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Information and Communication Technology (ICT) Time Duration of Among the Faculty Member of Pharmacy Colleges in Tamilnadu and Puducherry (South India)

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Abstract: *Information is an indispensable for human development as air is essential for the survival of all living organisms on earth, including human beings. The pace of change brought about by new information technologies has a key effect on the way people live, work, and play worldwide. The increasing role played by information technology in the development of library services for an active reaction to the challenges of the information service providing. The paper attempts to discuss the fast development of Information Technology and its application in the library services. Today libraries are equipped to accomplish the newly Information Technology based services. Information Technology enabled services fulfill the information needs of the users at the right time in the right place to the right person.*

Key Words: *Information Technology, Libraries, Electronic Library, Digital Library, E-Resources.*

1. INTRODUCTION:

This study analyses and evaluates information and communication technology (ICT) development using indicators of ICT diffusion across countries. It develops a conceptual framework for and selects key indicators measuring ICT development, with a specific focus on ICTs as pervasive technologies of global impact, wide application and growing potential. Also, it benchmarks levels of existing infrastructure connectivity, as well as measures of future potential and important determinants affecting countries' abilities to absorb, adopt and make use of these new technologies.

1.1 NECESSITY FOR ICT IN LIBRARIES:

To speed-up accurate and reliable data transfer in future there is also a danger of non-availability of hard copies of documents, particularly to secondary sources that are available only on CDROM. Knowing this, continuing education about ICT for libraries is essential. Due to the escalation in prices of periodicals and books, no library can afford to acquire all the publications; resource sharing through networking is the only option. To participate in the network, computerization of libraries is a prerequisite. Many International databases like PUBMED, DIALOG, MEDLARS, INIS, AGRIS, etc. are delivering the information electronically. Unless the libraries are automated, there is no possibility for accessing the information from these global level databases.

2. REVIEW OF LITERATURE :

In keeping with their complex nature and multiple applications, information and communication technologies (ICTs) may be viewed in different ways. The World Bank defines ICTs as “the set of activities which facilitate by electronic means the processing, transmission and display of information” (Rodriguez and Wilson, 2000). ICTs “refer to technologies people use to share, distribute, gather information and to communicate, through computers and computer networks” (ESCAP, 2001). “ICTs are a complex and varied set of goods, applications and services used for producing, distributing, processing, transforming information – [including] telecoms, TV and radio broadcasting, hardware and software, computer services and electronic media” (Marcelle, 2000). ICTs represent a cluster of associated technologies defined by their functional usage in information access and communication, of which one embodiment is the Internet. Hargittai (1999) defines the Internet technically and functionally as follows: “the Internet is a worldwide network of computers, but sociologically it is also important to consider it as a network of people using computers that make vast amounts of information available. Given the two [basic] services of the system – communication and information retrieval – the multitude of services allowed…is unprecedented”. ICTs, represented by the Internet, deliver “at once a worldwide broadcasting capability, a mechanism for information dissemination, a medium for interaction between individuals and a marketplace for goods and services” (Kiiski and Pohjola, 2001).

3. OBJECTIVES:

- To analyse the respondents' time duration for searching information and extent of access to information through ICT tools;
- To evaluate the Education- wise respondents' time duration for searching a particular piece of information
- To find out the Designation-wise respondents' time duration for searching a particular piece of information
- To examine the Sex -wise respondents' time duration for searching a particular piece of information

4. HYPOTHESES:

- There is a significant association between occupation status of the respondents and their time duration for searching information and extent of access to information through ICT tools.
- There is no significant association between occupation status of the Education- wise respondents' time duration for searching a particular piece of information.
- There is no significant association between occupation status of the Designation-wise respondents' time duration for searching a particular piece of information
- There is a significant association between occupation status of the Sex -wise respondents' time duration for searching a particular piece of information

5. METHODOLOGY:

This study attempts to examine the impact of information and communication technology on information access pattern of faculty members in pharmacy colleges in Tamilnadu. It is primarily a fact-finding venture in terms of identification of factors relating to extent of access to information, services provided by the library, purposes of library visit, utilization of pharmacy software in research work, extent of dependence on formal and informal sources of library information and extent of utilization of information communication technology for information storage and retrieval. To identified facts are cross tabulated with the institutional background and designation background of the respondents. Thus, it gives an analytical orientation to this study and the design of this study is partly exploratory in nature and partly analytical in nature.

5.1 SAMPLING

The whole area of the study, Tamilnadu has been divided into four zones, namely north, east, west, south zones, each consisting six colleges. The researcher selected 100 respondents from each zones through mailed questionnaire survey. Totally 400 respondents were take into consideration and 40 of there were negligible due to non-response of the questionnaire. Thus totally 360 respondents are considered for the sample study. The sampling of study is based on purposive random sampling.

5.2 DATA COLLECTION

The researcher has employed a well structured questionnaire for collecting the data from the respondents. The researcher sent questionnaires to the faculty members of the concerned 24 pharmacy colleges. The questionnaires were prepared in such a way that the respondents could easily understand them and simply indicate the answer that they wished to respond, from among the multiple answers.

5.3 DATA ANALYSIS

The collected data are classified and tabulated according to the objectives and hypotheses stated. First, the data are recorded on data sheets and then fed into the computer personally.

In order to test the hypotheses, ANOVA two way model and 't' test and chi-square have been applied. They are worked out with the help of Excel Package. The general data interpretation is made with the help of percentages and averages. The researcher has applied 5 point rating scale. The satisfaction can be measured in the following way. It includes highly satisfied, satisfied, somewhat satisfied, dissatisfied and strongly dissatisfied perceptions. On the basis of the obtained score for each variable, the overall occupation wise and institution wise mean score values are obtained for general data interpretation. Further, ranking method and rating methods are applied.

6. LIMITATIONS:

The findings of this study are mainly applicable to pharmacy colleges in Tamil Nadu faculty members and not applicable to other college faculty members. Only 24 institutions are selected for this study since studying of all institutions would be not possible for an individual researcher, owing to constraints of money, time, energy and efforts.

Table 1

Zone-wise respondents' time duration for searching a particular piece of information

Zones	Within a day	Within a week	Within a month	Over a month	Difficult to find without proper guidance	Total
	22	13	39	10	12	96

North zone	22.92	13.54	40.63	10.42	12.5	26.66
South zone	20 23.81	14 16.67	20 23.81	20 23.81	10 11.90	84 23.83
East zone	31 34.83	20 22.47	8 8.99	20 22.47	10 11.24	89 24.72
West zone	15 16.48	25 27.47	3 3.30	20 21.98	28 30.77	91 25.27
Total	88 24.44	72 20.00	70 19.44	70 19.44	60 16.67	360 100

Source: Computed from primary data

Chi Square Summary Result

Chi square calculated value	Degrees of freedom	Chi square tabulate value
72.00	12	21.0

Data in ***table1*** indicate the zone wise respondents' time duration for searching a particular piece of information. It could be noted that out of the total 360 respondents, 24.44 per cent of the respondents state that they can search a particular piece of information within a day and 20 percent of the respondents hold the view that they can search a particular piece of information within a week. In this study, 19.44 percent of the respondents report that they can search a particular piece of information within a month and 19.44 percent of the respondents state that they can search a particular piece of information over a month. Moreover, 16.67 percent of the respondents state that it is difficult for them to search a particular piece of information without proper guidance.

It could be noted that majority of the east zone respondents (34.83%) state that they can search a particular piece of information within a day and majority of the north zone respondents (34.71%) state that they can search a particular piece of information within month. It is also noted that 30.77 of the west zone respondents state that it is difficult for them to search a particular piece of information without proper guidance.

The Chi square test is applied for further discussion. The computed chi square value 72 which is greater than its tabulated value at 5 percent level significance. Hence there is a significant association between zones of the respondents and their time duration for searching a particular piece of information.

It could be deduced from the above discussion that searching a piece of information within a day ranks the first order reporting, searching a Particular piece of information within a week the second, searching a Particular piece of information within a month and over a month the third and difficulty in searching a Particular piece of information without proper guidance the last.

Table 2

Education- wise respondents' time duration for searching a particular piece of information

Education groups	Within a day	Within a week	Within a month	Over a month	Difficult to find without proper guidance	Total
Doctorate	27 40.91	23 34.85	5 7.58	6 9.09	5 7.58	66 18.33
Post graduate	51 29.48	34 19.65	23 13.29	29 16.76	36 20.81	173 48.05
Under graduate	10 8.26	15 12.40	42 34.71	35 28.93	19 15.70	121 33.61
Total	88 24.44	72 20.00	70 19.44	70 19.44	60 16.67	360 100

Source: Computed from primary data

Chi Square Summary Result

Chi square calculated value	Degrees of freedom	Chi square tabulate value
70.50	8	15.5

For searching a particular piece of information. It could be noted that majority of the doctorate respondents (40.91%) state that they can search a particular piece of information within a day and majority of the under graduate respondents (34.71%) state that they can search a particular piece of information within month.

The Chi square test is applied for further discussion. The computed chi square value 70.5 which is greater than its tabulated value at 5 percent level significance. Hence there is a significant association between education status of the respondents and their time duration for searching a particular piece of information.

It could be deduced from the above discussion that majority of the under graduate respondents time duration for searching a particular piece of information within a month.

Table 3 Designation-wise respondents' time duration for searching a particular piece of information

Designation	Within a day	Within a week	Within a month	Over a month	Difficult to find without proper guidance	Total
Professors	55 70.51	7 8.97	5 6.41	6 7.69	5 6.41	78 21.66
Associate Professors	27 20.45	55 41.67	20 15.15	16 12.12	14 10.61	132 36.66
Assistant Professors	6 4.00	10 6.67	45 30.00	48 32.00	41 27.33	150 41.66
Total	88 24.44	72 20.00	70 19.44	70 19.44	60 16.67	360 100

Source: Computed from primary data

Chi Square Summary Result

Chi square calculated value	Degrees of freedom	Chi square tabulate value
199.4	8	15.5

Data in ***table 3*** indicate the designation wise respondents' time duration for searching a particular piece of information. It could be noted that most of the Professors level educated (70.51%) state that they can search a particular piece of information within a day and majority of the Associate Professors respondents (41.67%) state that they can search a particular piece of information within a week. Majority of the Assistant Professors respondents (32%) refer that they can search a particular piece of information over a month.

The Chi square test is applied for further discussion. The computed chi square value 199.4 which is greater than its tabulated value at 5 percent level significance. Hence there is a significant association between designation status of the respondents and their time duration for searching a particular piece of information.

It is clearly from the above discussion that majority of the professor respondents and associate professor respondents can search information particular piece of information mainly either within a day or within a week. In general, assistant professor respondents take more than one month duration towards searching a particular piece of information.

Table 4 Sex -wise respondents' time duration for searching a particular piece of information

Sex	Within a day	Within a week	Within a month	Over a month	Difficult to find without proper guidance	Total
Male	82 32.16	52 20.39	34 13.33	41 16.08	46 18.04	255 70.83
Female	6 5.71	20 19.05	36 34.29	29 27.62	14 13.33	105 29.16
Total	88 24.44	72 20.00	70 19.44	70 19.44	60 16.67	360 100

Source: Computed from primary data

Chi Square Summary Result

Chi square calculated value	Degrees of freedom	Chi square tabulate value
44.22	4	9.49

Data in ***Table 4*** indicate the sex wise respondents' time duration for searching a particular piece of information. It could be noted that majority of the female respondents (34.29%) state that they can search a particular piece of information within a month and majority of the male respondents (32.16%) state that they can search a particular piece of information within a day.

The Chi square test is applied for further discussion. The computed chi square value 44.22 which is greater than its tabulated value at 5 percent level significance. Hence there is a significant association between sex structure of the respondents and their time duration for searching a particular piece of information.

It could be deduced from the above discussion that majority of the male respondents time duration for searching a particular piece of information mainly either within a day or within a week.

7. CONCLUSION:

In fact, it is now difficult to imagine a world without information technology. The provision and use of ICT is part and parcel of the entire system, to both the students, information professionals and the institutions. With the help of ICT to deliver the services of their user is very easy and fast and also it can save the time of user and staff both. Nowadays ICT has totally changed the concept of library and information center as it was in early days. Libraries are adopting ICT for performing both housekeeping operations as well as for providing services to the library patrons. Application of ICT has added value to the services and libraries are becoming popular among the patrons. With the aid of ICT libraries are actually marching towards achieving the goal of providing pinpointed exhaustive and expeditious information to those who are in need of that information. Information and communication technology is applied for providing information services which are more convenient, better accessible and cost effective.

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