TECHNOLOGY DEVELOPMENT MODEL FOR LIBRARY USING STRUCTURAL EQUATION MODELING

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ABSTRACT

The existence of the college library is considered highly strategic in the development of science and technology. In general, the role of the college library is to provide the information required by the user. Library is seen as a combination of people, places or facilities and information, as between one another interdependence. Man, is the manager and the wearer. Place or facility is a means used by humans to perform "transaction information", while information may include books, journals, magazines, newspapers and other materials are materials that should be presented in the library. The purpose of this study was to develop a model based on the technology library staff, service, collection and location of the student satisfaction by visiting Batam interest in the University library. The results of the study with the approach of structural equation modeling (SEM) showed that the model library technology on student satisfaction is a model that fit the criteria according to, CMIN/DF, RMSEA and CFI. Model library technology development to the satisfaction of the students with interest in discussing with SEM approach is a model that fit based on the criteria of Goodness of Fit (GoF). The library staff, library services, collections, library locations significant and positive impact on the interest to visit. Student satisfaction is strongly influenced by the location of the library, the library collection, interest to visit, library services, and the library staff. The development of library technology to pay attention to the supporting facilities supporting facilities such as computer collection, online cataloging information through internet network connected to the circulation section always updated regularly, the collection of books tailored to the shelf storage of the collection, as well as the library officer more enhanced sense care about library visitors. The library staff is well-groomed, and dexterous helps the book search of the dominant indicator library in the library staff. Library service is formed by an indicator that the librarian has knowledge, insight and hospitality in serving; ability to give hope in service well; serving with hospitality by not distinguishing the user. the dominant shaper is the Record of identity into the book of catalog; classifying types of library materials; grouping library

materials makes it easy to identify users; and the addition of a new collection of dominant indicator library materials in the Library collection. The library location is formed by the library distance indicator from the study room not too far away; provide convenience to the user; easy to find the location of the library; and pay attention to the security level of the library as long as it is in the library. Finding new ones in the science of dominant indicators in Visiting Interest. Students Satisfaction is formed by indicators of ability and attitude of librarians in serving; guidance and means of access; access to information; and the atmosphere of the library room.

1. INTRODUCTION

Library in a Higher Education has an important role in supporting all activities of the academic community at the University. The quality of library collections and services can improve the image of the university, if the library provides a positive image. Library is seen as a combination of people, places or facilities and information, as between one another interdependence. Man, is the manager and the wearer. Place or facility is a means used by humans to perform "transaction information", while information may include books, journals, magazines, newspapers and other materials are materials that should be presented in the library. So that the alignment will clear the mission carried by a library,

Evan (in Rismayeti, 2013: 3) says: There are 4 types of libraries, namely: the college library, school libraries, public libraries, and special libraries. Between the library with other libraries will be different. This depends on the type of library that is certainly of that type will have a different user communities. Therefore, the collection must be adapted to the needs of the wearer. Because people differ wearer, the service system will be different.

In line with the above statement, Basuki (in Rismayeti, 2013: 4) expressed the opinion that academic libraries are libraries that are on the college, subordinate agencies and institutions affiliated with the university, the main aim to help the college achieve its objectives. Sutarno defines as follows: University Library is a library that is located in a college or equivalent functioning reach Tri Dharma College, while the user is the entire academic community.

Service is a whole process of forming the image of the company, either through the news media, shaping corporate culture internally, and had a conversation about the company's view to government leaders and other interested public (Amusa, 2013). The library collection is one of the main factors that determine the criteria and type of library. Therefore, from the resources the library will begin policy formation. Establishment of basic library collections is the initial formulation to define, select, and hold a collection that is associated with the vision, mission and main tasks and policies of the organization. In particular coaching collections associated with each type of library and library collections which supplied library. A very important factor to the success of a library is the location (Yulia, 2013). The location can be defined as "a place, a physical position that has a strategic function because it can also determine the achievement of business entities" (Amusa, 2013). In terms of location, readers or user or users will see much nearby library, does not require too much time, effort and expense, such as: easy to reach by public transport facilities or possibly close to the highway, so the location can support the other.

One of the existence of public libraries located, close to the highway and is located in the center of the city. a physical position that has a strategic function because it can also determine the achievement of business entities (Afrizawati, 2014). In terms of location, readers or user or users will see much nearby library, does not require too much time, effort and expense, such as: easy to reach by public transport facilities or possibly close to the highway, so the location can support the other. One of the existence of public libraries located, close to the highway and is located in the center of the city. a physical position that has a strategic function because it can also determine the achievement of business entities (Apriliana, 2010). In terms of location, readers or user or users will see much nearby library, does not require too much time, effort and expense, such as: easy to reach by public transport facilities or possibly close to the highway, so the location can support the other. One of the existence of public libraries located, close to the highway and is located in the center of the city, effort and cost, such as: easy to reach by public transport facilities or possibly close to the highway, so the location can support the other (Band, 1991). One of the existence of public libraries located, close to the highway and is located in the center of the city. effort and cost, such as: easy to reach by public transport facilities or possibly close to the highway, so the location can support the other. One of the existence of public libraries located, close to the highway and is located in the center of the city (Wati, 2011).

Total readers or the user or users who visited library in 2014 amounted to 1640 visitors, 2015 amounted to 1285 visitors and 2016 was recorded in 1198, the decline is also due to the end of the diminishing number of students who entered the University of Batam. However, the existence of adequate educational facilities must be balanced with the active participation of the faculty and students in order to optimize its use. Thus, maximum results can be achieved by the students. Basically go public interest can be aroused and to rise when there is a sense of interest. The interest in question can be interpreted as interest in the place, the environment, collections, services and others - others. Sense of interest will increase to happy if the need can be met (Afrizawati, 2014; Sutarno, 2008)

Methods associated with latent variables namely Confirmatory Factor Analysis (CFA) (Brown, 2006) and Structural Equation Modeling (SEM) (Mulaik 2009; Raykov & Marcoulides, 2006; Hair et al, 2006; Bollen, 1989). Research related to the satisfaction of using SEM, among them: Eddi, et. al (2015), the taxpayer satisfaction parking business sectors affected by the quality of taxpayer services, the level of satisfaction of the taxpayer, the taxpayer attitudes. Local tax regulations do not affect the attitude of the taxpayer in the business field parking. The level of satisfaction of the taxpayer provides the greatest direct effect on the quality of taxpayer services on tax compliance in the business park. N Rusdi, et. al. (2015, 2014), the taxpayer Satisfaction hotel business sectors affected by the quality of taxpayer services, the level of satisfaction of the taxpayer, the taxpayer attitudes. Local tax regulations do not affect the attitude of the taxpayer in the field of hotel business. The level of satisfaction of the taxpayer provides the greatest direct effect on the quality of taxpayer services on tax compliance in the field of hotel business.

This study examines the indicators and variables that affect interest readers who visit the library, which is then compiled into a theoretical model which will be evidenced by the field data into the data-based model. This research is expected to provide information of interest to the relationship model readers satisfaction, so it can be developed library technology, especially IT-based services and collection, and with the needs and the cause of pleasure, then readers would come back to the library.

2. METHODOLOGY

The data in this study using primary data at the University BATAM. The population in this study are students who visit the library as many as 350 people. Sampling techniques using simple random sampling (Sedayu and Mangkoedihardjo, 2018; Razif et al., 2006; Samudro and Mangkoedihardjo, 2006; Santoso and Mangkoedihardjo, 2013), obtained a sample of 187 people (Levy & Stanley, 1999). Further analysis with the CFA and SEM methods. One of the advantages factor analysis is a degree of flexibility in a hypothetical model of the complex. The estimation method used in the maximum likelihood CFA to determine the optimal value of the factor loading. The basic principle of the CFA is beginning to confirm a number of factors (the dimensions of the problem) and then each dimension was investigated in depth using several indicators theoretically has the support of a strong theoretical and to test a theory or concept of a process or a phenomenon (Brown 2006). Assumptions that must be met in structural modeling is a normal multivariate assumption, non-singularity and no outliers, and there is no multicollinearity on exogenous latent variables (Hair et al, 2006). Modeling SEM basically consists of measurement models and structural models. The research variables consisted of six latent variables namely Library Staff (X1), Library service (X2), Library collection (X3), Library location (X4), Visiting Interest (Y1) and Student Satisfaction (Y2). Conceptual research are presented as follows.

Figure 1 Conceptual Model Library Development Student Satisfaction Through Visit Interests (Sutarno, 2008; Yulia, 2003; Republik Indonesia, 2007; Johan & Siana, 2014; Rahayuningsih, 2105) Modification

Measurement models consist of convergent validity and discriminant validity. Validity convergent views on the value of the loading factor of greater than 0.5 and the value of Critical Ratio (CR) is greater than T table or p-value < α=0.05, as well as on the latent variables meet unidimensional. While the discriminant validity views on the value of the correlation between the latent variables are small, or the value of the covariance between latent variables were not significant.

3. RESULTS AND DISCUSSION

Validity test is done using confirmatory factor analysis on each of the latent variables are Library Staff (X1), Library service (X2), Library collection (X3), Library location (X4), Visiting Interest (Y1) and Student Satisfaction (Y2). Reliability test used composite reliability with a minimum cut-off value is 0.7. Results of testing the complete model with the AMOS program can be seen in the following table:

**Table 1** Convergent Validity and Reliability Indicators On Latent Variables

variable	Indicator	Validity Convergent		reliability		composite Reliability
		Loading Factor	p-value	Error variance	p-value	
Library Satff (X1)	Library staff neat looking (X1.1)	0.759	0.000	0.233	0.000	0.791
	Library staff behave politely (X1.2)	0.627	0.000	0.355	0.000	
	Library staff treated equally to students (X1.3)	0.517	0.000	0.383	0.000	
	Library staff to master the position of library books (X1.4)	0.605	0.000	0.304	0.000	
	Petrified deft pen library staff search books owned (X1.5)	0.757	0.000	0.244	0.000	
Library Service (X2)	The librarian has the knowledge, insight and hospitality in serving (X2.1)	0.780	0.000	0.188	0.000	0.839
	Having a sense of caring and giving a sense of caring for each reader (X2.2)	0.549	0.000	0.404	0.000	
	Full preparedness and response helps users to search a collection difficult required (X2.3)	0.697	0.000	0.249	0.000	
	The ability to give hope in service well (X2.4	0.775	0.000	0.191	0.000	
	Serving the hospitality by not distinguish the reader (X2.5)	0.757	0.000	0.319	0.000	
Library Collection (X3)	Classify the types of library materials (X3.1)	0.739	0.000	0.179	0.000	0.854
	Recording of identity into a catalog of books (X3.2)	0.809	0.000	0.142	0.000	
	The addition of a new collection of library materials (X3.3)	0.704	0.000	0.199	0.000	
	Grouping of library materials makes it easy to identify reader (X3.4)	0.730	0.000	0.259	0.000	
	Reader can easily find the materials needed (X3.5)	0.685	0.000	0.251	0.000	
Library Location (X4)	Easily locate the library (X4.1)	0.710	0.000	0.180	0.000	0.840
	Distance from the library study room is not too far away (X4.2)	0.816	0.000	0.115	0.000	
	Necessary library facilities meet an reader (X4.3)	0.628	0.000	0.367	0.000	
	Noting reader security level while in the library (X4.4)	0.702	0.000	0.157	0.000	
	Provide comfort on reader (X4.5)	0.715	0.000	0.147	0.000	
Visiting Interest (Y1)	Interest in coming to the library want to see and enjoy the facilities (Y1.1)	0.643	0.000	0.310	0.000	0.803
	Interested in studying in the library (Y1.2)	0.681	0.000	0.199	0.000	
	An appetite or too pleased (Y1.3)	0.653	0.000	0.264	0.000	
	Looking decree anything new to science (Y1.4)	0.716	0.000	0.195	0.000	
	Utilize existing facilities to complete their academic assignments (Y1.5)	0.658	0.000	0.283	0.000	
Students Satisfaction (Y2)	Access to Information (Y2.1)	0.746	0.000	0.203	0.000	0.864
	The ability and attitude of librarians in serving (Y2.2)	0.882	0.000	0.090	0.000	
	Instructions and means of access (Y2.3)	0.788	0.000	0.156	0.000	
	Library room amenities (Y2.4)	0.602	0.000	0.287	0.000	
	Library room atmosphere (Y2.5)	0.705	0.000	0.238	0.000	

Table 1 shows all the individual indicators latent variable has a value above the loading factor of 0.5 with a p-value less than $\alpha = 0.05$, then it is valid and significant indicators. Furthermore, it also provides value variance error p-value less than 0.05 and the value of composite reliability above its cut-off value of 0.7 so that it can be said all reliable indicators and latent variables. Library staff are the dominant shaper library staff groomed (X1.1) (0.759), and the library staff search deft pen petrified books owned (X1.5) (0.757). Library sevice is the dominant shaper librarian has the knowledge, insight and hospitality in serving (X2.1) (0.780),

The ability to give hope in service well (X2.4) (0.775), and serving the hospitality by not distinguishing readers (X2.5) (0.757). Library collection is the dominant shaper recording of identity into a catalog of books (X3.2) (0.809), classifying the types of library materials (X3.1) (0.739), grouping of library materials makesmit easy in the identification readers (X3.4) (0.730) and The addition of a new collection of library materials (X3.3) (0.704). Library location is the dominant shaper Distance libraries of study rooms are not too far away (X4.2) (0.816), provide comfort on readers (X4.5) (0.715), Simply locate the library (X4.1) (0.710), and Noting readers security level while in the library (X4.4) (0.702). Visiting Interest dominant shaper is searching decree anything new to science (Y1.4) (0.716). Students Satisfaction is the dominant forming ability and attitude of librarians in serving (Y2.2) (0.882).

Testing statistical normal multivariate can be seen from the Pearson Correlation between dj and q. If you use a significance level of 5 percent, then the value of Pearson Correlation between dj and q is more than 0.5 (p $<\alpha = 0.05$), or around z = 0.5 said normal multivariate distribution of data. Pearson Correlation value between dj and q of 0.960 or p = 0.000 $<\alpha = 0:05$, and z = 71.123 so that it can be said that the data contributed normal multivariate. Outlier test results based on the Mahalanobis greater than Chi-square table or value p1 < 0.001 say outlier observations. In this study, there were seven (7) data outliers, because it is still under (187 x 0.05 = 10), it can be said does not happen outlier. Value Determinant of the sample covariance matrix of 0.059. Multicolinearity can be seen through the correlation between exogenous latent variables. The p-value on covariance greater than ($\alpha = 0.05$), it is said does not happen multicolinearity. The results of the study provide p-value of each latent variable exogenous namely: (Library staff (X1) with the Library Service (X2) equal to 0.175), (Library staff (X1) with the Library collection (X3) of 0.465), (Library staff (X1) with Library location (X4) of 0.768), (Library service (X2) to the Library collection (X3) of 0.153), (Library service (X2) with Library location (X4) of 0.205), and (Library collection (X3) with Library location (X4) of 0.190) this value is greater than ($\alpha = 0.05$), so it can be said that there is no problem of the relationship between exogenous latent variables, so it's worth doing SEM.

Having tested the validity and reliability on all latent variables are valid and reliable results, normal multivariate data, nonsingular and there is no outlier, then continued structural equation analysis, as follows:
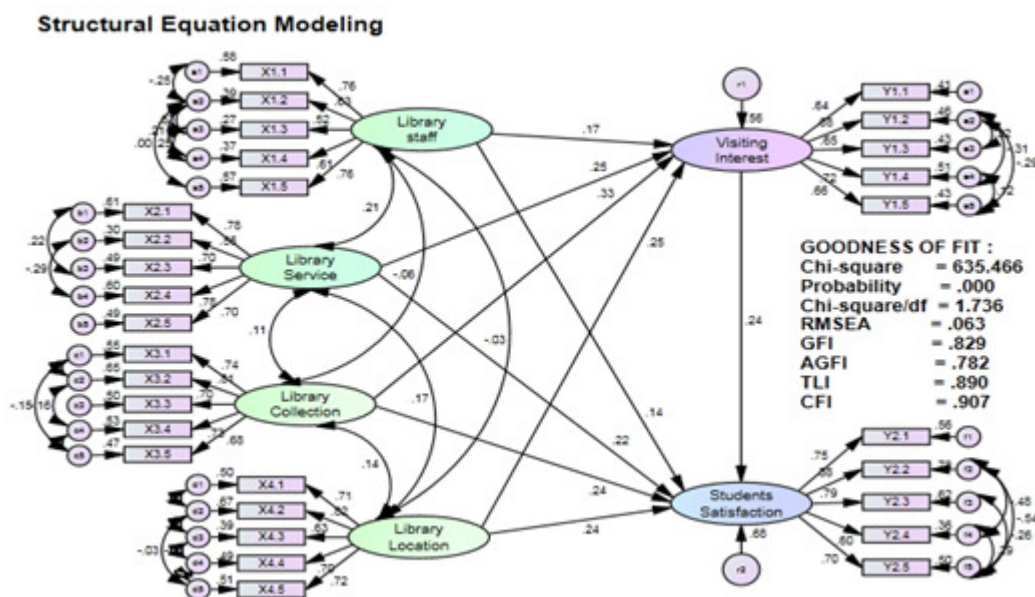
Figure 2 Structural Model Library staff, Library Services, Library Collections, Library Location On Student Satisfaction Through Visit Interests

Results of testing the structural model with AMOS complete program can be seen in the following table:

Table 2 Testing Results Library Development Model Student Satisfaction Through Visit Interests

Criteria	Value Cut - Off	The calculation results	Information
Chi - Square	expected to be small	558 327	χ^2 with df = 366 is 411.610 A Not Good
Significance probability	≥ 0.05	0.000	A Not Good
RMSEA	≤ 0.08	0.063	Good
GFI	≥ 0.90	0.829	Marginal
AGFI	≥ 0.90	0.782	Marginal
CMIN / DF	≤ 2.00	1.736	Good
TLI	≥ 0.90	0.890	Marginal
CFI	≥ 0.90	0.907	Good

Source: Data processed

Table 2 shows that the six (seven) criteria used to assess a decent / absence of a model turned out to proclaim good and pretty good. It can be said that the model can be accepted, which means there is a match between the model with data. Of the appropriate model, can be interpreted in each path coefficient. The coefficients of these pathways is hypothesized in this study, which can be presented in the following structural equation:

$$Y1 = 0.165 \, X1 + 0.249 \, X2 + 0.328 \, X3 + 0.253 \, X4$$

$$Y2 = 0.142 \, X1 + 0.219 \, X2 + 0.241 \, X3 + 0.243 \, X4 + 0.236 \, Y1$$

with,

X1: Library Staff, X4: Library Location

X2: Library Service, Y1: Visiting Interest

X3: Library Collection, Y2: Students Satisfaction

Testing the path coefficients in Figure 2 and equation above in detail is presented in the following table:

Table 3 Coefficient Test Results Model Line Technology Development Library Student Satisfaction

variables	Coefficient	Critical Region (CR)	Prob.	Information
Library Staff (X1)→ Visiting Interest (Y1)	0.165	2.082	0.037	Significant
Library Service (X2)→ Visiting Interest (Y1)	0.249	2.044	0.041	Significant
Library Collection (X3)→ Visiting Interest (Y1)	0.328	2.661	0.008	Significant
Library Location (X4)→ Visiting Interest (Y1)	0.253	2.287	0.022	Significant
Library Staff (X1)→ Students Satisfaction (Y2)	0.142	2.208	0.027	Significant
Library Service (X2)→ Students Satisfaction (Y2)	0.219	2.267	0.023	Significant
Library Collection (X3)→ Students Satisfaction (Y2)	0.241	2.413	0.016	Significant
Library Location (X4)→ Students Satisfaction (Y2)	0.243	2.684	0.007	Significant
Visiting Interest (Y1)→ Students Satisfaction (Y2)	0.236	2.472	0.013	Significant

Note: (→ : take effect)

Source: Data processed

Based on Table 3, it can be interpreted each hypothesis of the study, as follows:

- Library Staff (X1) significant and positive impact on the visiting interest (Y1). It is seen from the path marked positive coefficient of 0.165 with CR values of 2.082 and gained significance probability (p) of 0.037 which is smaller than the significance level (α= 0.05). Thus the library staff (X1) direct effect on visiting interest (Y1) of 0.165, which means that every increase in the Library Staff (X1) will raise visiting interest (Y1) of 0.165.

- Library Service (X2) significant and positive impact on the visiting interest (Y1). It is seen from the path marked positive coefficient of 0249 with a value of CR for .2044 and gained significance probability (p) of 0.041 which is smaller than the significance level (α= 0,05). Thus library service (X2) have an effect directly on the visiting interest (Y1) of 0.249, which means that every increase in the library service (X2) will raise visiting interest (Y1) of 0.249.

- Library collection (X3) significantly and positively to the visiting interest (Y1). It is seen from the path marked positive coefficient of 0.328 with a value of CR for 2.661 and gained significance probability (p) of 0008 is smaller than the significance level (α= 0,05). Thus the Library collection (X3) directly on the visiting interest (Y1) of 0.328, which means that every increase in the Library collection (X3) will raise visiting interest (Y1) of 0.328.

- Library location (X4) significant and positive impact on the visiting interest (Y1). It is seen from the path marked positive coefficient of 0.253 with a value of CR for 2.287 and gained significance probability (p) of 0.022 which is smaller than the significance level (α= 0,05). Thus library location (X4) have an effect directly on the visiting interest (Y1) of 0.253, which means that every increase in the library location (X4) will raise visiting interest (Y1) of 0.253.

- Library staff (X1) significant and positive impact on students satisfaction (Y2). It is seen from the path marked positive coefficient of 0.142 with a value of CR for 2.208 and gained significance probability (p) of 0.027 which is smaller than the significance level (α= 0,05). Thus the library staff (X1) direct effect on students satisfaction (Y2) of 0.142, which means that every increase in the library staff (X1) will raise students satisfaction (Y2) of 0.142.

- Library service (X2) significant and positive impact on students satisfaction (Y2). It is seen from the path marked positive coefficient of 0.219 with a value of CR for 2.267 and gained significance probability (p) of 0.023 which is smaller than the significance level (α= 0,05). Thus library service (X2) have an effect directly on the Students Satisfaction (Y2) of 0.219, which means that every increase in the library service (X2) will raise students satisfaction (Y2) of 0.219.

- Library collection (X3) significant and positive impact on students satisfaction (Y2). It is seen from the path marked positive coefficient of 0.241 with a value of CR for 2.413 and gained significance probability (p) of 0.016 which is smaller than the significance level (α= 0,05). Thus the library collection (X3) directly on students satisfaction (Y2) of 0.241, which means that every increase in the library collection (X3) will raise students satisfaction (Y2) of 0.241.

- Library location (X4) significant and positive impact on students satisfaction (Y2). It is seen from the path marked positive coefficient of 0.243 with a value of CR for 2.684 and gained significance probability (p) of 0.007 which is smaller than the significance level (α= 0,05). Thus library location (X4) have an effect directly on the students satisfaction (Y2) of 0.243, which means that every increase in the library location (X4) will raise students satisfaction (Y2) of 0.243.

- Visiting interest (Y1) significant and positive impact on students satisfaction (Y2). It is seen from the path marked positive coefficient of 0.236 with CR values of 2.472 and gained significance probability (p) of 0.013 which is smaller than the significance level (α= 0,05). Thus Visiting interest (Y1) direct effect on students satisfaction (Y2) of 0.236, which means that every increase in visiting interest (Y1) will raise students satisfaction (Y2) of 0.236.

4. CONCLUSION

The conclusion from the data analysis and discussion are:

- Indicators for the library staff, library services, collections, library location, interests traveling, and student satisfaction is valid and reliable.

- The library staff neat and workman like help finding books owned by the library dominant indicator in the library staff. Library sevice is formed by an indicator that the librarian has the knowledge, insight and hospitality in serving; the ability to give hope in service well; serve with friendliness by not distinguishing reader. Recording of identity dominant shaper into a catalog of books; classify the types of library materials; grouping of library materials to facilitate the identification reader; and the addition of a new collection of library materials dominant indicator in the Library collection. Library location is formed by a distance indicator of the library study room is not too far away; provide comfort to the reader; easily find the location of the library; and pay attention to the security level reader while in the library. Looking decree anything new to science in a dominant indicator Visiting Interest. Students satisfaction formed by the indicator of the ability and attitude of librarians in serving; guide and means of access; access to information; and the atmosphere of the library.

- Model library technology development to the satisfaction of the students with interest in discussing with SEM approach is a model that fit based on the criteria of Goodness of Fit (GoF). The library staff, library services, collections, library locations significant and positive impact on the interest to visit. Student satisfaction is strongly influenced by the location of the library, library collections, interest in traveling, library services, and the library staff.

- The development of library technology consider indicators support facility search service collection in the form of computer, information search catalog online via internet network connected on the circulation always be updated on a regular basis, collection of books adapted to that of the storage rack collection, as well as the librarian be improved flavor care for library visitors.

REFERENCES

[1] Afrizawati, (2014). Pengaruh Kualitas Layanan Perpustakaan Terhadap Minat Baca dan Intensitas Kunjungan Mahasiswa Pada Perpustakaan Jurusan Administrasi Bisnis, Jan 2014, Vol. 4 NO. 1

[2] Amusa, O.I., (2013). Influence of Library Environments, Instructional Programs, and User Librarian Collaborations on Library Use by Undergraduate Students in Nigeria, Chinese *Librarianship: An International Electronic Journal, 35.*

[3] Apriliana, N. T., (2010). Pengaruh Sikap Petugas Perpustakaan Terhadap Minat Berkunjung Pemustaka Di Kantor Perpustakaan dan Arsip. Undergraduate thesis, Semarang.

[4] Band, W.A. (1991). *Creating Value for Customers, Designing and Implementing a Total Corporate Strategy*. John Wiley and Sons Inc. New York.

[5] Bollen, K.A., (1989), *Structural Equations with Latent Variables*, John Wiley and Son, USA

[6] Brown, T. A., (2006). *Confirmatory Factory Analysis for Applied Research*. The Guilford Press, New York.

[7] Eddy Poernomo, Rusdi N. Hidayat, Bambang Widjanarko Otok, (2015). Moderating regional tax regulation on service quality to Taxpayers compliance using Partial Least Square. *International Journal of Academic Research*. July, 2015.

[8] Hair, J.F. JR., Anderson, R.E, Tatham, R.L. & Black, W.C. (2006). *Multivariate Data Analysis*. Six Edition. New Jersey: Pearson Educational, Inc.

[9]   Johan, W., Siana H., (2014). Faktor – faktor yang Mempengaruhi Minat Berkunjung Mahasiswa ke Perpustakaan Universitas Kristen Petra. *Jurnal Titra*, Vol. 2, No. 1, Januari 2014, pp. 35–40.

[10]   Kotler, Philip and Armstrong. (2008). *Prinsip-Prinsip Pemasaran.* Edisi 12. Jilid 1. Jakarta: Erlangga.

[11]   Kotler, Phillip, and Kevin, L. Keller. (2009). *Marketing Management*. 12 Edition. New Jersey: Pearson Education, Inc

[12]   Mangkoedihardjo, S. (2007). Leaf area for phytopumping of wastewater. Applied Ecology and Environmental Research, 5(1), 37-42.

[13]   N. Rusdi Hidayat, Eddy Poernomo, Minto Waluyo, Bambang Widjanarko Otok. (2018). The Model of Risk of Travel Ticket Purchasing Decisions on Marketing Communication Mix in Online Site Using Structural Equation Modeling. *International Journal of Civil Engineering and Technology (IJCIET)*, Volume 9, Issue 5, May 2018, pp. 847–856, Article ID: IJCIET_09_05_092.

[14]   N. Rusdi Hidayat, Suhadak, Darminto, Siti Ragil Handayani, Bambang Widjanarko Otok. (2014). Measurement Model of Service Quality, Regional Tax Regulations, Taxpayer Satisfaction Level, Behavior and Compliance Using Confirmatory Factor Analysis. *World Applied Sciences Journal* 29 (1): 56-61, ISSN 1818-4952. © IDOSI Publications. DOI: 10.5829/idosi.wasj.2014.29.01. 13833

[15]   N. Rusdi Hidayat, Suhadak, Darminto, Siti Ragil Handayani, Bambang Widjanarko Otok. (2014). Service quality and regional tax regulations Influence taxpayer compliance intervening taxpayer Satisfaction and behavior using structural Equation modeling approach. *International Journal of Academic Research* Part B; 2014; 6(4), 198-203. DOI: 10.7813/2075-4124.2014/6-4/B.31.

[16]   N. Rusdi Hidayat, Bambang Widjanarko Otok, Eddy Poernomo, Nur Asikin Amin. (2015). Taxpayer compliance modelling of business sectors hotel in mataram using partia least square. *International Journal of Academic Research* -Part A, May 2015.

[17]   Levy, P.S. and Stanley, L. (1999). *Sampling of Populations: Methods and Applications.* Third Edition. John Wiley and Sons. Inc. New York.

[18]   Mulaik, S.A, (2009). *Linear Causal Modeling with Structural Equation*, Chapman and Hall, USA

[19]   Oliver, R.L., (1999), "Whence Consumer Loyalty", *Journal of Marketing*., Volume 63 Special Issue, pp. 33-44.

[20]   Rahayuningsih F.,(2015). Mengukur Kepuasan Pemustaka: Menggunakan Metode LibQUAL+^{TM}. Yogyakarta: Graha Ilmu.

[21]   Raykov, T. and Marcoulides, G.R., (2006), *A First Course in Structural Equation Modeling*, Lawrence Erlbaum Associates, USA.

[22]   Republik Indonesia. (2007). *Undang–Undang Republik Indonesia Nomor 43 Tentang Perpustakaan.*

[23]   Samudro, G. and Mangkoedihardjo, S. (2006). Water equivalent method for city phytostructure of Indonesia. International Journal of Environmental Science and Technology, 3(3): 261-267.

[24]   Santoso, IB and Mangkoedihardjo, S. (2013). Mapping Cumulative Carbon Dioxide Concentrations at Two meters Above the Ground for Greenspace Assessment in Surabaya. Middle East Journal of Scientific Research, 18(3): 288-292.

[25]   Sedayu, A. and S. Mangkoedihardjo. (2018). Performance Evaluation of Housing Contractor by Applying the Principles of Environmentally Friendly Infrastructure, International Journal of Civil Engineering and Technology, 9(4), 1014–1022.

[26]   Sutarno, N., (2008). *Manajemen Perpustakaan: Suatu Pendekatan Praktik*, Jakarta, Sagung Seto.

[27]   Wati, R. A., (2011). Pengaruh Persepsi Pengadaan Dan Pemeliharaan Koleksi Bahan Pustaka Terhadap Minat Baca Mahasiswa Di UPT Perpustakaan Universitas Sebelas Maret Surakarta Tahun 2010.

[28]   Ketut Santra, Using Structural Equation Modeling To Assess The Budget Hotel Performance In Bali Indonesia, International Journal of Mechanical Engineering and Technology, 8(7), 2017, pp. 933–951, 8(7).

[29]   Asep Qutolani, Suharnomo, Lala Irviana, Imam Ghozali, The Modelling of Participative Procedural Justice To Improve Employee Job Satisfaction Using Structural Equation Modeling, (Empirical Study on Textile Industry and Products in West Java), International Journal of Civil Engineering and Technology, 9(2), 2018, pp. 883–897.

[30]   Dr. M. Shiek Mohamed and S. Aisha Rani, Modeling Customer Satisfaction using Structural Equation Modeling Based on Service Quality Measurement in Airline Industry. International Journal of Management, 7(6), 2016, pp. 06–14.

[31]   Xianyin Lee, Boxu Yang, Ting Yu and Zhonghua Liu. How Doctoral Students and Graduates Share Knowledge in Academic Virtual Communities: A Structural Equation Modeling Analysis. International Journal of Management, 6(12), 2015, pp. 22-37.

[32]   Yulia, N., (2013). Analisis Pengaruh Kualitas Pelayanan Perpustakaan Terhadap Kepuasan dan Hubungannya dengan Loyalitas Mahasiswa. *Jurnal Ilmiah Manajemen Kesatuan* Vol. 1 No. 1, 2013 pp. 93-112 STIE Kesatuan ISSN 2337 – 7860.