

# Formation Usage and Management of Information Products and Services in University Libraries in South India: An Analytical Study

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**Abstract :** *The services of non-profit oriented sector like university libraries are drastically changed due to IT application to university libraries in all over the world. The information is vast but to reach them is very difficult without proper application and management. Therefore, the libraries need to organize and manage the resources in relation to the information use and requirement of the users. In this contest, it is essential to know the opinions and levels of awareness of the users towards their seeking information and its management and services render to them in the University Library.*

**Index Terms - :** *Information Products – Services, Library services-management, university library-library services, University library management-service.*

## I. INTRODUCTION

Academic libraries are now being challenged by a new environment which demands changes in the attitudes and skills towards information handling. The traditional approaches to information processing and organization are being renovated by the advent and interaction of modern computer technologies, electronic sources. Tele-communication networks have to develop a balanced view of tradition and modernity in information handling.

Managing electronic information products in University library is a challenge to Librarian/Information Manager when compared to managing of conventional library, since the environment of the digital libraries is entirely different. Further, the librarian and his supporting staff must be well acquainted with new technology so as to satisfy the users.

Hence, it is essential to know the opinions and levels of awareness of the research clientele or users towards their seeking information and its management and services rendered to them in the university libraries in South India.

Further, managing information products and preserving them in library are two sides of the same coin from the use point of library products concerned. The role of university librarian is also changed due to phenomenal growth of information, publication, application of new technologies, changing theories of management and the status of library personnel.

## II Definition of information products

### I Information Products:

Information Products are broadly two types tangible and intangible. Intangible products refer to electronically deliverable knowledge based products. Information products are also referred to as 'digital goods' and 'knowledge based goods'. Electronic information products are available in the form of E-books, E-Zines, helpfiles, CD-ROM, DVD and floppies. The print material in the form of books, periodicals, literal programmes, bibliographies, annual reports, report archives, statistical surveys, compilation research data and tutorials are tangible information products.

### II Information Services:

The use of Internet and the power of search engines have changed the role of libraries and their services radically. The services of the university libraries are document copy supply, bibliographical services, literature search, photocopy service, Online services, CD-ROM database, Reference service, Interlibrary loan, Current awareness service, referral service, technical inquiries, OPAC, Web services and compilation of Indexes and Abstract services.

There are various types of information products and resources available in the University Libraries under study. They are a) Printed books and Journals b) E-books and E-Journals c) Online databases & Offline databases d) OPAC e) WWW f) INFLIBNET Consortium.

## III. Objectives:

To survey the university libraries in South India with reference to the management of information products.

To examine the physical facilities available in the university libraries of South Indian States.

To survey the users' opinions towards the available information products and services in the university libraries under study

To determine the extent of usage of the various information products and services in the libraries under study

To identify the problems faced by the librarians in the management of information products and services

To identify the constraints of the users in the effective use of the products and services

To offer suggestions for effective management of various information products in university libraries of South India.

## IV. Methodologies

A Survey method is adopted for the present study by using a sample random sampling technique for data collection. A Structured Questionnaire was administered to the sample. Three types of questionnaires were prepared to collect data; one for users and another two for

librarians and professionals. A total of 480 questionnaires were distributed to users. Out of them, 360 questionnaires have received from users. 120 questionnaires to library professionals and 12 questionnaires to librarians were distributed. Out of them, 100 per cent responses were received from both Library Professionals and librarian from selected University libraries under study.

### V. Significance of the study

Library Service is the supreme activity to attract the attention of the user community. It is more so in the case of a university library. The impact of IT environment in University Libraries on management of information products is highly critical. The library professionals ought to evaluate and assesses the usability of the library resources in the light of the huge investment made in acquiring the information products, resources and the cost of the manpower in managing the library activity.

### VI. Analysis of the data

#### 6.1 Views of Users on Information Products

It is observed from Table 6.1, the most of users from 1<sup>st</sup> generation universities, 2<sup>nd</sup> generation universities and Central University libraries categories expressed their satisfaction to a greater extent with regard to books. The ascertained weighted averages (WA-4.1 for 1<sup>st</sup> generation, 4 for 2<sup>nd</sup> generation. and 4 for Central universities) indicate that users depend more on books for their study pursuit. Further, they stated that they approached libraries for articles relating to their subject in periodicals. The users from Central Universities with 2.5 (Weighted Average) expressed their satisfaction to a some extent where as 1<sup>st</sup> generation Universities with 2.1 (WA) and 2<sup>nd</sup> generation Universities 2 (WA) expressed their satisfaction with the information available in periodicals for their study pursuit, to some extent.

From the table, it is observed that the manuscripts are available in very few universities. One can find them only in 1<sup>st</sup> generation university category libraries. The most of information available from manuscripts is on literature and Ayurved medicine. With 1.4 weighted averages, users from 1<sup>st</sup> generation universities expressed their satisfaction to a little positive extent with the information available in manuscripts for their study. On other hand, with 1 weighted average users from 2<sup>nd</sup> generation Universities and with 1 weighted average, users from Central Universities expressed their satisfaction extent on the information available in manuscripts to a nil extent. It is noticed that there is no university that has reprints in the collections of the libraries. With regard to news clippings usage for academic pursuit, users from 1<sup>st</sup> generation universities expressed their satisfaction to a more than a little extent where as the users from the rest of the two categories of universities under study expressed their satisfaction to a little extent on this aspect.

**TABLE: 6.1 Information Products (Tangible)**

Views of Users on 'Information Products' in the Library

N=360

S. No	Statement	University category		
		1 <sup>st</sup> generation Universities WA	2 <sup>nd</sup> generation Universities WA	Central Universities WA
A	Books	4.1	4	4
B	Periodicals	2.1	1.9	2.5
C	Manuscripts	1.4	1.1	1
D	Reprints	1	1	1
E	News clippings	2	1.6	1.67
F	M.Phil/PhD. Dissertations	1.9	1.5	1.8
G	Technical Reports	1	1	1
H	Pamphlets	1	1	1.6

Source: Field survey

WA – weighted average.

With regard to M.Phil/Ph.D dissertations, users from all universities from all university categories under study expressed their satisfaction extent to a little extent on the usage of dissertations for their study pursuit with 1.9 weighted average of 1<sup>st</sup> generation University category, 1.8 of Central University category and users from 2<sup>nd</sup> generation Universities with 1.5 weighted average. Indeed, technical reports are available only in Technical Universities. It is observed from table that users from all universities under study are reported that the technical reports are not available in their libraries.

On the other hand, pamphlets are reported to be available in Central University libraries only. The users from 1<sup>st</sup> generation and 2<sup>nd</sup> generation University libraries expressed that their satisfaction extent is nil extent on the usage of pamphlets for their study. The calculated weighted averages are 1 (for 1<sup>st</sup> generation Uni.) and 1 (for 2<sup>nd</sup> generation Uni.) and 1.6 (for Central Uni.)

#### 6.2. Sanitation: Views of users

Cleanliness comes under Hygiene factors. It means service and practice of maintaining clean, hygienic living conditions. An employee spends 6 to 8 hours at his work place which is significant part of the employee's time. To attract users towards library, hygiene conditions play a key role. Hence, providing good sanitation conditions play an important role in reducing employee dissatisfaction about the job. Maintaining good hygiene is a part in the management of library. Library needs pure drinking water and well maintained toilets and dust free environment. Librarians must take care of ecology, environment and pollution. Hall and Blockhus<sup>3</sup> say "three words that have become an important part of every one's vocabulary are ecology, environment and pollution. Ecology is concerned with the relationship between all living things and their environment. Environment means our natural surroundings, the conditions nature provides for life. Pollution is the process of spoiling our environment and upsetting the balance of nature."

Table 6.2 presents the views of users from different universities about the sanitation conditions prevailing in their libraries. With regard to drinking water, users from Central universities expressed their satisfaction more than some extent with the weighted average of 3.1,

whereas users from 2<sup>nd</sup> generation Universities and 1<sup>st</sup> generation universities expressed their satisfaction more than little extent with weighted average 2.9 and 2.3 respectively. It is observed from the table that the drinking water conditions are poor in 1<sup>st</sup> and 2<sup>nd</sup> generation universities when compare to Central universities. With regard to cleanliness, 1<sup>st</sup> generation universities are observed poor in maintaining it when compare the rest of two categories of universities.

It is also observed from table that the users from 1<sup>st</sup> generation Universities expressed more dissatisfaction with regard to toilet maintenance. The weighted average is 1.61 supports the observation.

**TABLE: 6.2 Views of Users on ‘Sanitation Conditions’**

N=360

S. No	Statement	University category		
		1 <sup>st</sup> generation Universities WA	2 <sup>nd</sup> generation Universities WA	Central Universities WA
1	Drinking Water	2.3	2.9	3.1
2	Cleanliness	2.1	2.7	2.9
3	Toilets	1.61	2.5	2.7

Source: Field survey

WA = weighted average

### 6.3 Views of professional staff on training

An attempt has been made to find out the opinions of the professional staff regarding training facilities. Table 6.3 advocates that training provided by software vendor/agency is satisfactory to a greater extent. With regard to training provided by software vendor/agency with 3.2 W.A, of 1<sup>st</sup> generation Uni., 3.13 W.A of 2<sup>nd</sup> generation Uni. and 3.45 W.A of Central Universities professional staff expressed higher satisfaction. On the other hand, with 1.35 W.A of 1<sup>st</sup> generation Uni., 1.5 W.A of 2<sup>nd</sup> generation Uni. And 2 W.A of Central Universities professional staff expressed that computer knowledge before training is very little where as the professional staff from Central Universities expressed that they have got computer knowledge some extent with 2 W.A before training is given to them .

**TABLE: 6.3 Views of Professionals on the following statements**

N=120

S. No.	Statement	University category		
		1 <sup>st</sup> generation universities WA	2 <sup>nd</sup> generation universities WA	Central universities WA
1	The software vendor/agency provided necessary training	3.2	3.25	3.25
2	I acquired computer knowledge before training given by agency/software vendor/University center	1.35	1.5	2
3	I participate every seminar/conference relating to my library software	1.18	1.3	1.4
4	The training facilities in the University system are adequate	1.1	1.1	1.3
5	I receive training whenever necessary	1.15	1.27	2.0
6	The training offered helps me to update my knowledge	4	4.1	4.0
7	The content of training programme is relevant to my work	4.5	4.4	4.5
8	The training programmes shall be linked to promotion and development in the profession	1.25	1.2	1.3
9	The authorities should sponsor the eligible candidates for training programmes liberally	4.8	4.78	4.76

Source: Field survey

WA- weighted average.

Further, it is observed from table that staff participation in seminar is very little satisfactory to almost nil extent. With regard to staff participation in seminars conducted by different agencies with 1.18 W.A of 1<sup>st</sup> generation Uni., 1.3 W.A of 2<sup>nd</sup> generation Uni. and 1.4 W.A of Central Universities professional staff expressed their very little satisfaction.

It is also observed from the table that training facilities that are being offered are not satisfactory. With regard to the adequacy of training facilities with weighted Averages of -1.3 of Central Uni. 1.1 of 1<sup>st</sup> generation Uni. and 1.1 of 2<sup>nd</sup> generation Universities professional staff

expressed their lower satisfaction. The weighted average all universities shows that there is no positive opinion on training offered by respective universities under study. It is clearly understand that the training is not offered whenever it is necessary.

The professional staff of all universities under study expressed their low satisfaction with WA-1.15 of 1<sup>st</sup> generation uni. 1.27 of 2<sup>nd</sup> generation Uni. and 2.0 of Central Universities with timeliness of the training program. On the other hand, with 4 W.A of 1<sup>st</sup> generation Uni., 4.1 W.A of 2<sup>nd</sup> generation Uni. and 4.0 W.A of Central Universities professional staff felt that the training offered is very much useful to update their knowledge. With 4.5 W.A of 1<sup>st</sup> generation Uni. , 4.4 W.A of 2<sup>nd</sup> generation Uni. and 4.5 W.A of Central Universities are of the view that the content of training programme is relevant to their work. The proposal for linking the training programmes with the promotion and development in the profession is not very much appreciated by the majority of the staff. Only with WA of 1.25 of 1<sup>st</sup> generation Uni, 1.2 W.A 2<sup>nd</sup> generations Univ. and 1.3 W.A of Central universities supported the above proposal. The responsibility to train the staff lies with the administration of the university. In order to enhance the work efficiency of the staff, the authority should sponsor the eligible candidates for training liberally. The university system under study has liberal attitude in imparting training to the eligible employees. Almost all the professional staff working in different universities in different states under study expressed that the authorities should sponsor the professional for training liberally. The ascertained weighted averages are 4.8 of 1<sup>st</sup> generation Uni., 4.78 of 2<sup>nd</sup> generation Uni. and 4.76 of Central Universities.

#### 6.4 Views of professional on 'training update knowledge'

An attempt has been made to find out the opinions of professionals on the statement that training updates knowledge. The table 6.4, indicates that among respondents 93.33 per cent expressed high to moderate positive opinion on the statement that 'training update knowledge'; 95 per cent of the professional staff from Central Universities, 94.28 per cent of respondents from 2<sup>nd</sup> generation Universities and 91.11 per cent of respondents from Professional Universities expressed positive opinion on the 'training update their knowledge'.

TABLE: 6.4 Views of Professional Staff on the statement 'Training update Knowledge'

N=120

Variables	Particulars	Attitude of staff		Total N=120	Chi-square value Degrees of freedom Significant/not sign.
		H/M	Low		
Type of universities	1 <sup>st</sup> generation universities	41 (91.11)	4 (8.88)	45 (99.99)	0.566 d.f.2  Not significant
	2 <sup>nd</sup> generation universities	33 (94.28)	2 (5.71)	35 (100)	
	Central universities	38 (95)	2 (5)	40 (99.99)	
Total		112 (93.33)	8 (6.66)	120 (99.99)	

Source: Field survey

Note : Figures in the parentheses are the percentages on row totals

Significance level = 0.05

Table value = 5.991

The calculated chi-square value 0.566 shows that there is no significant difference among different universities with regard to the above statement.

Further, it is proved that every staff member recognized the need of training. Hence, it is concluded that all universities should arrange proper training to their staff to update their skills

#### 6.5 Views of users on 'impact of IT on library services'

Information Technology influences all sectors including university libraries where IT enables libraries to provide most efficient and specialized information services. An attempt has been made to know the opinion of professional staff of all university libraries in South India on influence of IT on library services. Table 6.5 presents the opinions of users pertaining to 'IT enhances library services' in different university libraries in University libraries of South India. The table indicates that among total users 95.55 per cent of users positively responded on the statement 'IT will influence and enhance library services' through high to moderate satisfaction; 96.72 per cent of users from 2<sup>nd</sup> generation university libraries, 95.85 per cent from 1<sup>st</sup> generation university libraries and 94.01 per cent of users from Central universities expressed their positive opinion in this regard. The calculated chi-square value 0.04 shows that there is no significant difference among users' opinions in different universities.

Further, it is fact that a trend has been started in university libraries and is moving fast towards digitization means of IT application. It is clear from the table that 97.56 per cent of users from universities of Tamil Nadu, 96.72 per cent of users from universities of Andhra Pradesh, 94.44 per cent of users from Karnataka and 93.87 per cent of users from Telangana expressed that IT will influence and enhance the library services in different universities. There is no significant difference among the users on this aspect. The calculated chi-square value is 1.44 proved the same.

TABLE: 6.5 Views of Users on 'Influence of IT on Library Services'

Variables	Particulars	Attitude of users		Total N=360	Chi-square value Degrees of freedom Significant/not sign
		H/M	Low		
Type of universities	1 <sup>st</sup> generation Universities	116 (95.8 5)	5 (4.13)	121 (33.61)	1.206 d.f.2 Not significant
	2 <sup>nd</sup> generation Universities	118 (96.7 2)	4 (3.27)	122 (33.88)	
	Central Universities	110 (94.0 1)	7 (5.98)	117 (32.51)	
Users state wise	Andhra	87 (96.6 6)	3 (3.33)	90 (25)	1.44 d.f.2 Not significant
	Karnataka	85 (94.4 4)	5 (5.55)	90 (25)	
	Tamil Nadu	80 (97.5 6)	2 (2.43)	82 (22.77)	
	Telangana	92 (93.8 7)	6 (6.12)	98 (27.22)	
Total		344 (95.5 5)	16 (4.44)	360 (99.99)	

Source: Field survey

Note : Figures in the parentheses are the percentages on row totals.

Significance level = 0.05

Table value = 5.991

### 6.6 Views of users on preference of 'Search Engines'

A search engine is a computer program that searches for documents containing key words or phrases of interest to users. The search engine itself is virtually a powerful work station-class machine that searches a database of Internet files. In simple terms, search engine is a software tool on Internet that follows hyperlinks from one HTML on Internet to another, to locate the document that contains the key words that have been submitted to it as a search query. Table 6.6 indicates that 30 per cent of users prefer Google, where as 23.61 per cent of users use Alta Vista. 13.61 per cent of users use Yahoo, 8.33 per cent of users use Archie, 5.55 per cent of users use msn as well as Netscape where as only 1.38 percent of users uses AOL for searching the information they required for their study pursuit.

TABLE: 6.6 Views of Users on Preference of Search Engines for Information searching

Search Engines	Number respondents	Percentage
Google	108	30
Yahoo	49	13.61
Alta Vista	85	23.61
msn	20	5.55
Ask Jeeves	15	4.16
AOL	5	1.38
Netscape	20	5.55
Opentext	8	2.22
Archie	30	8.33
Whowhere	10	2.77
Other	10	2.77
Total	360	99.94

Source: Field survey

It is clearly evident through table that the most of the users are not aware of most of 'search engines' and their futures.

### 6.7 Automation: Views of Heads of University Libraries

Library automation in simple term is the application of computers and utilization of computer based products and services for carrying out different library operations and functions. Automation implies a higher degree or mechanization where routine and repetitive tasks or operations are to be performed by machines with little or no intervention by human beings. The lesser degree of human intervention, the greater degree of automation where involved.

“A self-driven computing of chance from which human initiative has been excluded and an interruption of this process in information situations intended by human” In other words, automation means “making a process automatic eliminating the need for human intervention.”

Table 6.7 presents the Views of Heads of different University Libraries about functioning of software installed in their libraries.

**TABLE: 6.7 Views of Heads of University Libraries on ‘Library Automation’**

N=12

S. No	Statement	1 <sup>st</sup> generation universities W.A	2 <sup>nd</sup> generation universities W.A	Central universities W.A
1	Do you think that the Software installed in your library for house keeping operations take care of the functions of the library satisfactorily?	3.9	4	4
2	Do you think that a computer programmer is necessary to look after software and hardware?	4.2	4	3
3	Do you think that the conversion of holdings into your library software is extra burden to your staff?	2	1.6	1.4
4	Do you think that the existing environment in your library is helpful to Library Automation?	2.6	2.61	3.1
5	Do you think that the library professionals accept change over to automation without any resistance?	3.3	3.9	4.1
6	Do you think that the electronic devices available in the library are sufficient to Automation?	2.3	2.43	3.8
7	Do you think that the funds allotted for automation are sufficient?	1.8	2	3.1

Source: Field survey

W.A = Weighted Average

The Librarians of all universities have the almost same opinion on this aspect and they expressed their satisfaction to a greater extent on the functioning of software for housekeeping operation. The weighted averages are; 4 for each 2<sup>nd</sup> generation and Central Universities, 3.9 for 1<sup>st</sup> generation universities.

It is observed that the librarians of 1<sup>st</sup> generation Universities stressed and opined that the help of computer programmer is necessary to a greater extent to look after software functioning i.e. services providing in their libraries to users. However, the librarians of Central and Professional universities expressed that they depend on computer programmer to a some extent in this aspect. The ascertained weighted averages are 3 (for Central Uni.), 4.2 (for 1<sup>st</sup> generation Univ.) and 4 (for 2<sup>nd</sup> generation universities). In fact, the librarians of Central universities felt that conversion of holdings into library software is a part of their staff routine work and they recruit staff who have much knowledge in computing.

Table 6.7 indicates that librarians of Central Universities with 3.1 weighted average expressed that existing environment in their libraries is congenial to some extent. On the other hand, librarians of 1<sup>st</sup> generation and 2<sup>nd</sup> generation universities with weighted averages 2.6 and 2.61 commented that existing environment of their libraries is less supportive for automation.

The automation of some university libraries under study are not fully equipped but still under process of automation. The authorities should take necessary steps to accelerate the process of automation by utilizing the financial assistance from INFLIBNET under different programmes. However, Librarians of all university libraries under study expressed that their staff are willing to change over to automation to a greater extent. The weighted averages are; 4.1 for Central Universities, 3.9 for 2<sup>nd</sup> generation Universities and 3.3 for 1<sup>st</sup> generation universities indicate that the professional staff of these libraries willing to change over to automation.

Further, librarians of Central, 1<sup>st</sup> generation and 2<sup>nd</sup> generation universities admit that they have sufficient electronic devices in their libraries to cope up for automation. Even, the calculated weighted averages such as 2.3 (for 1<sup>st</sup> generation.), 2.43 (for 2<sup>nd</sup> generation Uni) and 4 (for Central Uni.) indicate that the libraries are well equipped for automation. Librarians from various universities under study stated that funds allocation for automation is not sufficient to bring forth. The table 5.7.1 clearly shows that funds allocation for Central university libraries is far better than state universities. The weighted averages of 3.1 for Central Universities indicate that they have funds to some extent. All state universities under study are depending on University Grants Commission (UGC) for funds on this aspect.

### Suggestions

In the IT environment, the concept of networking emerged more rapidly than anyone expected. In this milieu, user education programmes play a pivotal role in improving library effectiveness.

Effective use of internet must be encouraged to enhance in existing the library service

There is a every need for the libraries to renew their skills periodically and achieve excellence in the library service.

There is a every need for the libraries to exploit information products and services that crop up due to IT impact.

**Conclusion**

Collection of Information products in any university library depends on the users demand. University libraries are playing key role in providing information to users by adopting new techniques through ICT to libraries. In modern electronic era, the user expectations are changing rapidly. However, there is imminent need to diversity the information services in responces in response to the changing needs of the users.

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