

Research Article

THE DETERMINANTS OF STUDENTS' SATISFACTION ON LIBRARIAN SERVICE QUALITY: THE CASE OF UNIVERSITY OF INTERNAL AFFAIRS, MONGOLIA

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ABSTRACT

The aim of this study seeks to examine the correlations between librarian skills, environment of library and equipment and material base on students' satisfaction at University of Internal Affairs, Mongolia /UIAM/. Today, the assurance of a university successfully achieving its mission and strategic plans cannot be assessed without the implementation of a quality control system. Satisfaction would be the only method for judging a library service quality, this measure can greatly impacts who are study in university. We try and understand the factors which influence student satisfaction in higher education, as well as the consequences of it. We analyzed in this study that the impact of librarian skills, environment of library and equipment and material base to help improve the quality of the librarian service being implemented. We used qualitative and quantitative method research design was conducted for the study. The data were collected from 433 participants who are study at UIAM. Our study is significant in considering both theoretical and practical issues and for practices in Mongolian higher education sector. Overall, the results showed that students were mostly satisfied with the services provided by the library. This study discussed the effects of above mentioned results, the implications for theory and practice along with the limitations of the research and the implications for further research. Results from this study will analyze other variables and impacts in our next study.

Keywords: librarian skills, environment of library, equipment and material base, students' satisfaction, University of Internal Affairs, Mongolia /UIAM

INTRODUCTION

There are lots of studies examined that the dissatisfaction of students, on the contrary, could have ominous consequences for both the university and the student, namely unsuccessful students. Locke (1976), one of the most well-known researchers in job satisfaction, defines the concept as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences. Libraries help to share information and knowledge. Students as library users expect Library services to be good enough to satisfy their needs (Troll, 2002). A lot of changes have happened since the 20th century; libraries have contributed to the transfer from warehouses for books and journals to the powerhouses of information and knowledge. The rapid changes in information technologies have affected the ways that libraries use to deliver their services (Perng *et al.*, 2009). Users play an important role in evaluation of service quality (Parasuraman *et al.*, 1985). In such an environment libraries should try to improve continuously their service quality (Somaratna and Peiris, 2011). Assuming students as customers, their educational experience can be used as a predictor of satisfaction (Nadiri and Mayboudi, 2010). Customer satisfaction is the important aim of any organization and it depends on the quality of the services (Adeniran, 2011). Satisfaction of students as users will bring competitive advantage for the university (Didomenico and Bonnici, 1996). Libraries should measure users' perceptions and expectations to predict quality of service (Pedramnia *et al.*, 2012). Shoeb (2011) mentioned that library managers should know what users expect in terms of service quality. Assessing the user's satisfaction is essential for the development of

the academic library as it helps to keep and retain existing users and attracting new ones (Moreira *et al.*, 2009). For some researchers (Halstead *et al.*, 1994; Hartman & Schmidt, 1995; Rautopuro and Vaisanen, 2000) students have weak expectations, especially in regards to intellectual environment as this has little influence on satisfaction, therefore the variable – performance is the most influential factor in satisfaction. Contrarily, for other researchers (Shank *et al.*, 1995; Eskildsen *et al.*, 1999; Patterson, 2000) the exact opposite occurs. Still, on the other hand, Walker (1995) suggests that the impossibility of evaluating the main service causes students among other aspects to focus more on class environment and on the teachers' presentation. In higher education, this reality is very similar, with the aggravation that within this sector study concerning satisfaction is in truth still very scarce in Mongolian cases. Our study is significant in considering both theoretical and practical issues and for practices in Mongolian public university in higher education sector. Data were estimated by SPSS 25.00 and SMART PLS 3.0 statistic programs.

CONCEPTUAL FRAMEWORK AND HYPOTHESIS

STUDENT SATISFACTION

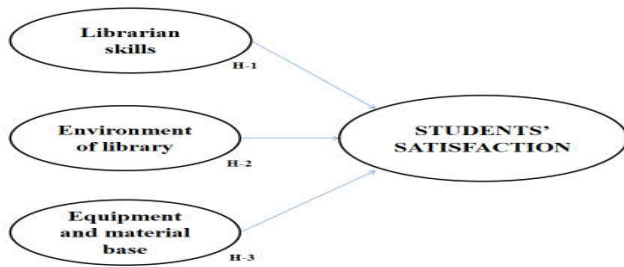
There are lots of a generally accepted philosophy, which is a service must satisfy customer to be successful and profitable. This philosophy shows that customer satisfaction is important and necessary for business (Clemes *et al.*, 2008). User satisfaction is one method of evaluating the effectiveness of library services and it is defined as "a personal, emotional reaction to a library service or product" (Cullen, 2001). Our study explains how librarian skills, environment of library and equipment and material base on students'

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satisfaction. The conceptual model of factors on student satisfaction is drawn in Figure 2.1.

Figure 2.1. Conceptual models of factors on Students' Satisfaction



Source: Own diagram

There are numerous theories attempting to explain job satisfaction, but three conceptual frameworks as content, process and situational theory seem to be more prominent in the literature. Students will often choose their university or specific academic department based on its reputation, and universities and even the same school academic departments will often compete in attracting the best students. Unfortunately, many would argue that what pleases students is often not the most beneficial for their understanding of the different course's concepts (Winer 1999). The study of Sumaedi *et al.*, (2011) found that service quality positively influence customer satisfaction in higher education service. In regard to library services context, Wang and Shieh (2006) showed that service quality affects customer positively. In our study is designed by librarian skills, environment of library and equipment and material base on student satisfaction as below:

Librarian skills and Students' satisfaction

Libraries reveals that libraries play an important role in providing students with premises and space to study, and books and reading materials which the students could not afford. Also, libraries provide to students lots of services to verify information obtained from teachers. Kargbo (2001) reports that academic libraries play an important role in securing, organizing and providing book and non-book materials required for instructional programmers. Furthermore, libraries provide current reading materials for keeping lecturers abreast of their subject fields and enhances teaching methods and helps in doing individual research. Also, they encourage students to develop the habit of self-education, and in so doing, contributing to their intellectual development and output. Skills are the ability to do something well; expertise. Also, an ability to do an activity or job well, especially because you have practiced it. Thus, librarian skills fosters social and academic community among students. According to the literature review, in our study, it was hypothesized as below:

H-1. Librarian skills will have a positive impact on student satisfaction.

Environment of library and Students' satisfaction

The researchers specializing in various in the social science, subject areas are contributed and studied service quality as the instrument to assess service quality in library environment. Environment of library has been the terms used in public, academic, national and research libraries continually to qualify the quality of services rendered by the library. There are lots of factors such as environment, service, academic freedom and etc. can be influence to students' satisfaction in higher education sector. Parasuram *et al.*, (1985) in their study suggested service quality as a determinants and measuring instrument of service quality. In an academic library setting, service quality has been adapted and used primarily to evaluate the service

quality of academic libraries. The extant literature such as (Coleman *et al.*,1997) reported that the invaluable information gleaned with environment of libraries by using satisfaction surveys to assess their service quality. According to the literature review, in our study, it was hypothesized as below:

H-2. Environment of library will have a positive impact on student satisfaction.

Equipment and material base and Students' satisfaction

Libraries are treated as service institutions where they serve their users to fulfill their information needs and library activities are geared towards serving the needs of users because in service centre user's satisfaction is very important. The libraries hold different collections of reading materials including books, periodicals, newspapers, reports special collection of government documents and a wide range of electronic resources among others. Active learning, especially in the engineering field and law enforcement field (Prince, 2004), has received a great deal of attention from researchers. The law enforcement field is a big and a different field in higher education competition sectors. Kargbo (2002) stated his view that academic library is the central organ of the academic institutions and library together with good laboratories and faculties are the parameters used to judge the status of academic institutions. Verma (2015) discussed the role of academic library to achieve academic excellence in academic institution and pointed out that academic library has to play very important role because academic institutions are incomplete without a good library. Kaur (2010) says the library has positive impact on academic staff's research, teaching and learning purposes. According to the literature review, in our study, it was hypothesized as below:

H-3. Equipment and material base will have a positive impact on student satisfaction.

RESEARCH METHODOLOGY

Data collection and questionnaire design

The purpose of causal research is to find out the variables that might establish the cause-and effect relationships between the variables causing particular actions and responses. Hussey (1997) studied the variables to find out the variables that might establish the cause-and effect relationships between the variables causing particular actions and responses (Sulaiman *et al.*, 2012). Exploratory research is also commonly used to divide a big problem into a number of smaller and more precise sub-problems before making more detailed investigations (Tak, 2012). Thus, our research includes two kinds of problems in terms of theoretical and practical perspectives. The first, in theoretical perspectives, previous researchers demonstrated much attention on satisfaction in many sectors. Second, from the practical perspectives, in an academic year 2020-2021 spring semester. The method suitable for our study questions include questionnaires. Questionnaires are a common method of collecting primary data in the survey. Based on the discussion above, the questionnaire method was chosen for the following reasons:

- The questionnaires were collected by online /Google form/ in academic year 2019-2020 spring semester.
- The questionnaires were able to gather data in a short period of time.
- The questionnaires were administrated during students who study in UIAM.

In our study, Likert scales were easy to use and understand. Bass and O'Conner (1974) defined that although larger Likert scales make it possible to discriminate opinions more finely, they can also confuse the respondents. In general, seven-point scales are found to reduce inaccuracy, whereas five-point scales restrict choice more (Tak, 2012). According to Sekaran (2003), the first step in data analysis is to edit, code, categorize and enter the data. The next step is to get an overall picture of the data by looking at descriptive statistics, such as means, standard deviations, correlations, and frequency distributions. After that, the data are tested for quality using tests of reliability and validity. Interpretation is the final step in data analysis. Most quantitative surveys in business research, collect a large amount of data which is processed most efficiently using data analysis programs. Data editing involves checking for incomplete and inconsistent data.

Selection of SPSS and Smart-PLS software program

There are many software programs used to process data analysis, including Statistical Package for the Social Sciences (SPSS), Smart PLS, SAS, STATPAK or Excel. The most popular program is the Statistical Package for the Social Sciences. In this study, SPSS and SmartPLS-3.0 were chosen for their simplicity and completeness. The internal reliability of each factor was assessed using Cronbach's alpha coefficient. This is followed by the examination and presentation of the demographic profile of respondents using Descriptive Statistic. Our study was conducted to check the consistency of all related factors in the study based on Cronbach's Alpha value.

Firstly, according to Zikmund (2000) descriptive analysis refers to the transformation of the raw data into a form that will make it easy to understand and interpret.

Secondly, the Cronbach Alpha testing will be used as it is the most well accepted reliability test tools applied by social researchers (Sekaran, 2003). Cronbach (1946) identified that in Cronbach's Alpha reliability analysis, the closer Cronbach's Alpha to 1.0, the higher the internal consistency reliability. Cronbach's measures:

1. Reliability less than 0.6 considered poor.
2. Reliability in the range 0.7 is considered to be acceptable.
3. Reliability more than 0.8 are considered to be good

Thirdly, in order to determine whether there are significant relationships among the independent variables and dependent variable, Pearson Correlation Coefficient analysis was being carried out. The scale model suggested by Davies (1971) used to describe the relationship between the independent variables and the dependent variable, or as shown that:

- 0.7 and above – very strong relationship
- 0.50 to 0.69 – strong relationship
- 0.30 to 0.49 – moderate relationship
- 0.10 to 0.29 – low relationship
- to 0.09 – very low relationship.

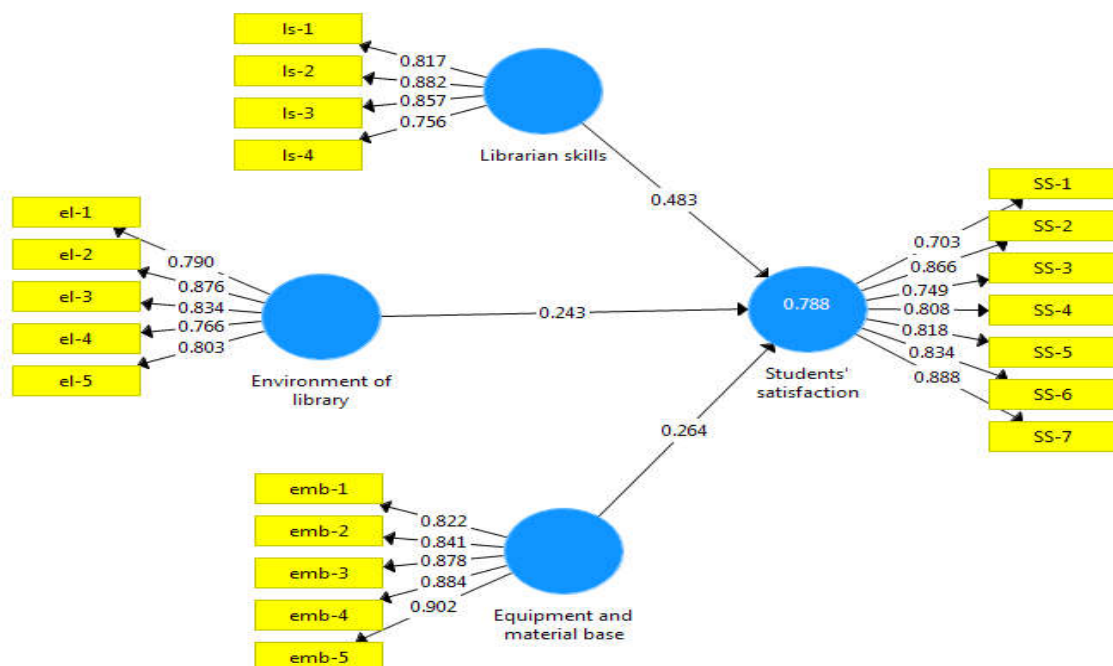
Finally, Multiple Regression Analysis was conducted to examine which, among the three dimensions in independent variables was the most important in explaining the relationship (Norizan, 2012). SPSS and Smart PLS were used to test the relationships between variables. In this research, all the questionnaires were numbered in the sequence of their returned dates and I checked for the completeness of the questionnaire and eligibility of the respondents. After the reliable questionnaires were identified and the data was entered, data analysis began. This section describes the demographic characteristics of the respondents. Of all the 438 respondents were studying on UIAM. Our research, frequency distributions were reformed for all the respondents. The basic demographic information about male 314, female 119 students in our study.

Table 3.1. Gender of respondents

No	Gender	Number	Percent
1	Male	314	72.5%
2	Female	119	27.5%
Total		438	100.00%

Exploratory Factor Analysis

Figure 3.1. Results of Structure Analysis of participants (algorithm)



Note: LS- Librarian skills, EL-Environment of library, EMB- Equipment and material base,SS-STUDENTS' SATISFACTION

This section has two major parts. The first part discusses descriptive analysis and assessment of reliability and validity namely Cronbach's alpha by exploratory factor analysis. We used an average variance extracted (AVE) as a criterion of convergent validity Fornell and Lacker (1981) (Creswell, 2003). If the value of AVE is more than 0.5, it indicates that the construct has sufficient convergent validity. The second part of this section covers the factor structure of the constructs in order to obtain a clear picture of relationships between variables. The study examined the measurement model to assess reliability and validity in the SMART PLS 3.0 program. Measurement models are used to specify how the latent variables or hypothetical constructs are measured in terms of the observed (measured) variables and to describe their reliability and validity in Figure 3.1.

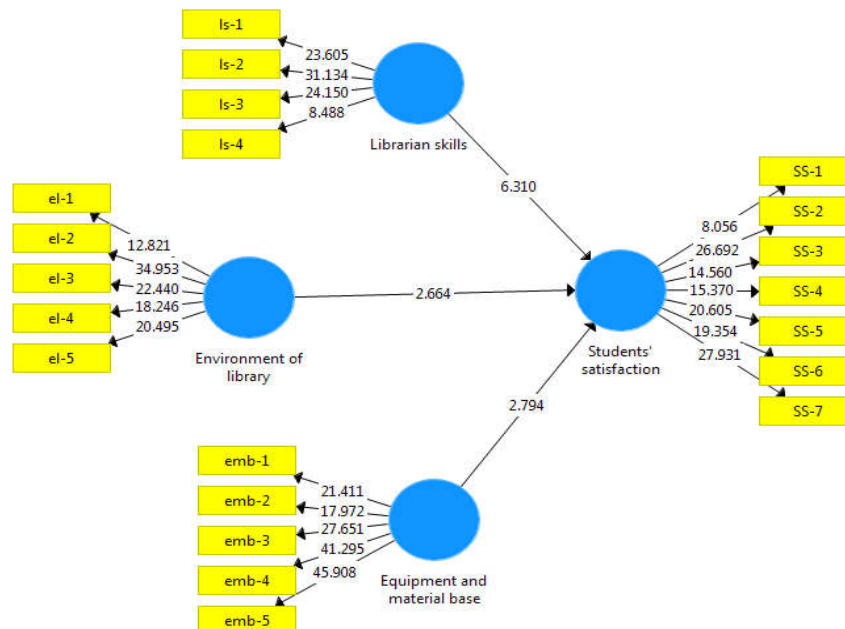
Table 3.2. List of Items for each Construct of Student

Impacts	Items	Code if items	Cronbach's ALPHA	CR-Composite reliability	Average Variance Extracted /AVE/
Librarian skills	LS-1	0.817	0.847	0.898	0.688
	LS-2	0.882			
	LS-3	0.857			
	LS-4	0.756			
Environment of library	EL-1	0.790	0.873	0.908	0.664
	EL-2	0.876			
	EL-3	0.834			
	EL-4	0.766			
	EL-5	0.803			
Equipment and material base	EMB-1	0.822	0.916	0.937	0.749
	EMB-2	0.841			
	EMB-3	0.878			
	EMB-4	0.884			
	EMB-5	0.902			
STUDENTS' SATISFACTION	SS-1	0.703	0.913	0.931	0.659
	SS-2	0.866			
	SS-3	0.746			
	SS-4	0.808			
	SS-5	0.818			
	SS-6	0.834			
	SS-7	0.888			

Note: LS- Librarian skills, EL-Environment of library, EMB- Equipment and material base, SS-STUDENTS' SATISFACTION

In the items for each construct of students, librarian skills of 4 items measuring ranged from 0.756 to 0.857, Cronbach's alpha of 0.847, Composite reliability of 0.945 and Average Variance Extracted was 0.686. In environment of library of 5 items measuring ranged from 0.766 to 0.876, Cronbach's alpha of 0.873, Composite reliability of 0.908 and Average Variance Extracted was 0.664. In equipment and material base of library of 5 items measuring ranged from 0.822 to 0.902, Cronbach's alpha of 0.916, Composite reliability of 0.937 and Average Variance Extracted was 0.749. Students' satisfaction of who are study at UIAM, who can get from library services of 7 items measuring ranged from 0.703 to 0.888, Cronbach's alpha of 0.913, Composite reliability of 0.931 and Average Variance Extracted was 0.659. Result of this list of items, there are all items are positive as Cronbach's measures are more than 0.8, Composite reliability more than 0.8 and Average Variance Extracted is more than 0.6 /Figure 3.1 and Table 3.2/.

Figure 3.2. Results of Structure Analysis of participants (bootstrapping)



Note: LS- Librarian skills, EL-Environment of library, EMB- Equipment and material base, SS-STUDENTS' SATISFACTION

Table 3.3. Latent Variable Correlations analysis

ITEMS	Environment of library	Equipment and material base	Librarian skills	STUDENTS' SATISFACTION
Environment of library	0.815			
Equipment and material base	0.714	0.866		
Librarian skills	0.592	0.761	0.829	
STUDENTS' SATISFACTION	0.718	0.806	0.828	0.812

Source: Result of study

Table 3.4. Estimated Path Coefficients of Students' Satisfaction

Hypothesis	Mean	Standard Deviation	T Statistic	P-value	Remarks
Hypothesis-1 Librarian skills will positive relate on students' satisfaction	0.479	0.095	6.310	0.000	Supported
Hypothesis-2 Environment of library will positive relate on students' satisfaction	0.242	0.091	2.794	0.005	Supported
Hypothesis-3 Equipment and material base will positive relate on students' satisfaction	0.273	0.077	2.664	0.008	Supported

As results, firstly, H-1 such as Librarian skills positive related on students' satisfaction (mean=0.479), (Standard deviation=0.095), (T statistic=6.310) and (p value=0.000). Secondly, H-2 such as Environment of library positive related on students' satisfaction (mean=0.242), (Standard deviation=0.091), (T statistic=2.794) and (p value=0.005). Finally, H-3 such as Equipment and material base positive related on students' satisfaction (mean=0.273), (Standard deviation=0.077), (T statistic=2.664) and (p value=0.008) / Table 3.4

CONCLUSION

The findings showed that all effects such as Librarian skills, Environment of library and Equipment and material base have a positive relationship with students' satisfaction at Internal Affairs University, Mongolia. It is found from our study that students visit the library to read their subject books and also borrow the books. Almost every reader is satisfied with the behavior of the library staff. It means that library service can get to students can take more impacts in order to retain more satisfied students are more productive. This is the first qualitative survey between students' results from 438 participants who are students studying at an academic year 2019-2020 spring semester in UIAM. Students are satisfied with environments like sitting space, cleanliness, lighting, ventilation, service of book catalog finding, eBook, reading room, counter, other furniture's and shelf of books and magazine in terms of overall library services at UIAM. Finally, the results will be fundamental survey to compare other studies in the next time.

Recommendations and limitation

We summarize the limitations of our study as below:

- The study is considered to be limited in time.
- Three predictive indicators can be considered limited.
- The only one librarian service and activities result
- Only limited study results by SPSS-25.00 and SMART PLS-3.0 were compared with other qualitative research methods.

We are recommend our study as bellow:

- Compare annual year result in the future.
- Compare with other University's librarian quality assurance.
- Compare with international study in the future.

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EVIDENCE OF STUDY

Themes Calculate Info Language

New Project New Path Model Hide Zero Values Increase Decimals Decrease Decimals

SMART-Lib... *UIA library... Bootstrappi... PLS Algorit... Bootstrappi...

Construct Reliability and Validity

Matrix	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Ext.
	Cronbach's AL...	rho_A	Composite Rel...	Average Varian...
Environment of library	0.873	0.880	0.908	0.664
Equipment and material base	0.916	0.921	0.937	0.749
Librarian skills	0.847	0.854	0.898	0.688
Students' satisfaction	0.913	0.919	0.931	0.659

SMART-Lib... *UIA library... Bootstrappi... PLS Algorit... Bootstrappi... PLS Algorit... Bo

Path Coefficients

Mean, STDEV, T-Values, P...	Confidence Intervals	Confidence Intervals Bia...	Samples	Copy to Clipboard:
	Sample Mean (...)	Standard D...	T Statistics (O...	P Values
Equipment and material base -> Students' satisfaction	0.273	0.095	2.794	0.005
Environment of library -> Students' satisfaction	0.242	0.091	2.664	0.008
Librarian skills -> Students' satisfaction	0.479	0.077	6.310	0.000

SMART-Lib... *UIA library... Bootstrappi... PLS Algorit... Bootstrappi...

Discriminant Validity

Fornell-Larcker Crit...	Cross Loadings	Heterotrait-Monotrai...	Heterotrait-Monotrai...	
	Environment o...	Equipment an...	Librarian skills	Students' satisf...
Environment of library	0.815			
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Librarian skills	0.592	0.761	0.829	
Students' satisfaction	0.718	0.806	0.828	0.812

