

EVALUATING LIBRARY SERVICE QUALITY USING LIBQUAL+™ TOOL: A CASE STUDY OF PUNJAB AGRICULTURAL UNIVERSITY, LUDHIANA

Bhanu Partap

Research Scholar,

Dept. of Library & Information Science

Kurukshetra University, Kurukshetra- 136119

E-mail: bpartaps2005@gmail.com

Abstract: Quality of a service is always felt by the users but it is an inherent property of the service itself. Service quality is only the substitute for satisfying and retaining the customers. A quality product/service attracts the potential customers and *vice versa*. In order to enhance or maintain the service quality, periodic assessment including self-evaluation, user satisfaction surveys, failure analysis and performance measures are required. The major objective of this paper was to determine the users' perceptions of Mohinder Singh Randhawa (MSR) Library, Punjab Agricultural University, Ludhiana about quality of services and how far the library succeeded in delivering the quality services on *Affect of Service* dimension of LibQUAL+™ tool. It has been found that MSR library of PAU, Ludhiana was not fulfilling the desired information requirement of the users, as the service superiority scores on all the items of *Affect of Service* dimension were found negative.

Keywords: Library service quality, assessment of quality, LibQUAL+™, users' satisfaction

1.0 Introduction

A library, which is considered as the core centre of activities of any institution, not only holds the various collections but also focuses on providing various types of effective service. Earlier, the quality of any library was assessed by the size of collection, but in this era of information communication technology (ICT) and frequently changing needs of users, quality of library is assessed through its services irrespective of its collection and other physical facilities. Libraries today are service agent sharing much common with other service providers throughout the profit and non-profit service sector of society (Heath and Cook, 2000). Commonly, it is believed that library professionals can only assess the quality of library services. Further, library professionals also think that the users cannot judge the service quality because their responses may be biased on a single incidence happened in the past. However, Parasuraman *et al.* (1985) cleared that library users are the ultimate judge for evaluating the service quality of library or any organization. Hernan and Altman (2009) have also discussed that the customers are more important than a source for data collection, as they are the reason for libraries' existence. It is important to listen to and learn from customers and to use the insights gained to improve the services. For users' satisfaction, focus must be given on the quality of services. The present study is focused on evaluating library service quality at Punjab Agricultural University, Ludhiana using LibQUAL+™ approach.

2.0 Service Quality

Quality is simply known as the degree of goodness of something, whether it will be a product or service. Robinson (N.D.) stated that quality is meeting the requirements of the customer-now and in the future. British Standard 4778 (1987) also defined that quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs. Hence, it may be said that quality is meeting the requirements of the customer. The concept of quality is not a new phenomenon for library professionals, as it is existed in library principles and practices. Ranganathan (1988) also stated that the quality of a library can be evaluated in terms of whether or not it is able to provide the material sought by users at the time they need. His famous work *Five Laws of Library Science* advocated principles for quality development and its improvement on a regular basis with a focus on the user in the library.

Service quality is a comparison of perceived expectations (E) of a service with perceived performance (P), meaning that the perceived service performance subtracted from the desired expectation. Service quality is a measure of the extent to which the service delivered meets the customer's expectations. The users' expectations can influence satisfaction with both content and context and these expectations may or may not match what the library thinks appropriate. Expectations change according to what users want and how urgently they want it. Therefore, it is essential for every library that it should conduct the studies to know the satisfaction level of the users towards services provided by the library so that the service may be improved if any lacuna is identified in specific area.

3.0 LibQUAL+TM

LibQUAL+TM is a web-based survey offered by the Association of Research Libraries jointly developed by the Texas A & M University (TAMU) that helps the libraries to assess and improve library services, to change organizational culture and market the library. The survey instrument measures library users' minimum, perceived and desired levels of service quality across three dimensions (i) Affect of Service, (ii) Information Control and (iii) Library as Place (LibQUAL, 2017). LibQUAL+TM measures library users' perceptions of service quality and it identifies gaps between minimum, desired and perceived expectations of service. LibQUAL+TM is based on modified ServQUAL model of assessing service quality in marketing research (Parasuraman *et al.*, 1988). LibQUAL+TM gives library users a chance to tell, where services need improvement so that they may respond to and manage their expectations better.

4.0 Review of Literature

Some of the relevant studies based on LibQUAL+TM tool for measuring the service quality of M.S. Randhava Library, Punjab Agricultural University, Ludhiana have been reviewed below:

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. The level of perceived services in dimension of *information control* was higher than other dimensions but in dimension of *library as place*, it was relatively weak (Asemi *et al.*, 2010). In two university libraries of Punjab, Sharma *et al.* (2010) observed a perceptual difference in perceived quality of services rendered by the library staff and perceived service quality availed by the users. Rehman and Sabir (2012) noted significant difference between faculty and students on *affect of service* (AS) dimension and found no significant difference between male and female library users on service adequacy gap (SAG) and service superiority gap (SSG) and also identified similarities and differences on perceived library service quality across the user types, gender and academic disciplines. The users of A & M University Libraries were mostly satisfied with the willingness of staff to provide help as needed, the functionality of library web page and the provision of comfortable study environment (Swan, 2004). At Walters State Community College, Posey (2009) noticed that the lowest perceived scores were in the *affect of service* dimension, indicating that users were not pleased with the quality of library services provided. The mostly library users of Osmania University, Hyderabad felt the *service adequacy* more on *affect of service* dimension, the library staff members courteous, friendly and helpful and considered the library services *superior* in terms of *affect of service* dimension (Rao, 2012). Using LibQUAL+ model, Mardani *et al.* (2014) measured the service quality at Tehran University of Medical Sciences and found that the users considered the current quality of services lower than what the librarians consider them to be.

5.0 Profile of Punjab Agricultural University, Ludhiana

The Punjab Agricultural University (PAU) was established in 1962 to serve the state of erstwhile Punjab. On trifurcation of Punjab in November 1966, Haryana Agricultural University was carved out of PAU by an Act of Parliament in February 1970. Later, in July 1970, Himachal Pradesh Krishi Vishwavidyalaya was established. In 2006, the College of Veterinary Science was upgraded to become Guru Angad Dev Veterinary and Animal Science University (GADVASU) at Ludhiana. The Punjab Agricultural University (PAU) is located in Ludhiana city (Punjab State) in northwest India at a distance of 316 km from New Delhi. The Punjab Agricultural University now has four constituent colleges viz., College of Agriculture,

College of Agricultural Engineering, College of Home Science and College of Basic Sciences and Humanities. At present, the university through 28 departments in the four constituent colleges offers 31 Master's and 30 Ph.D. programmes. The course curricula are constantly revised and restructured to keep pace with the latest developments in agriculture and allied fields (PAU, 2017).

6.0 Profile of Mohinder Singh Randhawa Library (MSR)-PAU, Ludhiana

Punjab Agricultural University Library was established with a meagre collection of 200 books in 1959 in College of Agriculture. However, at present, this temple of learning with its beautiful five storey building with covered area of 93,320 sq. ft., centrally air-conditioned and surrounded by lush green lawns, dotted with beautiful ornamental trees and pollution free environment has grown into one of the best libraries of the region- a place of pilgrimage for scholars and faculty members from all over the country. This library has 760 seating capacity in its five reading halls. The aim of the library is to provide rich knowledge to its users and to extend it further through information technology, automation and networking (MSR-Library, 2016).

Table 1: Current state of the MSR Library, PAU, Ludhiana

Information resources	Quantity
Books	2,52,031
Bound Journals	1,04,387
Thesis	38,006
CDs (Books and Thesis)	4,171
Audio-Visual Material	378
E-Books	102
Total	3,99,075
Library membership	
Faculty	357
Other Staff	131
Students	2100
Special Members	34
Total	2,662

Source: Questionnaire-Survey, MSR-Library, PAU, Ludhiana, Oct.-Nov. 2016

7.0 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 with special reference to *Affect of Service* dimension of LibQUAL+™ and to suggest possible solutions in order to improve service quality in the library at Punjab Agricultural University, Ludhiana.

8.0 Objectives of the Study

The main objective of the study was to know the service quality with reference to *Affect of Service* dimension of LibQUAL+™ tool in the library at Punjab Agricultural University, Ludhiana. The following specific objectives were identified:

- To know the resources available in the library of PAU
- To determine services expectations of users of PAU library using *Affect of Service* dimension of LibQUAL+™
- To determine users' perceptions about services provided by PAU library on *Affect of Service* dimension of LibQUAL+™
- To identify the gap between the level of expectations and perceptions of library users towards *Affect of Service* dimension of LibQUAL+™
- To ascertain the level of users' satisfaction
- To suggest measures for improving the service levels of PAU library

9.0 Methodology

The present study was conducted by using LibQUAL+™ survey method at the library of PAU, Ludhiana. A structured LibQUAL+™ questionnaire on *Affect of Service* dimension 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 Punjab Agricultural University, Ludhiana in the month of October-November 2016. A total 200 questionnaires were distributed among the respondents, out of which, 165 questionnaires were received back with response @ 82.5%. Based on filled questionnaires, the data were analyzed, tabulated and presented in the form of tables. For the data analysis, percentage analysis, mean, standard deviation and ANOVA statistical techniques were used.

10.0 Data Analysis

The analysis of data as per the objectives of the study is presented in the tables given below:

Table 2: Gender profile of the respondents

Gender	Respondents	
	Number	%
Male	87	52.7
Female	78	47.3
Total	165	100

The Table 2 presents the gender-based distribution of the respondents. Out of total 165 respondents, 87(52.7%) were male and 78(47.3%) female who gave their positive response towards filling up the questionnaire completely.

Table 3: Academic status of the respondents

Academic Status	Respondents	
	Number	%
UG	82	49.7
PG	44	26.7
Faculty	39	23.6
Total	165	100

The presented data in Table 3 show the academic status of the respondents. Out of the total 165 respondents, 82(49.7%) respondents were from undergraduate programmes and 44(26.7%) from postgraduate programmes, while 39(23.6%) respondents were the faculty members.

Table 4: Age wise status of the respondents

Age	Respondents	
	Number	%
<25	113	68.5
26-30	12	7.3
>30	40	24.2
Total	165	100

The data presented in Table 4 revealed the age of the respondents. During the survey, out of Total 165 respondents, 113(68.5%) were below 25 year and 12(7.3%) were between 26-30 year, whereas, 40 (24.2) respondents were in the age of 30 or more.

Table 5: Frequency of respondents visits in library

Frequency	Respondents	
	Number	%
Daily	36	21.8
Weekly	55	33.3
Monthly	41	24.8
Quarterly	27	16.4
Never	06	3.6
Total	165	100

The frequency of respondents' visits in library is given in Table 5. More than 33% of the respondents visited the library weekly followed by monthly (24.8%), daily (21.8%) and quarterly (16.4%). Only few respondents (3.6%) never visited the library for their academic or research work.

Table 6: Frequency of access to the library web page

Frequency	Respondents	
	Number	%
Daily	16	9.7
Weekly	33	20
Monthly	46	27.9
Quarterly	50	30.3
Never	20	12.1
Total	165	100

The data in Table 6 describe the frequency of access to the library web page by the respondents for their academic, research, or other purpose. The perusal of data reveals that 30.3% respondents visited the library web portal/page quarterly followed by monthly (27.9%), weekly (20%) and daily (9.7%). Interestingly, it was also found that good number (12.1%) of respondents never accessed the library web page/portal.

Table 7: Frequency of usage of non-library gateways for information

Frequency	Respondents	
	Number	%
Daily	65	39.4
Weekly	33	20
Monthly	42	25.5
Quarterly	15	9.1
Never	10	6.1
Total	165	100

The data presented in Table 7 show the frequency of usage of non-library gateways for information and other resources. More than 39.4% respondents were using non-library gateways for their required information daily followed by monthly (25.5%), weekly (20%) and quarterly (9.1%), whereas, 6.1% of the respondents never accessed the information from the non-library gateways.

Table 8: Assessment of quality of library services on LibQUAL+™, Affect of Service' dimension

Sr. No.	LibQUAL+™ Dimension Affect of Service Detail of Items	Minimum Service Level		Desired Service Level		Perceived Service Performance	
		A		B		C	
		Mean	SD	Mean	SD	Mean	SD
AS-1	Library staff instill confidence in users	4.80	1.63	6.82	1.36	4.21	1.58
AS-2	Library staff pays personal attention to the users	4.99	1.51	7.05	1.21	5.02	1.41
AS-3	Library staff is consistently courteous	5.53	1.52	7.47	1.22	5.98	1.15
AS-4	Library staff is always ready to respond to users' questions	5.08	1.65	7.19	1.16	5.41	1.25
AS-5	Library staff has competence/knowledge to answer users' questions	5.81	1.49	7.82	1.19	6.12	1.07
AS-6	Library staff is caring while dealing with the users	5.16	1.60	7.29	1.11	5.43	1.18
AS-7	Library staff understands the needs of its users	5.25	1.53	7.08	1.17	4.73	1.67
AS-8	Library staff is always willing to	5.28	1.54	7.14	1.28	5.55	1.23

	help users						
AS-9	Library staff displays reliability in handling users' service problems	5.45	1.33	7.64	1.04	5.73	1.22
Overall		5.26	1.53	7.27	1.19	5.35	1.31

The data given in Table 8 represent the mean and standard deviation scores of *minimum*, *desired* and *perceived* service level on all the items of *Affect of Service* dimension. The perusal of data reveals that the theoretical mean score surpassed 4.0 on *minimum*, *desired* and *perceived* services. The overall mean score of minimum service requirement was 5.26, desired service requirement 7.27 and perceived service performance 5.35, showing that the library of PAU, Ludhiana did not fulfilled the desired information requirement of the users.

Table 9: Analysis of service adequacy and service superiority scores on LibQUAL+™ 'Affect of Service' dimension

Sr. No.	LibQUAL+™ Dimension Affect of Service Detail of Items	Service Adequacy (C-A)				Service Superiority (C-B)			
		Mean	T=	df.	P=	Mean	T=	df.	P=
		AS-1	Library staff instill confidence in users	-0.59	-4.09	164	0.00	-2.62	-21.51
AS-2	Library staff pays personal attention to the users	0.03	0.23	164	0.82	-2.04	-19.96	164	0.00
AS-3	Library staff is consistently courteous	0.45	3.74	164	0.00	-1.50	-16.56	164	0.00
AS-4	Library staff is always ready to respond to users' questions	0.33	2.30	164	0.02	-1.78	-20.42	164	0.00
AS-5	Library staff has competence/knowledge to answer users' questions	0.31	2.51	164	0.01	-1.70	-20.76	164	0.00
AS-6	Library staff is caring while dealing with the users	0.27	1.91	164	0.06	-1.86	-20.74	164	0.00
AS-7	Library staff understands the needs of its users	-0.52	-3.30	164	0.00	-2.35	-19.76	164	0.00
AS-8	Library staff is always willing to help users	0.27	2.38	164	0.02	-1.59	-18.56	164	0.00
AS-9	Library staff displays reliability in handling users' service problems	0.27	-4.35	164	0.00	-1.91	-19.10	164	0.00
Overall		0.09	0.1	164	0.10	-1.92	-19.71	164	0.00

The data presented in Table 9 demonstrate the service adequacy scores on all the items of *Affect of Service* dimension. The perusal of data reveals that the library fulfilled the minimum expectations of service on *Affect of Service* dimension except Library staff instil confidence in users (-0.59) and Library staff understands the needs of its users (-0.52). With regard to Service Adequacy gap (SAG) as shown in the Table 9, the highest service adequacy gaps was observed for the item Library staff is consistently courteous (0.45) and Library staff is always ready to respond to users' questions (0.33). The lowest gap was observed for the item Library staff pays personal attention to the users (0.03) and Library staff is caring while dealing with the users (0.27). In case of Service Superiority gap (SSG), a wider gap was noticed on all the items of *Affect of Service* dimension. The highest service superiority gaps was observed for the item Library staff instil confidence in users (-2.62) and Library staff understands the needs of its users (-2.35). The lowest gap was observed for the item Library staff is consistently courteous (-1.50) and Library staff is always willing to help users (-1.59). On *Affect of Service* dimension at the library of PAU, Ludhiana, the overall service adequacy gap was found 0.09, indicating that the library was fulfilling the minimum needs of its users and service superiority gap was -1.92. The negative superiority gap indicates that the library was far from meeting its users' actual expectations. However, such findings were statistically significant and the P value was also supporting it.

11.0 Major Findings

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

- The male respondents 52.7% and female respondents 47.3% participated in the survey and gave their positive response to the study.
- From the undergraduate classes, 49.7% respondents participated in the survey positively, followed by 26.7% postgraduate and 23.6% faculty members of the PAU, Ludhiana.
- The respondents below the age of 25 years were 68.5%, between the age of 26 and 30 years 7.3% and above the age of 30 years 24.2%.
- 33.3% of the respondents used the library resources and services weekly, 24.8% monthly, 21.8% daily and 16.4% quarterly. Surprisingly, 3.6% of the respondents replied that they come to the library occasionally or never to use the library resources and facilities.
- 30% of the respondents used the library web page once in a quarter for their required information resources, 27.9% monthly, 20% weekly and 9.7% daily, while 12.1% respondents never used the library web page for their informational requirement.
- 39.4% of the respondents used non-library gateways daily, 25.5% monthly, 20% weekly and 9.1% quarterly, while 6.1% respondents never used the non-library gateways for their desired information and resources.
- In general, the respondents were moderately satisfied with library services on *Affect of Service* dimension of LibQUAL+™ tool provided by the library of PAU, Ludhiana, however, in overall, the respondents were not satisfied with the services provided by the PAU library as the library did not fulfill the *desired* expectations of service on *Affect of Service* dimension of LibQUAL+™ because there was more service superiority gap observed in all the items.

12.0 Conclusion and Suggestions

The service quality is the ultimate goal for any library in this era of ICT. If the users are satisfied with the services offered to them, then the ultimate goal of library would be achieved. The present study dealt with the service quality assessment of the library at Punjab Agricultural University, Ludhiana on *Affect of Service* dimension of LibQUAL+™ tool. After analyzing the data, findings reveal that the services offered by the library of PAU on *Affect of Service* dimension were not up to the mark and the users were not fully satisfied as their desired service requirement was not fulfilled. Users responded to the *Affect of Service* dimension on LibQUAL+™ survey felt that there was a need for improving on *Affect of Service* dimension. Therefore, it is suggested that the concerned authority should organize training programs in its premises for the staff of library as well as encourage them to participate such type of trainings outside the university so that staffs' behaviour and their ability would be improved and ultimate user satisfaction may be achieved.

13.0 Acknowledgement

I am very grateful to Dr. Manoj K. Joshi, Professor, Department of Library and Information Science, Kurukshetra University, Kurukshetra for his valuable guidance in the design and conduct of the study.

14.0 References

1. Anonymous (2016c). <http://web.pau.edu/msrlibrary/> (Accessed on 15.12.2016)
2. Anonymous (2017b). <http://web.pau.edu> (Accessed on 04.01.2017)
3. Asemi, Asefeh, Kazempour, Zahra and Rizvi, HasanAshrafi (2010). Using LibQUAL+™ to improve services to libraries: A report on academic libraries of Iran experience. *The Electronic Library*, **28**(4): 568-579.
4. Bavakutty, M. and Majeed, K.C. Abdul (2005). *Methods for measuring quality of libraries*. New Delhi: EssEss Publications, 298p.
5. British Standard 4778 (1987). Definition of quality.

6. Heath, Fred and Cook, Colleen (2000). SERVQUAL: Service quality assessment in libraries. In *Encyclopedia of Library and Information Science*, Vol. 4, edited by M.A. Drake, New York. pp. 2613-2625.
7. Hernan, Peter and Altman, Ellen (2009). *Assessing service quality: Satisfying the expectations of library customers*. Chicago: American Library Association in association with EssEss Publication, New Delhi, 243p.
8. Kulkarni, M.K. (2013). *Library service quality expectations*. New Delhi: A.P.H. Publications, 287p.
9. Mardani, Amir Hosein and Zare, Mohsen Nazarzadeh (2014). Measuring service quality at Tehran University of Medical Sciences' libraries. *Library Philosophy and Practice* (e-journal). Paper **1112**. Available at <http://digitalcommons.unl.edu/libphilprac/1112>
10. Parasuraman, A. et al. (1985). A conceptual model of service quality and its implications for further research. *Journal of Marketing*, **49**(4): 41-50.
11. Posey, James A. (2009). Students perceptions and expectations of library services quality and user satisfaction at Walters State Community College. A doctoral thesis (Doctor of Education) under the guidance of Dr. Terrence Tollefson, Dr. Harold Daniels, Dr. James Lampley and Dr. Jasmine Renner, submitted to the faculty of the Department of Educational Leadership and Policy Analysis, East Tennessee State University, 104p.
12. Rao, S.S.S. (2012). Users' perceptions about service quality in select university libraries of Hyderabad: A LibQUAL+TM Approach. Ph.D. Thesis submitted to IGNOU, New Delhi, 267p.
13. Rao, S.S.S. and Khan, S.A. (2010). Measuring library service quality: A case study of Siva Sivani Institute of Management. In *Trends and challenges in management and corporate libraries in digital era*. Hyderabad: Allied Publishers, p.69-75.
14. Rehman, Shafiq Ur (2012). Measuring service quality in public and private sector university libraries of Pakistan. *Pakistan Journal of Library and Information Science*, **13**: 1-11.
15. Rehman, Shafiq Ur (2012). Understanding the expectations of Pakistani libraries users: a LibQUAL study. *Library Philosophy and Practice*.
16. Rehman, Shafiq Ur and Sabir, Munawar (2012). Do Pakistani users differ on library service quality? *Bulletin of Education and Research*, **34**(1): 1942.
17. Robinson, Mike (N.D.). Definition of quality.
18. Sharma, Sanjeev K., Anand, V.K., and Sharma, Geeta (2010). Quality of services rendered by university libraries: An empirical investigation. *Trends in Information Management (TRIM)*, **6**(1): 1-16.
19. Swan, M.R. (2004). Available at <http://www.famu.edu/acad/coleman/libqual2004.html>.