

Impact of Academic Library Services on User Satisfaction: Case Study of Sur University College, Sultanate of Oman

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ABSTRACT

The developing countries need to provide various services in the academic libraries in order to sustain the development. The academic libraries have to afford services based on users' requirements. The users are attracted towards using the academic libraries due to these amenities. These services and facilities of the academic library users have significant impact on the users' satisfaction. This research is conducted to identify the various services and facilities required by the academic library users of Sur University College and their degrees of impact on its users' satisfaction. Primary data were collected from the academic library users. The data related to services such as photocopying facilities, printing facilities, study desk facilities, PC provisions and library catalogue which were provided by the Sur university college academic library were analysed with the different statistical measures to identify the impact levels. An impact model was constructed and developed in measuring the aforesaid factors and the degrees of impacts on the users' satisfactions. Printing and photocopying facilities found to have high significant impact on the Sur university college academic library users. Also, some suggestions were made to provide quality services and increase users' satisfactions.

Keywords: Library users, library services and facilities, library user satisfaction, photocopying facilities, printing facilities, catalogue services

1. INTRODUCTION

The academic libraries need to provide various services and facilities to the users to motivate them to use library. The developing nations are nowadays concentrating more in providing various facilities and services, in turn, which will help the countries in scientific and research development. The ultimate aim of providing such facilities will enable the users towards utilising the library services at greater potentials.

Based on the user requirements different types of services are provided in the academic libraries. These facilities and services have greater impact on the users' satisfaction. The academic library users, in general, expect some cost benefit services so as to use the library regularly. Apart from this, the libraries provide some academic facilities to have international benchmarking. These library facilities and services assist the learners and the academicians in educational processes. The cognitive skills are developed by making the users to use the library resources. The proper utilisation of library resources can be optimally used only by attracting the users

to the library. This attraction is possible only by providing some good services.

The library users' satisfaction plays a vital role in the development and provisions of the library. The potential users' feedback regarding the library resources, services and facilities should be considered for providing necessary resources and amenities in the library. The Middle East countries, as developing nations, need to concentrate more on the users' satisfaction to benchmark themselves with the international standard. The higher education providers need to measure the users' satisfaction to maintain the quality in all the activities. Thus, the study was undertaken to identify the major impact factors of the services and facilities provided in the academic library.

2. LITERATURE SURVEY

Martensen & Gronholdt¹ evaluated the literature and surveyed a focus group to identify the key determinants of the academic libraries. They identified that, the collection of printed publications, e-resources, library services, technical amenities, and library

atmosphere are key determinant to identify the service quality of the libraries. Lacaster² observed that the evaluation of library based on the satisfaction of the library users can be identified in the possible ways of such as cost evaluation, cost effectiveness evaluation, cost benefit evaluation.

Numerous studies were conducted by various authors to measure the academic library services and the users' satisfaction. Poll & Payne³ has conducted the study and revealed that the diverse projects all over the world are trying to establish that the usage of library services can optimistically persuade competences and skills, attitude and actions of users. They suggested that the advantages that academic library users practice by using library services can be evaluated in terms of information gained, information literacy, educational and professional achievement, social addition, and amplify in entity well-being.

Pauline⁴ identified that the students are using the library services more than the academic staffs. Sowole⁵ revealed that by providing the required information resources and services the library users' satisfaction shall be attained.

Nnadozie⁶ concluded that the facilities required to deliver the qualitative services of the library are either available in insufficient quantities or totally not available. Abagai⁷ explored that the usage of the library users and certainly their satisfaction with the services of the library depends on the availability of the skilled staff, knowledge materials and accommodation in the library. Nwalo⁸ classified the term evaluation of the library as the assessment and quantification with the help of standards and regulations of the library services and provisions.

Cullen & Calvert⁹ observed that the evaluation of input based on collection, budget, staff resources and process competence measures are the indicators of the library users' perception of the resources and services offered by the library. According to Kaur¹⁰ the academic staff distinguish that the eminence of library services is just above the average. The library has positive impact on academic staff's research and teaching and learning purposes.

Simmonds & Andaleer¹¹ found that the academic library usage is mostly influenced by a users' awareness and resources of the library. Fidzani¹² specified that assistance is important in the usage of library services and resources will help the students to meet their information needs.

Though various studies were conducted, very less research studies were conducted with respect to Middle East countries libraries. Apart from that, very few literatures were available related to the various services provided by the academic libraries in Middle East nations. Thus, this study is done to identify the impacts of the services provide by the academic library of Sur University College.

Though various studies were conducted on user satisfaction of academic libraries, still there are some lacking in services and facilities provided in the libraries. There is a need to study separately about the impact factors of services and facilities. Thus a study was conducted to measure the impact of these facilities on academic library users of Sur University College. A model was developed to identify the impacts of the factors defined as the research objectives. The high and low level impact factors of the services and facilities provided in the academic library on users' satisfaction were also identified.

The academic libraries provide various services ranging from self service to staff supports. In Middle East countries, during quality audits and accreditation processes, the library user satisfaction and other facilities provided by the academic libraries were considered as key factors by the external auditors.

The services and facilities provided in academic libraries are: Borrowing and lending books and other materials, reference services, catalogue, photocopying, printing, study desks, computer lab facilities and information services, institutional membership, inter-library loan. Some major services provided in Sur University College were considered for this study. The factors considered for this study are: Photocopying facilities, Printing facilities, Study desks facilities, Library Catalogue and PC provisions.

3. OBJECTIVES

The basic aim of this research is to identify the academic library services and their corresponding degrees of impact on Sur University College library users' satisfaction.

The following research questions were formulated to conduct this study.

- (1) What services provided by the Sur University College academic library have impact on the users' satisfaction?
- (2) How shall the academic library enhance these services to increase the users' satisfaction?

3.1 Hypothesis

H1: Photocopying facilities provided in the academic library have significant impact on library user satisfaction in Sur University College.

The academic library provide photocopying facilities of permitted book materials, academic staff handouts and other courses related materials. This photocopying facility is one of the important factors to attract the users to visit the library. Thus the degree of impact of this photocopying facility on the library users was to be measured.

H2: Printing facilities have imperative impacts on the library user satisfaction.

Due to various requirements, the academic library in the campus provides printing facilities to the users to print the handouts and other resources. The academic library users, students in particular, expect some cost cut facilities to accommodate themselves to the financial requirements. The degree of impact of printing facilities on the user satisfaction was to be measured.

H3: The study desk facility has highest impact on the library user satisfaction.

The study desks provided in the library should have enough comfort for the users. In particular, if the user happens to spend more time of the day in the library, the study desks should be properly designed and fitted. The developing nations, though they provide study desks, some academic libraries do not provide with enough comfort. The management feels that the investments on study desks do not have enough financial returns. Thus, to identify whether the study desks facilities have impact on user satisfaction and to measure the degree of impact, hypothesis 3 has been set.

H4: PCs provided in the academic library have major impacts on library user satisfaction.

In this modern world, the academic library need to provide sufficient number of computers with required software in the libraries. The e-databases, e-journals, e-books, and other e-resources help the library users in gathering information related to their course of studies. The e-resources are the most essential knowledge source in this technological world. For these reasons, the library should have updated computers to satisfy the users' requirements. Thus Hypothesis 4 has been set to discover the impacts of PCs on user satisfaction.

H5: The OPAC has major impact on user satisfaction.

Earlier card catalogue was used in traditional academic library. But due to the explosion of modern information technology, the library catalogues are turned as Online Public Access Catalogue (OPAC). But still some of the libraries are using both the card catalogue as well as the online public access catalogue to help the users. In Sur University College, the academic library is developing OPAC system. The students are being trained to use this system. Hence, Hypothesis 5 has been set to determine the impact of library catalogue in user satisfaction (Fig. 1).

4. RESEARCH METHODOLOGY

A questionnaire was distributed to the respondents with 5 demographic questions, 17 close-end questions and overall satisfaction question as research instrument. The questions related to services were considered and analysed for this study purpose. The data were collected from the staffs and students of the Sur University College, Sultanate of Oman. The data

collected from 640 respondents were considered and analysed. 5 points Likert scale as 5–Highly Satisfied to 1–Highly Dissatisfied to measure satisfaction of the academic library users in Sur University College.

5. ANALYSIS AND DISCUSSIONS

Out of 640 respondents, 11 % of the respondents were staff members (academic & administration). Nearly 22 % of the respondents were studying foundation programme. Around 43 % of the students were studying diploma courses. Nearly 24 % of the respondents found to be studying bachelor's courses. Approximately 42 % of the respondents were male and 58 % were female. The respondents found to fall in three different age groups. About 58 % were between the ages 18 and 30. Approximately 35 % were between 30 and 40. Nearly 6 % of the respondents were between 40 and 50. Less than 1 % was above the age 50 years.

Also it had been observed that nearly 24 % found to visit the library several times a day for various purposes. Around 27 % were visiting the library once in a day. Approximately 18 % respondents were visiting the library once a week. Nearly 24 % of the respondents found to visit the library several times a week. Only less than 8 % of the respondents were visiting once a month. The students visit library for various reasons such as borrowing books, preparing materials and to find information. Some respondents were visiting the library to read newspapers, to read course books, to prepare study materials. Student respondents stated that they visit library to use various other services like printing and photocopying materials, etc.

5.1 Photocopying Facilities

The analysis showed that the mean was 3.86, sample standard deviation 1.03, coefficient of variation 26.57 %, standard error in mean 0.09, skewness -0.86, and the kurtosis were 0.38.

5.2 Printing Facilities

The statistical analysis showed that the mean was 3.90, sample standard deviation 0.99, coefficient of variation 25.29 %, standard error in mean 0.09, skewness -0.88, and the kurtosis were 0.49.

5.3 Study Desk Facilities

The statistical analysis showed that the mean was 3.43, sample standard deviation 1.21, coefficient of variation 35.37 %, standard error in mean 0.11, skewness -0.39, and the kurtosis were -0.83.

5.4 PC Provision

The statistical analysis showed that the mean was 3.82, sample standard deviation 1.07, coefficient of variation 28 %, standard error in mean 0.10, skewness -0.80 and the kurtosis were 0.17.

5.5 Library Catalogue Facilities

The statistical analysis showed that the mean was 3.70, sample standard deviation 1.16, coefficient of variation 31.35 %, standard error in mean 0.10, skewness -0.74, and the kurtosis were -0.15.

5.6 Regression and Impact Analysis

To measure the impact level, simple linear and multiple regression analysis were conducted. Table 2 shows the mean, standard deviation (SD), r^2 , p values of independent impact factors. The impacts have been ranked based on the highest r^2 value. Table 1 shows that printing facilities have 1st position with highest mean value, higher than the average of means ($\bar{X}=3.74$) with 59.4 % significance ($r^2 = 0.294$, $p < 0.001$). The least SD showed that the data were more consistent than all other factors.

Photocopying facilities provided in the academic library holds the 2nd position with mean 3.86 higher than the average ($\bar{X}=3.74$) with 54.8 % significance ($r^2 = 0.594$, $p < 0.001$). The PC provided in the academic library have the 3rd rank with mean 3.82 which is also higher than the average ($\bar{X}=3.74$) with 44.3 % significance. The library catalogue facilities hold 4th rank with mean 3.70 lesser than the average with 20.2 % significance ($r^2 = 0.202$, $p < 0.001$). The study desk facilities have the least impact on the library user satisfaction with mean 3.43 which is lesser than the average at 12.6 % significance ($r^2 = 0.126$, $p < 0.001$). To check the consistency between the independent variables, multiple regression analysis was conducted and represented in Table 3. From Table 3, it is clear

that the variables are linear with 72.4 % significance ($r^2 = 0.724$, $p < 0.001$).

Table 4 represents the correlation matrix and the rank with respect to the impact of factors over the overall satisfaction of the users of the Sur University College. It is clear that the printing facilities have the highest impact on user satisfaction of Sur University College and study desk facilities have the least impact on the user satisfaction.

5.7 Discussions

From Table 2, all the construct variables selected have $p < 0.001$. Thus, it is clear that the all the impact factors selected have considerable impact on library users. The impacts may be classified into two major categories such as high impact variables and low impact variables.

H1: Photocopying Facilities

From Table 2, it can be observed that photocopying facilities provided in the academic library have second highest mean and r^2 . The photocopying facilities are provided in most of the academic libraries with minimum rate. Some academic libraries provide these services with the help of commercial vendors. Also, self-service photocopying facilities are provided in most of the Sur University College. The users are allowed to take single side and/or double side photocopies on their convenience with low costs. As the users are allowed to photocopy the authorised materials with low cost, it has the second highest impact on library user satisfaction in Sur University College. From Table 3, as mean

Table 1. Facilities at Sur University College

Facilities	Strongly agreed	Agreed	Disagree/strongly disagree	No opinion	Not answered
Photocopying	30 %	40 %	19 %	-	10 %
Printing	30 %	43 %	9 %	-	18 %
Study desk	22 %	33 %	7 %	-	18 %
PC provision	30 %	37 %	11 %	-	22 %
Library catalogue	28 %	35 %	6 %	21 %	10 %

Table 2. Mean, standard deviation (SD), Simple linear regression analysis

Facilities	Mean	SD	Regression equation	r^2	p -value	Rank
Photocopying	3.86	1.03	$0.75X_1 + 0.87$	0.548	6.01E-23	2
Printing	3.90	0.99	$0.81X_2 + 0.60$	0.594	7.23E-26	1
Study desk	3.43	1.21	$0.31X_3 + 2.73$	0.126	4.97E-05	5
PC provision	3.82	1.07	$0.65X_4 + 1.30$	0.443	2.64E-17	3
Library catalogue	3.70	1.16	$0.40X_5 + 2.28$	0.202	1.46E-07	4
Average	3.74	1.09				

Table 3. Multiple linear regression analysis

Regression equation	r^2	p -value
$Y_i = -0.27 + 0.32X_1 + 0.43X_2 + 0.07X_3 + 0.17X_4 + 0.07X_5$	0.724	1.10E-31

Table 4. Correlation matrix

	Overall	Photocopy	Print	Study desk	PC	Catalogue	Rank
Overall	1.000						
Photocopy	.740	1.00					2
Print	.771	.663	1.00				1
Study desk	.355	.332	.223	1.00			5
PC	.665	.594	.610	.313	1.00		3
Catalogue	.449	.331	.418	.358	.418	1.00	4
	640	sample size					
	± .176	critical value .05 (two-tail)					
	± .230	critical value .01 (two-tail)					

is greater than the average and $p < 0.05$, H1 is accepted as 2nd highest impact factor of user satisfaction in Sur University College.

H2: Printing Facilities

The printing facilities have the highest mean with highest r^2 value. It can also be observed that coefficient of variation is nearer to zero with highest negative skewness. This shows that most of the respondents either highly satisfied or satisfied with the printing facilities provided in the library. In general, printing facilities were provided as one of the major services in Sur University College. The users, in particular students, are allowed to take printouts of required course materials, printing their projects and related materials with minimum cost price. This facility has been provided in recent years in Sur University College. This is highly helpful to the users in collecting their respective materials in time at their door steps. The students do not need to go out far away shops or cafes to print the required materials. Thus, this printing facility has the highest impact on the user satisfaction. As $p < 0.05$, H2 is accepted as the 1st highest impact factor.

H3: Study Desk Facility

Various types of study desks are provided in the academic library with closed access and open access. From the analyses, it is evident that the study desk facilities provided in the library have the least impact on the users. The mean value is lesser than the average and r^2 is nearer to zero. As $p < 0.05$, H3 is accepted with lowest impact on the users.

H4: PC Provision

From Table 2, it can be derived that the PCs provided in the library has the 3rd highest impact on the user satisfaction. Table 2 shows that the PCs available in the library have $p < 0.05$ with SD 1.07. Table 4 shows that the PCs have correlation of 0.665 with the overall satisfaction. The mean is higher than the average. The technology significantly supports

the education field for knowledge acquisition and dissemination. The PC support the users in accessing e-journals, e-databases, other resources and the library catalogue. The electronic environment helps in availing the maximum potentials of multimedia and educational software. Thus H4 is accepted with medium significant impacts on the user satisfaction.

H5: Library Catalogues

Table 2 shows that library catalogue facility provided in the library has the fourth highest impact on the user satisfaction with mean 3.70 and $r^2 = 0.202$. The mean is less than the average. The correlation matrix shows that the library catalogue has the fourth highest correlation of 0.449 with the overall satisfaction of the user. The SD = 1.16 and the skewness -0.74. The academic library of Sur university college provide online catalogue facilities to the users. As $p < 0.05$, H5 is accepted with lower impact on the user satisfaction of Sur University College.

4.8 Impact Model

Figure 1 shows the model on impact factors on library users in Sur University College.

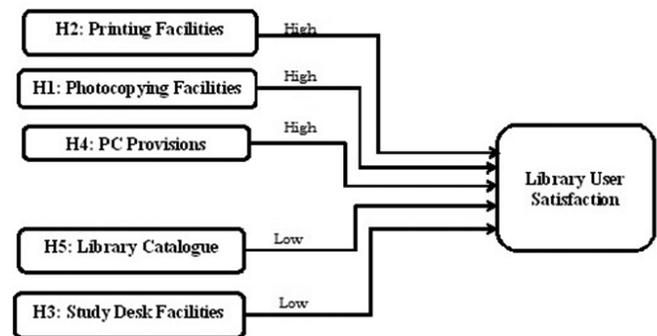


Figure 1. Impact factors significance model.

5. CONCLUSIONS

The study identified that all the services provided by the academic library have significant impacts on the Sur University College users' satisfaction. The

academic library have to provide numerous facilities and services that justify more interest to satisfy the needs of the users. The academic library has to deal with the problems and train the users on various areas for better usage. The findings and suggestions of this study provide effective insights for library to take essential steps to strengthen the existing services and facilities to optimise the use. Currently various facilities are provided in the academic library of Sur University College. But, still the users, managers and the management may suggest more services based on the requirements and purposes with respect to international benchmarking.

The printing facilities provided in the library should be used by the user to print the selected and permitted materials. The basic principle of providing photocopying facilities at academic library is to help the students to acquire the required materials. But, the users should abide the copyright rules and regulations. The users should use the computers provided in the academic library in information and knowledge seeking. The PC's in the academic library should not be used for checking personal emails and other unwanted uses. The library manager shall block the unwanted and unauthorised websites in order to provide more advanced services. The management should provide sufficiently sized study desks with other facilities to keep the books and other materials.

As King¹³ revealed, the libraries should be in position to re-orient their services, collections and facilities to keep rapidity with respect to current progression and developments. Based on the above findings, the following suggestions were made for the academic library to provide committed services to the users. In the current electronic environment, the computers with proper network facilities are most important source for finding out the relevant information. But at the same time the management and library managers should take initiative to upgrade the systems time to time and ensure to keep update the antivirus. The budget of the library should be increased year by year to meet the growing needs of the users and it will help the library professionals to provide the users the best services and should explicitly linked to strategic plans.

The academic library should inform the users with their reservation facilities in the library catalogue as and when the reserved materials are available. Mahawar¹⁴, *et al.* conducted a study and found out that the resources availability in the library make the users partially satisfied with the services provided by the library. As they said the academic library should improve computer-based services of the library.

The academic library management system should provide necessary information regarding the availabilities of the resources and probable available dates if

currently lent to the users. The libraries should have separate discussion rooms for the students to discuss their projects and assignments. The libraries should have separate rooms for teachers and students for their research work and it should be accommodate with the latest configuration system with Wi-Fi facility and also with the statistical software like SPSS, MATLAB and MEGASTAT.

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