



A STUDY ABOUT THE USAGE OF AUTOMATION SOFTWARE FEATURES AMONG THE USERS OF ENGINEERING COLLEGE LIBRARIES

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ABSTRACT

Library Automation is the technology to perform the traditional library activities in to machine based services. Automating the usual house keeping operations of libraries is helps to provide efficient services. Many studies have undertaken related to Automation of Libraries in developed countries but few have been undertaken in India. This study is a survey of computerized libraries of engineering colleges which are located in Chennai, Kancheepuram and Thiruvallur Districts. The study is limited to the automated libraries of engineering college libraries in particular three districts. It gives the



actual status of the software packages used by the Engineering College libraries, and opinions about the services provided to the students through Automation software. This study also concentrated in the performance and efficiency of the software they have been used. This paper also investigated about the needs, usefulness, features and problems of the Automation software in the current scenario.

KEY WORDS: Library automation, OPAC, WEBOPAC, MOPAC, Automation software catalogues.

INTRODUCTION :

Library Automation is vital part of any academic Institution. The Digital world is characterized by the increasing needs of modern technologies. All the academic Institution required facilitating the needed accessibility on their qualitative information. The exponential growth of Information Technology has influenced and revolutionized in the field of Libraries. The enormous growth of published information and increasing nature of literature growth also resulted in accessing the information. This is the era of Digitization but still some libraries in Academic structure facilitated manual services. Automation can reduce the work load of the library professionals and save the time of the patrons. Library house keeping operations are computerized and made easy to access library holdings. OPAC is one of the milestones of the technologies achieved by Automation in Libraries. Automation has changed the concept of Information access in a vital path. Automation software allows Multi-dimensional searches. Web OPAC usage is globally accessed feature and it provides links to various subjects.

ENGINEERING COLLEGE LIBRARIES

Engineering College libraries have technically sound people who developed their own software with customized features. Engineering colleges are the teachers of technologies and fast adapters of any technology to implement. So the researcher took this study to assess and analyze the feature of Automation software in Engineering College Libraries and what are the facilities provided to the students through automation software. All colleges selected for this study is well equipped libraries with Automation features.

LITERATURE REVIEW:

Prabhat Singh, Naidu and Jadon (2008) have analysed the "Use of Online Public Access Catalogue in Devi Ahilya University library, Indore". OPAC is one of the services that are being provided by the Devi Ahilya University Library. The study revealed that the tool is useful and at the same time respondents felt that there must be more added feature to retrieve the required documents.

Kumar and Vohra (2011) have produced the article on Online Public Access Catalogue Usage at Panjab University Library, Chandigarh. They found OPAC is an information retrieval system, has revolutionized access to bibliographic information through search capabilities such as keyword searching, Boolean searching, truncation, proximity searching, and item identity number searching. The article discusses various aspects of OPAC such as frequency of use, purpose, ease of use, satisfaction level, etc. An attempt is also made to explore the reasons for the least used search options of OPAC.

Madhusudhan and Aggarwal (2011) analysed the Web-based online public access catalogues of IIT libraries in India. The study shows the various features of the web-based OPACs in six IIT libraries (IIT Delhi, IIT Bombay, IIT Madras, IIT Kanpur, IIT Guwahati, and IIT Roorkee). The study revealed the different features of web-based OPACs. Almost all of the web OPACs have federated search, adjunct

Thesaurus help and spell check facilities. It needs to be addressed as a priority in the subsequent generations of the web-based OPACs and their development.

OBJECTIVES OF THE STUDY

The main objectives of the study are

- To study the demographic characteristics of the users (Students) of Engineering College Libraries
- To observe the current status of the Automation in engineering college libraries.
- To observe the frequency of usage of Library resources through OPAC search
- To study the perceptions and experiences of OPAC usage among Student
- To identify the features facilitated to the students through automation software
- To identify the problems faced by the users in OPAC

LIMITATIONS OF THE STUDY

The researcher collected the list of Engineering Colleges located in three districts such as Chennai, Kanchipuram and Thiruvallur Districts. The researcher visited few Engineering college Libraries and finally selected 9 Engineering Institution and out of that three from Government, remaining six from self-financing Institutions. Each three Institution selected from three districts and some of the selected Institutions offered UG level, and some of them offered PG level and only one Institution offered research level. Regarding user community, the researcher select only the student users and due to the difficulties in approaching Faculty and staff, the researcher did not concentrated Faculty and Staff.

METHODOLOGY

The researcher prepared a User Questionnaire and the questionnaires were sent to some colleges and the remaining colleges have been visited by investigator. The total sample size is 135 and out of which 116 (85.92%) were received and filled with the relevant data requested in questionnaire. Geographically the scope of the study is limited to the selected engineering colleges located in Chennai, Kancheepuram and Thiruvallur Districts approved by AICTE. A five point scale system is followed to measure for getting necessary opinions. The

analysis has been made by using the statistical Packages for Social Sciences (SPSS) software version 19. The researcher tried to find the

ANALYSIS AND INTERPRETATION

Gender * District Crosstabulation						
Gender	male		Chennai	Kanchipuram	Thiruvallur	Total
		Count	30	15	17	62
	Percentage	48.40%	24.20%	27.40%	100.00%	
female			Chennai	Kanchipuram	Thiruvallur	Total
	Count	20	20	14	54	
	Percentage	37.00%	37.00%	25.90%	100.00%	
Total			50	35	31	116

Table 1: Demographic Data (Gender vs District)

The above table1 mainly describe the demographic detail of the sample population. It includes Gender and District of the respondents who belongs. As shown in the table Male respondents are totally 62 and Female respondents are 54 and over all 53.44% are Male and 46.55 respondents are Female. According to the District distribution, the Male respondents in Chennai are 30 (48.40%), 15 (24.20%) respondents in Kanchipuram and 17 (27.40%) male respondents from Thiruvallur District. With reference to the female, 20 (37%) respondents from Chennai, 20 (37%) from Kanchipuram and 14 (25.90%) respondents from Thiruvallur District. According to the above data Female respondents are from Kanchipuram is high and Male respondents are high in number from Chennai and Thiruvallur Districts.

Table 2: Course vs District Cross Tabulation

Course * District Crosstabulation						
Course	UG		Chennai	Kanchipuram	Thiruvallur	Total
		Count	28	35	31	94
	%	29.70%	37.20%	32.90%		
PG			Chennai	Kanchipuram	Thiruvallur	Total
	Count	16	0	0	16	
	%	1.00%	0.00%	0.00%		
Research			Chennai	Kanchipuram	Thiruvallur	Total
	Count	6	0	0	6	
	%	1.00%	0.00%	0.00%		
Total			50	35	31	116

The table 2 represents the Student who studied the Course whether it is UG, PG and Research study. UG student responded 28 (29.70%) in Chennai District, 35 (37.20%) in Kanchipuram District and 31 (32.90%) from Thiruvallur District. PG student responded 16 from Chennai District only. The 6 research Student responded from Chennai district only. There is no response from Kanchipuram and Thiruvallur District.

Table 3: Frequency of Visit vs Gender and Course

		Frequency				Total
		Daily	Twice a week	Weekly once	Occasionally	
Gender	Male	30	9	14	9	62
	%	48.41	14.5	22.6	14.5	
	Female	29	11	11	3	54
	%	53.7	20.4	20.4	5.6	116
Course	UG	37	20	25	12	94
	%	39.4	21.3	26.6	12.8	
	PG	16	0	0	0	16
	%	100	0	0	0	
Research		6	0	0	0	6
	%	100	0	0	0	
Total		59	20	25	12	116
	%	50.9	17.2	21.6	10.3	100

Table 3 analyzed the frequency of visit to the library of Students with the Gender and Course. 30(48.41%) of Male users, 29(53.7%) are female users who visited the library daily. 9 (14.5%) Male and 11(20.4%) are female respondents who visited twice a week. 14(22.6%) are male and 11(20.4%) are female who visited the library weekly once. 9(14.5%) are male and 3(5.6%) are female who visited the library occasionally . Out of 116 students, 37 are UG, 16 are PG and 6 are Research student who visited Daily. Out of 116 respondents, 20 are UG who visited twice a week and 25 (26.6%) who visited weekly once and 12 (12.8%) visited occasionally. Totally 50.9% visited daily, 17.2% visited Twice a week 21.6% visited weekly and 1.3% visited occasionally.

Fig 2: Frequency of visit vs Gender and Course

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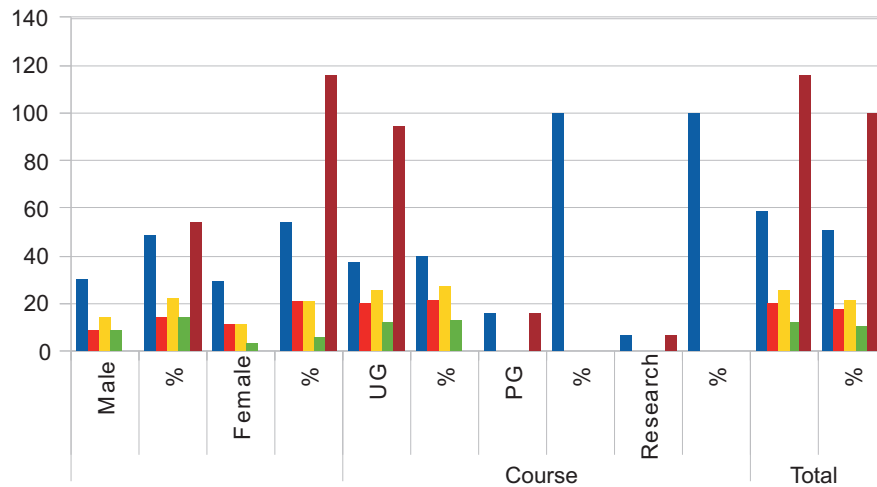


Table 4: Status of Computerization of Library

	Frequency	Percent	Valid Percent	Percent
Valid yes	113	97.4	97.4	97.4
no	3	2.6	2.6	100.0
Total	116	100.0	100.0	

The above table describes about whether the library are Automated or Not. Out of 116, 113 (97.4%) respondents said there is computerized Library and 3 (2.6%) respondent said there is no Computerization in their Institution.

Table 5: Type of Catalogues

	Frequency	Percent	Valid Percent	Percent
Valid OPAC	106	91.4	91.4	91.4
WebOPAC	6	5.2	5.2	96.6
MOPAC	4	3.4	3.4	100.0
Total	116	100.0	100.0	

Table 5 described the data about the type of catalogs facilitated by their Library.1.6 (91.4%) respondents are used OPAC, 6(5.2%) said they are using WebOPAC and 4(3.4%) said they are using mobile OPAC (MOPAC) in their libraries.

Table 6: Security System for Books

securitysystem		Frequency	Percent	Valid Percent	Percent
Valid RFID		27	23.3	23.3	23.3
Barcode		89	76.7	76.7	100.0
Total		116	100.0	100.0	

Table 6 gave the details about the using of security system whether it is RFID (Radio Frequency Identification Device) or Bar-code system. 89(76.7%) of Libraries used Bar-coding and 27(23.3%) using RFID system for the security of Book.

Table 7: Availability of IT infrastructure in Libraries

The table 7 deals the availability of IT infrastructure in the respondent's concern colleges. 2(1.7%) of respondents strongly disagree the availability Hardware/Software, 8(6.9%) of students disagree the availability and 1(0.9%) not known about that and 71(61.2%) of students agree the availability and 34 (29.3%) are strongly agree the availability of Hardware/Software. Regarding Networking facility 62(53.4%) are agreed, 47(40.5%) are strongly agreed the facility 4(3.4%) not known and 2(1.7%) are disagreed and 1(0.9%) strongly agreed the facility of Networking. The third query about the availability of required terminals for students 44(37.9%) disagreed the availability, 36(31%) are agreed and 28(24.1%) are strongly agree the availability of required terminals.

Table 7: Availability of IT infrastructure in Libraries

		Frequency	Percent
Hardware	Strongly disagree	2	1.7
	Disagree	8	6.9
	Undecided	1	.9
	Agree	71	61.2
	Strongly Agree	34	29.3
	Total	116	100.0
		Frequency	Percent
Networking	Strongly disagree	1	.9
	Disagree	2	1.7
	Undecided	4	3.4
	Agree	62	53.4
	Strongly Agree	47	40.5
	Total	116	100.0
		Frequency	Percent
Terminals	Strongly disagree	6	5.2
	Disagree	44	37.9
	Undecided	2	1.7
	Agree	36	31.0
	Strongly Agree	28	24.1
	Total	116	100.0

Table 8: Collection Resources through OPAC search

Resources	Always (%)	Often (%)	Occasionally	Rarely
Books/Journal	55 (47.4)	34(29.3)	18(15.5)	8(6.9)
Audio/video	42(36.2)	62(53.4)	10(8.6)	2(1.7)
theses/Dissertation	12(10.3)	17(14.7)	44(37.9)	34(29.3)
E-resources	42(36.2)	32(27.6)	21(18.1)	14(12.1)

Table 8 describes the Collection Resources through OPAC search in their Library. 55(47.4%) are responded always searches, 34(29.3%) often searches, 18(15.5%) searches occasionally and 8(6.9%) of respondents searches the Book / Journal / Magazines resources.62 (53.4%) often searches, 42(36.2) Always searches, 10(8.6%) occasionally searches to the Audio/Video resources. Regarding theses/Dissertation, 44(37.9%) occasionally searches, 34(29.3%) rarely searches , 17(14.7%) often searches , 12(10.3%) always searches. 42(36.2%) always searches, 32(27.6) often searches, 21 (18.1) occasionally searches and 14(12.1%) searches rarely E-resources through OPAC.

Table 9: Facilities of Automation Software

■		Frequency	Percent
	Strongly disagree	2	1.7
	Disagree	8	6.9
	Undecided	1	.9
	Agree	71	61.2
	Strongly Agree	34	29.3
Hardware	Total	116	100.0
		Frequency	Percent
Networking	Strongly disagree	1	.9
	Disagree	2	1.7
	Undecided	4	3.4
	Agree	62	53.4
	Strongly Agree	47	40.5
	Total	116	100.0
		Frequency	Percent
Terminals	Strongly disagree	6	5.2
	Disagree	44	37.9
	Undecided	2	1.7
	Agree	36	31.0
	Strongly Agree	28	24.1
	Total	116	100.0

The table 9 discussed about the facilities and features of Automation software in Engineering College Libraries. Regarding Own User Log in facility to students, 52(44.8%) agreed the availability of User log In facility. 33 students (28.4%) disagreed, 12(10.3%) strongly agreed and 18(15.5%) strongly disagreed the facility to log in with their User ID. Regarding the facility of Multi-lingual search in OPAC, 70 (60.3%) strongly agreed the facility, 38(32.8%) agreed the facility 4(3.4%) not known about the facility and each 2(2.7%) Disagree strongly the facility of Multi-lingual search. Regarding facility to search Other Catalogues, 52(44.8) strongly agreed, 41(35.3%) agreed, 16(13.8%) disagreed the facility to search Other Catalogues. Regarding the feature of Table of Content/Summary of the resources in Libraries, 36(31%) of respondents strongly agreed, 36(31%) agreed, 28(24.1%) disagreed the feature of Table of Content/Summary of Book. Regarding E-mail /SMS Services Feature, 48(41.4%) strongly agreed, 34 respondents (29.3%) agreed and 21(18.1%) disagreed.

Table 10 : Problems of Automation software vs Course

			Course			Total
			UG	PG	Research	
Advanced search	Strongly disagree	Count	4	0	0	4
		% of Total	.0	.0	.0	.0
	Disagree	Count	32	0	0	32
		% of Total	.3	.0	.0	.3
	Agree	Count	20	16	6	42
	% of Total	.2	.1	.1	.4	
Irrelevant search results	Strongly disagree	Count	18	0	0	18
		% of Total	15.5	.0	.0	15.5
	Disagree	Count	41	0	0	41
		% of Total	35.3	.0	.0	35.3
	Agree	Count	22	0	0	22
	% of Total	19	0	0	19	
Lack of required OPAC Terminals	Strongly disagree	Count	12	0	0	12
		% of Total	10.3	.0	.0	10.3
	Disagree	Count	42	0	0	42
		% of Total	36.2	.0	.0	36.2
	Agree	Count	23	0	0	23
	% of Total	19.8	.0	.0	19.8	
Lack of Web interfaceable	Strongly disagree	Count	14	16	6	36
		% of Total	12.1	13.8	5.2	31.0
	Disagree	Count	8	0	0	8
		% of Total	6.9	.0	.0	6.9
	Disagree	Count	14	0	0	14
	% of Total	12.1	.0	.0	12.1	
Internet speed Problem	Agree	Count	41	0	0	41
		% of Total	35.3	.0	.0	35.3
	Strongly Agree	Count	29	16	0	51
		% of Total	25.0	13.8	5.2	44.0
	Strongly disagree	Count	10	0	0	10
	% of Total	8.6	.0	.0	8.6	
	Disagree	Count	35	0	0	35
		% of Total	30.2	.0	.0	30.2
	Agree	Count	13	16	2	31
		% of Total	11.2	13.8	1.7	26.7
	Strongly Agree	Count	36	0	0	36
	% of Total	31.0	.0	.0	31.0	

Table 10 discussed about the problems faced in Automation software in Engineering College students and it was cross tabulated with the Course. Regarding the problem of lacking in advanced search facility, 38 respondents strongly agreed the problem, 42 are agreed and among them 20 are UG students and 16 are PG and 6 students belongs research community. 32 respondents disagreed the problem and 4 are strongly disagreed the problem of lacking in advanced search. Due to the problem of Irrelevant search Result, 41 respondents disagreed the problem, 18 respondents strongly disagreed, 22 respondents agreed and 34 respondents strongly agreed the problem and among 34 respondents, 12 are UG students, 16 are PG student and 6 are Research student. The discussion regarding Lack of OPAC terminals in Libraries, 42 respondents are disagreed, 23 respondents are agreed, 36 are strongly agreed the problem and apart from that, 36 respondents, 14 are from UG, 16 are from PG and 6 respondents from research community.

In connection with the feature of Web interface able of Automation software, there is 41 respondents agreed and 51 respondents strongly agreed and among 51, 29 respondents from UG and 16 from PG student. 14

respondents disagreed and 8 respondents said that they strongly disagreed. From Users we have received the data regarding Internet speed. 36 respondents strongly agreed, 31 respondents agreed and among them 13 are UG, 16 are PG and 2 from Research community. 35 respondents disagreed and 10 respondents strongly disagreed the problem regarding Internet Speed.

FINDINGS OF THE STUDY

- According to the above data Female respondents are from Kanchipuram District is high and Male respondents are high in number from Chennai and Thiruvallur Districts.
- Regarding course wise distribution, UG students response is high and PG and Research student is very low in response.
- All categories of students mostly used the library daily and especially research students totally used the library daily.
- Regarding the availability of Hardware/Software, the majority of the students agreed that they have required IT infrastructure. Networking is highly available in their colleges and regarding terminals for their usage, they disagreed the availability of required terminals.
- The students always search Book/Journals and often used the Audio/video materials. They used theses/dissertations occasionally and daily browse the e-resources through OPAC search
- Facilities and features of automation software, majority of the student can avail the services like User Login ID, Multi-lingual search facility, table of content/summary of book services and e-mail/SMS services were rendered by their libraries. Very few of them not agreed the availability of these features and facilities.
- Regarding the observation of problem they faced is lack of advanced search facility, lack of required OPAC terminals, Internet speed, irrelevant search results and Lack of web interface able of OPAC.
- There is no significant relationship between the frequent visit of Male and Female respondents
- There is statistical significant relationship between the frequent visit and the student of course wise i.e. UG/PG/Research.

SUGGESTIONS

- Librarians should ensure the users about the convenience of using OPAC to fulfill their information needs.
- Libraries are need to market their resources among user community through conducting orientation programs.
- To attract users, the libraries should have the Automation software with intuitive interface and visually appealing sites.
- Libraries should ensure the required Hardware and Software to serve users
- Internet speed is the conscious problem and the Libraries should rethink and analyse to give the dynamic speed of Internet and then only we can save the time of the reader

CONCLUSION

With the advent of the web technologies, users started to collect the needed information from online media. They expected the libraries should give dynamic discovery services rather than traditional services. To retrieve the information, catalogs should be intuitive and web interfaceable in nature. The digital immigrant minded users expect more from their libraries. Automation software may offered improved search experience to the users. Now a days most of the colleges rendered their services as operational with new technologies. But few of them did not improvised their infrastructure and facilities in their libraries. Due to lack of Finance and other difficulties faced by the Libraries can turn their services to open source technologies. An enormous simultaneous growth of information and technology, libraries can provide better technical services in all aspects to their users by rethinking, designing and executing the available technologies.

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