

Analysis (LibQual) on Loyalty and Library Satisfaction; A Case Study in YARSI University Library Service Center

Tiko Dhafin Rizky¹, Nurul Huda *¹, Muslih¹, Nova Rini²

¹ Master of Management Program, YARSI University, Jakarta, Indonesia

² Sekolah Tinggi Ilmu Ekonomi Muhammadiyah Jakarta, Indonesia

*corresponding author: pakhuda@yahoo.com

Article Info

Keywords:

LibQual;
User satisfaction;
User loyalty;
SEM

JEL Classification:

D83, I21, I23

DOI:

10.33830/jom.v16i2.963.2020

Abstract

This study aims to analyze (LibQual): the effect of the performance of officers (affect of service) on user satisfaction; the effect of information access on user satisfaction; the influence of instructions and means of access (personal control) to the satisfaction of users; the effect of facilities and infrastructure (library as a place) on user satisfaction; the effect of the satisfaction of the visitors on the user loyalty; the effect (LibQual) on the loyalty of the visitors; the effect (LibQual) on the loyalty of the visitors through the variable user satisfaction. The data analysis method uses Structural Equation Model (SEM) with Lisrel 8.8 software. Respondents in this study were 180 students from YARSI University. This study presents a relative risk as a measure of effect size for categorical outcomes. **Findings.** The results of this study indicate that the LibQual component has a positive and significant influence on the visitors' satisfaction and loyalty directly. Library satisfaction has a positive and significant effect on the loyalty of users directly. The LibQual component has a positive and significant indirect effect on loyalty through user satisfaction.

1. Introduction

Libraries are institutions that manage collections of written works, printed works, and recorded works professionally with a standard system to meet the needs of education, research, preservation, information, and recreation for visitors. Higher education libraries are libraries in higher education institutions such as universities, institutes, colleges, academies, and other higher education institutions.

In fulfilling the academic community's information needs, libraries in universities must know the needs of students and lecturers in supporting the lecture and research process. Every university maintains a library that meets the national library standards by paying attention to the National Education Standards. Libraries in tertiary institutions aim to meet lecturers' and students' information needs and are open to the public. University libraries with a conducive environment for the academic community can enrich the learning process, encourage independent rational thinking processes, and support optimal self-development.

Quality is the fulfillment of an expectation of something related to products, services, or humans. The relationship between quality and the library is in the quality of service, which is essential to measure how well the level of service can meet visitors' wishes or expectations.

Excellent service quality in the public library will foster visitors' satisfaction. The level of visitor satisfaction can be seen in various aspects, such as the existing facilities and infrastructure (Deming, 1986).

Libraries have an essential role in the development of knowledge and dissemination of information. Undari and Ismiyati (2015) said that "The existence of a library is the heart of higher education, because almost all academic activities on campus, such as learning, research and community service activities, are known as Tri Dharma Perguruan Tinggi, require library facilities." Libraries, the heart of higher education, must provide satisfaction to its visitors through exemplary service. Nawawi and Puspitowati (2017) say that "Libraries as service providers are expected to meet user satisfaction by providing various information, sources of information and providing quality services and complete facilities." Therefore, optimal user satisfaction needs to be considered in obtaining information from the library.

Many factors influence visitor satisfaction, one of which is the library collection. Collection factors and the ease of search access are the factors that most influence the quality of service in the library. The collection of library materials is a container of information poured into various forms of media presented to library users. Based on this statement, the library collection is a collection of library materials presented in a printed or non-printed form, managed by the librarian to fulfill the library user's information.

According to Cook & Maciel (2010), the quality of library services is a latent variable that cannot be measured directly. One of the methods used to measure the quality of library services is LibQual theory. The dimensions of library service quality according to LibQual, are (1) the effect of service (affect of service) involves the ability and attitudes of librarians in serving users, (2) access to information (information access) concerns the availability of adequate library materials, the strength of collections or library materials owned, (3) library as a place (library as place), namely the library is considered a place to display facilities, atmosphere, and instructions, and (4) instructions and means of access (personal control), are concepts that provide convenience for users in finding collections and information independently.

Customer satisfaction has been recognized as a crucial measure. Satisfied readers are more likely to become loyal figures in the future. Although the relationship between quality and service satisfaction has been widely explored in commercial services such as banks, hotels, and many commercial facilities, there are striking differences in the library services literature in explaining this relationship. This is because the dominant evidence from empirical research results supports the idea that service quality is a reference in visitor satisfaction (Suki's, 2013 & Hsu et al, 2014).

The quality of library services will affect the satisfaction and loyalty of library users to all services. User satisfaction is the level of compatibility between the needs to be fulfilled and the reality that is accepted. Loyal library users are people who make repeated visits to the library (Zeithaml, Bitner, Gremler, 2009).

1.1 LibQual

The LibQual method is a method used to measure the quality of library services. The LibQual method has developed since 1999 on the initiative of experts in the library and information science, members of the Association Research Library (ARL) in the United States, and collaboration with Texas A&M University. Rahayuningsih (2015) asserts that: "The LibQUAL method is one of the service guides used by libraries to collect, map, understand, and act on the opinions of library users on the quality of library services."

1.2 LibQual Dimension

According to Fatmawati (2013), there are four dimensions in the LibQual Method, namely (1) Librarian's ability and attitude in serving (service affect - sa), namely the librarian's ability and

attitude in serving visitors, (2) the facilities and atmosphere of the library space (library as place - lp) namely the library is considered a place that has the ability to display something in real terms, (3) Instructions and means of access (personal control - pc), which is a concept that makes it easy for users to find collections and information, (4) Access to information (information access - ia) concerns the availability of adequate library materials, the strength of the collection or library materials owned.

The conclusion from the dimensions contained in the LibQual method is the library can find out how to make improvements to develop the quality of services given to library users, and this performance will affect the development and progress of the library.

Also, according to Fatmawati (2013), "the LibQual method can provide an opportunity for users to inform assessments of which library services require improvement, so that libraries can respond and manage user expectations." Based on some of these opinions, the benefits of the LibQual method are obvious to provide opportunities for visitors to provide an assessment of services that need improvement so that libraries can develop better services to meet user expectations.

1.3 User Satisfaction

Measuring visitor satisfaction is an essential element in providing better, more efficient, and more effective service. If users feel dissatisfied with the available service, the service indeed is ineffective and inefficient. This is especially important for service delivery and providing quality services to the user. User satisfaction is a condition in which the wishes, hopes, and needs of the visitors are met. A service is considered satisfactory if the service can meet the needs and expectations of users (Bea, Musabila & Deogratius, 2018).

User satisfaction is the level of a person's feelings after comparing the perceived performance or results with his expectations (Lasa, 2009). User satisfaction is influenced by (1) service performance, (2) response to user desires, (3) Competence of officers, (4) Easy, cheap, precise, and fast access, (5) Quality of collections, (6) Willingness to retrieve tools.

The concept of customer satisfaction is often related to service quality. The two terms have a complex relationship. Service quality is sometimes seen as the cause of customer satisfaction or vice versa. User satisfaction will be achieved if the user's perception of the quality of library services is equal or even exceeds their expectations of the quality of library services (Rahayuningsih, 2015).

1.4 User Loyalty

User loyalty is a user who reuses a product and service, for example by recommending other people to use it. According to Griffin (2010), a user is said to be loyal or faithful if the user shows regular buying behavior or there is a condition that requires the user to use a product at least twice in a specific time interval.

According to Hidayat (2009), user loyalty is the commitment of a visitor to a library, based on a positive attitude and is reflected in consistent repurchasing. Indicators of library loyalty are (1) Trust is the response of the user's trust to the library, (2) Emotional commitment is the psychological commitment of the user to the library, (3) Switching cost is the response of the reader regarding the burden received when there is a change, (4) Word of mouth is publicity behavior carried out by visitors to the library, (5) Cooperation is the behavior of users that shows the attitude of collaborating with the library.

The existing literature reviews prove that the LibQual aspect affects user loyalty through visitor satisfaction (Irianingsih, Nahar, & Larasati, 2016 and Helgesen & Nessel, 2011). Cristobal, (2018) states that the LibQual aspect is used as an assessment of trust, commitment, and cooperation. User satisfaction is a measure of loyalty to library users (Roh and Chang, 2019).

According to Hidayat (2009), user loyalty is the commitment of a library user to a library based on a positive attitude and is reflected in consistent repurchasing. Indicators of user loyalty

are: 1) Trust (Believe) is a response to the trust of library users; 2) Emotional commitment is the psychological commitment of the reader to the library; 3) Switching cost (Cost of Return) is a user response about the load received when a change occurs; 4) Word of mouth (From mouth to mouth) is a publicity behavior carried out by users towards the library; 5) Cooperation (cooperation) is the behavior of users who show an attitude of working with the library.

Based on this theory, the conceptual framework can be viewed in the diagram below:

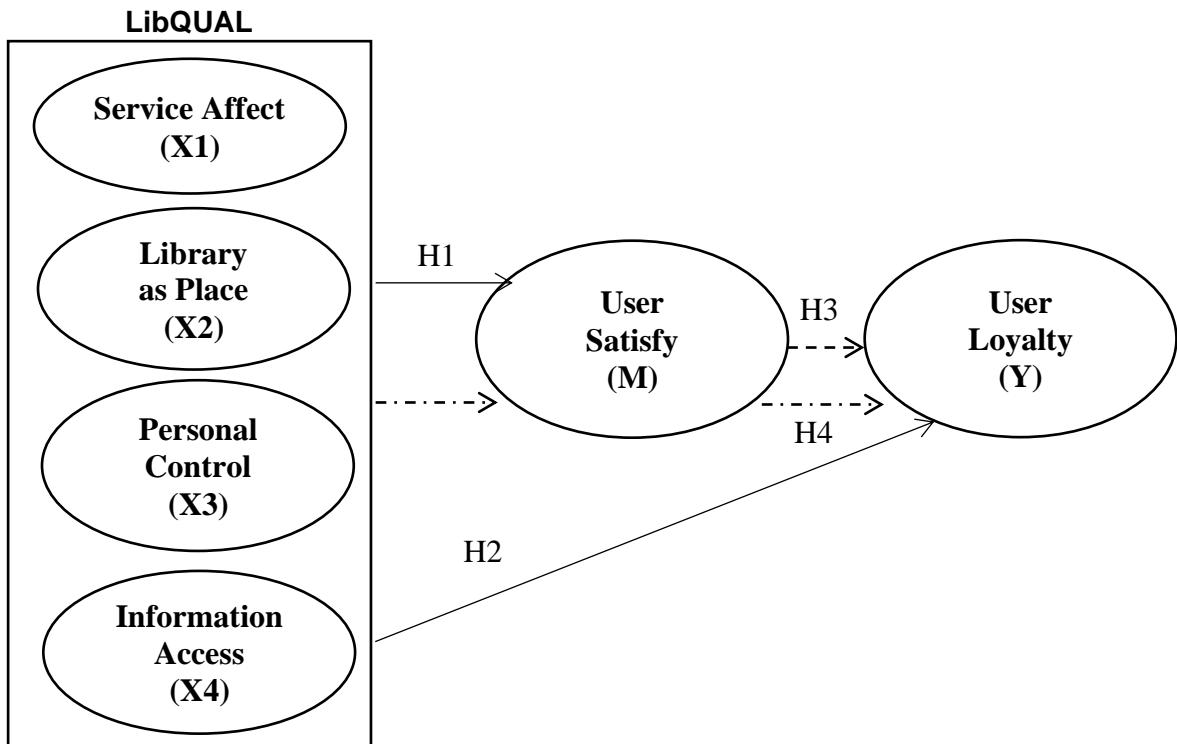


Figure 1. Conceptual Framework

Based on Figure 1, four variables affect user loyalty through visitor satisfaction, including service affect, library as place, personal control, and information access.

1.5 Research of Hypotheses

In this study, the researcher applies hypothesis based on previous research, namely the effect of LibQUAL on visitor satisfaction (Irianingsih, Nahar, Larasati, 2016; Undari and Ismiyati, 2015), LibQUAL on user loyalty (Choshaly and Mirabolghasemi, 2019; Ayuni and Utthavi, 2018), user satisfaction with user loyalty (Chin et al., 2018; Keshvari, Zare Farashbandi, and Geraei, 2015), LibQUAL to user loyalty through user satisfaction (Chandra et al., 2019; Tan, Chen, and Yang, 2017). The hypothesis is:

- H1: There is an influence of LibQUAL on User Satisfaction
- H2: There is an influence of LibQUAL on User Loyalty
- H3: There is an influence of User Satisfaction on User Loyalty
- H4: There is an influence of LibQUAL on User Loyalty through User Satisfaction

2. Research Method

This research was conducted using quantitative research and was carried out using a probability sampling technique because all the population's active students serve as the sample.

The population used is all active students from various study programs, totaling 180 people. The sampling technique used was simple random sampling. Determination of the sample is used if all members of the population are used as the sample (Cresswell, 2014; Hair et al., 2010). Researchers use the structural equation method to determine whether a particular model is valid or not rather than using it to find a particular model suitable or not. The endogenous variable (Y) in this case is user loyalty, while the exogenous variable (X) in this case is the LibQual aspect (service affect, library as place, personal control, information access), and the mediating variable (M) in this case is user satisfaction. The type of data used is primary data. The answer to each question item posed to the respondent is measured by a person's attitudes, opinions, and perceptions using a Likert scale where the score of Very Satisfied is 5 to Very Dissatisfied is 1.

3. Result and Discussions

In this section, the author will discuss the factors that influence the loyalty of YARSI University Libraries (Empirical Studies at YARSI University). The authors distributed a questionnaire containing 36 statement items regarding the loyalty of users to 180 respondents, YARSI University students, who were relevant to support this research to obtain data.

The questionnaire used in internal data collection, which is then sorted using a Likert scale instrument, and processed using SEM by first entering the respondents' answers from the questionnaire into table form with Microsoft Excel. The evaluation of the SEM model is also analyzed to obtain and evaluate the suitability of the proposed model. After all the results of data processing are known, then discussed, and finally draw conclusions based on the results of the analysis.

The author presents the descriptive results of respondents based on gender, age, education, and years of service:

Table 1. Characteristics of Respondents

Characteristics		Frequency	Percent	Cumulative Percent
Gender	Male	47	26,2	26,2
	Female	133	73,8	100,0
		180	100	
Faculty	Medical	64	35,6	35,6
	Economy and Business	41	22,8	58,4
	Information Technology	37	20,6	79,0
	Postgraduate	17	9,4	88,4
	Psychology	12	6,7	95,0
	Law	9	5,0	100,0
		180	100,0	
The Intensity of Using Library Services	Intense / 6 times a week	9	5,0	5,0
	Often / 2-4 times a week	75	41,7	46,7
	Rarely / once a week	38	21,1	67,8
	Very rarely / 2-3 times a month	31	17,2	85,0
	Sometimes / once a month or once every few months	27	15,0	100,0
		180	100,0	

Source: SPSS Version 24 processed result (2019)

Table 1 shows that based on gender, most of the respondents were female with a percentage of 73.8 percent and 133 respondents; This exceeds male with 47 respondents or 26.2 percent. It seems that the campus is dominated by female students, whereas based on the faculty category, the intensity of using library services varies. Especially based on the faculty category, the distribution of respondents is reasonably even, but the dominance of the distribution lies in the medical faculty with 64 respondents of 35.6 percent. In utilizing library services, it is dominated by visits that can be said to be intensive, this is evident in the frequency of frequent visits or 2-4 times a week with 75 respondents of 41.7 percent. In this case, students intensively visit and take advantage of library services.

Validity and Reliability Test

The questionnaire consists of 36 statement indicators. The LibQual aspect is divided into four variables including, Service Affect includes nine statement indicators, Library as Place has six indicator statements, Personal Control consists of five indicator statements, and Access Information includes five statement indicators. Meanwhile, Reader Satisfaction consists of five indicator statements, and Reader Loyalty consists of five indicator statements.

The results of the validity test of all variables are valid because the value of r count $r >$ from r table (0.279), while the combined reliability of the six variables studied is all reliable (Cronbach's Alpha > 0.70).

Table 2. Research Variable Reliability

	Variable	Cronbach's Alpha	r Table	Remark
LibQual	<i>Service Affect</i>	0,938	0,700	Reliable
	<i>Library as Place</i>	0,878	0,700	Reliable
	<i>Personal Control</i>	0,847	0,700	Reliable
	<i>Access Information</i>	0,862	0,700	Reliable
	<i>User Satisfaction</i>	0,813	0,700	Reliable
	<i>User Loyalty</i>	0,751	0,700	Reliable

Source: SPSS Version 24 processed result (2019)

Table 3. Exogenous Variable Reliability

Indicator	SLF	Error	Construct Reliability					
			ΣSLF	$(\Sigma SLF)^2$	ΣSLF^2	$\Sigma error$	CR	VE
Service Affect								
X1	0.88	0.23						
X2	0.85	0.28						
X3	0.87	0.25						
X4	0.89	0.22						
X5	0.92	0.15	8.00	64	7.12	1.9	0.97	0.79
X6	0.93	0.14						
X7	0.94	0.11						
X8	0.87	0.25						
X9	0.85	0.27						
Information Access								
X10	0.82	0.33						
X11	0.84	0.29	4.45	19.80	3.97	1.02	0.95	0.80
X12	0.92	0.16						

Indicator	SLF	Error	Construct Reliability					
			ΣSLF	$(\Sigma SLF)^2$	ΣSLF^2	$\Sigma error$	CR	VE
X13	0.94	0.11						
X14	0.93	0.13						
Library as Place								
X15	0.91	0.17						
X16	0.92	0.15						
X17	0.91	0.17						
X18	0.90	0.19	5.44	29.59	4.93	1.04	0.97	0.83
X19	0.91	0.16						
X20	0.89	0.20						
Personal Control								
X21	0.90	0.20						
X22	0.91	0.17						
X23	0.89	0.22	3.90	15.21	3.94	1.93	0.89	0.67
X24	0.93	0.13						
X25	0.80	0.37						

Source: SPSS Version 24 processed result (2019)

According to Hair et al., (2018), a reasonable reliability requirement is if it has a Construct Reliability value ≥ 0.70 . From the calculations in Table 4:19 the overall value of construct reliability on exogenous Officer performance = 0.97, access to information = 0.95, facilities and infrastructure = 0.97, and instructions and means of access = 0.89 which is more than 0.70. This shows that the reliability of this measurement model is good and the exogenous constructs (performance of officers, access to information, facilities and infrastructure, facilities, and access instructions) are supported by the data obtained.

Table 4. Endogeneous Variable Reliability

Indicator	SLF	Error	Construct Reliability					
			ΣSLF	$(\Sigma SLF)^2$	ΣSLF^2	$\Sigma error$	CR	VE
User Satisfy								
M1	0.92	0.23						
M2	0.93	0.28						
M3	0.88	0.25						
M4	0.92	0.22	5.39	29.05	4.85	1.27	0.96	0.79
M5	0.84	0.15						
M6	0.90	0.14						
User Loyalty								
Y1	0.89	0.33						
Y2	0.90	0.29						
Y3	0.92	0.16	4.54	20.61	4.12	1.02	0.95	0.80
Y4	0.92	0.11						
Y5	0.91	0.13						

Source: SPSS Version 24 processed result (2019)

According to Hair et al., (2018), a good reliability requirement is if it has a Construct Reliability value ≥ 0.70 . From the calculations in Table 4.20 the overall value of construct reliability at endogenous (customer satisfaction and loyalty) is 0.96 and 0.95 which are more than

0.70. This shows that the reliability of this measurement model is good and the endogenous constructs (customer satisfaction and loyalty) are supported by the data obtained.

Model Fit Test

After calculating and analyzing Confirmatory Factor Analysis (CFA), the latent variable score (LVS) can be measured for each dimension to reduce it to an indicator for each variable. Analysis of the structural model yields:

Table 5. The Goodness of Fit Structural Equation Model (SEM)

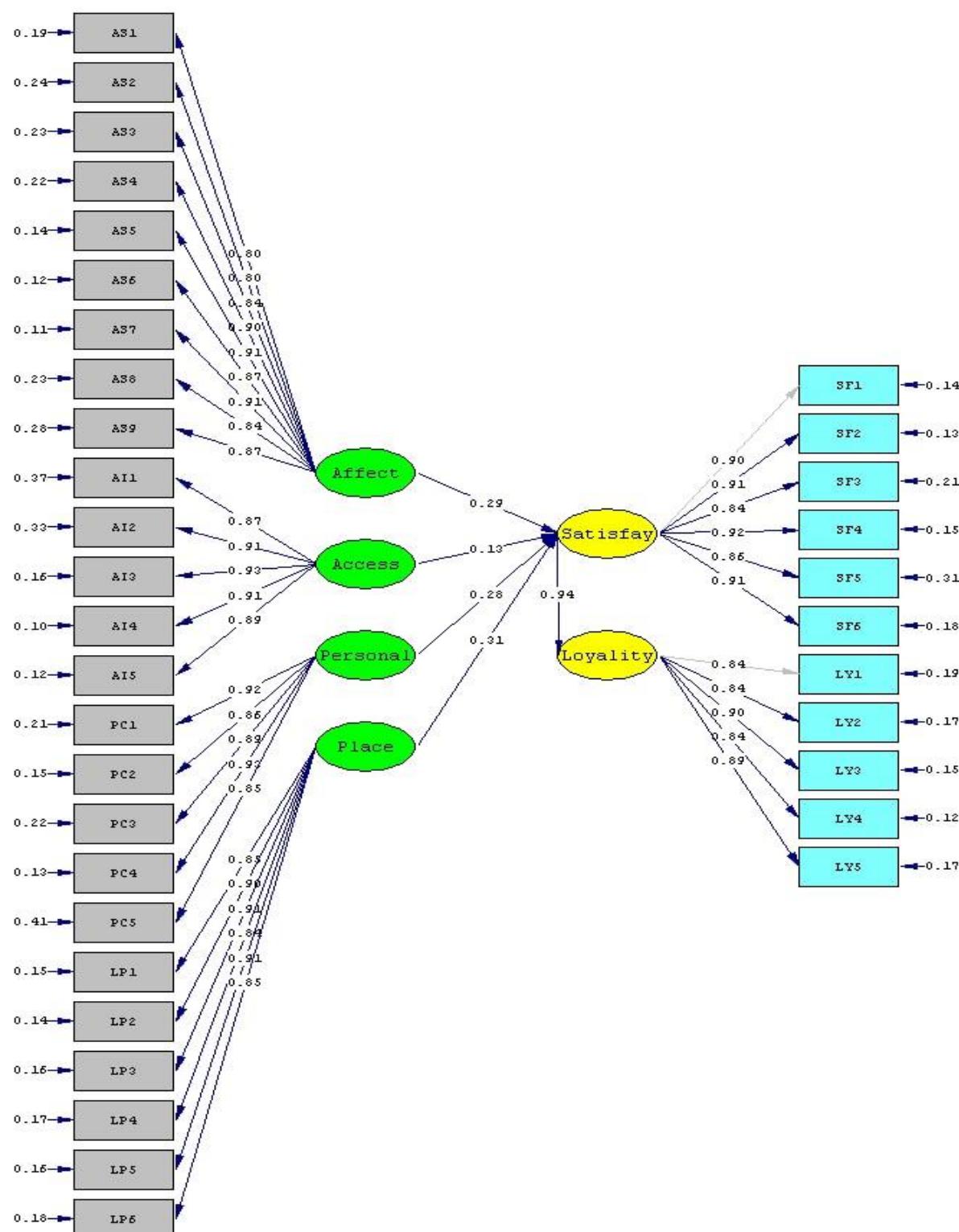
Measure GOF	Accepted Value		Estimation Result		Adequacy	
			Initial	Re-Spesification	Initial	Re-Spesification
Chi Square	Lower value indicates better	173.92	51.51		Poor	Good Fit
Pvalue	$P > 0,05$	0.000	0.013			
NCP	Lower value	22.47	6.96		Poor	Poor
Interval	Narrow interval	0.0; 85.11	0.0; 28.41			
RMSEA	RMSEA < 0,08	0.091	0.091		Good Fit	Good Fit
ECVI	Lower value indicates better fit ECVI saturated	M = 0.92; 1.21 S = 1.33 I = 12.37	M = 0.92; 1.21 S = 1.33 I = 12.37		Good Fit	Good Fit
AIC	Lower value indicates better fit AIC saturated	M = 291.42 S = 396.00 I = 3522.83	M = 97.96 S = 132.00 I = 1264.44		Good Fit	Good Fit
CAIC	Lower value indicates better fit CAIC saturated	M = 637.01 S = 1023.50 I = 7418.29	M = 188.09 S = 369.94 I = 2528.71		Good Fit	Good Fit
NFI	> 0,90	0.97	0.97		Good Fit	Good Fit
NNFI	> 0,90	0.98	0.98		Good Fit	Good Fit
CFI	> 0,90	0.98	0.98		Good Fit	Good Fit
IFI	> 0,90	0.98	0.98		Good Fit	Good Fit
CN	CN > 200	86.38	204.57		Poor	Good Fit
SRMR	< 0,05	0.061	0.042		Poor	Good Fit
GFI	> 0,90	0.69	0.92		Marginal Fit	Good Fit

Source: Lisrel version 8.8 processed result (2019)

Based on the Goodness of Fit (GOF) summary, the model is not suitable for modeling existing data because some GOF measures are still valued below the level of compatibility. Therefore, before testing the theoretical hypothesis, it is necessary to do the model respecification, commonly known as the SEM model modification, to get a fit model.

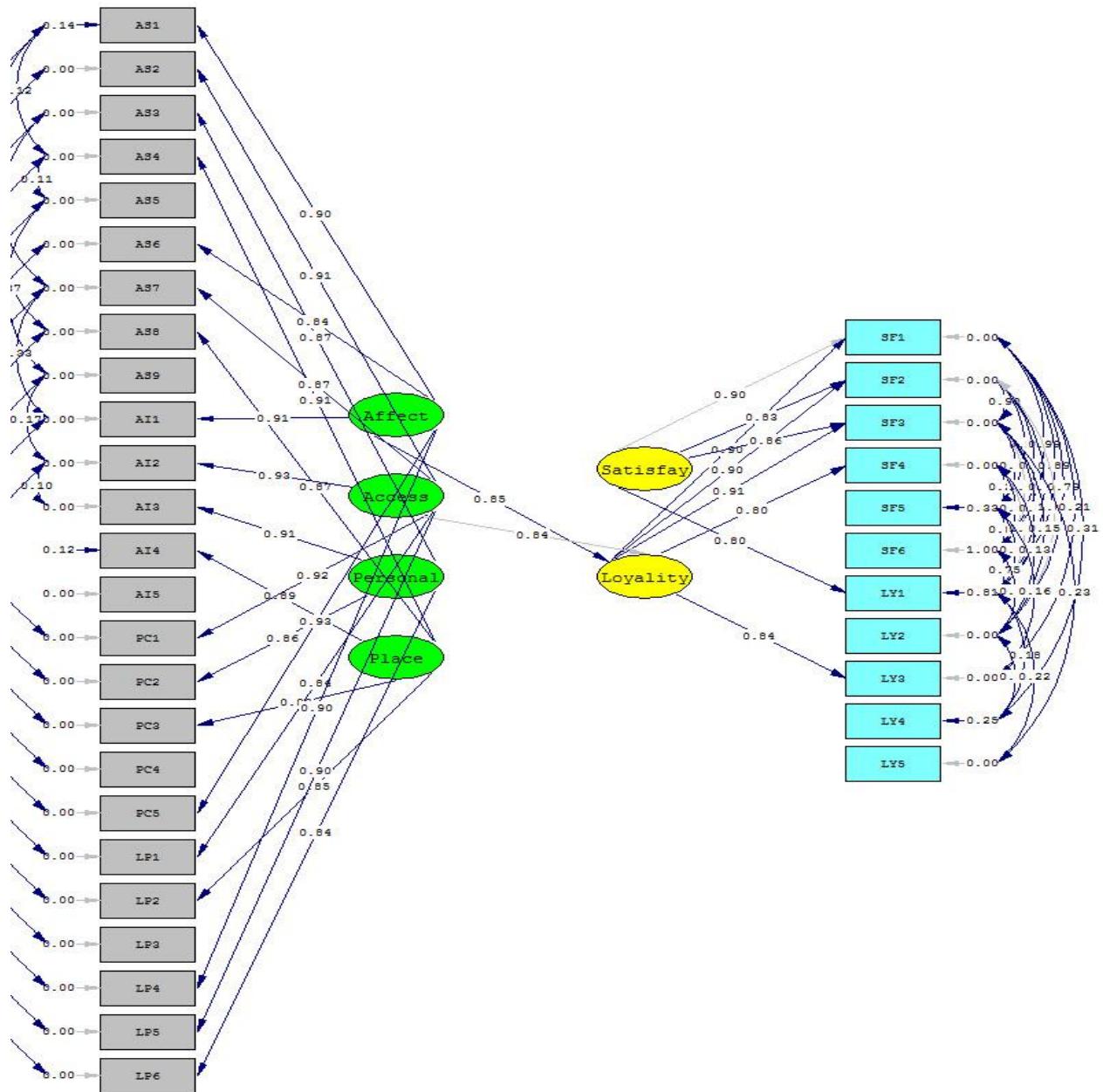
Model respecification or model modification is done by involving covariance elements in the SEM model produced by Lisrel software. Taking into account the covariance of the variables that were not initially taken into account. The model does not fit because the existing model cannot adequately explain its covariance of the data; therefore, it needs to be identified manually.

Figure 3 describes 1 GOF measure that shows a poor fit, while 12 GOF measures indicate a good fit, so in short, the overall fit of this model is fit.



Source: Lisrel version 8.8 processed result (2019)

Figure 2. Initial Model Path Diagram



Source: Lisrel version 8.8 processed result (2019)

Figure 3. Path Diagram After Re-specification

Determination Coefficient Analysis (R2) *Structural Equations*

Satisfy = 0.29*Affect + 0.15*Access + 0.24*Personal + 0.33*Place, Errorvar.= 0.15 , R² = 0.85
 (0.072) (0.098) (0.093) (0.067) (0.023)
 3.99 1.50 2.54 4.94 6.78

Loyalty = 0.60*Satisfy + 0.15*Affect - 0.045*Access + 0.31*Personal - 0.027*Place, Errorvar.= 0.11 , R² = 0.89

(0.093)	(0.069)	(0.090)	(0.089)	(0.066)	(0.019)
6.39	2.10	-0.50	3.43	-0.41	5.53

The structural form equation above displays R^2 value of each equation. The value of R^2 serves to show how much each exogenous variable can explain the endogenous variable. The following is an analysis of the structural form equation above:

1. User Satisfaction has an R^2 of 0.85. This figure shows that the performance of officers, access to information, facilities and infrastructure, directions, and means of access can explain 85% of the variance of visitor satisfaction, while the rest is explained by other factors.
2. Loyalty User has an R^2 of 0.89, which shows that visitor satisfaction can explain 89% of the variants of user loyalty, while the rest is explained by other factors.

From the table above, the author obtains several findings, namely, the direct effect of officer performance on visitor satisfaction is 0.28 (28%), the direct effect of information access on visitor satisfaction is 0.11 (11%), the direct effect of directions and means of access on visitor satisfaction is 0.28 (28%), and the direct effect of facilities and infrastructure to visitor satisfaction is 0.32 (32%).

Furthermore, the table above shows that the total effect is greater than the direct effect on all variables, namely the performance of officers, access to information, directions and means of access, as well as facilities and infrastructure to the loyalty variable of visitors. This means that the user satisfaction variable can strengthen the officers' performance variables, access to information, directions and means of access, as well as facilities and infrastructure. So, the conclusion is that through the variable visitor satisfaction can mediate the variable performance of officers, access to information, instructions and means of access, as well as facilities and infrastructure in the influence of user loyalty in the YARSI University Library.

Direct, Indirect, and Total Effect

The direct effect is the effect that occurs between two variables when an arrow connects the two. While the indirect effect is the effect that occurs between two variables, there is no direct arrow between the two variables, passing through one or more other variables according to the existing path.

Direct testing is the effect of officer performance on visitor satisfaction, the effect of information access on visitor satisfaction, the effect of instructions and means of access on user satisfaction, and facilities and infrastructure on visitor satisfaction. Indirect testing involves intervening variables, namely the effect of officer performance on customer loyalty through customer satisfaction, the effect of information access on customer loyalty through customer satisfaction, the influence of instructions and means of access on customer loyalty through visitor satisfaction, and the influence of facilities and infrastructure on customer loyalty through user satisfaction.

The following table shows the direct or indirect influence on the performance variables of officers, access to information, instructions, and means of access, as well as facilities and infrastructure on customer satisfaction and customer loyalty:

Table 6. Direct, Indirect, and Total Effect

Path	Direct Effect	Indirect Effect	Total	t-coefficient	Adequacy
XI → M	0.28	-	0.28	4.36	Significant
X2 → M	0.11	-	0.11	1.36	Not significant
X3 → M	0.28	-	0.28	4.87	Significant
X4 → M	0.32	-	0.32	3.15	Significant
M → Y	0.99	-	0.99	17.09	Significant
XI → Y	0.32	-	0.32	4.32	Significant

Path	Direct Effect	Indirect Effect	Total	t-coefficient	Adequacy
X2 → Y	0.02	-	0.02	0.21	Not significant
X3 → Y	0.47	-	0.47	4.71	Significant
X4 → Y	0.18	-	0.18	2.67	Significant
X1 → M → Y	0.32	$0.28 \times 0.99 = 0.28$	0.60	4.34	Significant
X2 → M → Y	0.02	$0.11 \times 0.99 = 0.11$	0.13	1.16	Not significant
X3 → M → Y	0.47	$0.28 \times 0.99 = 0.28$	0.75	4.81	Significant
X4 → M → Y	0.18	$0.32 \times 0.99 = 0.32$	0.50	2.83	Significant

Source: Lisrel version 8.8 processed result (2019)

The table above exhibits the direct effect of officer performance on visitor satisfaction is 0.28 (28%), the direct effect of information access on visitor satisfaction is 0.11 (11%), the direct effect of directions and means of access on visitor satisfaction is 0.28 (28%), and the direct effect of facilities and infrastructure to visitor satisfaction 0.32 (32%).

Furthermore, the table above shows that the total effect is greater than the direct effect on all variables, namely the performance of officers, access to information, directions and means of access, as well as facilities and infrastructure to the loyalty variable of visitors. The total effect coefficient is 1.40 and significant at the level of $p < 0.05$, which means that the visitor satisfaction variable can strengthen the officers' performance variables, access to information, directions, and means of access, as well as facilities and infrastructure. The outcome through the variable visitor satisfaction can mediate the variable performance of officers, access to information, instructions and means of access, as well as facilities and infrastructure in the influence of customer loyalty in the YARSI University Library.

4. Conclusions

This study concluded that the LibQual aspect has a positive and significant effect on user satisfaction and loyalty. Besides, visitor satisfaction also has a positive and significant effect on user loyalty. The LibQual aspect is strengthened by the satisfaction of visitors to mediate the effect on the loyalty of visitors to the YARSI University Library. Further research can be carried out on visitor satisfaction from another perspective and using different variables to analyze user loyalty for more comprehensive results.

Acknowledgements

We thank to Directorate of General for Strengthening Research and Development, the Ministry of Research and Technology Republic Indonesia, Higher Education (DIKTI) for providing this research.

References

- Ayuni, N. W. D., & Utthavi, W. H. (2018). The model of service quality and visitor loyalty of Politeknik Negeri Bali's library. In *1st International Conference on Social Sciences (ICSS 2018)*. Atlantis Press.
- Bea, G., Musabila, A. K., & Deogratus, D. (2018). Analysis of customer satisfaction with library services at the Sokoine National Agricultural Library (SNAL) in Morogoro region in Tanzania. *Library Philosophy and Practice*, 1.

- 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*.
- Chin, K. W., Leow, S. H., Lim, P. S., Tan, J. Y., & Wong, S. L. (2018). Library and students' satisfaction .Doctoral dissertation, UTAR.
- Choshaly, S. H., & Mirabolghasemi, M. (2019). Using SEM to assess users satisfaction of library service quality: evidence from Malaysia. *Library Management*, 40(3/4), 240-250.
- Cook, C., & Maciel, M. (2010). A decade of assessment at a research-extensive university library using LibQUAL. *Research Library Issues*, 271(08), 4-12.
- Cristobal, A. S. (2018). Expectations on library services, library quality (LibQual) dimension and library customer satisfaction: relationship to customer loyalty. *Library Philosophy and Practice (ejournal)*, 1706.
- Cresswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed. Methods Approaches* : fourth edition. Sage publications, Inc.
- Deming, W.E. (1986). *Out of The Crisis: quality productivity and competitive position*, Cambridge : Cambridge University Press.
- Fatmawati, Endang. (2013), *Mata Baru Penelitian Perpustakaan dari SERVQUAL ke LIBQUAL*, Jakarta : Sagung Seto.
- Griffin., 2010. *A First Look at Communication Theory*, 8th Edition, Boston : McGraw Hill.
- Hair, Joseph F., Black, William C., Babin, Barry J., Anderson, Rolph E., 2018. *Multivariate Data Analysis*, 8th Edition, London : Cengage Learning Publisher.
- Helgesen, Ø., & Nessel, E. (2011). Does LibQUAL+ TM account for student loyalty to a university college library?. *Quality Assurance in Education*, 19(4), 413-440.
- Hidayat, R. (2009). Pengaruh kualitas layanan, kualitas produk dan nilai nasabah terhadap kepuasan dan loyalitas nasabah Bank Mandiri. *Jurnal Manajemen dan kewirausahaan*, 11(1), 59-72.
- Hsu, M.K., Cummings, R.G. and Wang, S.W. (2014). Business students' perception of university library service quality and satisfaction. *Contemporary Issues In Education Research*. 7(2), 137 -144).
- Irianingsih, I., Nahar, J., & Larasati, R. (2016). Aplikasi model persamaan struktural dalam analisis pengaruh kualitas pelayanan (LibQUAL) terhadap kepuasan dan loyalitas pemustaka. *Jurnal Matematika Integratif*, 12(1), 19-26.
- Keshvari, M., Zare Farashbandi, F., & Geraei, E. (2015). Modelling influential factors on customer loyalty in public libraries: a study of West Iran. *The Electronic Library*, 33(4), 810-823.
- Lasa, HS, (2009), *Kamus Kepustakawan Indonesia*, Yogyakarta : Pustaka Book Publisher.
- Nawawi, M.T., & Puspitowati, I. (2017). Pengaruh kualitas pelayanan dan fasilitas perpustakaan sebagai prediktor terhadap kepuasan civitas akademika Fakultas Ekonomi Universitas Tarumanagara Di Jakarta. *Jurnal Ekonomi*, 20(2), 320-334.
- Rahayuningsih, Fransisca. (2015), *Mengukur Kepuasan Pemustaka, Menggunakan Metode LibQUAL*, Yogyakarta : Graha Ilmu.
- Roh, H. J., & Chang, W. K. (2019). A Study on the effect of university library user's sense of community on user satisfaction and loyalty. *Journal of the Korean Society for information Management*, 36(1), 137-168.

- Suki, N. M., & Suki, N. M. (2013). Service quality vs. customer satisfaction: perspectives of visitors to a public university library. In *Proceedings of World Academy of Science, Engineering and Technology*, 74, 156. World Academy of Science, Engineering and Technology (WASET).
- Tan, T. S., Chen, T. L., & Yang, P. H. (2017). User satisfaction and loyalty in a public library setting. *Social Behavior and Personality: an international journal*, 45(5), 741-756.
- Undari, D., & Ismiyati, I. (2015). Kepuasan mahasiswa pendidikan ekonomi terhadap pelayanan perpustakaan di Fakultas Ekonomi Universitas Negeri Semarang. *Dinamika Pendidikan Unnes*, 10(2).
- Zeithaml, V.A., Bitner, M.J., Gremler, D.D., (2009), *Service Marketing*, 5th Edition. Singapore : The McGraw-Hill Companies, Inc.