

# **LIBRARY SERVICE QUALITY ASSESSMENT AT PT. BHAGWAT DAYAL SHARMA UNIVERSITY OF HEALTH SCIENCES, ROHTAK: A LIBQUAL+™ STUDY**

**Bhanu Partap**

Research Scholar

Dept. of Library & Information Science

Kurukshetra University, Kurukshetra

E-mail: [bpartaps2005@gmail.com](mailto:bpartaps2005@gmail.com)

**Abstract:** Quality of library services is directly related to the users' satisfaction. Using three dimensions of LibQUAL+™ tool, efforts were made to assess the quality of information resources and services offered by the library of Pt. Bhagwat Dayal Sharma University of Health Sciences, Rohtak. The tool LibQUAL+™ had 22 items representing the staff, collection, services and infrastructural aspects of library. The results show that the users were not fully satisfied with the services offered by the library on all the three dimensions. A wider gap was found on all the tool items, and superiority level gap was also high, therefore, the overall service quality of the library was rated average.

**Keywords:** Library, service quality, quality assessment, user satisfaction, LibQUAL+™

## **1.0 Introduction:**

Libraries are known as temple of learning and are the place where the people come to use the services and other facilities without any discrimination. In ancient time, common men were not allowed to use the library facilities, as it was meant only for the renowned people. Library is a storehouse of collections and librarian is a custodian of it. The concept of education changed gradually, which changed the trend of library use and the common men of the society were allowed to use the library. With the development of information and communication technology (ICT), the scenario of library has totally changed. Now, the books, journals and other documents in electronic form are need of the day. Resources in other electronic medium such as CD-ROMs, USB media, web resources, *etc.* are also in demand. Technology has influenced the activities and services of libraries and turned the libraries into a knowledge center. Now, the users want information in digital form, not in physical form. Due to technological revolution and changing needs of users, quality issues are of major concern, as the users want personalized quality services within shortest possible time, not the common services. In this era of ICT, the quality of library is measured by its services. The mandate of a library is to satisfy the users. Therefore, the present study was planned to assess the library service quality at Pt. Bhagwat Dayal Sharma University of Health Sciences, Rohtak.

## **2.0 Service Quality:**

Any service or thing, which has goodness as per the specified standard known as quality service or thing. According to Hornby (2007), quality is *the standard of something as measured against other things of a similar kind or the degree of excellence of something*. The late American Management guru Peter F. Drucker (N.D.) said that *quality in a product or service is not what the supplier puts in. It is what the customer gets out and is willing to pay for*. From the point of view of the library, it can be said that quality is a degree of excellence towards the information resources and services provided to the users, and similarly, the users can get the maximum satisfaction. Due to technological change and impact of it on libraries, it is needed to survive the existence of libraries and it is totally dependent on users' point of view and behaviour, therefore, libraries are now more concerned about the library users, their satisfaction, the quality of library and information resources

and services, and their proper marketing. Service quality is a comparison of expectations with performance (Wikipedia, 2017). Service quality means to know the difference between perception of service and expectation of the service from user's the point of view.

### **3.0 LibQUAL+TM**

Simply, LibQUAL is made from two words, *i.e.*, Lib., which relates to Library and Qual. relates to Quality. LibQUAL+<sup>TM</sup> is a tool for measuring library users' perceptions of service quality and it identifies the gaps among minimum, desired and perceived expectations of service of users. It asks the library users about their library service expectations. LibQUAL+<sup>TM</sup> is a way of listening to the users (Bavakutty and Majeed, 2005). The LibQUAL+<sup>TM</sup> survey was developed jointly by the Association of Research Libraries and Texas A&M University Library to measure library service quality and to identify best practices.

### **4.0 Literature Review**

Review of related literature form the basis to know the problem in depth under study. A very few studies has been conducted on LibQUAL in India. Studies related to service quality in agricultural and medical university libraries are not found in India, however, one study is recently in 2015 has been conducted on medical colleges of Karnataka. It is not possible to trace all the literature on the topic, however, an effort has been made to review the literature on service quality.

Oak and Patil (2011) explored that the expectation level of users of national institute, *i.e.*, Indian Institute of Management-Bangalore (IIMB), was high as compared to the state level institute, *i.e.*, Institute of Management of Career Courses-Pune (IMCC). Rehman (2012) revealed that five services having lowest minimum expectations were mostly related to *affect of service* dimension and also found that library users' minimum expectations were significantly different than desire expectations on all service items and dimensions. Rehman and El-Hadi (2012) observed that university libraries in Pakistan were not up to the mark and far from meets users' desired expectations about their information needs, especially attributes related to collections and access. Mohindra *et al.* (2015) revealed that library service quality (LSQ) item on desired level of expectation was library space that inspired study and learning followed by quite space for individual activities and making information easily accessible available for independent use. Mohindra and Shokeen (2016) found that perceived service level of LibQUAL items differed from the desired service level. While measuring the gap in service quality provided by the libraries of medical university, Pedramnia *et al.* (2012) noticed lower quality of libraries than the expected in all the dimensions of LibQUAL instrument and explored most gap related to updated multimedia databank, appropriate number of computers and adequate facilities like Laptop/PC and broadband network for better access to subscribed electronic resources through MUMS Central Library website. A study conducted by Brito and Vergueiro (2013) in Brazil reveals that the Brazilian academic libraries were not up to the mark in terms of their services provided to the users and had the lacuna on all the dimensions of LibQUAL+ tool, resulting dissatisfaction among the users about the perceived quality of services. While measuring the service quality at RYM Engineering College Library, Bellari of Karnataka state using LibQUAL+<sup>TM</sup> instrument, Goud (2013) noticed that the level of service quality on minimum level across three dimensions did not achieve the customers' desire.

### **5.0 PBDSUHS, Rohtak**

PBDSUHS was initially started as Guest Institute in 1960 at Medical College, Patiala. Due to high demand for medical education and a deficient patient care services in southern part of Haryana, which was the then part of Punjab, it was shifted to Rohtak in 1963. Later on, the college was upgraded as Pt. B.D. Sharma Postgraduate Institute of Medical Sciences, Rohtak (PGIMS). In the year 2008, PGIMS, Rohtak was upgraded and granted the status of university. Pandit Bhagwat Dayal Sharma University of Health Sciences has been established by the Haryana Act No.26 of 2008. The University has been established for the purpose of teaching and affiliating, ensuring proper and systematic instruction, training and research in Modern and Indian System of Medicine and for the administration of the Pt. B.D. Sharma Postgraduate Institute of Medical Sciences, Rohtak.

### **5.1 PBDSUHS Library**

PBDSUHS at present is supported by PGIMS library. PGIMS library has at present serving the entire medical, dental, pharmacy, nursing and other paramedical fraternity of the university. The library is spread in 2000 m<sup>2</sup> having air conditioned reading halls with a seating capacity of 500 readers.

**Table 1: Current state of the PGIMS Library, PBDSUHS, Rohtak**

Information resources	Quantity
Books	38,476
Bound journals	28,150
Thesis	970
CDs (Books and Theses)	350
<b>Total</b>	<b>67,946</b>
<b>Library membership</b>	
Faculty	350
Other Staff	35
Students	709
<b>Total</b>	<b>1,094</b>

Source: Questionnaire-Survey, PGIMS-Library, PBDSUHS, Rohtak, Oct.-Nov. 2016

### 6.0 Statement of the Problem

The present study is an attempt to find out the gap between the expectations and perceptions of library users towards the quality of library services and to suggest possible actions in order to improve service quality in the library of Pt. Bhagwat Dayal Sharma University of Health Sciences (PBDSUHS), Rohtak.

### 7.0 Objectives of the Study

The main objective of the study was to know the service quality in the library of Pt. Bhagwat Dayal Sharma University of Health Sciences, Rohtak. The study applied LibQUAL+™ tool to measure the level of services provided by the library of institution under study. The following specific objectives were identified:

- To know the library resources available in the library of PBDSUHS
- To determine services expectations of users of PBDSUHS using three LibQUAL+™ dimensions
- To determine users' perceptions about services provided by PBDSUHS library using three LibQUAL+™ dimensions
- To identify the gap between the level of expectations and perceptions of library users towards different quality dimensions of library services
- To ascertain the level of users' satisfaction
- To suggest measures for improving the service levels of the library of PBDSUHS.

### 8.0 Methodology

The present study was conducted by using LibQUAL+™ survey method. A structured LibQUAL+™ questionnaire was designed for the purpose of data collection and the copies of the same were distributed personally on randomly basis to the UG (MBBS), PG (MD/MS) students and Faculty members of Pt. Bhagwat Dayal Sharma University of Health Sciences, Rohtak (HR) in the months of October-November, 2016. A total 200 questionnaires were distributed among the respondents, out of which 138 questionnaires were received back with response @ 69%. On the basis of filled questionnaires, the data has been analyzed and tabulated and presented in the form of tables. For the data analysis percentage analysis, mean, standard deviation and ANOVA statistical techniques have been used.

### 9.0 Data Analysis

**Table 2: Gender wise status of respondents (%)**

Status	Male	Female	Total
No of Respondents	80	58	138
% of Respondents	58	42	100

Table 2 shows the percentage of male and female users of Pt. Bhagwat Dayal Sharma University of Health Sciences, Rohtak. Out of 138 respondents, 58% were male users, whereas, 42% were female users.

**Table 3: Age wise status of respondents (%)**

Status	<25	26-30	>30	Total
No of Respondents	64	43	31	138
% of Respondents	46.4	31.2	22.5	100

The data in Table 3 demonstrate the percentage of users' age in Pt. Bhagwat Dayal Sharma University of Health Sciences, Rohtak. Out of 138 respondents, 46.4% were of the age below 25 years followed by 31.2% of the age between 26 and 30 years and 22.5% of the age above 30 years.

**Table 4: Academic status of respondents (%)**

Status	UG	PG	Faculty/Scientists	Total
No of Respondents	73	36	29	138
% of Respondents	52.9	26.1	21	100

The data in Table 4 depict the academic status of respondents of Pt. Bhagwat Dayal Sharma University of Health Sciences, Rohtak. Out of 138 respondents, 52.9% were undergraduate, followed by 26.1% postgraduate and 21% faculty members.

**Table 5: Year of study/teaching experience of respondents- PBDSUHS, Rohtak**

Status of respondents	Students					Total
	1 year	2 Years	3 Years	4 Years	> 4 Years	
	Faculty/Scientists					
	<5 Years	5-10 Years	10-15 Years	15-20 Years	> 20 Years	
UG	00	13	19	13	28	73
% of Respondents	00	17.8	26	17.8	38.4	100
PG	00	21	15	00	00	36
% of Respondents	00	58.3	41.7	00	00	100
Faculty	07	06	07	06	03	29
% of Respondents	24.1	20.7	24.1	20.7	10.3	100
Total	07	40	41	19	31	138
% of Respondents	5.1	29	29.7	13.8	22.5	100

The data in Table 5 indicate the year of study/teaching experience of the respondents of the PBDSUHS, Rohtak. It is noted that 26% of the respondents in the study were the MBBS 3rd year students followed by equal number of respondents (17.8%) were the MBBS 2nd year and 4th year students. Respondents from MBBS 1st year were excluded from the study. The total 36 respondents participated in the study were included from postgraduate programmes (MD/MS), out of which, 58.3% respondents were from 2nd year and 41.7% from 3rd year.

So far the faculty members are concerned, 7 respondents had a teaching experience of 5 years, 6 respondents of 10 years, 7 respondents of 10-15 years, 6 respondents of 15-20 years and 3 respondents of more than 20 years' experience.

Out of 138 respondents, 73 respondents were undergraduate, 36 postgraduate and 29 were faculty members working in different capacity, i.e., Assistant Professor, Associate Professor and Professor.

**Table 6: Usage of resources in the library premises- PBDSUHS, Rohtak**

Status of respondents	Daily	Weekly	Monthly	Quarterly	Never	Total
UG	36	25	09	00	03	73
% of Respondents	49.3	34.2	12.3	00	4.1	100
PG	10	15	11	00	00	36
% of Respondents	27.8	41.7	30.6	00	00	100
Faculty	02	04	09	08	06	29
% of Respondents	6.9	13.8	31	27.6	20.7	100
Total	48	44	29	08	09	138
% of Respondents	34.8	31.9	21	5.8	6.5	100

The Table 6 presents the frequency of resources usage in the library of PBDSUHS, Rohtak. The data reveal that 49.3% undergraduate respondents were using the resources in library premises daily followed by 34.2% weekly and 12.3% monthly. A few number of respondents (4.1%) never visited the library for using the resources. With regard to postgraduate respondents, 41.7% of the respondents were using the library resources once in a week, 30.6% once in a month and 27.8% daily. On the other hand, 31% faculty members were using the library once in a month followed by 27.6% quarterly, 13.8% weekly and 6.9% daily. Interestingly, it was found that 20.7% faculty respondents never visited the library for using resources.

In total, out of 138 respondents, 34.8% respondents were using the library daily followed by 31.9% weekly, 21% monthly and 5.8% quarterly basis. Among the respondents, 6.5% were never visited the library for accessing the resources.

**Table 7: Access of library resources through library web page- PBDSUHS, Rohtak**

Status of respondents	Daily	Weekly	Monthly	Quarterly	Never	Total
<b>UG</b>	<b>02</b>	<b>08</b>	<b>13</b>	<b>08</b>	<b>42</b>	<b>73</b>
% of Respondents	2.7	11	17.8	11	57.5	100
<b>PG</b>	<b>00</b>	<b>09</b>	<b>03</b>	<b>04</b>	<b>20</b>	<b>36</b>
% of Respondents	00	25	8.3	11.1	55.6	100
<b>Faculty</b>	<b>00</b>	<b>00</b>	<b>02</b>	<b>06</b>	<b>21</b>	<b>29</b>
% of Respondents	00	00	6.9	20.7	72.4	100
<b>Total</b>	<b>02</b>	<b>17</b>	<b>18</b>	<b>18</b>	<b>83</b>	<b>138</b>
% of Respondents	1.4	12.3	13	13	60.1	100

The data given in Table 7 indicate the access of library resources through library web page by the respondents at PBDSUHS, Rohtak. It is observed that 57.5% of undergraduate respondents never accessed the library web page for their information resources due to time constraints as they are very busy in their classes as well as their duties in OPDs and other places, while 17.8% accessed library web page monthly and equal number of respondents (11%) accessed weekly and quarterly. Only 2.7% accessed library web page daily.

On the other hand, 55.6% postgraduate respondents never accessed library web page for similar purpose, however, 25% respondents accessed the library web page on weekly basis, 11.1% quarterly and 8.3% monthly basis.

With regard to faculty members, only 20.7% reported that they accessed library web page once in a quarter for their informational requirement, while 6.9% said that they visited the library web page once in a month. Surprisingly, majority (72.4%) of the faculty members responded that they had not much time for accessing the library web page for their informational requirement.

In total, out of 138 respondents, more than 60% respondents never visited the library webpage for accessing the resources. However, 26% respondents (13% each) used the library web page either once in a month or quarterly, 12.3% accessed library web page weekly and 1.4% daily.

**Table 8: Usage of Yahoo<sup>TM</sup>, Google<sup>TM</sup> or non-library gateways for information-PBDSUHS, Rohtak**

Status of respondents	Daily	Weekly	Monthly	Quarterly	Never	Total
<b>UG</b>	<b>23</b>	<b>25</b>	<b>15</b>	<b>05</b>	<b>05</b>	<b>73</b>
% of Respondents	31.5	34.2	20.5	6.8	6.8	100
<b>PG</b>	<b>09</b>	<b>16</b>	<b>10</b>	<b>00</b>	<b>01</b>	<b>36</b>
% of Respondents	25	44.4	27.8	00	2.8	100
<b>Faculty</b>	<b>02</b>	<b>12</b>	<b>14</b>	<b>01</b>	<b>00</b>	<b>29</b>
% of Respondents	6.9	41.4	48.3	3.4	00	21
<b>Total</b>	<b>34</b>	<b>53</b>	<b>39</b>	<b>06</b>	<b>06</b>	<b>138</b>
% of Respondents	24.6	38.4	28.3	4.3	4.3	100



The data given in Table 8 indicate the usage of Yahoo™, Google™, or non-library gateways for information by the respondents of PBDSUHS, Rohtak. The study illustrates that 34.2% undergraduate respondents used non-library gateways on weekly basis followed by 31.5% daily, 20.5% monthly and 6.8% on quarterly basis. However, 6.8% respondents replied that they had never used the same for the purpose.

Similar trend was found with the postgraduate respondents that 44.4% used non-library gateways once in a week, whereas, 27.8% monthly and 25% daily. Interestingly, 2.8% never used the non-library gateways for their required information.

So far the faculty members are concerned, 48.3% respondents said that they were using non-library gateways once in a month for their desired information followed by 41.4% weekly, 6.9% daily and 3.4% on quarterly basis.

In total, out of 138 respondents, 38.4% used non-library gateways once in a week, 28.3% monthly, 24.6% daily and 4.3% on quarterly basis. A few number of respondents (4.3%) also replied that they never used non-library gateways for their desired information.

**Table 9: General satisfaction with library services, PBDSUHS, Rohtak (N=138)**

Statement No.	General Satisfaction With Library Services			Std. Error	95% Confidence Interval for Mean	
	Mean	Standard Deviation	Rank		Lower Bound	Upper Bound
1	5.36	1.712	6 <sup>th</sup>	.146	5.07	5.64
2	5.84	1.481	3 <sup>rd</sup>	.126	5.59	6.09
3	5.92	1.425	2 <sup>nd</sup>	.121	5.68	6.16
4	4.67	1.697	7 <sup>th</sup>	.144	4.39	4.96
5	5.75	1.272	4 <sup>th</sup>	.108	5.54	5.97
6	5.56	1.284	5 <sup>th</sup>	.109	5.34	5.77
7	6.21	1.229	1 <sup>st</sup>	.105	6.00	6.42
8	5.92	1.026	2 <sup>nd</sup>	.087	5.75	6.09

The Table 9 shows the information literacy and general satisfaction level with library services among the respondents provided by the library of PBDSUHS, Rohtak. It is revealed from the table that the respondents gave 1st rank to the statement *In general, I am satisfied with library support for my learning, research, and teaching needs* with mean value 6.21, revealing that the respondents were moderately satisfied with the statement, 2nd to the statement *Library enables me to be more efficient in my academic pursuits* with mean value 5.92 and *How would you rate the overall quality of the service provided by the library?* with mean value 5.92, 3rd to *Library aids my advancement in my academic pursuits* with mean value 5.84, 4th to *Library provides me with the information skills I need in my work or study* with mean value 5.75, 5th to *In general, I am satisfied with the way in which I am treated at the library* with mean value 5.56, 6th to *Library helps me to stay abreast of developments in my field(s) of interest* with mean value 5.36 and 7th to *Library helps me distinguish between trustworthy and untrustworthy* with mean value 4.67, showing that the respondents were moderately satisfied with these statements.

**Table 10: Assessment of quality of library services on LibQUAL+™ dimensions-I**

Sr. No.	Details of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance	
		A		B		C	
		Mean	SD	Mean	SD	Mean	SD
AS	Affect of Service*	5.00	1.30	7.34	1.00	4.27	1.30
AS-1	Library staff instill confidence in users	4.41	1.488	6.88	1.011	3.74	1.405
AS-2	Library staff pays personal attention to the users	4.49	1.239	6.91	1.124	3.96	1.270
AS-3	Library staff is consistently courteous	5.01	1.187	7.36	.965	4.37	1.318
AS-4	Library staff is always ready to	5.11	1.265	7.33	.991	4.41	1.105

	respond to users' questions						
AS-5	Library staff has competence/knowledge to answer users' questions	5.25	1.268	7.62	1.089	4.32	1.261
AS-6	Library staff is caring while dealing with the users	5.11	1.333	7.42	1.031	4.36	1.398
AS-7	Library staff understands the needs of its users	5.19	1.288	7.49	.938	4.23	1.331
AS-8	Library staff is always willing to help users	5.16	1.308	7.55	1.040	4.50	1.263
AS-9	Library staff displays reliability in handling users' service problems	5.28	1.355	7.55	.863	4.54	1.378
<b>IC</b>	<b>Information Control*</b>	<b>5.22</b>	<b>1.22</b>	<b>7.56</b>	<b>1.01</b>	<b>3.54</b>	<b>1.08</b>
IC-10	Electronic resources of the library are accessible from my home or office	5.17	1.305	7.39	1.063	1.67	.804
IC-11	Web site of library enables me to locate information on my own	5.11	1.206	7.70	1.105	1.35	.669
IC-12	Library has printed materials, I need for my work	5.46	1.166	7.91	.924	5.95	1.269
IC-13	Library has electronic resources, I need for my work	5.20	1.128	7.75	1.019	1.85	1.032
IC-14	Library has modern equipment that lets me have easy access to the needed information	5.14	1.285	7.26	1.013	4.12	1.247
IC-15	Library has easy-to-use access tools that allow me to find information on my own	4.96	1.287	7.22	1.023	4.10	1.320
IC-16	Library makes the information easily accessible for independent search	5.13	1.323	7.28	1.018	4.39	1.199
IC-17	Library has print and/or electronic journal collections, I require for my work	5.59	1.131	7.99	.936	4.93	1.179
<b>LP</b>	<b>Library as Place*</b>	<b>5.30</b>	<b>1.55</b>	<b>7.53</b>	<b>0.99</b>	<b>4.79</b>	<b>1.15</b>
LP-18	Library has space that inspires study and learning	5.59	1.615	7.68	1.018	5.45	1.279
LP-19	Library has quiet space for individual activities	4.93	1.613	7.38	.968	4.34	1.097
LP-20	Library has comfortable and inviting location	5.51	1.501	7.87	.935	4.99	1.039
LP-21	Library is a gateway for study, learning and research	5.66	1.427	7.72	.987	5.62	1.115
LP-22	Library has community spaces for group learning and group study	4.83	1.606	7.04	1.042	3.55	1.262
<b>Overall**</b>		<b>5.15</b>	<b>1.34</b>	<b>7.47</b>	<b>1.00</b>	<b>4.12</b>	<b>1.18</b>

\* Dimension Average      \*\* Overall Average

The data given in Table 10 represent the assessment of library service quality at PBDSUHS, Rohtak. It is evident from the Table 10 that the minimum level of service on all the items of *Affect of Service* dimension of LibQUAL+<sup>TM</sup> mentioned in column A the theoretical mean score surpassed 4.0. Similarly, the mean scores also surpassed 4.0 in case of *desired* and *perceived* level of service shown in column B and C.

It is revealed from the table 10 that the theoretical mean score for the *minimum* services on all the items of *Information Control* dimension mentioned in column A surpassed 5.0 except one item *Library has easy-to-use access tools that allow me to find information on my own* (4.96). A similar trend was observed in case of

desired services shown in column B, but with regard to *perceived* services shown in column C, the mean scores were not similar. The result shows that the library did not fulfill the *minimum* expectations of service on *Information Control* dimension.

The data given in Table 10 depict that the theoretical mean score surpassed 4.0 on *minimum*, *desired* and *perceived* service level on all the items of *Library as Place* dimension mentioned in column A except one item on perceived level, i.e., *Library has community spaces for group learning and group study* (3.55), indicating that the users were not getting their desired information. The results indicate that the library did not fulfill the *minimum* expectations of services on *Library as Place* dimension.

**Table 11: Assessment of quality of library services on LibQUAL+TM dimensions-II**

Sr. No.	Details of Items	Service Adequacy				Service Superiority			
		(C-A)				(C-B)			
		Mean	T=	df.	P=	Mean	T=	df.	P=
<b>AS</b>	<b>Effect of Service*</b>	<b>-0.73</b>	<b>-5.24</b>	<b>137</b>	<b>.000</b>	<b>-3.07</b>	<b>-24.26</b>	<b>137</b>	<b>.000</b>
AS-1	Library staff instill confidence in users	-0.67	-4.64	137	.000	-3.14	-25.17	137	.000
AS-2	Library staff pays personal attention to the users	-0.52	-3.82	137	.000	-2.95	-23.55	137	.000
AS-3	Library staff is consistently courteous	-0.64	-4.64	137	.000	-2.99	-22.40	137	.000
AS-4	Library staff is always ready to respond to users' questions	-0.70	-5.46	137	.000	-2.93	-26.02	137	.000
AS-5	Library staff has competence/knowledge to answer users' questions	-0.93	-6.64	137	.000	-3.30	-23.46	137	.000
AS-6	Library staff is caring while dealing with the users	-0.75	-5.36	137	.000	-3.06	-25.05	137	.000
AS-7	Library staff understands the needs of its users	-0.96	-6.71	137	.000	-3.25	-26.09	137	.000
AS-8	Library staff is always willing to help users	-0.66	-4.81	137	.000	-3.05	-23.73	137	.000
AS-9	Library staff displays reliability in handling users' service problems	-0.74	-5.13	137	.000	-3.01	-22.89	137	.000
<b>IC</b>	<b>Information Control*</b>	<b>-1.67</b>	<b>-13.06</b>	<b>137</b>	<b>.000</b>	<b>-4.01</b>	<b>-33.55</b>	<b>137</b>	<b>.000</b>
IC-10	Electronic resources of the library are accessible from my home or office	-3.50	-28.14	137	.000	-5.72	-51.95	137	.000
IC-11	Web site of library enables me to locate information on my own	-3.76	-32.00	137	.000	-6.35	-56.19	137	.000
IC-12	Library has printed materials, I need for my work	0.49	3.60	137	.000	-1.96	-18.34	137	.000
IC-13	Library has electronic resources, I need for my work	-3.36	-24.33	137	.000	-5.90	-44.08	137	.000
IC-14	Library has modern equipment that lets me have easy access to the needed information	-1.01	-6.87	137	.000	-3.14	-24.03	137	.000
IC-15	Library has easy-to-use access tools that allow me to find information on my own	-0.86	-5.80	137	.000	-3.12	-22.58	137	.000
IC-16	Library makes the information easily accessible for independent search	-0.74	-5.66	137	.000	-2.89	-26.48	137	.000



IC-17	Library has print and/or electronic journal collections, I require for my work	-0.66	-5.26	137	.000	-3.05	-24.78	137	.000
<b>LP</b>	<b>Library as Place*</b>	<b>-0.51</b>	<b>-3.42</b>	<b>137</b>	<b>0.20</b>	<b>-2.25</b>	<b>-25.58</b>	<b>137</b>	<b>.000</b>
LP-18	Library has space that inspires study and learning	-0.14	-1.12	137	.265	-2.23	-19.39	137	.000
LP-19	Library has quiet space for individual activities	-0.59	-4.21	137	.000	-0.59	-29.91	137	.000
LP-20	Library has comfortable and inviting location	-0.52	-3.81	137	.000	-2.88	-28.76	137	.000
LP-21	Library is a gateway for study, learning and research	-0.04	-0.28	137	.779	-2.10	-20.61	137	.000
LP-22	Library has community spaces for group learning and group study	-1.28	-7.70	137	.000	-3.49	-29.25	137	.000
<b>Overall**</b>		<b>-1.02</b>	<b>-7.67</b>	<b>137</b>	<b>0.05</b>	<b>-3.23</b>	<b>-27.94</b>	<b>137</b>	<b>.000</b>

\* Dimension Average      \*\* Overall Average

The Table 11 shows the comparative analysis of *Service Adequacy Gap* (SAG) and *Service Superiority Gap* (SSG) in the library of PBDSUHS, Rohtak against each item of LibQUAL+™ dimensions, i.e., *Affect of Service*, *Information Control* and *Library as Place*.

With respect to the *Service Adequacy Gap* (SAG), which was calculated by subtracting a user's *minimum* level of service quality from the *perceived* level of service quality, on *Effect of Service* gaps, the highest *service adequacy* gaps was revealed in the items, i.e., *Library staff understands the needs of its users* (-0.96), *Library staff has competence/knowledge to answer users' questions* (-0.93), *Library staff is caring while dealing with the users* (-0.75) and *Library staff displays reliability in handling users' service problems* (-0.74). The lowest gaps was observed for the items *Library staff pays personal attention to the users* (-0.52), *Library staff is consistently courteous* (-0.64), *Library staff is always willing to help users* (-0.66), *Library staff instill confidence in users* (-0.67) and *Library staff is always ready to respond to users' questions* (0.70). All the service quality items were observed negative scores, meaning that the respondents were not satisfied because their *minimum* information requirement was not fulfilled. However, such gaps were statistically significant on most of the items and the P values were also supporting it.

With regard to *Service Superiority Gap* (SSG), which was calculated by subtracting user's *desired* level of service quality from the *perceived* level of service quality, a wider gap was noticed on all the items of *Effect of Service* dimension. The highest *service superiority* gaps was observed in the items, i.e., *Library staff has competence/knowledge to answer users' questions* (-3.30), *Library staff understands the needs of its users* (-3.25) and *Library staff instill confidence in users* (-3.14). The lowest gaps was observed for the items *Library staff is always ready to respond to users' questions* (-2.93) and *Library staff pays personal attention to the users* (-2.95). This trend showed that the users were unhappy with the services offered by the library of PBDSUHS, Rohtak.

On *Effect of Service* dimension at the library of PBDSUHS, Rohtak, the overall *service adequacy* gap was found -0.73, indicating that the library was not meeting the minimum needs of its users and *service superiority* gap was -3.07. The negative superiority gaps indicate that the library was far from meeting its users' desired expectations. Interestingly, the data were statistically significant and the P values were also supporting it.

With reference to the *Service Adequacy Gap* (SAG), there was a wider gap on all the service quality items of *Information Control* dimension, where the respondents rated it negatively, which was floated below the Zone of Tolerance (ZOT) except one item, i.e., *Library has printed materials, I need for my work* (0.49). However, the data related to gaps in the items *Web site of library enables me to locate information on my own* (-3.76), *Electronic resources of the library are accessible from my home or office* (-3.50), *Library has electronic resources, I need for my work* (-3.36), *Library has modern equipment that lets me have easy access to the needed information* (-1.06), *Library has easy-to-use access tools that allow me to find information on my own* (-0.86), *Library makes the information easily accessible for independent search* (-0.74), *Library has print and/or electronic journal collections, I require for my work* (-0.66) were found statistically significant and the P values were also supporting it. The data also show that one item, i.e., *Library has printed material I need for my work*

(0.49) had less gap. Data reveal that the users were not happy with the quality of services provided to them as their *minimum* requirement was not fulfilled.

So far concerned with the *Service Superiority Gap* (SSG) for the dimension *Information Control*, the highest gaps was depicted in *Library has electronic resources, I need for my work* (-6.35), *Library has electronic resources, I need for my work* (-5.90) and *Electronic resources of the library are accessible from my home or office* (-5.72). The lowest gap scores was observed for the item *Library has printed materials, I need for my work* (-1.96) followed by *Library makes the information easily accessible for independent search* (-2.89), *Library has print and/or electronic journal collections, I require for my work* (-3.05), *Library has easy-to-use access tools that allow me to find information on my own* (-3.12) and *Library has modern equipment that lets me have easy access to the needed information* (-3.14). Interestingly, the data on all the items of *Information Control* dimension were statistically significant and the P values were also supporting it.

On *Information Control* dimension at the library of PBDSUHS, Rohtak, overall *service adequacy* gap was found -1.67 and *service superiority* gap -4.01. The negative superiority gaps indicate that the library was far from fulfilling the *desired* information requirements of its users. However, the data were statistically significant and the P values were also supporting it.

With respect to the *Service Adequacy Gap* (SAG) on *Library as Place* dimension, the highest gaps was revealed in the items *Library has community spaces for group learning and group study* (-1.28), *Library has quiet space for individual activities* (-0.59) and *Library has comfortable and inviting location* (-0.52), whereas, lowest gaps was found in *Library is a gateway for study, learning and research* (-0.04) and *Library has space that inspires study and learning* (-0.14). All the service quality items were found below the *Zone of Tolerance* (ZOT). The data given in the table indicate that there was no *Service Adequacy* on *Library as Place* dimension, as the users were unhappy with that their *minimum* informational requirement was not fulfilled.

In case of *Service Superiority Gap* (SSG), the respondents had shown the negative score on all the items of *Library as Place* dimension. The data indicate that there was a wider superiority gap on all the items of *Library as Place* dimension, as the users were unhappy with its *desired* informational requirement.

So far concerned with the overall scores on *Library as Place* at PBDSUHS, Rohtak, the *service adequacy* scores (-0.51) and *service superiority* scores (-2.25) were found negative, indicating that the users were not satisfied with the services provided by the library on *Library as Place* dimension. However, the data on all the items of *Library as Place* dimension were statistically significant and the P values were also supporting it.

## **10.0 Major Findings**

Based on the results, the major findings have been summarized as given below:

- The male respondents 58% and female respondents 42% participated in the survey and gave their positive response to the study.
- The respondents below the age of 25 years were 46.4%, between the age of 26 and 30 years 31.2% and above the age of 30 years 22.5%.
- From the undergraduate classes, 52.9% respondents participated in the survey positively, followed by 26.1% postgraduate and 21% faculty members of the PBDSUHS, Rohtak.
- The respondents less than 5 years of study or teaching experience were 5.1%, between 5 and 10 years of study/experience 29%, 10 and 15 years of study/experience 29.7%, 15 and 20 years of study/experience 13.8% and above the 20 years of study or teaching experience 22.5%.
- 34.8% of the respondents used the library resources and services daily, 31.9% weekly, 21% monthly and 5.8% quarterly. Surprisingly, 6.5% of the respondents replied that they come to the library occasionally or never to use the library resources and facilities.
- 26% of the respondents used the library web page once in a month or quarterly for their required information resources, 12.3% weekly and 1.4% daily, while more than 60% respondents never used the library web page for their informational requirement.
- 38.4% of the respondents used non-library gateways once in a week, 28.3% monthly, 24.6% daily and 4.3% quarterly, while 4.3% respondents never used the non-library gateways for their desired information and resources.
- In general, the respondents were moderately satisfied with library services provided by the library of PBDSUHS, Rohtak, however, in overall, the respondents were not satisfied with the resources and services provided by the PBDSUHS library as the library did not fulfill the *minimum* expectations of service on all the three dimensions of LibQUAL<sup>TM</sup> because there was more service superiority gaps observed on all the items.

**11.0 Conclusion and Suggestions:**

Today, the service quality is the crucial aspect of any service organization. It is assumed that if the concerned organization is providing better or up to the mark services then that organization is considered the best service providing organization. The present study dealt with the service quality assessment of the library at Pt. Bhagwat Dayal Sharma University of Health Sciences, Rohtak using LibQUAL+™ tool. After analyzing the data, findings reveal that the services offered by the library of PBDSUHS was not up to the mark and the users were not fully satisfied as their *minimum* service requirement was not fulfilled on all the three dimensions of the LibQUAL+™ tool. Therefore, it is suggested that the concerned authority should take some major initiatives to improve the level of services and availability of information resources and facilities in the library so that ultimate user satisfaction may be achieved.

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