that the better the perceived quality of services, more the consumer will gain confidence in that organisation and the level of trust on the organisation goes on increasing. Such perceived service quality, in turn, drives the customer’s evaluation and judgment of the extent to which he/she can confide in the provider of such a service (Dahiyat, et al, 2011).

Veeramallu et al. (2021) in their research found that the faculty members visit library to borrow books on the other hand, other users prefer e-resources. Researches on user satisfaction of the library users by Padmavathi et al. (2017) and Amarasekara and Marasinghe (2020) suggests that the users are satisfied with the library services however, they are not satisfied with the user awareness programs, training on information searching, dissemination of services through social networking sites, access to WiFi and audio-visual materials, and online library services.

Based on the above discussion, this study aims at fulfilling the following objectives:

1. To know to effect of library service quality on the user trust at Lakshminath Bezbaruah central library of Dibrugarh University, Assam.
2. To know the impact of different service quality dimensions on users’ trust on library

2. METHODOLOGY:

2.1. Sampling Design:

For this study, primary data has been used. The data has been collected randomly from 400 students of different streams using structured questionnaire during 10th September, 2021 to 29th September, 2021. To get the representative size sample from the population, in this study, Cochran procedure of sample size is used. We have used the following formula as:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where,

n_0 = Minimum desired sample size.

Z = The standard normal deviate, usually set at 1.96 which corresponds to the 95 percent confidence level.

p = Percentage of students visit library regularly (50 percent).

q = Complimentary probability = 1 – p

d = degree of accuracy desired, usually set at 0.05

So,

$$n_0 = \frac{Z^2 pq}{e^2}$$
$$n_0 = \frac{(1.96 \times 1.96) \times 0.5 \times (1 - 0.5)}{(0.05)^2}$$
$$n_0 = 384.16 \approx 385$$

However, we have collected the data from 400 students.

Table 1. Number of Samples Based on Different Level of Education		
LEVEL OF EDUCATION	SAMPLE	PERCENTAGE (%)
First Year Master Degree	140	35
Second Year Master Degree	195	48.75
Diploma Students	30	7.5
Doctorate Students	35	8.75
Total	400	100
Source: Authors Computation		

2.2. Data Collection and Data Analysis:

The structured questionnaire was used for collection of data which was comprised of 22 LibQUAL items. Further, these items were grouped into three dimensions namely, Impact of Services, Information availability and Library as a place. The questionnaire was designed in the form of semantic differential measurements with the choice in one initial continuum line from the lowest number 1 (one) to the highest number 5 (five). The number one represents the least quality of service, while number five represents the highest level of service quality. Similarly, to measure the student trust, a semantic differential measurement with the choice in one initial continuum line from the lowest number 1 (one) to the highest number 5 (five). The number one represents the lowest level of trust, while number five represents the highest level of trust o the library services.

To assess the reliability and internal consistency of the responses of the respondent, Cronbach' Alpha (Cronbach, 1951) has been employed.

After collecting the data, we have calculated average score for all the three dimensions. The data on users' expectation and reality has been collected. Then using paired t test, we have compared if there exist any significant different in the expectation of the users and perceived services.

In the next step, using the following model (Model 1) we have checked the impact of different LibQUAL dimensions on the level of user trust.

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + U_i \dots \dots \dots \text{(Model 1)}$$

Here, Y is showing the level of trust of the library users on the library services. X₁, X₂ and X₃ are showing the average score of the different dimensions of perceived service quality. X₁ is the knowledge of the staff on different library services, X₂ is the information availability score and X₃ is the library as a place score.

3. RESULT AND DISCUSSION:

3.1. Result of Paired t-test:

Using paired t-test, we have compared the user expectations score with user’s perceived scores of all three dimensions separately as well as a library service quality to see if there is any significant difference in the perceived service quality with the expectation of the user. The result of the test is given in the following table (Table 2)

Table 2. The paired t-test on library service quality			
DIMENSIONS	CRITERIA	AVERAGE	p-VALUE
Knowledge of the Staff on Different Library Services (X₁)	Reality	4.03	0.26
	Expectation	4.16	
Information Availability (X₂)	Reality	4.42	0.33
	Expectation	4.51	
Library As a Place (X₃)	Reality	4.33	0.03
	Expectation	3.59	
Overall Service Quality (LibQUAL)	Reality	4.35	0.14
	Expectation	4.58	

Note: p<0.05 indicates that the null hypothesis (the mean of the paired differences equals zero in the population) is not accepted at 5 percent level of significance.

Looking at the Table 2 we can say that in case of all the types of service quality dimensions there is a difference in the average score of the perceived service quality. However, the result of the paired t-test indicates that the difference in the users’ expectation and actual service the user is getting is not significantly different and we can conclude that the library service quality is not different from the users’ expectations in case of the central library of Dibrugarh University.

Only in case of **Library as a place** dimension, we have found a significant difference in the expectation and the perceived quality. The average score **Library as a place** dimension is less than the expectations which is statistically significant.

3.2. Service Quality and User Trust:

The impact of different service quality dimensions on the library user trust is assessed using the regression model (Model 1) which is estimated using ordinary least square method. The following table (Table 3) shows the result of the regression analysis:

In Table 3, it is seen that the variables X_1 , X_2 and X_3 are significant at 5 percent level. From the table, the following can be inferred:

- The result suggest that the Knowledge of the Staff on Different Library Services (X_1) variable has a positive impact on the level user trust (Y). The coefficient of X_1 , i.e., 3.22, suggests that an 1percent increase in the knowledge of the library staff on the different services provided by the library can increase the user trust by 3.22 percent.
- Also, Information Availability (X_2) variable has a positive impact on the level user trust (Y). The coefficient of X_2 , i.e., 3.79, suggests that an 1percent increase in the information availability can increase the user trust by 4.18 percent.
- Lastly, Library as a Place (X_3) variable has a positive impact on the level user trust (Y). The coefficient of X_3 , i.e., 1.82, suggests that an 1percent betterment in study condition in the library study condition and other aspects such as time required for issuance and renewal of books might raise the user trust by 1.82 percent.

Dependent Variable: User Trust Level (E)	
VARIABLES	Coefficient
Intercept	17.66**
Knowledge of the Staff on Different Library Services (X_1)	3.22***
Information Availability (X_2)	4.18**
Library As a Place (X_3)	1.82**
R^2	0.68
Adjusted R^2	0.67
F Statistic	61.23***

NOTES: *** denotes statistically significant at 1 percent level. ** denotes statistically significant at 5 percent level.

The Model is significant with the F statistic (61.23) being significant at 1 percent level. Also, the R^2 value of 0.68 signifies that the independent variables are able to explain 68 percent of the variation in the dependent variable.

VARIABLES	VIF	BP test statistic	Jarque–Bera test statistics	Breusch–Godfrey LM test statistics
		H_0 : The error variances are all equal	H_0 : The data is normally distributed	H_0 : There is no serial correlation of any order up to lag p (=2)
Intercept	3.19	3.61	3.29	2.69
Knowledge of the Staff on Different Library Services (X_1)	3.78			
Information Availability (X_2)	2.17			
Library As a Place (X_3)	0.71			

NOTES: *** denotes statistically significant at 1 percent level. ** denotes statistically significant at 5 percent level. $VIF < 5$ = There is no significant problem of multicollinearity.

Validity of model estimates is tested by the test of normality using the Jarque–Bera method, test of serial correlation using Breusch-Godfrey LM test and test of heteroscedasticity using the Breusch-Pagan-Godfrey method has been done. Table 4 indicates that the model is not suffering from the problem of serial correlation, heteroscedasticity, multicollinearity and non-normality.

4. CONCLUSION:

This paper is a preliminary attempt to analyze the impact of different aspects on the users' trust. With the increasing importance of service sector, the research on service quality is also increasing. However, the research on library service quality is very limited especially incorporating the aspect of user trust. Now, this study put emphasis on two issues, viz, the impact of library services quality on the level of user trust and to find the answer to the question whether there is a difference in the expectation of the user and reality in terms of service quality of the library.

Our finding shows that only for the library as a place dimension, the actual satisfaction of the user is significantly lesser than that of their expectations. While looking at the result of the regression analysis, we find that all the three dimensions has a positive impact of the level of the user trust. User trust means the loyalty of the user towards their service providers. If they are happy with the services provided by their service providers, then the level of trust is likely to increase. In case of library, the availability of information pays the most important role in gaining the user trust since library is the place where its users visit to access different study material or course material (or information in the form of books, journals, magazines etc.). So, we can conclude that all the libraries should be very efficient in providing the necessary information to its users which will be helpful in raising the trust of its users on it. The other two dimensions (Knowledge of the Staff on Different Library Services and Library as a place) are also the determinants to raise the user trust.

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