

FACTORS AFFECTING STUDENTS' SATISFACTION WITH LIBRARY SERVICE QUALITY AT HO CHI MINH CITY UNIVERSITY OF NATURAL RESOURCES AND ENVIRONMENT

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<http://doi.org/10.35409/IJBMER.2022.3442>

ABSTRACT

The main objective of the research problem is to determine the factors affecting student satisfaction with the quality of library services at the Ho Chi Minh City University of Natural Resources and Environment. In order to achieve the research objectives, set out, the authors conducted a survey of 286 full-time students studying at the Ho Chi Minh City University of Natural Resources and Environment of faculties such as Natural Resources Economics; Environment; Land Management; Geodesy, Maps & Gis; Hydrometeorology & Sea Islands; Water Resources; Geology & Minerals; Information system & remote sensing through prepared questionnaires. The results of testing the hypotheses of the research model have shown that there are 06 factors that have a linear relationship with student satisfaction with the quality of library services at the Ho Chi Minh City University of Natural Resources and Environment is arranged in descending order including Tangible Vehicles; Ability to meet; Reliability; Empathy; Service Capacity and Digital Library. On the basis of the research results, the author proposes some managerial implications to continuously improve the level of student satisfaction with the quality of library services at the of Ho Chi Minh City University of Natural Resources and Environment.

Keyword: HCMCUNRE, satisfaction, students, library, factor analysis.

1. INTRODUCTION

Currently we are living in a highly developed information technology era, access to information is very necessary to help us develop comprehensively intellectually, especially for students who must know approach to information so that it becomes really useful. Therefore, based on the outstanding development of information technology, many schools have built an electronic library in addition to the traditional library to best serve students. With the trend of globalization and information explosion in the current period, the search for information for research and study purposes of students has been provided a lot on the Internet along with information resources. at the library. This is the easiest condition to search for a huge data warehouse of information in the world and in Vietnam, which is a very favorable condition for education at universities today. Students can also easily search for the knowledge they need through wifi devices, smart mobiles, laptops, and tablets to self-study under the guidance of lecturers and complete their goals. his education. Moreover, this is also a factor in achieving the educational goals set by the Party and State, in order to build a higher education "training and self-training. Besides, in addition to that vast knowledge source, students can access documents in foreign languages to have deep and multi-dimensional perspectives on accessibility issues. This forms in students the skills of searching and

selecting information, building critical thinking skills. Rich, multi-dimensional resources will effectively serve the learning of today's students. However, information is everywhere, and more and more unfiltered information is emerging, raising questions about their authority, authenticity, and reliability. The uncertainty about the quality and the pervasiveness of the quantity of information pose great challenges for both libraries and users, particularly students. In order to meet the learning method that the University of Natural Resources and Environment of Ho Chi Minh City has innovated, students need to be able to find and effectively use the information they find, which is part of the curriculum. services that the school library provides to students.

Libraries are the driving force that contributes to educational innovation, human resource training, teaching and learning methods innovation, creating an environment for self-study and self-research, and stimulating students' initiative. The Library of the University of Natural Resources and Environment of Ho Chi Minh City is a library that combines tradition and modernity, a fairly large treasure of knowledge to help students find information related to work. as well as learning. Moreover, the library of the University of Natural Resources and Environment of Ho Chi Minh City is also an effective support place for students in active learning and plays a very important role in contributing to improving the quality of life. quality of school education. Therefore, one of the urgent requirements for the library today is the problem of developing and improving the quality of library services in order to meet and satisfy the best needs of students. For that reason, determining which factors affect students' satisfaction with the quality of library services is an urgent task of the school's management board. Recognizing the importance of improving the quality of library services to best serve the learning needs of students, the authors chose the topic: "Factors affecting student satisfaction member on library service quality at Ho Chi Minh City University of Natural Resources and Environment" as a research direction.

2.THEORETICAL BASIS AND RESEARCH MODEL

Tangible Media

The physical facilities of the library include elements such as the library's facilities, equipment, databases, staff, etc.

Hypothesis H1: Tangibles have a positive (+) positive effect on student satisfaction with the quality of library services at Ho Chi Minh City University of Natural Resources and Environment.

Reliability

Reliability refers to factors such as the library always doing what it is committed to (opening and closing hours, card renewal, etc.), not letting any errors occur in the process of providing services. the library is an orderly and comfortable place to study and research, the library performs the service right from the first time (immediately updating the return of books, paying late fees for borrowing books).

Hypothesis H2: Reliability has a positive (+) effect on student satisfaction with library service quality at Ho Chi Minh City University of Natural Resources and Environment.

Ability to meet

Responsiveness of the library emphasizes its willingness to help students and provide prompt service, including a sufficient number of materials on loan to meet student needs, knowledgeable librarians and staff. knowledge to adequately answer students' questions, library staff are always

present when students need it, the library fully meets reference materials for students.

Hypothesis H3: Responsiveness has a positive (+) positive effect on student satisfaction with library service quality at Ho Chi Minh City University of Natural Resources and Environment.

Empathy

Empathy emphasizes the provision and concern for students of the staff such as students feel comfortable talking to the library staff, the library's operating hours, the library staff always understand the needs of the students. students' requests and listening.

Hypothesis H4: Empathy has a positive (+) effect on student satisfaction with library service quality at Ho Chi Minh City University of Natural Resources and Environment.

Service capabilities

The library's service competence emphasizes the knowledge and politeness of its staff along with their ability to inspire, trust and confidence in students.

Hypothesis H5: Service capacity has a positive (+) effect on student satisfaction with library service quality at Ho Chi Minh City University of Natural Resources and Environment.

Digital library

Digital libraries refer to digital document collections or full-text databases that assist students in learning and research.

Hypothesis H6: Digital libraries have a positive (+) effect on student satisfaction with library service quality at Ho Chi Minh City University of Natural Resources and Environment.

Student satisfaction

The level of student satisfaction about the quality of library services is measured in a model that includes factors such as tangible facilities, students' trust in library services, the ability to meet the needs of the library staff. students, student empathy, library service capacity and library database.

Based on the theoretical background and previous research results, the author proposes a research model as follows:

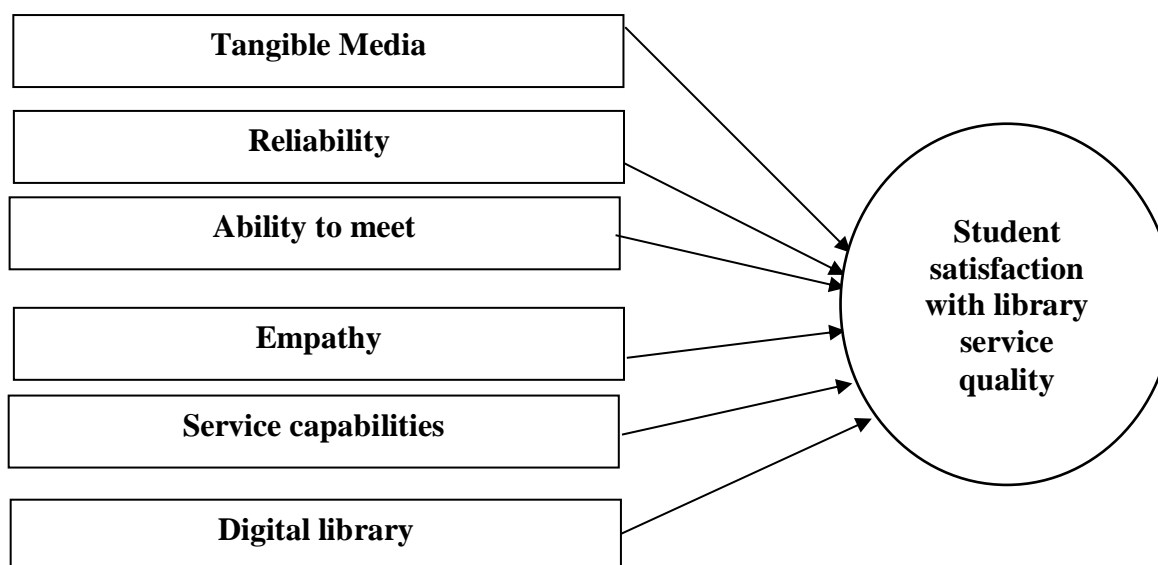


Figure 1. Research model of factors affecting the student satisfaction with library service quality at Ho Chi Minh City University of Natural Resources and Environment.

Source: Author compiled, 2022

3. RESEARCH METHODS

The research method is carried out in this topic through two main steps, which are qualitative research and quantitative research.

Qualitative research was conducted to build hypotheses, build models, survey questionnaires to collect primary data sources. Primary data sources were collected directly from expert group discussions through prepared questionnaires. The scales and observed variables are built by Likert scale (05 levels). Qualitative research was carried out by group discussion method through consultation with 40 experts who have deep knowledge, experience and have worked in the field of libraries for many years. From the preliminary research results combined with the theoretical basis, the author proceeds to build a scale to include in the research model and set up a questionnaire. The expert opinion survey is designed by the author and the interviewees are managers, staff working at the school's library and students who regularly visit the library to look up information. The purpose of the qualitative research is to evaluate the model applied by the author along with the adjustment and addition of the scale.

Quantitative research was conducted by directly & indirectly interviewing 300 full-time students from the first to the last year of faculties such as Economics of Natural Resources and Environment; Environment; Land Management; Geodesy, Maps & Gis; Hydrometeorology & Sea Islands; Water Resources; Geology & Minerals; Information systems & remote sensing are studying at the University of Natural Resources and Environment of Ho Chi Minh City through a prepared questionnaire based on a 5-level Likert scale. All collected data is cleaned, encrypted and processed with the support of SPSS 20.0 software. In this study, to realize the research objectives,

the author uses methods such as descriptive statistics, frequency, scale test, exploratory factor analysis (EFA), analysis Multiple linear regression and hypothesis testing of the model. On the basis of the research results, the author will propose some managerial implications in order to continuously improve the level of student satisfaction with the quality of library services at the City University of Natural Resources and Environment. Ho Chi Minh in the near future.

4.RESEARCH RESULTS

General description of the survey sample

In order to assess the factors affecting student satisfaction with the quality of library services at the University of Natural Resources and Environment of Ho Chi Minh City, the author conducted a survey of 300 customers belonging to the same category. survey object of the topic. Data processing results obtained 286 valid questionnaires and 14 incorrect answers due to the lack of some basic information, some survey samples due to incorrect information providers. Data collected from 286 valid votes will be used for the analysis of this study.

Gender:

The survey results on gender show that the survey sample in this study is divided by the ratio of Male and Female. In which, there are 142 male students, accounting for 49.7% and 144 female students, accounting for 50.3% of the total 286 respondents.

The number of studying years of students

The survey results according to the number of studying years of students in Table 4.2 show that the number of years of study of students surveyed in the collected sample is divided into 4 groups. The group of first-year students has 3 students, accounting for 1.0%. The second year student group has 153 students, accounting for 53.5%. The third year student group has 101 students, accounting for 35.3% and the final year student group has 29 students, accounting for 10.1% of the total 286 subjects surveyed.

The results of the sample survey by Faculties

The results of the sample survey by Faculties show that the survey sample in this study is divided into 8 faculties, namely Economics of natural resources and environment with 79 students, accounting for 27.6%; Environment has 56 students, accounting for 19.6%; Land Management there are 50 students, accounting for 17.5%; Geodesy, cartography & Gis has 33 students, accounting for 11.5%; Hydrometeorology & sea island has 16 students, accounting for 5.6%; Water resources has 20 students, accounting for 7%; Geology & Minerals has 15 students, accounting for 5.2%; Information system & remote sensing has 17 students, accounting for 5.9% of the total 286 subjects surveyed. In general, the results of this survey are completely consistent with the actual situation, satisfying the requirements for the research. In general, the results of this survey are consistent with the actual situation.

Table 1. Cronbach’s Alpha reliability coefficient

Observed variables	Number of Observed variables	Cronbach's Alpha coefficient	Cronbach's Alpha coefficient component variable - lowest total variable	Cronbach's Alpha coefficient if variable is eliminated
Tangible Media	5	0,880	0,654	0,845 – 0,855
Reliability	5	0,828	0,588	0,781 – 0,804
Ability to meet	4	0,751	0,498	0,676 – 0,719
Empathy	4	0,877	0,702	0,834 – 0,856
Service capabilities	4	0,751	0,516	0,677 – 0,710
Digital library	4	0,851	0,681	0,808– 0,815

Source: Results of survey data processing, 2022

Exploratory Factor Analysis (EFA)

The results of factor analysis exploring independent variables in Table 4.5 show that:

- KMO coefficient value is $0.791 > 0.5$; Bartlett's test with Sig significance level. = $0.000 < 0.05$. This shows that the factor analysis ensures reliability and statistical significance.
- The extracted variance reached values above 50% and equal to 64.725%, showing that the factors introduced from the exploratory factor analysis in the independent variables explained 64.725% of the variation of the original survey data. .
- The Eigenvalues coefficient shows the convergence of the analysis, and this value for the last factor is $2.127 > 1$ indicating a high convergence of the factors given from the exploratory factor analysis in independent variables.

Table 2. Results of factor analysis to discover independent variables

Observed variable	Rotated Component Matrix ^a					
	Component					
	1	2	3	4	5	6
PTHH3	0,843					
PTHH2	0,831					
PTHH5	0,829					
PTHH1	0,822					
PTHH4	0,775					

STC2		0,799				
STC3		0,781				
STC4		0,776				
STC5		0,750				
STC1		0,739				
SDC3			0,866			
SDC2			0,866			
SDC1			0,847			
SDC4			0,827			
TVS4				0,840		
TVS2				0,828		
TVS1				0,823		
TVS3				0,817		
DU2					0,779	
DU4					0,776	
DU1					0,754	
DU3					0,709	
NLPV2						0,770
NLPV4						0,767
NLPV3						0,754
NLPV1						0,724
Eigenvalues						2,067
Extracted variance						62,349
Bartlett test significance level						0,000
KMO coefficient						0,750

Source: Survey data processing results, 2022

The results of the groups are divided into 6 specific groups as follows:

Group 1 includes 5 observed variables belonging to the group of factors of tangible means,

including PTHH3, PTHH2, PTHH5, PTHH1, PTHH4.

Group 2 includes 5 observed variables belonging to the Reliability factor group, including STC2, STC3 STC4, STC5, STC1.

Group 3 includes 4 observed variables belonging to the Empathy factor group, including SDC3, SDC2, SDC1, SDC4.

Group 4 includes 4 observed variables belonging to the Digital Library factor group including TVS4, TVS2, TVS1, TVS3.

Group 5 includes 4 observed variables belonging to the group of factors Responsiveness including KNDU2, KNDU4, KNDU1, KNDU3.

Group 6 includes 4 observed variables belonging to the group of factors of service capacity including NLPV2, NLPV4, NLPV3, NLPV1.

The multiple linear regression analysis

Pearson correlation analysis results show that, there are 06 independent variables, namely Tangible means; Reliability, Responsiveness; Empathy; Service capacity and Digital Library have the value $\text{sig}=0.00 < 0.05$, so the author can conclude that these 06 independent variables have a linear relationship with the dependent variable. One of the necessary conditions for regression analysis is that the independent variable must be correlated with the dependent variable, so if at this step of correlation analysis, the independent variable is not correlated with the dependent variable, then we remove the independent variable. this out of the regression analysis. Therefore, in this study, the author will continue to include all 06 independent variables in the multiple linear regression analysis.

Table 3. Results of Pearson correlation analysis

Correlations		SHL	PTHH	STC	DU	SDC	NLPV	TVS
SHL	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	286						
PTHH	Pearson Correlation	.496**	1					
	Sig. (2-tailed)	.000						
	N	286	286					
STC	Pearson Correlation	.266**	-.038	1				
	Sig. (2-tailed)	.000	.522					
	N	286	286	286				
DU	Pearson Correlation	.319**	.026	.024	1			
	Sig. (2-tailed)	.000	.661	.690				
	N	286	286	286	286			

SDC	Pearson Correlation	.303**	-.002	-.040	.045	1		
	Sig. (2-tailed)	.000	.970	.499	.451			
	N	286	286	286	286	286		
NLPV	Pearson Correlation	.260**	-.057	.065	.008	.004	1	
	Sig. (2-tailed)	.000	.339	.272	.892	.949		
	N	286	286	286	286	286	286	
TVS	Pearson Correlation	.267**	.003	.051	.034	-.142*	.091	1
	Sig. (2-tailed)	.000	.955	.387	.570	.017	.124	
	N	286	286	286	286	286	286	286

Source: Survey data processing results, 2022

Verifying the suitability of the model

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,806 ^a	0,650	0,642	0,32327	2,141

Source: Results of survey data processing, 2022

Table 5. ANOVA^a analytical results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54,141	6	9,024	86,345	0,000 ^b
	Residual	29,157	279	0,105		
	Total	83,298	285			

Source: Results of survey data processing, 2022

The coefficient of determination R² (Adjusted R Square) = 0.642, which means 64.2% of the change in student satisfaction for the quality of library services at the University of Natural Resources and Environment of Ho Chi Minh City. The explanation is explained by the independent variables included in the regression model in this study, the remaining percentage is due to other factors that have not been included in the research model and random error.

The Durbin-Watson coefficient of the model is 2.141 around the value 2, which shows that there is no correlation between the independent variables in the regression model.

In the ANOVA analysis the Sig. = 0.000 < 0.05, so the results of ANOVA analysis ensure the statistical significance from which the results of the regression analysis ensure the reliability.

Table 6. Summary of regression coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics Tolerance	VIF
	B	Std. Error	Beta				
(Constant)	-.727	0,223		-3.265	0,001		
PTHH	0,313	0,022	0,513	14.433	0,000	0,995	1,005
STC	0,201	0,027	0,263	7.400	0,000	0,991	1,009
DU	0,206	0,027	0,274	7.703	0,000	0,995	1,005
SDC	0,200	0,021	0,340	9.482	0,000	0,976	1,025
NLPV	0,185	0,027	0,244	6.827	0,000	0,985	1,016
TVS	0,159	0,021	0,269	7.463	0,000	0,968	1,033

Source: Survey data processing results, 2022

The results of multiple regression analysis in Table 6 show that 06 variables (PTHH, STC, DU, SDC, NLPV, TVS) have Sig. = 0.00 < 0.05, so these 06 variables are statistically significant and these 06 variables all have a positive influence on Student satisfaction with the quality of library services at the University of Natural Resources and Environment. Ho Chi Minh City School.

The VIF magnification coefficients of the variables in the model are all less than 2. Therefore, there is no multicollinearity in the model.

The results of testing the hypotheses of the research model have shown that there are 06 independent variables including Tangible means; Reliability, Responsiveness; Empathy; Service capacity and digital library have a linear relationship with the dependent variable (Students' satisfaction with library service quality at the University of Natural Resources and Environment of Ho Chi Minh City) . Thus, the multiple linear regression function is written according to the unnormalized Beta coefficient as follows:

$$SHL = -0.727 + 0.313*LS + 0.201*STC + 0.206*DU + 0.200*SDC + 0.185*NLPV + 0.159*TVS$$

5.CONCLUSIONS AND RECOMMENDATIONS

Conclusion

By theoretical research, the author has built the factors affecting the student's satisfaction with the quality of library services at the University of Natural Resources and Environment of Ho Chi Minh City, including tangible media; Reliability, Responsiveness; Empathy; Service Capacity and Digital Library. The study was conducted by surveying 286 full-time students studying at the University of Natural Resources and Environment of Ho Chi Minh City of faculties such as Economics of Natural Resources and Environment; Environment; Land Management; Geodesy, Maps & Gis; Hydrometeorology & Sea Islands; Water Resources; Geology & Minerals; Information & remote sensing system as of March 30, 2022 through a prepared questionnaire. On the basis of reference and inheritance of research results at home and abroad that have been done before, the author proposed 06 factors with 26 observed variables that are considered to have an influence on student satisfaction. for library service quality at Ho Chi Minh City University of Natural Resources and Environment. Through testing the reliability of the scale by Cronbach's Alpha coefficient, all 06 variables are satisfactory and statistically significant. The Student Satisfaction Scale is also confirmed, achieving a clear discriminative value. The results of exploratory factor analysis (EFA) from 26 observed variables were extracted into 06 groups of independent variables and 1 dependent variable for further analysis.

The results of testing the hypotheses of the research model have shown that all 06 factors have a linear relationship with student satisfaction with the quality of library services at the University of Finance. Ho Chi Minh City Resources and Environment are sorted in descending order including Tangible Vehicles with the highest unnormalized Beta value ($\beta = 0.313$). Next is Responsiveness which is the factor with the second highest unnormalized Beta value ($\beta = 0.206$). Reliability is the factor with the third highest unnormalized Beta value ($\beta = 0.201$). Empathy is the factor with the fourth highest unnormalized Beta value ($\beta = 0,200$). Service capacity is the factor with the fifth highest unnormalized Beta value ($\beta = 0.185$) and Digital Library is the factor with the lowest unnormalized Beta value ($\beta = 0.159$). On the basis of the research results, the author proposes a number of managerial implications in order to continuously improve the level of student satisfaction with the quality of library services at the University of Natural Resources and Environment of Ho Chi Minh City. Bright.

The results of the T-Test and the ANOVA test show that with 95% confidence there is no difference in student satisfaction with the quality of library services at the University of Natural Resources and Environment. Ho Chi Minh City among male and female student groups, and between student and faculty years of study.

Management implications

Based on the results of the study on student satisfaction with the quality of library services at the Ho Chi Minh City University of Natural Resources and Environment, the author proposes some managerial implications related to the quality of library services. : Tangible Media; Ability to meet; Reliability; Empathy; Service Capacity and Digital Library. The activities of the library need to constantly improve and improve service quality, meet and satisfy the needs of readers in the best way to bring the highest satisfaction of readers.

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