Information Access Pattern in Digital Environment among Faculty Members in Select Universities in Chennai

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Abstract

This paper discusses on Information access pattern in digital environment among faculty member in different types of universities in Chennai. A descriptive method has been used in research. Among faculty members 593 questionnaires were distributed but 504 were returned duly filled in as a sample. Due to information explosion in the internet era, various types of resources are available on the web. So majority of the users are not aware about the information resources and services provided by the information centres. These types of study is very much needed to understand the electronic information needs of the faculty members, because the faculties are the motivating factor in building the young India and the study make users aware about what the categories of digital information resources and services offered by the universities. The purpose of the study is to throw light on those resources and services provided by the selected universities and information seeking behaviour of faculty members.

Keywords

E – Resources, Digital Environment, ICT

Electronic access

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INTRODUCTION

The present era is the era of information and knowledge revolution. Many electronic resources are available in the library. The increase in the information available on the Web has affected information seeking behaviour. Innumerable types of information, in a large variety of containers and in many different locations, are all available in one place (Fidel et al., 1999)[1]. In the modern society, the types of information and the media which present them have become manifold and multifarious, offering men and women a vast selection.

Electronic Information Resources

According to Shuling, C. & Wu.H (2007)[2], electronic information has gradually become a major resource in every university library. The emergence of electronic information resources, simply referred to as electronic resources, has tremendously transformed information handling and management in academic environments and in University libraries in particular. Afolabi, (2007)[3] notes that through the use of electronic resources, researchers and students; now have access to global information resources, particularly the Internet for their scholarly intercourse.It is evident from the work of Faborode, (2007)[4] and Bozimo, (2007)[5] the death of current and up-to-date information for research in University libraries is attributed to poor levels of developing electronic information resources. Libraries need to be vanguards for technology transfer from the developed world to the developing economies of Indian libraries must provide a link between local researchers, scholars and their counter parts in other parts of the world. Utilization of online information resources is the way of achieving this objective. According to Tsakonas et al. (2006)[6] electronic information resources are information resources provided in electronic form, and these include resources available on the Internet such as e-books e-journals, online database, CD-ROM databases and other computer – based electronic networks, among others.

REVIEW OF LITERATURE

Mostofa (2013)[7] conducted a study and results show that half of the faculty members are consulted with expert as communication channel when they have a question asked. More than 50 % of faculty members depends on the library resources for teaching purpose. Fasola and Olabode (2014)[8] surveyed among the students of ajayi crowther university, oyo,

Nigeria, how they seek information and this is what has prompted this study. It was discovered that majority of the students (66%) sought information for academic purposes and the library (62.8%) was their preferred place of searching and using information resources. Acheampong and Dzandu (2015)[9] conducted a study among crop research scientists seek information in terms of what information sources they use, type, when, where and the purpose for which they use information as well as how they search for information. The researcher employed a questionnaire to collect data from 73 scientists of the Institute, while three Library staff were interviewed on their approach to meeting the information needs of the scientists. Used information centres/libraries for research purposes and prefer to use journals articles but preferred electronic format to other types of materials. Ngozi, Uche and Ejiro (2015)[10] investigated information seeking behaviour of faculty members of the Federal University of Petroleum Resources (FUPRE). The research finding show that the respondents use books, as their preferred source of information. The suggested to improve the internet facilities to assist faculties in their research.

OBJECTIVES OF THE STUDY

In order to pursue this study, the following objectives are framed, in according with the scope of this investigation:

1. To know the demographic details of the respondents.
2. To analyze the respondents' purposes of accessing digital resources in their teaching and learning process.
3. To find out the various attitudes of faculty members about digital information and services
4. To identify the respondents satisfaction level on digital information resources and services facilities.
5. To examine the barriers to access on digital information resources by the faculty member.

METHODOLOGY

The questionnaire was the preferred tool of data collection giving the socio-demographic profile of the participants of the study and for logistical reasons. The questionnaire method was adopted as a tool of data collection. The content validity refers to an extent to which questionnaire represents the factors under study. The content validity of the questionnaire was tested by a panel of experts comprising library professionals and faculty of library and information science. The validity of the questionnaire was tested using Statistical Package for the Social Sciences (SPSS) version 21.Responses to all the close-ended items were pre-coded. Thus, the data solicited were quantitative.

SAMPLING

Five universities have been selected in Chennai region. They are Anna University, University of Madras, The Tamil Nadu Dr. M.G.R. Medical University, Tamil Nadu Veterinary and Animal Science University, and Tamil Nadu Physical Education and Sports University. In total all the five universities have 593 faculty members and out of them 504 faculty members are selected as sample, constituting 84.99 % of the universe.

LIMITATIONS OF THE STUDY

Digital resources play a vital role in all the fields of human life. Even Today Government of India concentrates more in making digital India. It is clear from the study that majority of the users in university libraries access e-resources for the academic and research activities. The study is focused to assess the digital resources access pattern of faculty members in different types of universities. The researcher has taken Technological University, Medical University, Animal Science University, university of Madras and Physical Education University.

DATA ANALYSIS AND INTERPRETATION

Classification of Respondents

In this study gender is classified into two, male and female. Studying the assessment of information access pattern in digital environment among faculty Members in different types of university based on gender is important for this study.

Table 1: Classification of Respondents

criteria	Frequency	%
Male	318	63.1
Female	186	36.9
Total	504	100.0

From the above table, it is seen that 63.1% of respondents are male and 36.9% of respondents are female. This indicates that majority of the respondents are male.

Professional Category of Respondents

In this study, designation is classified into three, assistant professor, associate professor and professor. The distribution of respondents on the basis of designation is shown in the table below.

Table 2: Professional Category of Respondents

criteria	Frequency	%
Assistant Professor	273	54.1
Associate Professor	146	29.0
Professor	85	16.9
Total	504	100.0

From the above table, it is observed that 54.1% of respondents are assistant professor, 29% of respondents are associate professor and 16.9% of respondents are professor. This indicates that majority of the respondents are assistant professor.

Respondents' Host Universities

The distribution of respondents on the basis of working in the university is shown in the table below.

Table 3: Respondents' Host Universities

criteria	Frequency	%
University of Madras	192	38.1
Anna University, Chennai	237	47.0
The Tamil Nadu Dr.M.G.R. Medical University	15	3.0
Tamil Nadu Veterinary and Animal Science University	40	7.9
Tamil Nadu Physical Education and Sports University	20	4.0
Total	504	100.0

The above table shows that 38.1% of respondents are university of madras, 47% of respondents are Anna university, Chennai, 3% of respondents are the Tamil Nadu Dr. M.G.R. medical university, 7.9% of respondents are tamil nadu veterinary animal science university and 4% of respondents are tamil nadu physical education and sports university. This indicates that majority of the respondents are Anna university, Chennai.

Purpose of Using Digital Resources

In this study, Purpose of using digital information resources and services consist of seven factors that measure, To prepare notes for taking class, To collect information for research work, To publish research articles, To download software and tools, To carryout Projects, To get information for entertainment and To prepare and present papers in conferences, seminars. The table below shows the ranking for the items comprising the factor which constitutes 7 items. Items were responded to on a 5 point Likert scale ranging from 'Strongly disagree' to 'strongly agree'. Ranking has been done based on the mean values.

Table 4: Purpose of Using Digital Resources

criteria	Mean	Std. Deviation	Skewness	Kurtosis
To prepare notes for taking class	3.91	1.089	-1.246	1.163
To collect information for research work	3.87	1.030	-.0817	0.323
To publish research articles	3.65	1.175	-0.604	-0.425
To download software and tools	3.61	1.149	-0.635	-0.174
To carryout Projects	3.45	1.197	-0.422	-0.708
To get information for entertainment	3.28	1.423	-0.277	-1.270
To prepare and present papers in conferences, seminars	3.20	1.137	0.106	-0.647

The above table reveals that "To prepare notes for taking class" is the top ranked Purpose of using digital information resources and services factor with a mean value of 3.91, "To collect information for research work" is the second ranked Purpose of using digital information resources and services factor with a mean value of 3.87, "To publish research articles" is the third ranked Purpose of using digital information resources and services factor with a mean value of 3.65, "To download software and tools" is the fourth ranked Purpose of using digital information resources and services factor with a mean value of 3.61, "To carryout Projects" is the fifth ranked Purpose of using digital information resources and services factor with a mean value of 3.45, "To get information for entertainment" is the sixth ranked Purpose of using digital information resources and services factor with

a mean value of and 3.28 and "To prepare and present papers in conferences, seminars" is the seventh ranked Purpose of using digital information resources and services factor with a mean value of 3.20.

Preference of E-Resources

In this study, Preference of digital information resources consist of six factors that measure, E-journals, E-books, E-Theses and Dissertations, CD-ROM Databases, E-Learning Resources and Online Databases. The table below shows the ranking for the items comprising the factor which constitutes 6 items. Items were responded to on a 5 point Likert scale ranging from 'Don't Know' to 'Proficient'. Ranking has been done based on the mean values.

Table 5: Preference of E-Resources

Criteria	Mean	Std. Deviation	Skewness	Kurtosis
E-journals	4.02	0.899	-0.949	0.723
E-books	3.92	0.959	-1.218	1.559
E-Theses and Dissertations	3.68	1.159	-0.586	-0.569
CD-ROM Databases	3.62	1.159	-0.679	-0.277
E-Learning Resources	3.52	1.173	-0.289	-0.976
Online Databases	3.51	1.117	-0.464	-0.625

The above table indicates that "E-journals" is the top ranked Awareness on digital information resources factor with a mean value of 4.02, "E-books" is the second ranked Awareness on digital information resources factor with a mean value of 3.92, "E-Theses and Dissertations" is the third ranked Awareness on digital information resources factor with a mean value of 3.68, "CD-ROM Databases" is the fourth ranked Awareness on digital information resources factor with a mean value of 3.52, "E-Learning Resources" is the fifth ranked Awareness on digital information resources factor with a mean value of 3.52 and "Online Databases" is the sixth ranked Awareness on digital information resources factor with a mean value of 3.51.

Preference of E-Services

In this study, Preference of digital information services consist of six factors that measure, Electronic Document Delivery Service, OPAC/WebOPAC Service, Current Awareness Service, Institutional Repository Service, E-Learning Service and Digital Libraries Service. The table below shows the ranking for the items comprising the factor which constitutes 6 items. Items were responded to on a 5 point Likert scale ranging from 'Strongly disagree' to 'strongly agree'. Ranking has been done based on the mean values.

Table 6: Preference of E-Services

Criteria	Mean	Std. Deviation	Skewness	Kurtosis
Electronic Document Delivery Service	3.89	1.134	-1.001	0.310
OPAC/WebOPAC Service	3.83	1.148	-0.944	0.260
Current Awareness Service	3.76	1.143	-0.812	-0.061
Institutional Repository Service	3.27	1.323	-0.442	-.0973
E-Learning Service	3.16	1.331	-0.136	-1.068
Digital Libraries Service	3.09	1.437	-0.134	-1.272

The above table expresses "Electronic Document Delivery Service" is the top ranked Awareness on digital information services factor with a mean value of 3.89, "OPAC/WebOPAC Service" is the second ranked Awareness on digital information services factor with a mean value of 3.83, "Current Awareness Service" is the third ranked Awareness on digital information services factor with a mean value of 3.76, "Institutional Repository Service" is the fourth ranked Awareness on digital information services factor with a mean value of 3.27, "E-Learning Service" is the fifth ranked Awareness on digital information services factor with a mean value of 3.16 and "Digital Libraries Service" is the sixth ranked Awareness on digital information services factor with a mean value of 3.09.

Users Satisfaction on Digital Resources and Services

In this study, Satisfaction level on digital information resources and services consist of seven factors that measure, Attitudes of library staff, Information Literacy and training programme, Knowledge and

skills on searching techniques, ICT Infrastructure facilities, Awareness of e-resources, Availability of e-resources in library and ICT based Service. The table below shows the ranking for the items comprising the factor which constitutes 7 items. Items were responded to on a 5 point Likert scale ranging from 'Highly not satisfied' to 'Highly satisfied'. Ranking has been done based on the mean values.

Table 7: Users Satisfaction on Digital Resources and Services

criteria	Mean	Std. Deviation	Skewness	Kurtosis
Attitudes of library staff	3.02	1.085	0.075	-1.068
Information Literacy and training programme	3.02	1.166	0.241	-1.138
Knowledge and skills on searching techniques	2.98	1.323	0.025	-1.204
ICT Infrastructure facilities	2.94	1.523	-0.170	-1.511
Awareness of e-resources	2.84	1.238	0.117	-1.140
Availability of e-resources in library	2.80	1.264	0.410	-0.916
ICT based Service	2.77	1.131	0.408	-0.714

The table indicates that "Attitudes of library staff" is the top ranked Satisfaction level on digital information resources and services factor with a mean value of 3.02, "Information Literacy and training programme" is the second ranked Satisfaction level on digital information resources and services factor with a mean value of 3.02, "Knowledge and skills on searching techniques" is the third ranked Satisfaction level on digital information resources and services factor with a mean value of 2.98, "ICT Infrastructure facilities" is the fourth ranked Satisfaction level on digital information resources and services factor with a mean value of 2.94, "Awareness of e-resources" is the fifth ranked Satisfaction level on digital information resources and services factor with a mean value of 2.84, "Availability of e-resources in library" is the sixth ranked Satisfaction level on digital information resources and services factor with a mean value of 2.80 and "ICT based Service" is the seventh ranked Satisfaction level on digital information resources and services factor with a mean value of 2.77.

Barriers for E-Access

In this study, Barriers to access digital information resources and services consist of ten factors that measure, Lack of search skills, Lack of ICT Literacy, Download, HTTP / URL Error, Server down, Information over load, No relevant information, Lack of infrastructure facilities, Slow Process, Information over load, No relevant information, Lack of infrastructure facilities, Slow Process and Power Interruption. The table below shows the ranking for the items comprising the factor which constitutes 10 items. Items were responded to on a 5 point Likert scale ranging from 'Strongly disagree' to 'strongly agree'. Ranking has been done based on the mean values.

Table 8: Barriers for E-Access

criteria	Mean	Std. Deviation	Skewness	Kurtosis
Lack of search skills	3.89	1.168	-0.934	0.006
Lack of ICT Literacy	3.79	1.308	-0.963	-0.178
Download	3.63	1.321	-0.589	-0.812
HTTP / URL Error	3.40	1.219	-0.347	-0.862
Server down	3.18	1.197	-0.457	-0.756
Information over load	2.65	1.126	0.349	-0.838
No relevant information	2.62	1.016	0.491	-0.517
Lack of infrastructure facilities	2.56	1.040	0.511	-0.340
Slow Process	2.37	1.250	0.395	-0.963
Power Interruption	2.11	0.667	2.171	5.866

The above table reveals that "Lack of search skills" is the top ranked Barriers to access digital information resources and services factor with a mean value of 3.89, "Lack of ICT Literacy" is the second ranked Barriers to access digital information resources and services factor with a mean value of 3.79, " Download" is the third ranked Barriers to access

digital information resources and services factor with a mean value of 3.63, "HTTP / URL Error" is the fourth ranked Barriers to access digital information resources and services factor with a mean value of 3.40, "Server down" is the fifth ranked Barriers to access digital information resources and services factor with a mean value of 3.18, "Information over load" is the sixth ranked Barriers to access digital information resources and services factor with a mean value of 2.65, "No relevant information" is the seventh ranked Barriers to access digital information resources and services factor with a mean value of 2.62, "Lack of infrastructure facilities" is the eighth ranked Barriers to access digital information resources and services factor with a mean value of 2.56, "Slow Process" is the ninth ranked Barriers to access digital information resources and services factor with a mean value of 2.37 and "Power Interruption" is the tenth ranked Barriers to access digital information resources and services factor with a mean value of 2.11.

FINDINGS AND CONCLUSION

- The study indicates that 63.1% of respondents are male and 36.9% of respondents are female. This indicates that majority of the respondents are male.
- As their designation. 54.1% of respondents are assistant professor, 29% of respondents are associate professor and 16.9% of respondents are professor. This indicates that majority of the respondents are assistant professor.
- The analysis based on the barriers of accessing digital information resources and services found that most of the faculty members have the problem of Lack of search skills and lack of ICT literacy skills.

The objective of this study was to provide a comprehensive view of research addressing differences in usage of online databases among the faculty members of various types of universities. Efforts were made to ensure the comprehensiveness of the study by using different parameters to gauge the use of digital resources such as frequency of library visits, awareness on digital resources, internet usage, preference of e-resources & e-services, Users satisfaction and barriers for e-access. The result of the study offer significant information on the status of the use of online databases, the preference of the users and their evaluation of the online sources. The findings of the study indicate that lack of online sources and lack of ICT skills, the need of training for both users and library staff. It is observed from the study that faculty members are the frequent users of the library and more interested in access digital resources. The findings of the study will help the librarian to know the importance of online sources and improve the services related to ICT. It will provide useful insights for the library administration to evolve strategies in a systematic way to impart awareness and skill to the users and help in them better utilization of the digital resources.

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