

Service Quality vs. Customer Satisfaction: Perspectives of Visitors to a Public University Library

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Abstract—This study proposes a conceptual model and empirically tests the relationships between customers and librarians (i.e. tangibles, responsiveness, assurance, reliability and empathy) with a dependent variable (customer satisfaction) regarding library services. The SERVQUAL instrument was administered to 100 respondents which comprises of staff and students at a public higher learning institution in the Federal Territory of Labuan, Malaysia. They were public university library users. Results revealed that all service quality dimensions tested were significant and influenced customer satisfaction of visitors to a public university library. Assurance is the most important factor that influences customer satisfaction with the services rendered by the librarian. It is imperative for the library management to take note that the top five service attributes that gained greatest attention from library visitors' perspective includes employee willingness to help customers, availability of customer representatives online for response to queries, library staff actively and promptly provide services, signs in the building are clear and library staff are friendly and courteous. This study provides valuable results concerning the determinants of the service quality and customer satisfaction of public university library services from the users' perspective.

Keywords—Service Quality, Customer Satisfaction, SERVQUAL Model, Multiple Regression Analysis

I. INTRODUCTION

LIBRARY is a place where books and papers are collected and gathered for public utilization [1]. Typically a range of library services and materials are provided. Important aspects include how customers experience the physical environment, the accessibility of materials, collections and technology, how customers are treated by staff in every contact (face to face as well as online and telephone) with the library, and the availability of products and programs the customers want and need. Gupta and Ashok [2] refers library as a service organisation providing access to books and information as well as advice and assistance the library staff provide to the users. A quality service rendered to all library users is among the core values of librarianship. Iacobucci, Ostrom, and Grayson [3] concluded that the key difference between service quality and customer satisfaction is that quality relates to managerial delivery of the service while

satisfaction reflects customers' experiences with that service satisfaction.

Providing excellent service to customers entails the customers' perception of satisfaction in order to meet the customers' expectations [4]. This study aims to examine whether service quality influences customer satisfaction of visitors to a public university library. No previous study has focused on the factors affecting customer satisfaction with library services among public library users in the Federal Territory of Labuan, Malaysia. This research moves towards a broader view of the relationship between customers and librarians (i.e. tangibles, responsiveness, assurance, reliability and empathy) with a dependent variable (customer satisfaction) regarding library services. The current study tests a more widespread model by examining the integrative system of the relationships, by assimilating marketing perspectives as inputs into the model, thus taking a broad view of its findings as well as broadening the theoretical base in library management research and practice within the Malaysian context. Customers' feedback information can be of assistance to the library in satisfying users' demands in seeking library services.

II. LITERATURE REVIEW

Excellent service quality will result in high level of customer satisfaction [5]. Hoyer and MacInnis [6] said that satisfaction can be associated with feelings of acceptance, happiness, relief, excitement, and delight. Lee [7] described six major dimensions for evaluating library services: circulation operations, collections utilisation, environment and physical facilities, attitude of the staff, serving manners, and education and consultancy. Moreover complaints, suggestion and feedback forms are methods used to measure customer satisfaction [8]. Among the most popular measurement tools of service quality is SERVQUAL, based on the work of Parasuraman, Zeithaml and Berry [9]. Dimensions that have been consistently ranked by customers to be important for service quality include tangibles, responsiveness, assurance, reliability and empathy.

A. Tangibles

Tangibles refer to physical facilities of library premises, up-to-date equipment and appearance of the library's personnel. Normally customers look at tangible signs of the service quality that the library can provide. Kumar, Mani, Mahalingam and Vanjikovan [10] and Lai [11] found that

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tangibles are important factors related to customer satisfaction. Accordingly, this study hypothesises that:

H₁: There is a significant relationship between tangibles and customer satisfaction.

B. Responsiveness

Responsiveness refers to the willingness and ability of the librarians to render prompt service to meet the customers' needs. Polatoglu and Ekin [12] identified the important elements in delivering services as instant feedback, quick transactions and easy access. Mengi [13] found that responsiveness is an important factor for customer satisfaction. Thus, it is expected that:

H₂: There is a significant relationship between responsiveness and customer satisfaction.

C. Assurance

Assurance represents knowledge and courtesy of employees and the degree of trust and confidence that the customer feels when the librarian is competent to provide the service. Prior research by Mengi [13] has revealed that assurance is important to the consumers' utilisation of the service. Therefore, this study hypothesizes that:

H₃: There is a significant relationship between assurance and customer satisfaction.

D. Reliability

Reliability represents the customers getting what they feel they have paid for. It is the level of the service delivered by librarians in relation to the standard of expectations delivered to library visitors dependably and accurately. Jamal and Naser [14] advised that the reliability of the service delivered is interrelated with the satisfaction of customers with their experience of the service delivery process. Moreover, Arasli, Smadi and Katircioglu [15] pointed out that reliability is not only related to but has the highest impact on customer satisfaction. Hence, this study posits that:

H₄: There is a significant relationship between reliability and customer satisfaction.

E. Empathy

Empathy is related to librarians' expression of concern and individual attention towards each of their customers [9]. Interactions between employee and customer are very important to reflect the empathy measurement. Empathy is an important factor of customer satisfaction [10], [11]. If customers perceive that the librarian provides special individual attention, their satisfaction level will increase. However, Ahmed, Nawaz, Usman, Shaukat and Iqbal [16] found that there is a negative relationship between empathy and customer satisfaction. Hence, it is expected that:

H₅: There is significant relationship between empathy and customer satisfaction.

The proposed research framework is illustrated in Fig. 1.

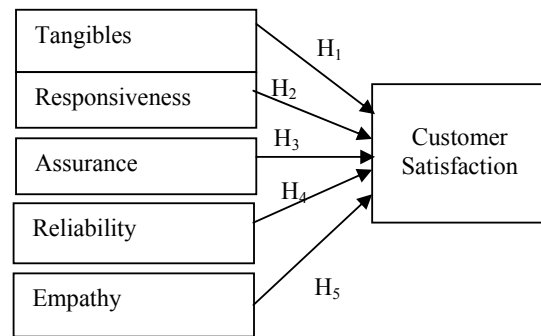


Fig. 1 Theoretical framework

III. METHODOLOGY

Data collection is based on a set of questions randomly distributed to the 100 public library visitors comprised of staff and students in a public higher learning institution in the Federal Territory of Labuan, Malaysia between 15 February 2012 and 14 April 2012. The university has approximately 2,000 enrolled students. The size of the library is 2,184 square feet with a collection of 59,000 books and the number is increasing. The library also subscribes to more than 26 online databases such as Proquest, Emerald, Ebsco. The questionnaire is divided into three sections, which are respondent particulars, usage particulars and satisfaction level. Respondent particulars include the users' demographic information that consists of gender, race age, education level, and employment status. Usage particulars provide information regarding users' time usage. The last section, which is satisfaction level, is served by SERVQUAL instruments (i.e. assurance, reliability, tangibles, empathy and responsiveness) and a dependent variable (satisfaction). Each element uses a five-point Likert scale from 1 ("strongly disagree") to 5 ("Strongly agree"). Data collected were then keyed into the Statistical Package for the Social Sciences (SPSS) computer program version 17 for further analysis. Data were then analysed using multiple regression analysis to investigate the relationship between independent variables and dependent variable.

IV. DISCUSSION OF ANALYSIS

Table I presents the socio-demographic details of 100 respondents. 52% of the respondents are female and 48% male. Majority of respondents (76%) were aged between 20 and 30 years old. 56% of them hold diploma and 30% master. This is because more than half of the respondents were students and the remainder academicians. Two elements have been analysed related to respondents' frequency of visits to the library which are hours spent at the library and frequency of visits to the library. More than half of the respondents spent 1-2 hours in the library (56%) and the balance (44%) spent 3-4 hours per day. Furthermore, 50% of the respondents visited the library 1-2 times per week. Only 2% visited the library 6 times and above per week.

A. Reliability Analysis

The test of reliability is performed to verify the level of reliability of the variables used in the study. Table II presents

TABLE I
DEMOGRAPHIC PROFILE OF RESPONDENTS

	Frequency	Percentage
Gender		
Male	48	48.0
Female	52	52.0
Age		
20-30	76	76.0
31-40	24	24.0
Education Level		
Certificate	14	14.0
Diploma	56	56.0
Master	30	30.0
Employment Status		
Student	70	70.0
Academician	30	30.0
Hours spent at the library		
1-2 hours per day	56	56.0
3-4 hours per day	44	44.0
Frequency of visits to the library		
1-2 times per week	50	50.0
3-4 times per week	44	44.0
5-6 times per week	4	4.0
6 times and above per week	2	2.0

that the values for all of the variables are well above 0.70 with the lowest Cronbach α value is 0.761, implying all variables are deemed reliable.

B. Correlation Analysis

TABLE II
RELIABILITY ANALYSIS

Variables	Number of Items	Cronbach α
Tangible (TA)	7	0.806
Responsiveness (RE)	3	0.875
Assurance (AS)	3	0.843
Reliability (RL)	6	0.761
Empathy (EM)	4	0.815
Satisfaction (SA)	3	0.879

Pearson correlation measures the correlation between two or more variables. Correlation coefficients can range from the value of -1.00 to +1.00. The value of -1.00 represents a perfect negative correlation while a value of +1.00 represents a perfect positive correlation. Table III shows that all the service quality factors (i.e. tangible, responsiveness, assurance, reliability, and empathy) affecting the customer satisfaction and are positively correlated. Assurance leads the rest of the factors with the highest correlation value ($r=0.618$) and positively correlated with customer satisfaction at the 0.01 significant level. It is about one's trust and confidence towards receiving services from the librarian. This is followed by empathy ($r=0.610$), which refers to one's understanding of customer needs and providing individual attention. The correlation coefficient is between 0.216 and 0.618. As a result,

there is no multicollinearity problem in this study. The skewness of all the items ranges from -0.480 to 1.515 below ± 2.0 . Similarly, the values for kurtosis ranges from 0.221 to 3.720 well below the threshold of ± 10 . Both the skewness and kurtosis are less than the cutoff value, implying that the scores approximate a "normal distribution" or "bell-shaped curve".

TABLE III
CORRELATION ANALYSIS

	TA	RE	AS	RL	EM	SA
TA	1					
RE	0.216(*)	1				
AS	0.174	0.519(**)	1			
RL	0.056	0.237(*)	0.250(*)	1		
EM	0.021	0.582(**)	0.542(**)	0.304(**)	1	
SA	0.004	0.605(**)	0.618(**)	0.356(**)	0.610(**)	1
Mean	3.894	3.880	3.873	3.800	3.750	3.647
SD	1.432	0.401	0.487	1.035	0.383	0.685
Skewness	1.417	-0.480	-0.579	1.515	-0.517	-0.903
Kurtosis	1.020	2.082	-0.917	3.720	0.221	-0.423

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

C. Multiple Regression Analysis

The relationship between independent variables (i.e. tangibles, responsiveness, assurance, reliability and empathy) and dependent variable (customer satisfaction) was determined via multiple regression analysis. Table IV shows that adjusted $R^2 = 0.546$ accounted for 54.6% variance in dependent variable is explained by the independent variables. Significant value is set at 95% significance level. Furthermore, tolerance value ranges 0.550 - 0.921, are well above 0.10. The highest Variance Inflated Factor (VIF) value can be seen in empathy factor (1.819), and is much smaller than 5. Hence, multicollinearity among the independent variables is statistically insignificant, indicating absence of multicollinearity. Five hypotheses were investigated to check relationships with customer satisfaction with the library services in a public university in the Federal Territory of Labuan, Malaysia.

TABLE IV
REGRESSION ANALYSIS

	Standardised Coefficients		Sig.	Colinearity Statistics	
	Beta	t		Tolerance	VIF
TA	.132	1.869	.065**	.921	1.086
RE	.303	3.392	.001*	.576	1.736
AS	.332	3.894	.000*	.629	1.591
RL	.143	2.004	.048*	.895	1.118
EM	.213	2.338	.021*	.550	1.819
Adj. R^2		.546			
F		24.847			
Sig.		.000			

* denotes a significant value as $p < 0.05$

** denotes a significant value as $p < 0.10$

Assurance leads the list as it has highest standardised beta coefficient value. In hypothesis 3, the relationship between assurance and customer satisfaction was examined and the hypothesis is supported as $p < 0.05$, ($\beta_3 = 0.332$, t-value =

3.894), signifying that library visitors are satisfied with the services provided. They found that in the library environment, the classification fits in with all subjects and directional signs in the building are clear. This has assured the expedience of their visit to the library. On top of that customers feel confident with the library navigation. This result is analogous to Mengi [13]'s study. Besides, findings in Table IV confirm that responsiveness is the second most important factor that influences customer satisfaction with the services rendered by the librarian ($\beta_2 = 0.303$, $t\text{-value} = 3.392$, $p < 0.05$). Hence, hypothesis 2 is supported; indicating library visitors were satisfied with the librarian services by actively and promptly providing responses to their requests and questions. Furthermore, their satisfaction is also encouraged by the availability of customer representatives on-line to provide responses to queries at anytime. Preceding research by Mengi [13] supported this relationship as well.

Empathy is the third factor that affects customer satisfaction with the library services and was examined in hypothesis 5. Table IV indicates empathy has a significant relationship with customer satisfaction with the library services ($\beta_3 = 0.213$, $t\text{-value} = 2.338$, $p < 0.05$). This finding implies that customers are satisfied with the individualised attention given by the library staff, the library consists of highly skilled staff who keep their best interests at heart. Results are in accordance with Ladhari [17]'s study that found that empathy is positively related to customer satisfaction. The fourth factor that has a significant relationship with customer satisfaction is reliability, which is examined in hypothesis 4. Results prove that tangibles verify the significant relationship ($\beta_4 = 0.143$, $t\text{-value} = 2.004$, $p < 0.05$). The finding of this study is consistent with Jamal and Naser [14]. The analysis of tangibles implies that it has a relationship with customer satisfaction with the library services, but in a negative effect, signifies the customer satisfaction with all the tangibles such as the library provides a music listening area, a convenient area for customers to spend their free time in the library.

Further investigation of the study divulged tangibles as the last significant factor that has an effect on customer satisfaction with the library services ($\beta_1 = 0.132$, $t\text{-value} = 1.869$, $p < 0.10$), supporting hypothesis 1. The finding is coherent with the discovery by Kumar et al. [10] and Lai [11]. Library visitors are concerned that the collections of books and other materials are be shelved accurately in order to ease the search process by the customer. Moreover loan and return records must be recorded in good order as references to view or track materials loaned. In order to provide library visitors with various information about the library, the website needs to provide updated information and other related references to assist the customer in locating any required information effectively and efficiently.

V. CONCLUSION

This paper examined whether service quality influences customer satisfaction of library visitors in a public university in the Federal Territory of Labuan, Malaysia. Results revealed that all service quality dimensions tested were significant and

influenced customer satisfaction of visitors to a public university library. Assurance is the most important factor that influences customer satisfaction with the services rendered by the librarian. It is imperative for the library management to take note that the top five service attributes that gained greatest attention from library visitors' perspective includes employee willingness to help customers, availability of customer representatives online for response to queries, library staff actively and promptly provide services, signs in the building are clear and library staff are friendly and courteous. Moreover, the results indicated that six attributes need to be improved to boost library visitors' level of satisfaction with the service quality of the librarians. These include: there are sufficient numbers of computers for data research in the library, the library provides music listening areas, and the content of the library website is sufficient. In addition, the length of opening hours is satisfactory, loan duration is acceptable and all materials are kept in the correct order are also concerns to enhance their positive experience with the services provided.

Suggested improvements are mainly related to the library services and facilities. Additional computer terminals for data searching are needed in order to ease the searching process. Moreover it is best to have a listening area or a number of music rooms to accommodate customer needs. Information in the library website needs to be updated to the latest information. Therefore, top management of a public university in the Federal Territory of Labuan, Malaysia need to provide a website coordinator to maintain the website information with updated information. Some customers think that library business hours and loan duration are too short and need to be further discussed to augment customer convenience. Furthermore, it is also suggested to the library top management to urge library staff to maintain all materials shelved in good order in the library and provide convenient customer services. Snoj and Petermanec [18] stated that employees are a crucial asset for sustainable competitive advantage in management of libraries. It is worthy for library management to overcome the following issues: lack of budget, lack of manpower, lack of skilled staff and lack of training which are the main constraints for not automating library activities investigated in Kumar and Biradar [19]'s study. The research finding is constrained to 100 library visitors comprising students and academicians randomly selected in a public university in the Federal Territory of Labuan, Malaysia. There is an issue of generalisation to extend a study sample to the whole population in Malaysia. It provides room for improvement of future research to widen the scope of the study to include several major states in Malaysia and include respondents such as internal staff of the library as a key object for study. In addition, regular assessment could be examined between the external and internal entities of the library in order to comprehend the expected result of service quality and customer satisfaction.

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