1.1 Background:

Libraries have been acquiring digital collections, although most libraries continue to offer both print and digital collections for many years to come. Majority of the new acquisitions are weight towards digital collections. The weight-age on digital collections is increasing because of various reasons, e.g. digital journals can be linked from and to indexing and abstracting databases; access can be from user’s home, office or dormitory whether or not the physical library is open; the library can get usage statistics that are not available for print collections, and digital collections save space and relatively easy to maintain, when total processing and space costs are taken into account, electronic collection may also result in some reductions in library cost (Mantgomery and king, 2002).

As mentioned above, the electronic resources have their own benefits. As such, the libraries prefer acquiring electronic resources. Any source acquired is meant for the users. It is the users who decide the fruitfulness or otherwise of these resources. As Kupersmith (1998) states...the library is “bionic” in the sense that it comprises not only facilities and formats, but also the essential human elements: users and staff. The success of any library system, after all, rests not on how well the design works on paper, in the abstract, but on how readily people will accept it and how effectively they can use it. And it is the biological components of the library that embrace or reject the new technologies; fulfill or frustrate the intentions of system designers; and especially in these times of change, experience the kind of anxiety and disorientation known as techno-stress.
The present study concentrates on one of the biological components, i.e. the users and attempts to make an in depth study of how will the users have accepted and effectively used the EIRs, their attitude towards EIRs and their satisfaction regarding the same. The environment selected is Research Institutes of Punjab.

Further, Research Institutes, approved by the Government of India and Government of Punjab have been selected. The users selected and studied have been categorized on the basis of their designation into Scientific respondents, Research scholars and Non-scientific respondents.

Based on the analysis of data (Chapter: 4, Data Analysis and Interpretation), this section presents the following main findings of the study.

1.2: Major Findings of the study

- Majority of the users i.e. 52.10 percent of the scientific respondents, 55.78 percent of the research scholars and 61.90 percent of the non-scientific respondents visit the library once in a month. Whereas, only 20% research scholars visit library daily.

- Majority of the users i.e.79.52 percent of the non-scientific respondents, 78.39 percent of the research scholars and 54.34 percent of the scientific respondents are not visiting library daily, because of shortage of time. Whereas, three-fourths of the (75.38%) research scholars, more than half (58.82%) of the scientific respondents and non-scientific staff (56.67%) opined that there is no need to go to library, because resources are available in electronic form.

- All the respondents from all categories i.e. scientific respondents, research scholars and non-scientific respondents are aware about all the EIRs.
Majority of the respondents from all categories i.e. 86.67 percent of the non-scientific respondents, 61.99 percent of the research scholars and 42.02 percent of the scientific respondents have learnt about EIRs through self.

All the scientific respondents [strongly agree (72.55%) and agree (27.45%)] and research scholars [strongly agree (78.89%) and agree (21.11)] agree and strongly agree that self-efficacy is necessary for using EIRs. On the other hand, around half (56.67%) of the non-scientific respondents agree as to the need of self-efficacy for accessing EIRs, whereas, 15.24 percent of the non-scientific respondents are neutral regarding the need of self-efficacy.

Almost all the research scholars (94.47%) use EIRs for their research purpose, whereas 94.29 percent of the non-scientific respondents and 74.79 percent of scientific respondents use EIRs for their professional work.

Study revealed that 95.24 percent of the scientific respondents, 92.86 percent non-scientific respondents and 63.82 percents research scholars access EIRs from their office or laboratories. It is also observed that very meager percentage of research scholars (8.04%) and scientific respondents (1.96%) access EIRs from library.

Internet is used by all the respondents from all the categories i.e. scientific respondents [sufficiently (18.77%) and to a full extent (8.23%)], research scholars [(sufficiently (16.08%) and to full extent (83.92%)) and non-scientific respondents [(sufficiently (38.10%) and to full extent (61.90%)]. It is also observed that nearly two-thirds of the scientific respondents and research scholars use patents [scientific respondents (patents,57.42%), research scholars, (patents,56.28%)] and standards [scientific respondents, (62.46%); research scholars (66.34%)] to a very less and to some extent. On the other hand, nearly one-third of the non-scientific respondents use
patents (36.66%) and standards (42.46%) between very less to some extent. Very meager percentage of non-scientific respondents (12.85%) use Theses and Dissertations.

- More than half of the research scholars (55.28%) and slightly less percentage of the scientific respondents (48.18%) have an experience of 6-8 years in accessing EIRs. On the other hand, half of the non-scientific respondents (50.95%) have 3-5 years experience of accessing EIRs, whereas, around one-fourth (24.29%) of the non-scientific respondents have one to two years experience of accessing EIRs.

- Majority of users from all the categories i.e. 98.99% of the research scholars, 93.81 percent of the non-scientific respondents and 86.83 percent the scientific respondents, use Google to get latest information. It is also observed that 36.18 percent of the research scholars use ASK search engine, whereas, very meager i.e. 9.52 percent of the scientific respondents and 5.71 percent of the non-scientific respondents use ASK.

- INDEST is used by 95.48 percent of the research scholars and 83.47 percent of the scientific respondents. The second major used consortium is DST-NKRC by the scientific respondents (58.82%), while it is IEEE in case of research scholars (65.83%). On the contrary, less than 10 percent of the non-scientific respondents use CERA (8.57%) and ERMED (6.67%).

- Out of whole population, majority of the research scholars (95.98%) and around three fourths (77.03%) of the scientific respondents opined that EIRs provides them up to date information, which helps in their research and professional work. It is also observed that around 70 percent (70.35%) of the research scholars and 64.98 percent of the scientific respondents are of the opinion that EIRs provides wide range of information. Regarding non-scientific respondents, 70.48 percent opined that EIRs
provide faster access to information, followed by more than half of the respondents who felt that (53.81%) EIRs provide easier access to information.

- Internet is rated by all the respondents as sufficiently useful and useful to full extent. Whereas, less than one-fifth of the scientific respondents rated Standard (16.52) and one-third rated Patents (33.62) as sufficiently useful to useful to full extent. Regarding research scholars nearly one-third of the respondents rated Patents (41.21%) and Standards (32.16%) sufficiently useful to useful to full extent. Regarding the non-scientific respondents, the usage of EIRs is less than their counterparts i.e. scientific respondents and research scholars. Hence, the usefulness of EIRs is also less (except Internet). Apart from the Internet, nearly two-thirds of the respondents rate Databases, Blogs and E-books sufficiently useful to useful to full extent. Whereas, nearly three-fourths (68.85%) of the respondents rate Theses and Dissertation to a very less to useful some extent.

- More than three fourth (83.92) percent of the research scholars [very easy (56.28) and easy (27.64)] and more than half of the scientific respondents [very easy (35.01) and easy (21.01)] find the use of EIRs easy and very easy, whereas, around one-third (35.71) of the non-scientific respondents opined that EIRs are easy (19.52%) and very easy (16.19%) to use, But 38.57 percent of the non-scientific respondents found out that EIRs are difficult to use.

- All the scientific respondents and research scholars are satisfied about all the EIRs. The EIRs which majority of the scientific respondents and research scholars are very less to some extent satisfied are standards [scientific respondents (very less (20.17); to some extent (63.87) and research scholars (very less (30.65) to some extent (39.70))] and patents [scientific respondents (very less (8.96); to some extent (57.42) and
research scholars (very less (18.59) to some extent (41.21)). But in case of non-scientific respondents around 10 percent are not satisfied regarding online theses and dissertations (9.84%) and standards (8.15%).

- It is indicated from the study that 95.48 percent of research scholars, 85.71 percent of the non-scientific staffs and 72.83 percent of the scientific respondents opined that training is essential for the use of EIRs.

1.3: Observation and Suggestions

Awareness of EIRs is paramount to usage. But, in the present context, a slight deviation is observed. All the respondents, under study, are aware of all the EIRs provided by the library. In the cases of the scientific respondents and Research Scholars, the awareness for all the EIRs is to the level of 4 and 5, (Table 3.1.4), whereas in the case of non-scientific respondents, it is between 3 and 4 (Table 3.1.5).

Awareness is knowledge about something that exists (Ani and Ahiauzu, 2008). Awareness should lead to usage. But, when the usage of EIRs is considered, it is observed that as far as Scientific respondents and Research Scholars are concerned, the usage level is 4 and above for all the EIRs, except Patents and Standards, for which the usage level is 3 (Table 9.1.4). Further, regarding the non-scientific respondents, the level of usage is 5 only for Internet and 3 for OPAC and 2 for Patents, Standards and Online Theses and Dissertations (Table 9.1.5).

This leads to the argument that mere awareness of all the EIRs cannot result in usage. Thus, only awareness is not sufficient, but for an EIR to be used, it should also be useful. In the present context, useful means the EIRs must meet the purpose for which it is used.
When the purpose is considered, the major purposes for which the EIRs are used, according to the respondents under study, are Research Work, Professional Work and Others. In case of scientific respondents and Research Scholars, a clear cut demarcation cannot be made between Research work and Professional work. For meeting both these purposes, latest, up-to-date and pin-pointed information is needed. Such information need is met by Internet and e-journals. As such, it is observed from table 9.1.4 that these two EIRs are used to the level of 5. Further, Patents and Standards, although provide primary information, they cannot meet the everyday information needs of these two categories of users. Hence the usage level is at 3 (Table 9.1.4).

In the case of non-scientific respondents, working in different sections of the organization, the information they need would be multifaceted. As such, except internet, no other EIR can be expected to meet their information needs. Hence the usage of only internet is at the level of 5.

All the above facts clearly indicate that mere awareness is not a sufficient ground for usage, but it should be coupled with usefulness. Although awareness is basic, usefulness is paramount for usage. This is clearly observed from the study that although the libraries of the Research Institutes, under study, have been providing different types of EIRs, the maximum used are the ones which are considered useful by the respondents. For ex. Internet, e-journals and Dictionaries in the case of Scientific respondents and Research Scholars (15.1.4) and Internet in the case of non-scientific respondents (15.1.5). Further, these are the resources which have provided Satisfaction to the users. That is, Internet, E-Journals and Dictionary in the case of scientific respondents and Research Scholars, with the satisfaction level at nearly 5 and 4 and Internet in the case of non-scientific respondents, with satisfaction level at 5.
Apart from usefulness, as far as the computer–mediated resources are concerned, ease of use is equally important for using an EIR as has been stated by Mooer (1959), an information retrieval system will tend not to be used whenever it is more painful and troublesome for a customer to have information than for him not to have it. At this juncture, it is found from the study that around two-fifths of the non-scientific respondents and around one-fifth of the scientific respondents find the use of the EIRs difficult. (Table, 16.1.1). When a user finds the use of technology difficult, it inhibits the use of the EIRs.

When a user finds using a system to be easy and is confident in using the system, the usage is enhanced. Thus, apart from ease of use, confidence in the ability to use the technology, i.e. self-efficacy, is equally important. Belief in one’s confidence and competency in using the technologies boosts the usage of the EIRs.

It is observed from the study that the Libraries, under study, have been providing a wide range of EIRs. But only a few are used to the maximum. One obstacle to the use of library’s resources, and in particular its EIRs, is that they are not seen as being straightforward (Waldman, 2003). In contrast to an internet search engine, where a single keyword search will usually result in thousands of hits, no matter what the topic, in the library, users have to choose a particular database and be more selective in the search words they use. Moreover, database subject often overlap, with difference in dates, journal and subject covered and whether the material is full-text or not. In addition, the library may have print subscription to a certain title that is not full-text electronically, or the title may be accessible full-text through another database than the one originally searched. Therefore, not only do users have to find relevant citations, but they also have to know how to locate the article after that. This means juggling many screens, many technologies, multitasking electronic jobs, and of course knowing where to look for all this necessary information. Lastly, there is the additional confusion that more and more library databases use web-based technologies.
Because the interface is seamless there does not seem to be a visible, on the screen, difference
between web-based resources and general web-based resources. All of the above also
assumes that the user is proficient in the use of computers. It is quite clear that searching for
information has become inexorably linked to computer technology (Jacobson, 1991).

Thus, for the use of library e-resources, Computer skills and confidence in one’s
ability to use is very important. In other words, if the users are familiar and are comfortable
with the use of computers, there will be enhanced usage of different EIRs. Further, the feeling
that the use of the EIRs would enhance their work performance would instill the users to
learn and use the EIRs.

When the results of the study is viewed, it is clear that although the libraries provide
a range of EIRs, the EIRs that are used to the maximum are those which are considered
useful by the Users. It is this feeling of usefulness of the resources that provides satisfaction
to the users. However, when ease of use, self-efficacy and usefulness are compared, it is the
usefulness that ultimately decides the use and increased use of the resources.

This view is also supported by Tao (2008) when he says that Perceived usefulness is a
major determinant of behavior intention, which implies that, in the long run, although ease of
use is clearly important, usefulness is even more important and should not be overlooked. No
amount of ease of use will be able to compensate for a system that does not provide useful
resources. However, the significant impact of perceived ease of use to perceived usefulness
implies the important role that ease of use plays in having system perceived as useful. A
system that can make user find needed information for their tasks with easy – to – use
functionalities is perceived useful. In order to increase perceived usefulness of a system,
system’s capabilities must match a person’s job content.
In the present study, it has been observed that the non-scientific respondents have been using only Internet to the maximum. It has to be noted here that the libraries, under study, are research libraries. As such these libraries acquire EIRs related to these subjects. These resources may not be of use to the non-scientific respondents. That could be the main reason for the non-scientific respondents to be using Internet and finding Internet to be most useful and also to be satisfied with Internet. Internet, as mentioned earlier, provides access to a wide range of information on all subjects and a single keyword search results in thousands of hits. But a library should cater to the information needs of all its users. Therefore, the libraries should acquire such resources which would be useful to the academic community and at the same time would also boost the administrative and technical skills of the others. For example, e-resources on communication skills, Accounting, etc.

Computer skills can be imparted through training programs for those who find the use of technology difficult. Such training programmes would change the views of the users that using the technology is difficult and thereby helps in overcoming the inhibition in using the technology. In such training programmes, the technology should be introduced formally to the users in a step by step manner.

The training programmes should concentrate on two important factors, overcoming difficulty, i.e. Ease of Use and Usefulness of technology in their job performance. Therefore, the training should begin with introducing the basic IT concepts in a formal manner. This would help in removing the initial inhibition regarding technology and makes the user confident in using technology. In the second step, the training should concentrate on helping the users in identifying the areas where technology would be helpful in their everyday work performance. The training should be hands-on.
1.4: Summarising

Research is the life – blood of a country. Libraries and Information Centre is the heart of a Research Institute. Because, the libraries attached to the Research Institutes cater to all the information needs of its users and provides the needed information for research to its users. In its efforts to meet the information needs, it acquires various Information resources, including Electronic Information Resources. The collection acquired will be justified, when they are put to maximum use by all the users. It is therefore, necessary to bear in mind the different factors that would lead to usage of the resources from the perspective of the users. The present study has brought to fore that the major factors that promote the usage of EIRs are Usefulness, Ease of Use and Self – efficacy. The Information resources should be Useful; it should be easy to use; users should have confidence in the usage of these resources. Of all these factors, Usefulness reins high. Acceptance of EIRs starts with Usefulness, leads to positive attitude and ends with satisfaction towards the EIRs. Positive Attitude and Satisfaction results in enhanced usage. Thus, one of the most significant findings of the present study is the relative strength of the usefulness-usage relationship.
References:


