

Study of Library User's Satisfaction in Libraries of Engineering Colleges of Ahmedabad: An Empirical Study

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ABSTRACT

The paper focuses upon the measurement of satisfaction level of students and faculty members with library resources in engineering colleges located at Ahmedabad city. To collect relevant data, a total of 660 questionnaires were distributed among Students and faculty members of the engineering colleges, of which only 520 (78.78 %) questionnaires were duly received back. The study revealed that the users are mainly satisfied with Print resources such as reference books, text books, journals, and their back volumes; while amongst the E-Resources they were satisfied by e-journals, e-books, e-databases. It is concluded that obtaining users' suggestions are necessary to meet their information needs; and increasing number of copies of books is essential for meeting their regular demand.

1. Introduction

Libraries are service oriented departments in engineering colleges. They play a vital role by supporting teaching and learning process of the institution by continually providing relevant and useful learning resources. Usually engineering college libraries hold study materials like books, journals, newspapers and unique collections like research reports, standards, conference proceedings etc. in both print and electronic format. This study aims to find out users satisfaction with the available library resources in engineering colleges of Ahmedabad city. It also evaluates the needs of users with regards to library resources. The results of this survey may serve as a guide to engineering college librarians to improve their library resources as per user needs and enhance their satisfaction level.

2. Objectives of the study

The main objectives of the study are as follows:

- To investigate the specific purpose of library visit by the users.
- To determine the satisfaction level of users towards library resources.
- To find out the type of information resources required by users.

3. Research Methodology

A structured questionnaire was designed keeping in view the objectives of the study and distributed among the final year engineering students and regular faculty members of Ahmedabad city engineering colleges. This survey was conducted during March-2015 to December 2015. The population for this study covers students of Bachelor and Master's degree and regular faculty members of the engineering colleges of Ahmedabad city area. Statistical methods were used to find out the satisfaction level of the respondents, belonging to the three designated groups.

4. Literature Review

Sambasivan (1998) mentioned the sweeping changes brought about by information and communication technologies and discussed the phenomena of computer networking, emergence of potentialities of internet, emergence of list or mail server, application of e-mail and websites. Also highlighted the hypermedia links, and other revolutionary innovations and technologies, and their impact on libraries and information centers.

Mannan and Bose (1998) investigated the level of 100 users' satisfaction of 24 libraries of Bangladesh and their networking and resource sharing services at the national and international levels. This study included: the existing status of infrastructures and facilities, collections, mode of subscription of journals, user's visit to the libraries, availability of services and use of databases. The overall results suggested that the existing library and information services are below the expectation level of users despite quite a good number of rich academic and specialized libraries in the country. The problems identified were the lack of resources, lack of qualified staff, a lack of basic legislative support and the main problem is lack of authentic data. It was found important to take necessary measures to establish an efficient net-working and resource sharing system among the libraries for providing better services to the users of the country.

Moorthy and Krisiddappa (2001) undertook a study to find the use of information technology infrastructure and assessing the extent of use of electronic media in 153 libraries in India. The survey was with respect to the availability of information technology infrastructure for accessing electronic media and dissemination of information, use of computers and the extent of progress in library automation, use of CD-ROM databases and electronic/online journals. It also dealt with the availability of telephone, fax, e-mail, Internet in Indian libraries as well as the perceived impact of digital libraries on library system and its functions.

Vijayalaxmi and Maheshwari (2001) surveyed the post graduate lady students of Gulbarga university on information

usage pattern with regard to the types of information required, purposes of using information, methods used for keeping up-to-date, awareness, use and usefulness of information sources, information searching undertaken and the methods used for searching, use, frequency of use, purpose of using and the success in getting information from the university library, frequency of visits to other libraries, consultation with library staff, difficulties encountered in access and use of information, instructions received and the need for instructions in the use of library, its resources and services. They concluded that there was a need for educating these post-graduate students in the use of information sources, library, its resources and services.

Chetana (2002) found that there was gradual improvement in creating the IT infrastructure in the higher education institutions in Mysore. She also found that most of the users were aware of using information technology in the libraries.

Manjunatha and Shivalingaiah (2003) stated that in the age of digital evolution and escalating price of electronic information, resource sharing was critical for effective functioning of libraries. Increased availability of information in digital format and high costs of journal subscription compelled the libraries to work together. Technical advancements provided a platform for digital resource sharing and offer many opportunities for librarians to become more technical and professional. This paper attempted to identify the needs and factors influencing the electronic resource sharing. Also presented were the requirements and strategies for effective resource sharing in academic libraries.

Gupta (2004) explained the role of universities and colleges and the importance of libraries as resource centres. He discussed the computer efficiency in information dissemination under the purview of UGC referring to the development of INFONET and evaluated the role of Internet and the emergence of digital information. He further stated the issues relating to electronic material and the establishment of Data Centre by UGC.

Maheshwarappa and Tadasad (2004) surveyed 571 out of 931 college libraries in Karnataka state with regard to the

availability of information resources and found that a majority of college libraries neither have a separate reference collection nor have back volumes of periodicals nor have maps nor have microforms nor have audio-visuals nor subscribe to periodicals nor on gratis nor an exchange nor subscribe to abstracting journals. The study observed that print media dominates the present collection of the college libraries which was very meager and inadequate to support the requirements of undergraduate education. They concluded that college libraries should adopt a strategic plan for the development of an integrated collection (print, non-print, digitized and networked) by focusing their attention towards developing information resources.

Venkata Ramana (2004) discussed about the study he conducted on the current state of use of information technology in Central University libraries in India. He concluded that the Central University libraries, in general, were better placed in terms of resources and the major reasons for using information technology were to improve access to collection, to improve quality of existing resources and to reduce routine and time consuming clerical operations.

5. Research Methodology

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6. Data Analysis and Findings

To collect the required primary data 660 questionnaires were distributed among final year students of Bachelor & Master's degree and regular faculty members of Ahmedabad city engineering colleges. While collecting data adequate representation of the three groups was ensured as per their population.

6.1 Demographic Details

Table 6.1 Gender

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	296	56.9	56.9	56.9
	Female	224	43.1	43.1	100.0
	Total	520	100.0	100.0	

Out of 520 total respondents about 296 customers are male and 224 customers are female with 56.9% and 43.1% respectively. Male respondents are little more in numbers but

the difference is not large so, that their individual differences can be studied on the factors determining User Satisfactions.

Table 6.2 Income

Income					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<20,000	91	17.5	17.5	17.5
	20,000-30,000	121	23.3	23.3	40.8
	31,000-40,000	153	29.4	29.4	70.2
	>40,000	155	29.8	29.8	100.0
	Total	520	100.0	100.0	

With respect to the Income levels of the respondents around 17.5% of the respondents are belong to personal monthly income of less than 20,000 per month. About 121 respondents are falling in the income range of 21,000 to 30,000 which contributes to 23.3% of the total respondents. About

29.4% of the respondents' income falls under the range of 31,000 to 41,000 per month that constitute to around 153 respondents. Out of 520 respondents of the survey, around 155 respondents belong to income group of more than 41,000 per month which is 29.8% of the total respondents.

Table 6.3 Usage Experience

Usage Experience					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<1 Years	98	18.8	18.8	18.8
	1-3 Years	167	32.1	32.1	51.0
	> 3 Years	255	49.0	49.0	100.0
	Total	520	100.0	100.0	

Usage experience of the respondents plays very important role in development of User Satisfaction and also affects its determinants in grater aspect. Usage experience refers to their attachment with libraries as user. In this study around 18.8% has less than 1 years experience of using libraries from

college. Around 32.1 % of the respondents have between 1 to 3 years experience of using libraries from college that comes to around 167 respondents out of 520. About total of 255 respondents have usage experience of more than 3 years that is 49% of the total respondents.

Table 6.4 Age

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<18 years	96	18.5	18.5	18.5
	18-21 years	117	22.5	22.5	41.0
	21-24 years	163	31.3	31.3	72.3
	24-26 years	109	21.0	21.0	93.3
	>26 years	35	6.7	6.7	100.0
	Total	520	100.0	100.0	

With regards to age factor of the respondents, around 6.7 % of the total respondents are of more than 26 years that comes to 35 respondents of the total 520. About 109 respondents belong to 24-26 years that is 21% of the total. Highest of all is 163 respondents out of 520 belong to 21-24 years, which is 31.3% of the total 100%. Around 22.5% of the total respondents are belong to 18-21 years and about 96 respondents are falling in the age group of less than 18 years, which is 18.5 % of the total.

6.2 Multiple Regression Analysis

The purpose of carry out multiple regressions is to understand significant relations between all the independent

variables and dependent variables. Multiple regressions also help to understand contribution of all the independent variables in relationship with dependent variable.

In the next part of the study carry forward same hypothesis using multiple regression. All six factors are inserted as independent variables combined and User Satisfaction inserted as the dependent variable. Mean score was taken as the representative value for that particular variable. Person correlation was performed first to make base for the multiple regression. Table 5.61 provides the Coefficient of relation between all independent variables and dependent variable

Table 6.5 Correlation for Multiple Regressions

Correlation							
	User Satisfaction	E-Resources	Hardware	Automation	Internet facility	User Interface	Software
User Satisfaction	1.000	.722	.587	.728	.641	.756	.700
E-Resources	.722	1.000	.386	.349	.576	.507	.646
Hardware	.587	.386	1.000	.343	.446	.493	.449
Automation	.728	.349	.343	1.000	.437	.517	.336
Internet facility	.641	.576	.446	.437	1.000	.263	.405
User Interface	.756	.507	.493	.517	.263	1.000	.655
Software	.700	.646	.449	.336	.405	.655	1.000

N= 520, All Correlation are statistically significant at 5% level of significant

Coefficient of correlation was positive for all the variables and varied between 0.263 to 0.722. All coefficient of correlation were statistically significant at 5% level of the significant. It proves that there is very good relationship amongst all the determinants. Correlation summary provides the good base for the multiple regressions.

The model summary of User Satisfaction and all six explored variables is given in Table and it shows the coefficient of determination (R^2) under model which is 0.897, which meant all six factors combine explained 89.7 percent of the variations in User Satisfaction. Value of 0.897 is really very positive and establishes very strong relationship between all the independent variables and dependent variables.

Table 6.6 Model Summary for Multiple Regressions

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.947 ^a	.897	.896	.24958	.897	744.308	6	513	.000

a. Predictors: (Constant), Software, Automation, Hardware, Internet facility, E-Resources, User Interface
 b. Dependent Variable: User Satisfaction

Table 6.7 ANOVA for Multiple Regressions

ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	278.181	6	46.363	744.308	.000 ^b
	Residual	31.955	513	.062		
	Total	310.136	519			

a. Dependent Variable: User Satisfaction
 b. Predictors: (Constant), Software, Automation, Hardware, Internet facility, E-Resources, User Interface

6.7 Coefficients^a for Multiple Regressions

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.125	.065		-1.933	.054		
	E-Resources	.202	.019	.228	10.796	.000	.449	2.227
	Hardware	.100	.017	.102	5.773	.000	.643	1.556
	Automation	.291	.015	.346	19.248	.000	.622	1.609
	Internet facility	.123	.013	.185	9.373	.000	.516	1.938
	User Interface	.203	.017	.271	12.194	.000	.406	2.464
	Software	.118	.019	.138	6.367	.000	.426	2.346

a. Dependent Variable: User Satisfaction

The ANOVA Table is used to assess the overall significance of the regression model. In Table, the F-value (744.308) and the p-value is 0.000. This meant that model is significant as p-values less than 0.05 at $\alpha = 0.05$ level. It further said that explored six variables significantly contribute in the variation of the User Satisfaction.

Further Table provides the coefficient of the model. According to the table it can be said that all explored factors is significantly influence on the User Satisfaction. All factors are statistically significant as the p value of all the factors are less than 0.05. Among all the factors Automation, User Interface and E-Resources are mainly contributors which influence mostly in the User Satisfaction. Other factors are also statistically significant but the intensity of the influence is low compare to other factors. Model can be written as:

$$\text{User Satisfaction} = -.125 + .202 (\text{E-Resources}) + .100 (\text{Hardware}) + .291 (\text{Automation}) + .123 (\text{Internet facility}) + .203 (\text{User Interface}) + .118 (\text{Software})$$

7. Conclusion and Recommendations

Based on above study it can be concluded that all the explored factors like Automation, Internet faculties, user interface, availability of e-resources etc are very significant factors to determine satisfaction level of users in the degree science colleges in Ahmedabad. Out of all the studies variables, Automation and Availability of E-resources are dominating factors that strongly affect that user satisfaction while using college libraries. So, all the colleges should focus on enriching their libraries in terms of automatic technologies and availability of diverse and rich e-resources. Such practices will not only increase number of users but also provide better satisfaction to them.

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