

Measuring Service Quality at RYM Engineering College Library Bellary of Karnataka State: A LibQUAL^{+TM} Approach

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Abstract – The objective of the present paper was to assess the library service quality of the RYM Engineering College, Bellary by using LibQUAL^{+TM} instrument. The LibQUAL^{+TM} instrument was developed in collaboration between ARL and Texas A&M University. It is an effective tool to easily identify service quality from the customer perspective. The LibQUAL^{+TM} instrument is used as a survey tool for data collation. LibQUAL^{+TM} instrument data enables to determine two types of gap analyses, which are gap between perception and minimum (Service Adequacy Gap) and the gap between perception and desired (Service Superiority Gap) based on the Zone of Tolerance concept. The targeted sample was 125 users. Out of these, 100 (80%) questionnaires were completed return from the users. Gap analysis theory and radar chart used for analysis of data collected. The results of the study revealed that the level of service quality only across minimum level and do not achieve the customers desired. This study helps to the RYM Engineering College library for knowing the library user satisfaction level and to improve the service quality to meet the library user's expectations for sustainable competitive advantage.

Keyword: Service Quality, Gap Model, LibQUAL^{+TM}, RYM Engineering College Library

I. INTRODUCTION

The conventional services and traditional role of academic libraries is changed due to multiple sources of information, users' expectations, competition among service sector, and application of information technology. Each of these challenges requires the library administration to become more concerned about their users' expectations "Retaining

and growing their customer base and focusing more energy on meeting their customers' expectations is the only way for academic libraries to survive in this volatile competitive environment". The understanding of users' expectations and meeting those expectations is the only way for libraries to retain their users. Thus, assessment of library service quality is essential for identifying users' expectations and decreasing the gap between users' perceptions and expectations.

However, in order to better serve their users' in the engineering college, as well as their parent organizations, they need to listen to the voices of the library users'. One way of 'listening' is through user survey, in this case LibQUAL- a survey instrument developed for libraries. It collects data and each dimensions challenge on the quality of the services, thus enabling libraries to identify areas in which service levels should be improved.

II. LIBRARY PROFILE

The RYM Engineering College Library is established along with the parent institution in the year 1980 and it is named as "GNANA VAHINI". The basic objective is to support the parent organization programs through quality driven customer service. The physical place of the library is the most accessible and convenient to the different group of library users. It is integrated with departmental distribution units for timely access to needed information at the workplace; it is enfolded e-library, embedded with collaborated knowledge contents and integrated into the regular classroom learning through campus network for enhancing the students' body of knowledge. The library is automated and collaborated with

national information network agencies to develop the sharing culture of e-resources and database. It is enriched 123000 volumes of books with 8700 titles and subscribed 108 print version journals and e-journals.

III. LibQUAL+™

The LibQUAL+™ instrument was developed in collaboration between ARL and Texas A&M University. It is an attractive tool to easily identify service quality from the customer perspective. The instrument measures library service quality through 22 core questions on three dimensions: affect of service, information control and library as place. It helps libraries assess and improve library services, change organizational culture, and market the library.

As a result of various refinements, the current LibQUAL+™ version measures library service quality through 22 core questions on three dimensions: Affect of service (AS), information control (IC), and library as place (LP). The affect of service (AP) dimension consists of nine questions related to instill confidence in users, gives individual attention, consistently behave courteously, shows readiness to respond to users, has requisite knowledge, deal with users in caring fashion, understand users' needs, willingly help and dependably users' service problem of library staff in delivering user services. The information control (IC) dimension addresses (through eight questions) focuses on print resources, web content, and equipment., makes electronic resources accessible from home or office, enables the users independently location information, the print and electronic sources user need, it has modern equipment and easy-to-use access tools for users to independently. The third, library as place (LP) dimension consists of five questions focuses on users' perceptions inspires study and learning, provides quiet space for individual activities, as comfortable and inviting location, a gateway for study, learning and research and community space for group learning and group study.

LibQUAL+™ is also unique in offering a measurement model that tracks users' minimum and desired expectations in addition to users' perceptions of library service quality.. Libraries can allocate resources more wisely by focusing on areas where improvements are noticed by library users. LibQUAL+™ can be the foundation for building excellence in library services to enhance the learning outcomes of library users.

A. LibQUAL+™ Challenges

LibQUAL+™ provide a chance to library users to tell where library services need improvement so the library can respond to and better manage their expectations. The library can develop their services that better meet library users' expectations by comparing library's data with that of peer institutions and examining the practices of those libraries that are evaluated highly by their users. Enhance library staff members' analytical skills for interpreting and decision making based on the data.

IV. REVIEW OF LITERATURE

Queen's University, Kingston, Canada, the study used the LibQUAL+™ instrument as a survey tool to measure the service quality in the areas of Affect of Service, Library as Palace and Information Control during spring 2004. The results are a measure of perceived service quality in relation to user expectations for that service or library facility. The study concluded to focus on improving services, user's priorities and service expectations are strikingly consistent among the institutions participating in the survey. (Sam Kalb, 2004).

Sanville Tom (2004) highlights the significance of LibQUAL+™ in assessment of library service quality and to know best practices followed by the peer group of libraries. The study also stresses the importance and necessity of LibQUAL+™ to measure service effectiveness and determine where improvements must be made. It allows libraries to compare the results with library activity measurements and apply the results relative to both local and statewide programs and funding.

The present study addresses how LibQUAL+™ as a "turn-key" survey instrument can provide the type of benchmarking information that can facilitate target service improvement. The findings of the study reveal that all groups of library users at Rhodes were very dissatisfied with their building. The Rhodes performed very well in the "Information Control" dimension but less well in the "Affect of Service" dimension (Moon Anne, 2007).

The paper highlights the importance of assessment in academic libraries to satisfy users, administrators and accreditation agencies, and present data to inform ongoing and future strategic directions. This article surveys the landscape of LibQUAL+™ users' results reporting and

describes a specific strategy to quickly summarize data and articulate results and responses to stakeholders (Forte, Eric, 2009).

V. SIGNIFICANCE AND NEED OF THE STUDY

The present study played a significant role to identify the area of service quality improvement and to improve the quality of collection development, service effectiveness, workforce competencies and process efficiencies. The present study stresses the librarians and authorities concerned in knowing the level of users' satisfaction, to identify the best practices and to improve the quality of services towards library user's retention and new library members.

VI. STATEMENT OF THE PROBLEM

The present study proposed to use the LibQUAL^{+TM} instrument for measuring service quality of libraries and to examine "what type of library services are rendered to its users?", "To what extent the available library services are perceived by the users"? and "what is the desired level of each service rated by the users."

The statement of the problem is entitled as "Measuring Service Quality at RYM Engineering College Library, Bellary of Karnataka State: A LibQUAL^{+TM} Approach".

VII. OBJECTIVES OF THE STUDY

The following objectives are framed in the study

1. To assess the library service quality using LibQUAL^{+TM};
2. To find out the Service Quality Adequacy Gap and Service Quality Superior Gap of 22 core items of LibQUAL^{+TM} three dimensions;

3. To suggest a set of strategies for bridging the service quality gaps.

VIII. RESEARCH METHODOLOGY

A systematic stratified random sampling technique was adopted in the selection of the respondents. LibQUAL^{+TM} Instrument (Print Version) used as survey tool for data collection. It consisted 22 core items grouped under three main dimensions with the comment box. Likert's 1 to 7 scales is used for rating all items on three columns side by side for minimum, desired and perceived scores. Targeted sample was 125 different library users of the RYM Engineering College, Bellary like undergraduates, postgraduates and faculty members. Out of these, 100 (80%) questionnaires were completed return from the users. Percentage, Descriptive statistics, Gap Analysis Theory and radar chart were used for analysis of data collected.

IX. DATA ANALYSIS AND INTERPRETATION

According to collected data, 62% of the respondents were male and 38% respondents were female; 50% were under graduate, 30% were postgraduate and 20% were faculty members. Majorities (59%) of the respondents were between ages of 20-25 years, 23% were under 20 years, 13% were above 30 years and 5% respondents were 25-30 years.

This chart shows a graphic representation of library information use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo and Google. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the chart displays the percentage of respondents who selected each option.

TABLE I USAGE FREQUENCY OF LIBRARY INFORMATION

Frequency	Usage Resources on Library Premises in %	Access of library Resource Through Library Web Page in %	Use yahoo, Google or Non-Library Gateways for information in %
Daily	58	13	48
Weekly	32	43	24
Monthly	7	20	11
Quarterly	1	5	6
Never	2	19	11
Total	100	100	100

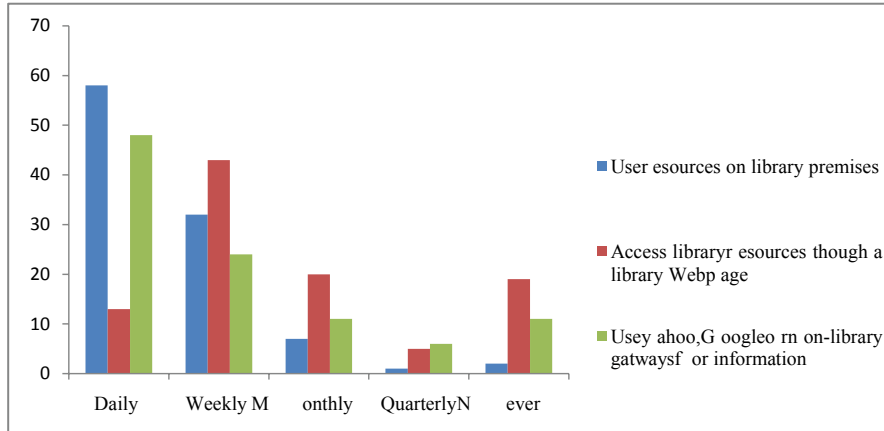


Fig. 1 Usage Frequency of Library Information

It is observed from Table I and figure 1 that the majority of the respondents (58%) use library facility on daily basis followed by 32% on a weekly basis and very less (1%) of the respondents used the library facility on quarterly basis.

Majority of the respondents (43%) are accessing library resources through the web page on a weekly basis, followed by 20% of the respondents on a monthly basis, however (5%) of the respondents are quarterly accessing library resources through the webpage.

Use Yahoo, Google or non-library gateways for information, the majority of the respondents (48%) daily basis followed by 24% of the respondents on a weekly basis and very less (6%) of the respondents used on a quarterly basis.

The minimum, perceived, and desired ratings used to calculate two kinds of service quality gap scores. They are adequacy service quality gap and superior service quality gap.

Adequacy Service Quality Gap is the difference between the user’s minimum level of acceptable service and their perceived rating; the Superiority Service Quality gap is the difference between user’s perceived rating and their desired level of service.

The Table II and fig. 2 LibQUAL⁺™ survey results- item analysis shows the adequacy service quality gap and superior service quality gap of its core items as follows:

Adequacy service quality gap of core items: A comfortable and inviting location [LP-3], community space for group learning and group study [LP-5] and Modern equipment

that lets me easily access needed information [IC-5] core items shows that [0.90, 0.81 and 0.79] highest mean score of adequacy gap respectively. It clearly indicates that service quality of these items is good. Follows, a Library Website enabling me to locate information only own [IC-2], The printed library material enabling me to locate information on my own [IC-3], quiet space for individual activities [LP-2], and A gateway for study, learning or research [LP-4] shows that [0.78, 0.78, 0.77 and 0.74] moderate mean score of adequacy gap respectively. It indicates the service quality of these items is average. However, core items of Employees who understand the needs of their users [AS-7], Employees who have the knowledge to answer users’ questions [AS-5], and Print and/or electronic journal collection I require for my work [IC-8] shows that [0.35, 0.45 and 0.51] lowest mean score of adequacy gap of items respectively and indicates the poor service quality.

Superior service quality gap of core items: Library space that inspires study and learning [LP-1], Community space for group learning and group study [LP-5] and Quiet space for individual activities [LP-2] reveals that [-0.49, -0.45 and - 0.43] lowest mean score respectively. It indicates that library users’ expectations are low. Follows, a comfortable and inviting location [LP-3], Dependability in handling users’ service problems [AS-9] and The printed library material enabling me to locate information on my own [IC-3] indicate that [-0.53, -0.57 and -0.58] moderate mean score of superior service quality gap respectively and library users’ expectations are moderate. However, Employees who deal with users in a caring fashion [AS-6], Employees who understand the needs of their users [AS-7] and Readiness to

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TABLE II LIBQUAL+™ SURVEY RESULTS –ITEM ANALYSIS

Item Code	Items	M*	D*	P*	SAG* [P-M]	SSG* [P-D]
AS	Affect of Service	4.38	5.72	4.96	0.58	-0.76
AS-1	Employee who instill confidence in users	4.24	5.64	4.97	0.73	-0.67
AS-2	Giving users individual attention	4.27	5.69	4.88	0.61	-0.81
AS-3	Employees who are consistently courteous	4.34	5.61	4.95	0.61	-0.66
AS-4	Readiness to respond to users' questions	4.33	5.74	4.91	0.58	-0.83
AS-5	Employees who have the knowledge to answer users questions	4.53	5.68	4.98	0.45	-0.70
AS-6	Employees who deal with users in a caring fashion	4.31	5.85	4.90	0.59	-0.95
AS-7	Employees who understand the needs of their users	4.61	5.86	4.96	0.35	-0.90
AS-8	Willingness to help users	4.51	5.85	5.08	0.57	-0.77
AS-9	Dependability in handling users' service problems	4.31	5.60	5.03	0.72	-0.57
IC	Information Control	4.41	5.76	5.06	0.66	-0.69
IC-1	Making electronic resources accessible from my home or office	4.14	5.51	4.74	0.60	-0.77
IC-2	A Library Website enabling me to locate information only own	4.14	5.68	4.92	0.78	-0.76
IC-3	The printed library material enabling me to locate information on my own	4.43	5.79	5.21	0.78	-0.58
IC-4	The electronic information resources I need	4.47	5.78	5.09	0.62	-0.69
IC-5	Modern equipment that lets me easily access needed information	4.36	5.87	5.15	0.79	-0.72
IC-6	Easy-to-use access tools that allow me to find things on my own	4.57	5.90	5.17	0.60	-0.73
IC-7	Making information easily accessible for independent use	4.48	5.69	5.06	0.58	-0.63
IC-8	Print and/or electronic journal collection I require for my work	4.67	5.85	5.18	0.51	-0.67
LP	Library as Place	4.48	5.78	5.27	0.79	-0.51
LP-1	Library space that inspires study and learning	4.46	5.62	5.19	0.73	-0.43
LP-2	Quiet space for individual activities	4.46	5.72	5.23	0.77	-0.49
LP-3	A comfortable and inviting location	4.47	5.90	5.37	0.90	-0.53
LP-4	A gateway for study, learning or research	4.41	5.80	5.15	0.74	-0.65
LP-5	Community space for group learning and group study	4.60	5.86	5.41	0.81	-0.45
Overall		4.41	5.75	5.07	0.66	-0.68

Note: n=100

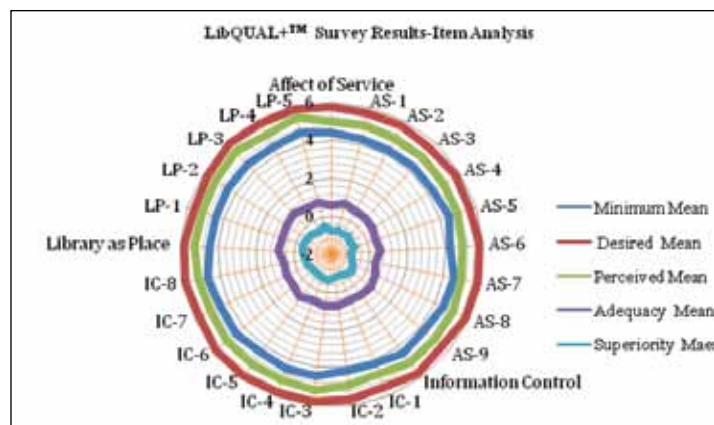


Fig. 2 LibQUAL+™ Survey Results –Item Analysis

respond to users' questions [AS-4] shows [-0.95, -0.90 and -0.83] highest mean score of superior service quality gap respectively means library users' expectations are high.

Library service quality based on LibQUAL+™ survey shows 5.07 for the perceived level services with gap to fulfill customer expectations (desired) is -0.68. However, perceived level of library service quality is exceeding the minimum level of library service quality with 0.66.

The above radar diagram shows aggregate results for the core survey questions. Each axis represents one question. A code to identify each question is displayed at the outer point

of each axis. While questions for each dimension of library service quality are scattered randomly throughout the survey, on this chart they are grouped into sections: Affect of Service, Information control and Library as Place.

On each axis, respondents' minimum, desired and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy and service superiority) are plotted in different colors. However, Library services are within the Zone of Tolerance (ZOT) (perception scores are above for minimum scores).

TABLE III MEAN SCORES FOR EACH DIMENSION

Item Code	Dimensions	M*			SAG*		SSG*	n
		M*	D*	P*	[P-M]	[P-D]		
AS	Affect of Service	4.38	5.72	4.96	0.58	-0.76	100	
IC	Information Control	4.41	5.76	5.06	0.66	-0.69	100	
LP	Library as Place	4.48	5.78	5.27	0.79	-0.51	100	

Scale: M=Minimum Service, D=Desired service, P=Perceived service
SAG= Service adequacy gap, SSG= Service superiority gap and n= no. of respondent

The above table III displays mean scores for each dimension of library service quality measured by the LibQUAL+™ survey, where n is the number of respondents for each particular dimension. Affect of service dimension shows less adequacy gap (0.58) and high superiority gap (-0.76), Information Control dimension shows moderate adequacy gap (0.66) and moderate superiority gap (-0.69), however, Library as Place shows high adequacy gap (0.79) and less superiority gap (-0.51).

X. SUGGESTIONS AND CONCLUSION

LibQUAL+™ survey helps to identify the library service quality gaps under three dimensions. The following Strategies have been suggested to fulfill the library service quality gaps and satisfying the expectations of library users.

- The library should provide quiet and comfortable physical location.
- To develop a quality information collection of individual activities of learning and research.
- The library should focus on collection development of print and e-journals.
- Library need to launch separate library Web Site and

accurate and extensive OPAC to access to needed information by own at work place and home place.

- To develop digital contents and provide WI-Fi facility to access at their convenient place on the campus.
- The library should make always available of knowledgeable staff at desks, and staff should improve their abilities to identify the library users' expectations and readiness to answer the questions and
- To give more importance and priority in budget allocation on Library process change and design of valued added services.

The results of the study revealed that the level of service quality only across minimum level and do not achieve the customers desired. This study helps to the RYM Engineering College library for knowing the library user satisfaction level and to improve the service quality to meet the library user's expectations for sustainable competitive advantage. The present study proved that LibQUAL+™ instrument is necessary and complementary tool in library arsenal that enables to measure service effectiveness and determine where improvements must be made.

REFERENCES

- [1] Ahmad Kassim Norliya, "Evaluating Users' Satisfaction on Academic Library Performance", *Malaysian Journal of Library and Information Science*, Vol. 14, No.2, 2009, pp.101-115. Retrieved May 17, 2010, from <http://myais.fskm.um.edu.my/10113>.
- [2] M. Bavakutty and K.C. Abdual Majeed, "Methods for Measuring Quality of Libraries," New Delhi: Ess, Ess Publication, 2005, pp. 203-213.
- [3] Bruce Thompson, "Origin and Birth of LibQUAL⁺™", Retrieved January 15, 2011, from www.libqual.org/About/Birth/index.cfm
- [4] Forte Eric, "Assess, Improve, and Share: Using LibQUAL⁺™ to Provide a Quick and Easy Assessment for Accreditors, Administrators, and Users." *The Idaho Librarian*, Vol. 59, No.2, 2009. Retrieved January 19, 2011, from <http://www.idaholibraries.org/idlibrarian/index.php?idaholibrarian/article/view/16/72#>
- [5] John B. Harer, "LibQUAL⁺™ in Lilliput: Assessment Benefits for Small Academic Libraries", *Performance Measurement and Metrics*, Vol.7, No.3, 2006, pp.193-204. Emerald Group Publishing Limited. Retrieved January 5, 2010, from <http://emeraldinsight.com/10.1108/14678040610713156>.
- [6] Jankowska Maria Anna, Karen Hertel, and Nancy, J.Young. "Improving Library Service Quality to Graduate Students: LibQUAL⁺™ Survey Results in a Practical Setting", *Libraries and the Academy*, Vol.6, No.1, 2006, pp.59-77. The John Hopkins University press. Retrieved January 10, 2010, from http://muse.jhu.edu/journals/portal_libraries_and_the_academy/summary/v006/6.1jankowska.html.
- [7] John H. Heinrichs, Thomas Sharkey and Jeen-Su Lim. "Relative Influence of the LibQUAL⁺™ Dimensions on Satisfaction: A Subgroup Analysis", Retrieved November 10, 2012, from <http://crl.acrl.org/content/66/3/248.abstract>.
- [8] J.H. Kemp, "Using the LibQUAL⁺™ Survey to Assess User Perceptions Of Collections And Service Quality", *Collection Management*, Vol.26, No.4, 2001, pp.1-14. Retrieved May 10, 2010, from LISA.
- [9] Kalb, Sam. Retrieved July20, 2012, from http://library.queensu.ca/webir/libqual/libqual_working_group.htm
- [10] Moon Anne, "LibQUAL⁺™ at Rhodes University Library: An Overview of the First South African Implementation", *Performance Measurement and Metrics*, Vol. 8, No.2, 2007, pp.72-87. Emerald Group Publishing Limited. Retrieved February 5, 2010, from <http://www.emeraldinsight.com/10.1108/14678040710760586>.
- [11] S.U.Rehman, "Understanding the Expectations of Pakistani Libraries Users a LibQUAL study." *Library Philosophy and Practice*. Retrieved November 12, 2012, from <http://digitalcommons.unl.edu/libphilprac/732>.
- [12] S.U. Rehman, Mustafa El-Hadi W. "Perceptions of Pakistani users about library service quality: LibQUAL comments." *Library Philosophy and Practice*. Retrieved June 15, 2012, from <http://unlib.unl.edu/LPP/rehman-elhadi.html>.
- [13] Thompson Bruce, Martha Kyriallidou, and Collen Cook. "User library service expectations in health science vs. other settings: a LibQUAL⁺ Study." *Health Information and Libraries Journal* 24.1(14Nov 2007):38-45. Retrieved April 5, 2010, from <http://www3.interscience.wiley.com/journal/118001797/abstract?CRETRY=1&SRETRY=0>.
- [14] Tom Sanville. "Defending and expanding library turf- the need for scalable consumer research." *Journal of Library Administration* 40.3/4 (2004):13-18.The Haworth Information Press. Retrieved July 5, 2012, from <http://www.haworthpress.com/web/JLA>.