



Customer Satisfaction on Library Services of Barasat College Library, West Bengal: An Evaluative Study

Prakash Rabi Das

Librarian, Barasat College, Barasat, North 24 Parganas, West Bengal

Abstract

This study examines the students' levels of satisfaction with library services at Barasat College Library, West Bengal. This study uses a structured questionnaire method. It collects data from 873 respondents and analyses the filled-in data from the questionnaire using a Likert scale. The study shows that both categories of users, male and female students, primarily use the library to read and borrow books. The results reveal with the similar pattern in resource distribution, circulation service, or staff availability among the student categories, but notable differences exist in opinions concerning the internet service as well as library infrastructure. The male students expect more on the issue of accommodation with more seats, high-speed internet, and air conditioning, whereas female users are relatively more concerned on Bengali version books and drinking water. The study reveals that the library should consider the varying perceptions and desires of each user's category.

Keywords: Academic Library, Barasat College Library, Customers' Satisfaction, Mann-Whitney U Test, Users' Studies

1. Introduction

In this dynamic world, information plays a key role in solving the problems of individuals. Technological knowledge with its applications (Sen and Das, 2022) in every dimension enriches society and its personnel. Intensive knowledge in each specialized field requires specific information for professionals. Quality service is an important factor for the sustainable development of an organization, and it also helps the customers as well as the organization for their mutual benefit. The library should focus on customer satisfaction, emerging as an effective part of its sustainability. Customer satisfaction is the perception of individuals conceptualized in their minds that the expected need of a

product or service serves exactly against the demand placed to meet their requirements.

Barasat College Library, part of the academic institution Barasat College is located in North 24 Parganas, West Bengal, established in 1972. Users of this library can access the services after getting membership cards. The Library is using KOHA integrated library management software. It provides online catalogue service through web links <https://bcl-opac.l2c2.co.in/> and <https://bcel-opac.l2c2.co.in/> to browse 23,500 volumes of books, classified by Dewey Decimal Classification Scheme (DDC). Users get reading room service with 50 seating capacity. Circulation service and Reference service are



also available in this library. Its internet service provides access to internet browsing and UGC-NLIST to access e-resources. User education services like library orientation programs helps users to use the library resources effectively.

2. Objectives of the Study

The core aims of the study are identified as:

- ❖ To ascertain the frequencies of users' visits.
- ❖ To know the reasons behind the visit to the library.
- ❖ To understand the customer satisfaction level related to library services.
- ❖ To assess satisfaction levels among groups of students.
- ❖ To collect recommendations on how to make the library better.

3. Hypothesis of the Study

The study selects the null hypothesis (H_0) and alternative hypothesis (H_1) to investigate the perception of internet service among both categories of library users.

H_0 -There is no significant difference in the distribution of internet service among the student categories.

H_1 -There is a significant difference in the distribution of internet service among the student categories.

4. Review of the Related Literature

Jayasundara (2013) emphasised that service quality evaluations restrain customer satisfaction as one of the most common target variables of library services. This empirical survey identified 37 determinants influencing customer satisfaction, with a special reference to the FNU (Fiji National University)

Libraries. Scholarly communication studied by Dominici, Palumbo, and Basile (2015) sought insight into potential current customer satisfaction drivers in two Italian university libraries and planned strategies for improving library activity and enhancing library services through customer satisfaction studies. Bea, Musabila, and Deogratus (2018) studied customer satisfaction at SNAL (Sokoine National Agricultural Library, Tanzania) with the Four Level Zone Tolerance model. This indicates the importance of library security, arrangement of resources, and customer care aspects. User satisfaction, as noted by Adeniran (2020), was viewed through a dual lens that varies between academic staff and user perspectives, emphasising the different priorities and expectations of the users. Chakraborty and Jana (2021) studied the overall library management of the academic library in India under the COVID-19 pandemic situation. It also investigates the different challenges and opportunities faced by those academic libraries in between pre-COVID-19 and COVID-19 era. Das and Mahapatra (2022) studied awareness and utilisation of electronic information resources (EIRs) in the central library at Ranchi University. This user study revealed that the lack of awareness about the availability of e-resources created obstacles for utilization of those and suggested making aware of it and assisting to use the available electronic information resources. Thakor (2023) studied the user awareness and perception on the resources and services in an academic library of Shirmad Rajchandra Vidyapith. In conclusion, these results together allow the literatures to be understood as a whole, stating the changing perceptions and expectations about the library services as well as the essence of user-centric strategies.

5. Research Methodology

This study uses the questionnaire method to collect the primary data during 1st



February to 30th April, 2024. A structured questionnaire has circulated among 873 library users, represents the 60% of total library users (1454), mainly college students of even semesters, includes semester II, semester IV, and semester VI. The selection process of the respondents uses a random sampling method where data is collected from one user only once. This investigation procures responses on a Likert scale ranging from 1 to 5 (from highly dissatisfied to highly satisfied) and evaluates the data using descriptive statistics, especially the MWUT (Mann-Whitney U Test). This study uses the

IBM SPSS software to analyze the collected data.

6. Data Analysis and Interpretations

The analysis of the data and interpretation of the study is presented and discussed in the following tables.

6.1. Details of respondents and their category

Table 1 represents that library has 1454 total users of whom 596 male students and 858 are female students.

Table 1: Number of respondents and their categories

Student Category	Total users	Number of respondents	Percentage
Male	596	358	41%
Female	858	515	59%
Total	1454	873	100%

It also shows that this study takes 60% (873) of total students. Out of the 873 student respondents, 358 (41%) are male students, while 515 (59%) are female students. It also shows that the samples have a substantially higher percentage of female users than male users.

6.2 Details about library visit

Table 2 illustrates that 32 (9%) male students visit the library daily, compared to 41 (8%) of the female students, and 111 (31%) male students visit once a week, while 103 (20%) female students have this frequency.

Table 2: Frequency of library visit

Frequency of visit	Total number of respondents			
	Male		Female	
	Respondents	Percentage	Respondents	Percentage
Daily	32	9%	41	8%
Once in a Week	111	31%	103	20%
Twice in a Week	50	14%	52	10%
Once in a Month	147	41%	275	53%
Rarely	18	5%	46	9%
Total	358	100%	515	100%

It also shows that 50 (14%) male students visit the library twice a week, compared to 52 (10%) female students. The study indicates that 147 (41%) male students visit the library once a month, significantly lower than the 275 (53%) female students. Meanwhile, 18 (5%) male students rarely visit

the library, compared to 46 (9%) female students. The proportion of rarely visiting students is relatively higher in the female category.

6.3 Purpose of library visit

Table 3 presents the purposes of visiting



the library, where 211 (59%) out of 358 male students borrow books, compared to 361 (70%) out of 515 female students. It also

shows that 115 (32%) male students visit to use e-resources, whereas 139 (27%) female students do the same.

Table 3: Purpose of library visit

Purposes of visiting the library	Total number of respondents			
	Male (358)		Female (515)	
	Respondents	Percentage	Respondents	Percentage
Borrowing Books	211	59%	361	70%
Using E-resources	115	32%	139	27%
Reading Periodicals	75	21%	67	13%
Reading News Paper	82	23%	139	27%
Reading Books	183	51%	326	63%
Internet Browsing	161	45%	155	30%

The study reveals that 75 (21%) male students and 67 (13%) female students express their purpose of library visits for reading periodicals. It also shows that 82 (23%) male students visit the library to read newspapers, compared to 139 (27%) female students. It appears that 183 (51%) male students visit the library to read books, in contrast to 326 (63%) female students. Furthermore, 161 (45%) male students express their purpose of library visits to browse the internet, distinctly more than the 155 (30%) female students. Overall, the table highlights the diverse reasons for library visits and emphasizes the importance of

reading books and circulation service. It also shows varying interests in periodicals, newspapers, and digital resources between male and female students.

6.4 Customer satisfaction levels related to the library services

The data represents user satisfaction levels across several parameters, from 1 (highly dissatisfied) to 5 (highly satisfied). Concerning the collection of resources, the majority of respondents (195 and 223) are satisfied, and a notable number of students (147 and 189) are highly satisfied.

**Table 4: Customer satisfaction levels related to the library services.**

Sl. no.	Parameters	Category of students	1 (highly dissatisfied)		2 (dissatisfied)		3 (neither satisfied nor dissatisfied)		4 (satisfied)		5 (highly satisfied)	
1	Collection of resources	Male	0	0%	0	0%	16	4%	195	54%	147	41%
		Female	0	0%	0	0%	103	20%	223	43%	189	37%
2	Cataloguing and organization of resources on library shelves	Male	0	0%	0	0%	18	5%	190	53%	150	42%
		Female	0	0%	0	0%	0	0%	309	60%	206	40%
3	Internet service	Male	0	0%	0	0%	29	8%	92	26%	237	66%
		Female	0	0%	0	0%	0	0%	141	27%	374	73%
4	Circulation services	Male	0	0%	0	0%	0	0%	61	17%	297	83%
		Female	0	0%	0	0%	0	0%	62	12%	453	88%
5	Availability and assistance of library staff	Male	0	0%	0	0%	0	0%	115	32%	243	68%
		Female	0	0%	0	0%	0	0%	172	33%	343	67%
6	The infrastructure of the library	Male	0	0%	0	0%	64	18%	97	27%	197	55%
		Female	0	0%	0	0%	68	13%	275	53%	172	33%
7	Overall assessment of the library	Male	0	0%	0	0%	19	5%	45	13%	294	82%
		Female	0	0%	0	0%	0	0%	69	13%	446	87%

In relation to the cataloguing and organization of resources on library shelves, most users (190 and 309) are satisfied, and a considerable number of students (150 and 206) are highly satisfied. The majority of respondents (237 and 374) are highly satisfied with the internet facilities. A substantial proportion of users (92 and 141) are satisfied, with few users (29) expressing their neutral satisfaction over internet service. The circulation service receives high satisfaction from a majority of male users (297), compare to 453 (88%) female users express their high satisfaction. The availability and assistance of library staff receive the high satisfaction levels, with 243(68%) male and 343(67%) female students expressing high satisfaction and 115 (32%) male and 172 (33%) female students expressing satisfied. The responses

for the infrastructure of the library are slightly varied among the groups. There are 197 (55%) male users are highly satisfied compare to 172 (33%) female users. A small number of users, 64 (18%) male and 68 (13%) female users are neutrally satisfied. The overall assessment of the library shows the majority are highly satisfied, 294 (82%) male and 446 (87%) female users are highly satisfied, and 45 (13%) males with 69 (13%) female users are express their satisfactions. Only few male users, 19 (5%) express their neutral satisfaction on overall assessment on this library services.

6.5 Test of Hypothesis

The Mann-Whitney U test (Mann & Whitney, 1947) is a non-parametric statistical test used to compare two independent samples



to determine whether there is a significant difference between their distributions. The test ranks all the observations from both groups together, and then compares the sum of the ranks between the two groups. The null

hypothesis assumes that the two samples come from the same distribution. The results are typically reported with a U statistic.

Hypothesis test for internet service among the users' categories:

$$N = \text{Total number of respondents } (n_1 + n_2) = 358 + 515 = 873,$$

$$U_1 = n_1 n_2 + \frac{n_1(n_1 + 1)}{2} - \sum R_1$$

U_1 = Compute test of Male group

$$U_1 = 358 \times 515 + \frac{358(358 + 1)}{2} - 148553.5$$

$\sum R_1$ = Summation of average ranks belongs to Male group

$$U_1 = 184370 + 64261 - 85034.5$$

$$U_1 = 100077.5$$

$$U_2 = n_1 n_2 + \frac{n_2(n_2 + 1)}{2} - \sum R_2$$

U_2 = Compute test of Female group

$$U_2 = 358 \times 515 + \frac{515(515 + 1)}{2} - 232947.5$$

$\sum R_2$ = Summation of average ranks belongs to Female group

$$U_2 = 1184370 + 2132870 - 295593.5$$

$$U_2 = 84292.5$$

In computation of Z, U value may be taken as U_1 or U_2 . Its reveals same result.

$$z = \frac{U_1 - \frac{n_1 n_2}{2}}{\sqrt{\frac{n_1 n_2 (N + 1)}{12}}}$$

$$z = \frac{U_2 - \frac{n_1 n_2}{2}}{\sqrt{\frac{n_1 n_2 (N + 1)}{12}}}$$

$$z = \frac{100077.5 - \frac{358 \times 515}{2}}{\sqrt{\frac{358 \times 515 (873 + 1)}{12}}}$$

$$z = \frac{84292.5 - \frac{358 \times 515}{2}}{\sqrt{\frac{358 \times 515 (873 + 1)}{12}}}$$

$$z = \frac{100077.5 - 92185}{\sqrt{13428281.67}}$$

$$z = \frac{84292.5 - 92185}{\sqrt{13428281.67}}$$

$$z = \frac{7892.5}{3664.46}$$

$$z = \frac{-7892.5}{3664.46}$$

$$z = 2.15$$

$$z = -2.15$$



The obtain positive value of $Z=2.15$ (Z_{obt}) is greater than the critical value 1.96 (Z_{crit}), fall under the critical region at significance level (α) 0.05 two tail test. Other way, the obtain negative value of $Z= -2.15$ (Z_{obt}) is lower than the critical value -1.96 (-

Z_{crit}), fall under the critical region at significance level (α) 0.05 two tail test. The accepted rule (Pagano, 2013) stated as under condition of $|Z_{obt}| \geq |Z_{crit}|$, rejecting the null hypothesis.

Table 5: Summary of hypothesis test

Summary of hypothesis test			
	Null hypothesis	Experiment	Resolution
1	H_0 - There is no significant difference in the distribution of internet service among the student categories.	Mann-Whitney U Test (independent samples)	H_0 is rejected and H_1 is accepted (there is significant difference in the distribution of internet service among the student categories).
$ \pm 2.15 \geq \pm 1.96 $, (Significance level at 0.05), two tail test			

This study uses MWUT to examine the null hypothesis (H_0) that there is no significant difference in the distribution of internet service among the student categories and shows a z value of 2.15, greater than the table value (King, Rosopa, and Minium, 2018) of 1.96 at significance level (α) of 0.05 for two tailed tests. The result suggests rejecting the null hypothesis and accepts the alternative hypothesis (H_1) that there is significant difference in the distribution of internet service among the student categories. It indicates that the categories of students have

different perceptions, requiring category wise special attention to provide internet service among the group of users.

6.6 Suggestions for improvement of the library from students

Expansion of library space is recommended by 32 male and 37 female students. However, 43 male and 46 female students advise on the addition of seats. High speed internet service is major concern among the student categories, includes 71 male users and 29 female users.

Table 6: Suggestions from students for improvement of the library

Suggestions	Respondents	
	Male	Female
Library space extension	32	37
Seats increase-	43	46
High speed internet	71	29
Bengali version books	67	77
Increase computer	64	0
Installation of AC	50	36
Drinking water availability in library	8	17

Meanwhile, 67 male students request Bengali version books, while a greater number of female students (77) also recommend this. Most importantly, increase of computer only recommended by 64 male

users. It indicates their unique perceptions on internet service. In particular, 50 male and 36 female students advocate for the installation of air conditioning. Finally, the availability of drinking water in the library is an issue among



8 male and 17 female students. This study represents distinct recommendations between the two student categories.

7. Major Findings

- ❖ Female users have the higher share (59%) compare to the male user (41%) in the library and they have greater number of frequencies (53%) in monthly visits in the library.
- ❖ This investigation observe that the different category of users expresses their greatest satisfaction on internet service, includes 66% male and 73% female users and circulation service with 83% male and 88% female users.
- ❖ A notable portion of respondents (18% male and 13% female users) have a neutral perception on this satisfaction study, indicating the requirements of improvement of library infrastructure, based on the received suggestions with increase seating arrangement, air conditioning, and space extension.
- ❖ The hypothesis test shows that there is a significant difference about the internet service among the male and female users, suggesting that the library should identify their targeted internet user to provide special attention.

8. Conclusion

Male students have a strong desire to read books, borrow books and browse the internet. Meanwhile, female students place more importance on borrowing books. E-resources have equal importance among both categories of students, whereas male students are fonder of the particular. The maximum number of users expresses their highest satisfaction level in response to Internet facilities and circulation service.

Nonetheless, the study shows their satisfaction with the availability and assistance of the staff and the overall library assessment. The most valuable aspects among the parameters of library services and resources get the average satisfaction level. The findings suggest that students from different categories have different perception of access to internet facilities. Assistance and library staff availability have the same distribution among both categories of students. Each user's group has its own variant perceptions about the library, concluding a customer category-based strategy is necessary to increase the satisfaction level of users.

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