# The Influence of Library Service Quality on Student Satisfaction: A Case Study of Politeknik Tuanku Syed Sirajuddin

**Muhamad Saufiyudin Omar[1*], Nurasyikin Mohd Salleh[1], Norlili Juwita Arshad[1]**

[1] Department of Tourism and Hospitality, Politeknik Tuanku Syed Sirajuddin, Pauh Putra, 02600 Arau Perlis, Malaysia

*Corresponding Author: saufiyudin@yahoo.com

_____

**Abstract:** *The library is a service-oriented institution, widely used, especially among students, to obtain updated and relevant information. However, in the Malaysian polytechnics context, limited studies have investigated the influence of library service quality on student satisfaction. Therefore, this paper aims to examine the influence of service quality, comprising tangibility, reliability, responsiveness, assurance, and empathy, on student satisfaction. This study employed a quantitative study and a single cross-sectional method. This study also used a survey approach in which 279 students responded to the distributed questionnaires. The multiple regression analysis revealed that service quality, comprising tangibility, reliability, responsiveness, assurance, and empathy, significantly influences student satisfaction. Besides, assurance is the primary element that influences student satisfaction. The study findings showed that improving service quality, especially on the assurance element, is critically important to improving student satisfaction. This study will benefit the students, library management, and Malaysian polytechnics in general, especially in improving student satisfaction in the future. More findings will be discussed in this paper.*

**Keywords:** assurance, empathy, library, reliability, responsiveness, service quality, student satisfaction, tangibility

_____

## 1. Introduction

For centuries, the library has been the top priority for learning new skills and understanding complex phenomena (Farooq et al., 2019). The library plays a pivotal role in supporting teaching, learning, and researches (Becker et al., 2017). Nowadays, the importance of libraries has increased due to the availability of multiple resources (Farooq et al., 2019). Many of the new services were introduced due to changes in technology and developments within the library in the world. In the meantime, the library also needs to enhance existing services in areas such as information literacy, collaboration with faculties, and research spaces for postgraduate students. Therefore, evaluating library services is constantly needed to ensure they meet the users' demand (Becker et al., 2017).

In this light, most education institutions offer an academic library. An academic library can be defined as the heart of the learning public, providing a comfortable place for academicians, practitioners, and applied researchers to do their research projects and advance their knowledge (Afthanorhan et al., 2019). The academic library needs to provide resources, facilities, and services, enabling students to fulfil their academic potential (Becker et al., 2017). The academic library plays a critical role in students' success (Farooq et al., 2019). The challenges faced by

the academic libraries nowadays are providing the correct level of support, services, spaces, and materials for the vast range of students (Becker et al., 2017). Hence, the library needs feedback on the services provided and to make the necessary adjustments to provide better support for the students' needs (Becker et al., 2017). Therefore, the students' perspective on the academic library is critically important to improve the current services offered to the students. One way to evaluate the students' perspective is by measuring student satisfaction towards the academic library.

Student satisfaction is a focal point for education institutions (Alsheyadi & Albalushi, 2020). An educational institution's strengths and weaknesses can be measured by student satisfaction (Rahman et al., 2020). Mostly, students go to libraries with different information needs and expectations (Adam, 2017). Despite the heavy investment done by institution libraries, several past studies have shown that most libraries could not satisfy their users (Adam, 2017; Nganga et al., 2020). According to Nganga et al. (2020), the library lacks information materials, has difficulties identifying relevant information sources, faces a major threat from the digital environment, and has difficulties fulfilling the students' needs and desires for data administrations. There have been very few studies focusing on student satisfaction with library services quality (Farooq et al., 2019). Therefore, one way to measure student satisfaction is by measuring the service quality provided to the students and using the SERVQUAL model introduced by Parasuraman et al. (1988). Parasuraman et al. (1985) defined service quality as "a measure of how well the service level delivered matches customer expectations; delivering quality service means conforming to customer expectations on a consistent basis". Parasuraman et al. (1988) also stated that SERVQUAL consists of five dimensions: tangibility, reliability, responsiveness, empathy, and assurance.

In this light, Chandra et al. (2019) claimed that limited studies were conducted to investigate service quality and its correlation with student satisfaction in the higher learning institution sector. Meanwhile, in Malaysia's polytechnics context, limited studies have examined student satisfaction on the academic library service quality. Therefore, an investigation on service quality and student satisfaction towards the academic library in the Politeknik Tuanku Syed Sirajuddin (PTSS) context is essential to improve the quality of services provided to the students. Consequently, this study examines the influence of service quality, consisting of tangibility, reliability, responsiveness, assurance, and empathy, on student satisfaction towards the academic library in the PTSS students' context. Therefore, this study hopes to enlighten the PTSS academic library to provide better and excellent services to students to produce quality students in the future. This study can also contribute to the existing literature and serve as a reference for future studies.

## 2. Literature Review

### 2.1 Service Quality

Every higher education institution student expects better quality services from their institution (Rahman et al., 2020). O'Neill and Palmer (2010) argued that higher education services' quality is an important part and critical idea because both service providers and service recipients are human. In libraries' context, the academic libraries need to constantly assess user satisfaction with their services, including services provided by specialist staff and general access to library facilities and materials (Becker et al., 2017).

According to Farooq et al. (2019), the SERVQUAL model was used to measure user satisfaction towards library service quality. It is in line with Parasuraman et al. (1988), stating

that the quality of institutional services is assessed with different dimensions, and its quality can determine how satisfied the customers are. Farooq at al. (2019) also stated that the model's five dimensions to examine customer perception of organisations' service quality are tangibility, reliability, assurance, empathy, and responsiveness. They also used this SERVQUAL model to measure user satisfaction towards library service quality in Malaysia's private universities.

## 2.2 Student Satisfaction

According to Choshaly and Mirabolghasemi (2018), students as library users expect library services to be good enough to meet their needs. One method to evaluate library services' effectiveness is by evaluating user satisfaction (Choshaly & Mirabolghasemi, 2018). User satisfaction in a library context can be defined as "an emotional, personal reaction to a library service or product" (Cullen, 2001). According to Didomenico and Bonnici (1996), student satisfaction as a consumer will bring a competitive advantage for the institution. Therefore, assessing user satisfaction is important for academic libraries' development as it helps maintain and retain existing users and attract new users (Moreira et al., 2009).

## 2.3 The Relationship Between Service Quality and Student Satisfaction

Previous studies have shown that service quality correlates to student satisfaction. In their study, Chandra et al. (2019) found that service quality positively and significantly influences student satisfaction. Saleem et al. (2017) also found a positive association between service quality and student satisfaction in the education sector. While Santos et al. (2020) also found that service quality influences student satisfaction. Besides, Amanulla et al. (2021) found that tangibility, reliability, responsiveness, assurance, and empathy are significant predictors to measure user satisfaction. Tangibility has the most significant impact on user satisfaction. Lastly, Alsheyadi and Albalushi (2020) also showed that the direct relationships between SERVQUAL dimensions (tangibles, reliability, assurance, responsiveness, and empathy) and student satisfaction are significant; the highest effect on satisfaction comes from the reliability and responsiveness dimensions. Therefore, based on the literature review, five hypotheses were developed:

H1: There is a positive relationship between tangibility and student satisfaction.
H2: There is a positive relationship between reliability and student satisfaction.
H3: There is a positive relationship between responsiveness and student satisfaction.
H4: There is a positive relationship between assurance and student satisfaction.
H5: There is a positive relationship between empathy and student satisfaction.

## 2.4 Research Framework

This study's independent variables are service quality attributes (tangibility, reliability, responsiveness, assurance, and empathy), while the dependent variable is student satisfaction. Figure 1 shows the study's research framework.
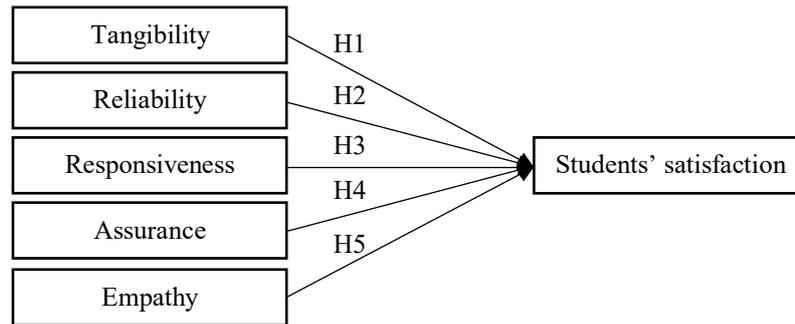
**Figure 1: Research framework**
Adapted from: Amanullah et al. (2021)

## 3. Methodology

Quantitative research and a single cross-sectional method were employed for this study. The population was 3232 students from six departments, namely the Department of Tourism and Hospitality (JPH), Department of Commerce (JP), Department of Electrical Engineering (JKE), Department of Information Technology and Communication (JTMK), Department of Design and Visual Communication (JRKV), and Department of Mechanical Engineering (JKM), of June 2020 session at Politeknik Tuanku Syed Sirajuddin (PTSS). Based on the Raosoft software calculation, the minimum sample needed was 344 respondents. Then, this study used stratified random sampling to determine the number of samples needed from each department. Based on the researcher calculation, the sample needed was JPH = 76, JP = 63, JKE = 54, JTMK = 49, JRKV = 60, and JKM = 42.

Next, a questionnaire was adapted from Amanullah et al. (2021) with some modifications to suit the study. The questionnaire was divided into six sections, with a total of 31 items. Section A focused on tangibility with eight items and Section B on reliability with five items. Meanwhile, Section C was about responsiveness with five items, Section D was about assurance with six items, and Section E was about empathy with four items. Finally, Section F dealt with student satisfaction with three items. The questionnaire used a five-point Likert Scale in which 1 indicated Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. Initially, the items were in English; then, the back translation method introduced by Brislin (1970) was implemented. Two translators were engaged to translate from the English version into the Malaysia language, then another two translators translated from the Malaysia language back into English. The differences were sought out and discussed.

Furthermore, this study used a survey approach to collect the data, and the researchers used a google survey form to distribute the questionnaires. Based on students' data obtained from the Department of Students Affair of PTSS, the google survey link was then distributed to the students using the WhatsApp application. Next, the Statistical Package for the Social Sciences (SPSS) software was utilised to analyse the data. This study also employed frequency analysis, mean, standard deviation, Cronbach's alpha coefficient, Pearson correlation analysis, and multiple regression analysis. Cronbach's alpha coefficient was used to measure reliability. Based on the analysis, Cronbach's alpha coefficient showed that all variables are reliable, and the values were between $\alpha = 0.931$ to $\alpha = 0.958$. Table 1 shows the Cronbach's alpha coefficient for this study.

77

**Table 1: Cronbach's alpha coefficient value**

| Variables | Cronbach's Alpha | No of items |
|---|---|---|
| Tangibility | .926 | 8 |
| Reliability | .931 | 5 |
| Responsiveness | .952 | 5 |
| Assurance | .958 | 6 |
| Empathy | .945 | 4 |
| Students satisfaction | .940 | 3 |

## 4. Results

### 4.1 Demography Profile of Respondents

Out of 344 questionnaires distributed, only 279 questionnaires were useable in this study, giving a response rate of 81%. Based on the result obtained, females were the highest respondents (61.6%), followed by males (38.4%). In terms of age, 18 – 20 years old (54.1%) was the highest respondents, followed by 21 – 25 years old (45.9%). Malay (89.2%) was the majority in this study, followed by Indian (5.4%) and Chinese (3.2%). The lowest was Siamese and Others, with 1.1%, respectively. In terms of departments, JPH students (29.0%) were the majority answering the questionnaire, followed by students from JRKV (28.0%), JKM (19.4%), JP (11.8%), and JTMK (8.6%). The lowest was JKE students (3.2%). Table 2 shows the respondents' demographic profile.

**Table 2: Demography profile of respondents**

| Particular | | Frequency | Percent |
|---|---|---|---|
| Gender | Male | 107 | 38.4 |
| | Female | 172 | 61.6 |
| Age | 18 – 20 years old | 151 | 54.1 |
| | 21 – 25 years old | 128 | 45.9 |
| Race | Malay | 249 | 89.2 |
| | Chinese | 9 | 3.2 |
| | Indian | 15 | 5.4 |
| | Siamese | 3 | 1.1 |
| | Other | 3 | 1.1 |
| Department | JKM | 54 | 19.4 |
| | JKE | 9 | 3.2 |
| | JP | 33 | 11.8 |
| | JRKV | 78 | 28.0 |
| | JPH | 81 | 29.0 |
| | JTMK | 24 | 8.6 |
| Frequency visiting a library in a month | 1-5 times | 221 | 79.2 |
| | 6-10 times | 54 | 19.4 |
| | More than 11 times | 4 | 1.4 |
| **Total** | | **279** | **100.0** |

### 4.2 Pearson Correlation Analysis

Based on Table 3, the Pearson correlation analysis result shows that tangibility, reliability, responsiveness, assurance, and empathy are correlated with student satisfaction. More specifically, tangibility $r = 0.814$, reliability $r = 0.730$, responsiveness $r = 0.860$, assurance $r = 0.880$, and empathy $r = 0.844$ with student satisfaction, respectively. The result also indicates that tangibility, reliability, responsiveness, assurance, and empathy are positively related to student satisfaction. Assurance is the strongest variable correlating with student satisfaction, followed by reliability, responsiveness, tangibility, and assurance.

**Table 3: Pearson correlation analysis of study**

| | Variables | Mean | Std. dev. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Tangibility | 4.192 | .677 | | | | | | |
| 2 | Reliability | 4.219 | .668 | .783** | | | | | |
| 3 | Responsiveness | 4.257 | .700 | .772** | .737** | | | | |
| 4 | Assurance | 4.260 | .676 | .814** | .813** | .883** | | | |
| 5 | Empathy | 4.172 | .706 | .754** | .783** | .845** | .888** | | |
| 6 | Students satisfaction | 4.281 | .737 | .814** | .730** | .860** | .880** | .844** | |

**Correlation is significant at the 0.01 level (1-tailed)

## 4.3 Multiple Regression Analysis

Based on Table 4, multiple regression analysis was used to analyse the tangibility, reliability, responsiveness, assurance, and empathy on student satisfaction. The result indicates that all variables are significantly and positively influence student satisfaction. The result shows that $R^2 = 0.834$, meaning all factors explained 83.4% of the variance in student satisfaction with $F = 274.746$, $p = 0.000$. The other factors explained the remaining 16.6%. In light of this, tangibility, reliability, responsiveness, assurance, and empathy contributed significantly and positively towards the prediction of student satisfaction, with the beta values of $ß = 0.266$, $ß = 0.106$, $ß = 0.263$, $ß = 0.327$, and $ß = 0.211$, respectively. Hence, Hypothesis 1, 2, 3, 4, and 5 were supported. It implied that tangibility, reliability, responsiveness, assurance, and empathy influence student satisfaction in the PTSS students' context.

**Table 4: Multiple regression analysis of the study**

| Model | B | SE B | | t | Sig. |
|---|---|---|---|---|---|
| (Constant) | .072 | .124 | | .582 | .561 |
| Tangibility | .290 | .050 | .266 | 5.763 | .000 |
| Reliability | .116 | .051 | .106 | 2.276 | .024 |
| Responsiveness | .277 | .059 | .263 | 4.734 | .000 |
| Assurance | .357 | .076 | .327 | 4.680 | .000 |
| Empathy | .222 | .060 | .213 | 3.728 | .000 |

Note: $R^2 = 0.834$, $p$ 0.000

## 5. Discussion

This study examines the influence of tangibility, reliability, responsiveness, assurance, and empathy on student satisfaction towards the PTSS library services. Based on the results obtained, all variables significantly influence student satisfaction in the PTSS context. The results were consistent with Chandra et al. (2019), finding that service quality significantly and positively influences student satisfaction. It is also consistent with Afthanorhan et al. (2019), finding and supporting that service quality is related to student satisfaction.

More specifically, this study found that tangibility influences student satisfaction, consistent with Lubis (2020). Lubis (2020) also found that tangibility simultaneously has a significant effect on student satisfaction at the library. It might be because most of the students agreed that the academic library has a sufficient number of periodicals and books to serve the students' needs. Moreover, the environment of the library is clean, comfortable, and has enough lighting quality. Besides that, the library also has a sufficient number of computers and study rooms for the students to utilise.

Secondly, this study also found that reliability significantly and positively influences student satisfaction towards the academic library. It was consistent with Farooq et al. (2019), who found a significant and positive relationship between reliability and library users' satisfaction. Most of the students felt that the PTSS academic library collections are timely and shelved

accurately. Moreover, the PTSS academic library implements accurate borrow and return records to the students. Hence, these elements contributed to student satisfaction.

Next is responsiveness. This study also found that responsiveness significantly and positively influences student satisfaction. It was consistent with Farooq et al. (2019), stating a significant positive relationship between responsiveness and library users' satisfaction. The study also found that the students agreed the academic library staff try their best to answer the students' inquiries, actively and aggressively provide services to the students, and help students locate and retrieve information at the academic library. Therefore, these were among the factors making students feel satisfied with the PTSS library.

Assurance also showed a significant and positive influence on student satisfaction in this study. It was consistent with Dhar and Sikder (2018), who also found assurance significantly influences student satisfaction. It might be because most of the students agreed that the academic library staff are friendly, approachable, and welcoming. Moreover, the students also agreed that the academic library staff are courteous and aware of every service item. Hence, these elements contributed to student satisfaction in this study.

The final element is empathy. This study discovered that empathy also contributed to a significant and positive influence on student satisfaction. It was consistent with Alsheyadi and Albalushi (2020) and Amanulla et al. (2021) that empathy is a significant predictor of student satisfaction. Most academic library staff provide individual attention to students, provide general help for the students on their research, and quietly listen to the students' query. Besides that, the library staff also deal with students in a caring manner. Consequently, these elements made students feel satisfied with the services provided by the staff.

## 6. Conclusion

In sum, this study found that service quality, comprising tangibility, reliability, responsiveness, assurance, and empathy, significantly influences student satisfaction. Moreover, this study also found that assurance highly contributed to the finding of this study. It means that improving these five service quality attributes, especially the assurance, is critically important in increasing student satisfaction. The study also has some limitations. First, the data were collected using the questionnaire; future research can be conducted using other sources like focus group and interviews. Second, it was based on a cross-sectional research design method and conducted in PTSS; therefore, findings could not be generalised to other polytechnics in Malaysia. Future study can be conducted at other polytechnics in Malaysia by using the longitudinal research design method.

## References

Adam, R. (2017). Assessment of library service quality and student satisfaction among undergraduate students of Yusuf Maitama Sule University (YMSU), Library Philosophy and Practice (e-journal), 1-20.

Afthanorhan, A., Awang, Z., Rashid, N., Foziah, H., & Ghazali, P. (2019). Assessing the effects of service quality on customer satisfaction. Management Science Letters, 9(1), 13-24.

Alsheyadi, A.K., & Albalushi, J. (2020). Service quality of student services and student satisfaction: the mediating effect of cross-functional collaboration. The TQM Journal, 32(6), 1197-1215.

Amanullah, M., Hasan, M., & Hafez, M. (2021). The impact of service quality on user satisfaction: A case study of selected public libraries in Bangladesh. EPRA International Journal of Multidisciplinary Research (IJMR), 7(1), 309-316.

Becker, D., Hartle, H., & Mhlauli, G. (2017). Assessment of use and quality of library services, accessibility and facilities by students at Cape Peninsula University of Technology. South African Journal of Libraries and Information Science, 83(1), 11-25.

Chandra, T., Hafni, L., Chandra, S., Purwati, A.A., & Chandra, J. (2019). The influence of service quality, university image on student satisfaction and student loyalty. Benchmarking: An International Journal, 1-18.

Choshaly, S.H., & Mirabolghasemi, M. (2018). Using SEM-PLS to assess users satisfaction of library service quality: evidence from Malaysia. Library Management. doi:10.1108/lm-03-2018-0023.

Cullen, R. (2001). Perspectives and user satisfaction surveys: Academic libraries. Library Trends, 49(9), 662-681.

Dahan, S.M., Taib, M.Y., Zainudin, N.M., & Ismail, F. (2016). Surveying users' perception of academic library services quality: A case study in Universiti Malaysia Pahang (UMP) Library. The Journal of Academic Librarianship, 42(1), 38-43.

DiDomenico, E., & Bonnici, J. (1996). Assessing service quality within the educational environment. Education, 116(3), 353-360.

Farooq, M., Khalil-Ur-Rehman, F., Tijjani, A.D., Younas, W., Sajjad, S., & Zreen, A. (2019). Service quality analysis of private universities libraries in Malaysia in the era of transformative marketing. International Journal for Quality Research, 13(2) 269-284.

Lubis, H.M. (2020). The Effect of Service Quality on Students' Satisfaction Using the Library of Senior High School 1 of Padangsidimpuan. Journal of Social Science, 1(2), 16-20.

Moreira, B.L., Gonçalves, M.A., Laender, A.H.F., & Fox, E.A. (2009). Automatic evaluation of digital libraries with LibQUAL. Journal of Informetrics, 3(2)102-123.

Nganga, J.W., Gichohi, P.M., & Irura, G. (2020). Relationship between information literacy training and students'satisfaction at Kenya school of law library. African Journal of Emerging Issues, 2(8), 81-91.

O'Neill, M., & Palmer, A. (2010). Importance-performance analysis: A useful tool for directing continuous quality improvement in higher education. Quality Assurance in Education, 12(1), 39-52.

Parasuraman, A., Zeithaml, V. & Berry, L.L. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, 49, 41-50.

Parasuraman, A., Zeithaml, V.A. & Berry, L.L. (1988). SERVQUAL: A multiple item scale for measuring consumer perceptions of service quality. Journal of Retailing, 64(1), 12-40.

Rahman, S.M., Mia, M.S., Ahmed, F., Thongrak, S., & Kiatpathomchai, S. (2020). Assessing Students' Satisfaction in Public Universities in Bangladesh: An Empirical Study. The Journal of Asian Finance, Economics, and Business, 7(8), 323-332.

Sin, M.C., Yusof, B.B., & Sin, K.Y. (2018). International Students' Satisfaction Level towards Service Quality in Academic Aspect and Loyalty to Universiti Teknologi Malaysia. International Journal of Academic Research in Business and Social Sciences, 8(10), 838-850.