Evaluating the Quality of services in Academic Libraries

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Abstract

The quality of services offered to users in the Higher Education libraries in the United Arab Emirates, represents the extent to which the service meets the users' needs, expectations and requirements. It is therefore necessary to measure the expectations and perceptions of the users about the library services to assess the service quality. User satisfaction is used as a measuring tool for maintaining service quality. The assessment of service quality provides an important feedback for libraries to improve its services to its users. In this study, individual respondents (students, faculty and staff) constituted the unit of analysis. An exploratory study was done by gathering information from 24 Universities which offer Business and Management programs. A total of 523 responded giving a response rate of 79.8%. Mean Scores and rankings of different dimensions of quality services offered by the libraries fairly satisfy the users' needs.

Keywords: Quality, service quality, user perception.

Introduction

Quality is associated with time, place, environment and the people. Library is a place or storehouse of information resources in various formats like books, journals, videos, CDROMs, etc as well as rendering services to users. To determine the quality and service of academic libraries, it is necessary to understand the perceptions of users regarding various factors responsible for quality sustenance. The quality of library should be assessed to keep going in the highly competing situation. Since Library and information centers become service units/sectors of the educational institutions, research on quality of services and user perceptions should be taken up at regular intervals to assess and improve services to its users. This study will cover university and college libraries throughout the state of United Arab Emirates (U.A.E).

The United Arab Emirates (the U.A.E) is a formation of seven states or *Emirates* and the constituents are Abu Dhabi, Dubai, Sharjah, Ajman, Fujairah, Ras al-Khaimah, and Umm al-Quwain. Abu Dhabi is the largest Emirate and the capital. UAE is one of the developed countries which follow the U.S. pattern of education almost in higher education level. There are about 115 educational institutions offering courses at undergraduate, graduate and post graduate level. It accommodates 79 licensed institutions under the umbrella of the UAE Ministry of Higher Education and Scientific Research (MOHESR)[1]. The MOHESR strive to enhance quality of Higher Education in the UAE. In this study, various components contribute to measure and evaluate service quality. The components identified in this study are: learning resources, service quality, physical facilities, and staff assistance.

Literature Review: During the past few years, several measures have been used to evaluate the performance and user satisfaction of the library using different tools and methods. SERVQUAL measures performance in the service industry[2] and LibQUAL measures the users' perception of service quality in libraries[3]. Roslah and Zainab carried out a case study using SERVPERF, a modified version of SERVQUAL [4].Hollis Landrum and Victor R. Prybutok, in their study proposes and tests a model of library success that shows how information service quality relates to other variables associated with success[5]. According to them, if success is achieved through service quality, then other variables can also be taken for study and compared for success of service quality. Therefore, a modified version of SERVQUAL instrument was used to verify the effectiveness of service quality and measurement within the information service industry. Results indicated that service quality is best measured with a performance-based version of SERVQUAL, and has shown that measuring service quality is as important as measuring expectations in the success of managerial sector. Results of the study also indicate that service quality is a critical feature that leads to success. The findings have led to implications for the development of new methods and instruments to measure information service quality and success more effectively. The new models show the relationship between information service quality and information service success.[5]

Tuan, Nguyen Minh, has done a research on the student satisfaction among Vietnamese higher education institutions[6]. The researcher aims to examine the effect of perceived service quality among students and the fairness of perceived price on students' satisfaction. The results show that there is correlation between student satisfaction and various dimensions of perceived service quality and perceived fairness. It also shows

that by with Parasuraman's SERVQUAL model, when perceived price fairness is considered, the variation in student satisfaction is positively better. The SERVQUAL instrument which consists of reliability, responsiveness, assurance, empathy, and tangibles was used to measure the student satisfaction. Factors like facility, faculty, administration, documentation and appearance were the independent variables, and satisfaction was the dependent variable. Kumar, Suresh (2012), in his paper attempts to evaluate the service quality and user satisfaction of different groups in the university libraries[7] .The data was collected through structured questionnaire which was distributed to different libraries of Kerala University. Based on the seventeen variables suggested by Parasuraman and Zeithamal, the quality of services was assessed through RATER analysis[8]. The study revealed that moderately good qualities of services were rendered by the university libraries. The users of the university libraries in Kerala are mainly satisfied with physical facilities, collection, services, and staff behavior, but are least satisfied with responsiveness.

Methodology

In this study the researcher aimed at studying the perception of library users on library services of the academic universities in the United Arab Emirates (U.A.E). An exploratory study was done by gathering information from different Universities that offer Business and Management programs in all seven emirates of the country.

The study is exploratory in nature. The dependent variables in this study are the overall satisfaction of the users and independent variables are different dimensions of the library services. The dimensions included in this variable are the learning resources quality, library service quality, quality of facilities and the quality of staff assistance. A questionnaire was used to collect data. The five point Likert scale was used to collect the data on given variables. The concept of RATER model is used in this case for exploring and assessing user's experiences and satisfaction with respect to Reliability, Assurance, Tangibles, Empathy, and Responsiveness in quality service.

A total of 655 Questionnaires were distributed to universities and 523 responded giving a response rate of 79.8%. Out of 523 respondents, 326 (62.3%) were males and 197 (37.7%) were females. 483 students form the largest number of respondents (92.4%), followed by 21 (4%) faculty members and 19 (3.6%) staff members. Most of the respondents were at undergraduate level of study. A large number of 443 (84.7%) were with undergraduate level of study; 63 were at graduate level (12%). There were 17 faculty members with postgraduate level of study.

Table–1
Frequency data on Reliability

Sr. No	Service Quality Statements	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Mean	Std Dev.	Rank
	Reliability	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)			
R1	Library adheres to its mission and goals	184(35.2%)	282(53.9%)	44(8.4%)	11(2.1%)	2(0.4%)	4.21	0.714	1
R2	Policies/guidelines are clearly specified	171(32.7%)	277(53%)	57(10.9%)	15(2.9%)	3(0.6%)	4.14	0.763	3
R3	Fairly enforces rules and regulations	168(32.1%)	253(48.4%)	60(11.5%)	38(7.3%)	4(0.8%)	4.04	0.892	5
R4	Library shows consistency of practice	158(30.2%)	256(48.9%)	85(16.3%)	23(4.4%)	1(0.2%)	4.05	0.810	4
R5	Library webpage has clear and specific information	164(31.4%)	207(39.6%)	11(21.2%)	34(6.5%)	7(1.3%)	3.93	0.950	8
R6	Working hours are convenient	188(35.9%)	215(41.1%)	72(13.8%)	36(6.9%)	12(2.3%)	4.02	0.990	6
R7	OPAC (Online Public Access Catalog) provides accurate information about all resources	126(24.1%)	197(37.7%)	168(32.1%)	28(5.4%)	4(0.8%)	3.79	0.896	10
R8	Library has proper signage at appropriate places	152(29.1%)	222(42.4%)	106(20.3%)	39(7.5%)	4(0.8%)	3.92	0.925	9
R9	All library books and items are easily accessible	169(32.3%)	229(43.8%)	62(11.9%)	55(10.5%)	8(1.5%)	3.95	1.000	7
R10	Staff are prompt in finding information	211(40.3%)	222(42.4%)	59(11.3%)	24(4.6%)	7(1.3%)	4.16	0.893	2

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Service Quality opinions were attributed with 33 variables on a five point scale such as "strongly agree", "agree", "no opinion", "disagree", and "strongly disagree". The mean and standard deviation were calculated based on the opinions. Further Rankings were assigned. The opinions, mean, standard deviation, and rank are shown in table 4. The score ranges from 1 (Strongly disagree) to 5 (Strongly agree) on each item. A score of less than 3.0 indicates dissatisfaction; score in the range between 3.0 - 3.5 indicates an average level of satisfaction, score of 3.5 to 4.0 indicates above average level of satisfaction; while a score of 4.0 or greater, indicates a high level of satisfaction.

In table-1 relation with Reliability, statements related to ability to perform promised services were focused. 89.1% respondents agreed and showed highest mean score of (4.21) with a standard deviation of 0.714 for "*Library adheres to its mission and goals*". The above statement ranked 1 out of 10.

The second highest mean score was for "*Staff are prompt in finding information*" with (4.16). The statement ranked 2 out of 10. The lowest mean score was (3.79) for the statement "*OPAC provides accurate information about all resources*", with 61.7% respondents rate and was ranked 10.

In table-2 Assurance, statements relating to security and confidence were introduced. 85% responded to statement "*Behavior of staff instills confidence*" with highest mean value of (4.20); standard deviation of 0.803. The lowest mean score was for "*Library conducts orientation/workshops to accomplish confidence*". Only 63% respondents agreed to the above statement and therefore it ranked the lowest with mean score of (3.76).

In table-3 Tangibles refer to physical facilities and quality of equipments. Most of the respondents are not satisfied with the infrastructure of the library. The responses showed highest mean score of (4.12) only for appropriate lighting system with 84.5% responses agreeing to the statement. The standard deviation was 0.847. The lowest mean score was of (3.39) with standard deviation of 1.165 with 52.1% respondents agreeing to the statement, "*Library has rare/ special collection*" ranked 9 out of 9 statements.

In table-4 case of Empathy, where statements referred to caring and individualized attention, 79.7% respondents agreed to the statement "*staff are efficient in the delivery of service*" with a mean score of (4.07), standard deviation of 0.890 and ranked 1.

Table-2
Frequency data on Assurance

Sr. No.	Service Quality Statements	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Mean	Std Dev.	Rank
	Assurance	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)			
A1	Resources are adequate, latest and rich in quality	132(25.2%)	240(45.9%)	83(15.9%)	55(10.5%)	13(2.5%)	3.81	1.010	4
A2	Library assures confidentiality in transactions (check-in/check-out)	157(30%)	234(44.7%)	105(20.1%)	22(4.2%)	5(1.0%)	3.99	0.870	3
A3	Individual authenticity is maintained for security	157(30%)	250(47.8%)	101(19.3%)	12(2.3%)	3(0.6%)	4.04	0.797	2
A4	Behavior of staff instills confidence	207(39.6%)	238(45.5%)	57(10.9%)	19(3.6%)	2(0.4%)	4.20	0.803	1
A5	Library conducts orientation /workshops/training to accomplish confidence	128(24.5%)	203(38.8%)	142(27.2%)	37(7.1%)	13(2.5%)	3.76	0.983	5

Table-3
Frequency data on Tangibles

Sr. No	Service Quality Statements	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Mean	Std Dev.	Rank
	Tangibles	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)			
T1	Library provides appropriate and adequate physical facilities	135(25.8%)	228(43.6%)	98(18.7%)	53(10.1%)	9(1.7%)	3.82	0.987	5
T2	Library is visually appealing environment	137(26.2%)	249(47.6%)	82(15.7%)	48(9.2%)	7(1.3%)	3.88	0.945	3
T3	Lighting is appropriate	180(34.4%)	262(50.1%)	49(9.4%)	27(5.2%)	5(1%)	4.12	0.847	1
T4	It has modern computers with latest applications	142(27.2%)	207(39.6%)	73(14%)	77(14.7%)	24(4.6%)	3.70	1.151	7
T5	Library is spacious with ample seating capacity	136(26%)	209(40%)	67(12.8%)	84(16.1%)	27(5.2%)	3.66	1.174	8
T6	Library has group study /discussion rooms	166(31.7%)	218(41.7%)	55(10.5%)	64(12.2%)	20(3.8%)	3.85	1.112	4
T7	Library has a quiet zone for individual study	145(27.7%)	219(41.9%)	58(11.1%)	69(13.2%)	32(6.1%)	3.72	1.179	6
T8	Library has rare /special collection	94(18%)	179(34.2%)	126(24.1%)	87(16.6%)	37(7.1%)	3.39	1.165	9
T9	Photocopier, printer/ scanner are available	174(33.3%)	204(39%)	77(14.7%)	50(9.6%)	18(3.4%)	3.89	1.078	2

Table-4
Frequency data on Empathy

Sr. No.	Service Quality Statements	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Mean	Std Dev.	Rank
	Empathy	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)			
E1	Library's electronic subscriptions can be accessed from anywhere at anytime	142(27.2%)	212(40.5%)	121(23.1%)	39(7.5%)	9(1.7%)	3.84	0.965	4
E2	Staff are efficient in the delivery of service	182(34.8%)	235(44.9%)	70(13.4%)	32(6.1%)	4(0.8%)	4.07	0.890	1
E3	Library provides quick and easy access to resources (print and electronic)	150(28.7%)	237(45.3%)	89(17%)	35(6.7%)	12(2.3%)	3.91	0.962	3
E4	Information / reference desk provides prompt service	155(29.6%)	238(45.5%)	91(17.4%)	31(5.9%)	8(1.5%)	3.96	0.919	2
E5	Library provides prompt service through e-mail, chat and phone	120(22.9%)	188(35.9%)	146(27.9%)	51(9.8%)	18(3.4%)	3.65	1.044	5

Table-5
Frequency data on Responsiveness

Sr. No.	Service Quality Statements	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Mean	Std Dev.	Rank
	Responsiveness	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)	Freq (percent)			
Re1	Staff are always willing to help	254(48.6%)	200(38.2%)	55(10.5%)	10(1.9%)	4(0.8%)	4.32	0.797	1
Re2	Staff are polite and courteous	269(51.4%)	179(34.2%)	51(9.8%)	19(3.6%)	5(1%)	4.32	0.863	2
Re3	Staff gives individual attention to users	246(47%)	177(33.8%)	77(14.7%)	19(3.6%)	4(0.8%)	4.32	0.884	3
Re4	Staff members understand the specific needs of the users	269(51.4%)	179(34.2%)	51(9.8%)	19(3.6%)	5(1%)	4.16	0.905	4

In table-5 Responsiveness statements were related to attitude, behavior and communication of staff to serve the users. More than 85% of the respondents have agreed that the staff are willing to help; are polite and courteous; gives individual attention to users. The mean score is (4.32) and is highest in rank.

Reliability Test: In table-6 Reliability is concerned with the consistency of a variable. Cronbach's alpha for the service quality attributes is shown in Table below:

Table-6
Reliability test

Reliability Test		Cronbach's Alpha	No. of variables
Reliability	(R)	0.836	10
Assurance	(A)	0.725	5
Tangibles	(T)	0.825	9
Empathy	(E)	0.835	5
Responsiveness	(R)	0.902	4

The highest reliability coefficients (alpha value) were obtained for Responsiveness (Re1-Re 4) with 0.902 followed by Reliability (R1-R10) = 0.836; Empathy is 0.835; Tangibles (T1-T9) with 0.825 and the lowest coefficient value was for Assurance (A1-A5) with 0.725.

All values of variables are >0.70 indicating high reliability with the lowest Cronbach value 0.725, which implies that all variables are deemed reliable.

Table-7
Learning Resources Quality factors

S.No	Quality of Learning Resources	Mean	SD
1	Accessibility of books and print resources	3.95	1.000
2	Information on library webpage	3.93	0.950
3	Adequacy and richness of resources	3.81	1.010
4	Rare and special collection	3.39	1.165
5	Easy Accessibility to electronic resources	3.91	0.962
	Average	*3.79*	*1.017*

In table-7 Quality of learning resources constructed with five variables show a mean score of (3.79) and standard deviation of (1.017). A score of 3.5 to 4.0 indicates above average or good level of satisfaction.

The statement - Accessibility of books and print resources have a mean score of 3.95 which is the highest mean score among the five variables. The second highest mean score (3.93) is seen for the statement- *Information on library webpage.* The third highest score is seen for the statement – *Easy Accessibility to electronic resources* with a mean score of 3.91. The statement- *Adequacy and richness of resources* has a mean score of 3.81 and *rare and special collection* statement has a mean score value of 3.39. The overall mean score for quality of learning resources is 3.79 and is therefore on the above average level of satisfaction.

Table-8
Service Quality factors

S.No	Services Quality	Mean	SD
1	Online Public Access Catalog (OPAC) service	3.79	0.896
2	Efficiency of staff in service delivery	4.07	0.890
3	Providing orientation/workshop for users	3.76	0.983
4	Anywhere anytime access to resources	3.84	0.965
5	Providing prompt reference service	3.96	0.919
6	E-mail, chat and phone service	3.65	1.044
7	Providing signage and guidance to users	3.92	0.925
8	Individual attention to user needs	4.23	0.884
	Average	3.90	0.938

In table-8 Quality of Services with eight variables showed mean score of (3.90) and standard deviation of (0.938). A score of 3.5 to 4.0 indicates above average or good level of satisfaction. The statement - *Individual attention to user needs* have a mean score of 4.23 which is the highest mean score among the eight variables. The second highest mean score (4.07) is seen for the statement- *Efficiency of staff in service delivery.* The third highest score is seen for the statement – *Providing prompt reference service* with a mean score of 3.96. The statement- *Providing signage and guidance to users* has a mean score of 3.92 and the statement – *Anywhere anytime access to resources* has a mean score of 3.84. *Online Public Access Catalog (OPAC) service* statement has a mean score value of 3.79. The statement- *Providing orientation/workshop for users* has a mean score value of 3.76. The statement- *E-mail, chat and phone service* has a mean score value of 3. 65. The overall mean score for quality of services is 3.90 and is therefore on the above average level of satisfaction.

Table-9
Quality of facilities

S.No	Quality of Facilities	Mean	SD
1	Appropriate physical facilities	3.82	0.987
2	Appealing environment	3.88	0.945
3	Appropriate lighting	4.12	0.847
4	Modern computers and latest appl.	3.70	1.151
5	Spacious with ample seating capacity	3.66	1.174
6	Has group/discussion rooms	3.85	1.112
7	Has quiet zone for individual study	3.72	1.179
8	Reprographic service facility	3.89	1.078
9	Convenient working hours	4.02	0.990
	Average	3.85	1.051

In table-9 Quality of facilities with nine variables showed a mean score of (3.85) and standard deviation of (1.051). A score of 3.5 to 4.0 indicates above average or very good level of satisfaction. The statement – *Library has appropriate lighting* showed a mean value of (4.12) which is the highest mean score among the nine variables. The second highest mean score (4.02) is seen for the statement- *Convenient working hours.* The third highest score is seen for the statement – *Reprographic service facility* with a mean score of 3.89. The statement- *Library has an appealing environment* scored a mean value of 3.88. The statement – *Library has group/discussion rooms* has a mean score of 3.85. The statement- *Library has appropriate physical facilities* statement has a mean score value of 3.82. The statement- *Library has quiet zone for individual study* has a mean score value of 3.72. The statement- *Library has modern computers and latest applications* scored a mean value of 3. 70. The statement- *Spacious with ample seating capacity* has a mean score value of 3. 66. The overall mean score for quality of facilities is 3.85 and is therefore on the above average level of satisfaction.

Table-10
Quality of staff

S.No	Staff performance	Mean	SD
1	Staff are prompt in finding information	4.16	0.893
2	Always willing to help	4.32	0.797
3	Are polite and courteous	4.32	0.863
4	Understand the needs of the users	4.32	0.884
5	Staff behavior instills confidence	4.20	0.803
	Average	4.26	0.848

In table-10 Quality of staff was determined with five variables which showed the mean score of (4.26) and standard deviation of (0.848). The three statements of staff performance- *Always willing to help*; *Are polite and courteous* ; *Understand the needs of the users* have a mean score of 4.32 which is the highest mean score among the five variables. The second highest mean score (4.20) is seen for the statement- *Staff behavior instills confidence.* The third highest score is seen for the statement – *Staff are prompt in finding information* with a mean score of 4.16. The overall mean score for quality of staff performance is 4.26 and is therefore at a high level of satisfaction.

Table-11
Reliability Test

Quality Dimensions	Cronbach's Alpha	No. of variables
Quality of Learning resources	0.680	5
Quality of Services	0.812	8
Quality of Facilities	0.802	9
Quality of Staff Performance	0.854	5

Table 11 shows the results of Reliability test. Set of five quality constructs of Quality of Learning resources were evaluated and computed with Cronbach's alpha 0.680. Cronbach's alpha for the eight Service quality variables were evaluated and calculated with Cronbach's alpha 0.812. Nine variables for the quality of facilities were evaluated and calculated with Cronbach's alpha 0.802. Five Staff performance quality constructs were evaluated and computed with Cronbach's alpha 0.854. Cronbach's alpha was used as measure to test for reliability and consistency of the variables. Cronbach's Alpha of 0.6 – 0.7 is acceptable value of reliability. Value of 0.8 - 0.9 indicates very high reliability of scales.

Results and Discussion

With the RATER model, the highest reliability coefficients (alpha value) were obtained for responsiveness (Re1-Re 4) with 0.902 followed by Reliability (R1-R10) = 0.836; empathy is 0.835; tangibles (T1-T9) with 0.825 and the lowest coefficient value was for Assurance (A1-A5) with 0.725.

With the mean scores of quality of services, resources, and facilities and staff performance show rate of high satisfaction level (>3.5). Quality of services rendered by different academic libraries has a moderate rate ranging from 3.76 to 4.23. This means that the quality of services rendered are fairly satisfied. Quality of resources like books, journals etc. in academic libraries have a acceptable average level ranging from 3.39 to 3.95. Quality of facilities available in different types of academic libraries has a rating of above average level ranging from 3.66 to 4.12. The average mean score for the quality of staff performance attributes ranges from 4.16 to 4.32 which indicates very high rate of satisfaction.

Conclusion

According to Heath and Cook, libraries today are service agents similar to other service providers in the profit and non-profit service sector of society[9]. Librarians select and acquire documents, catalogue and classify them, and also provide digital access to users. The term quality was referred in context of various technical and functional services. The purpose was to evaluate the quality of services based on user perceptions[10]. From this study, the RATER model of service quality showed satisfactory value for Assurance, while the Responsiveness showed highest value. Also the Mean Scores and rankings of different dimensions of quality services offered by the libraries fairly satisfy the users' needs. Quality of learning resources show fair satisfaction while quality of staff performance showed very high satisfaction. Further, the individual dimensions and performance is highlighted with rankings to concentrate more for improvement.

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