



COLLECTION MANAGEMENT OF ELECTRONIC RESOURCES IN NIT CALICUT LIBRARY:AN ANALYTICAL STUDY



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ABSTRACT

The purpose of the study is to know the collection management of e-resources in NITC library. Data for this study was collected through distributing questionnaire to the research scholars and faculties of the institution who forms the sample and interview method was conducted with librarian of NITC library. The interview schedule contains details about collection management of e-resources and the questionnaires contain questions which show users attitudes towards e-resources provided by the library. The answers from the questionnaire and interview were analyzed and findings were made. The main result of the study reveals that librarian while managing e-resources faces fewer challenges like maintenance issue and does not face major challenges like budget issue or license issue which shows the proper management of e-resources. Majority of research scholars and faculties of the institution doesn't say anything about problems or barriers while using e-resources, this shows the level of user satisfaction of e-resources provided by the library.

1. INTRODUCTION

Technologies affect and influence the way we seek, locate, access and use information. Changes in technology in recent years have dramatically altered the manner in which information is accessed, stored and disseminated. The driving force behind this rapid growth of information is due to the impact of the Internet. Although the Internet is the newest medium for the flow of information, it is the fastest growing new medium for all times, becoming the information medium of first resort for its users. Due to the emergence of information and communication technology made the libraries acquire web-based information collection. This observation is relevant to academic libraries as they have to adapt to the growing technology also to enable the potential users to access the required information and to facilitate the effective use of such resources.

Electronic resources are materials in digital format accessible electronically or any electronic product that gives a collection of data. Evolution and growth of e-publishing industry in the field of ICT has given birth to electronic resources. It is an umbrella term for all digital resources. Digital information exists in a format that a computer can store, organize, transmit and display without any intervening conversion process. It is described as 'born digital'. They refer to the use of information technology in the production of publication and the electronic distribution of

text through computer terminals. These resources play an important role in the creation, transmission and storage of information. Electronic resources contain many formats, storage, delivery medium and genre. It is an umbrella term for all digital resources. Information technology is used for the formation and dissemination of electronic resources.

Management of the information and workflows necessary to efficiently select, evaluate, acquire, maintain, and provide informed access to electronic resources in accordance with their business and license terms are known as collection management of e-resources.

The development of information technology and the dissemination of web environments have a dramatic effect on the user behaviours in information usage. The workflows from acquisitions to user services and the life cycle of electronic resources is quite different from that of print resources since it is characterized by access without holding the physical objects. As libraries build ever-larger collections of electronic resources, finding ways to manage them efficiently becomes a major challenge. The number of electronic journals, citation databases, and full-text aggregations held by most libraries has grown rapidly. Managing these electronic resources involves providing the library's user with convenient ways to find and access them and providing library staff with the tools to keep track of them.

Libraries are moving from print to e-resources either subscribing individually or through consortia because of its advantages over print resources. Recent studies show that users prefer e-journals than the print. As licensing electronic resources has greatly increased in recent years, libraries have struggled to control this information in paper files, integrated library systems, separate databases stored on local computers or networks. Through a well-structured collection management plan librarian can overcome these problems.

1.1. NIT CALICUT

National Institute of Technology Calicut (NITC) is one of the 31 institutions of national importance under the NIT Act 2007 and is fully funded by the Government of India. The mandate of the Institute is to provide higher technical education and conduct research in the various branches of Engineering, Science, Technology and Management. Originally established in 1961 as a Regional Engineering College (REC), it was transformed into a National Institute of Technology in the year 2002. Institute offers bachelors, masters and doctoral degree programs in Engineering, Science, Technology and Management. With its proactive collaborations with a multitude of research organizations, academic institutions and industries, the institute has set a new style for its functioning under the NIT regime. Set in a picturesque landscape at the foothills of the Western Ghats, NITC is located about 22 kilometers north - east of Calicut City. It stretches over a length of about 1.5 Kilometers along the Calicut-Mukkam road, extending over an area of approximately 120 hectares. Being a fully residential institution, the campus houses academic buildings, research labs, hostels, residences and other amenities among its infrastructure. The institute is presently offering 10 UG programs with a total intake of 1049 and 30 PG programs including MBA with a total intake of 666. Doctoral level research has remarkably increased in the recent times, with over 517 research scholars registered and there has also been a substantial increase in the volume of research papers and patents produced.

2. REVIEW OF LITERATURE

Atilgan and Bayram (2019) have undergone a study titled “An Evaluation of Faculty Use of the Digital Library at Ankara University, Turkey” to ascertain the faculty’s awareness and use of electronic material at Ankara University. The level of subscription use and/or sample issues as a case study was undertaken by means of a questionnaire in 2002. The questionnaire was then distributed to 3800 academics, the total number of faculty positions at Ankara University. Their study exposed that majority of the faculty members were aware about the subsistence of digital library and many were using electronic databases. The impact of newly subscribed databases on the increased publications was found.

Lefuma Sejanu (2017) conducted a study and it presents the findings of a survey regarding access to and use of electronic information resources in academic libraries of the Lesotho Library Consortium (LELICO). Nine institutions were studied. The study adopted the post-positivists paradigm and mixed methods; that is, qualitative and quantitative approaches. The self-administered questionnaires were distributed to the librarians (systems librarians, subject librarians and acquisition librarians), while the two semi-structured interviews were conducted with the Pro-Vice Chancellor, Directors and Rectors, University Librarian, and Library Directors. Response rate of 69.6% for librarians, 44.4% for PVC, Directors or Rectors and 56% for University Librarian and Library Directors were achieved. The study makes significant contribution in the

areas of policy, theory and practice regarding access to and use of e-resources. The present study contributes to the body of knowledge, information and literature, especially in the context of Lesotho.

Rajinder Kaur (2017) studied collection development in academic library in digital era. In this paper Academic libraries are considered to be nerve centre of teaching, learning and research activities which primarily objective to satisfy the information needs of its target users and this can be possible only through adequate collection. In digital environment, collection development policy is undergoing a metaphoric transformation due to diversity of digital resources which are easily available through internet. The present paper attempt to emphasize on collection development policy, internet-based collection and challenge in collection building in digital era. This present paper also throws light on trends as well as needs of collection development in digital environment.

Sohail and Ahmad (2017) in their study on “Use of electronic resources and services by faculty members and students of Fiji National University” discussed the effectiveness of e-resources and services on the basis of user satisfaction. They found that there is growing interest in e-resources among users and the majority of the users are using e-resources and e-services. It is found that 28.57% users use e-resources daily whereas 19.28% use weekly. About 94% faculty members were aware about the e-library whereas 91.1% students were aware about e-library. There was significant difference in the opinion of users regarding e-services being provided to them. 95.71% users were using e-resources for study purpose, 92.85% users using these to find significant information in their area of specialization. Weighted term search technique was the most used search technique. Users feel that the greatest benefit of using e-resources is time saving (92.14%) followed by easy to use (85%). Block of some informative websites was a major problem (91.42%) in using e-resources. Users were asked about their overall satisfaction with the e-resources and services, it was found that 37.85% users were very satisfied, 35% were satisfied and 5% were dissatisfied.

3. OBJECTIVES OF THE STUDY

- To evaluate the existing system of collection management policies and practices related to e-information resources.
- To identify the factors that promotes or hinders the contemporary use of electronic information resources by faculty and research scholars.
- To find out faculty and research scholar’s view point on the adequacy of electronic resource collection of the library.
- To find out which e-resource is mostly used in compared with other e-resources.
- To understand the challenges faced by librarian while management of electronic resources.

4. METHODOLOGY

The investigator visited the library and conducted the interview with the librarian of NIT Calicut central library. Then the investigator personally contacted the faculties and research scholars of the NIT Calicut who formed the sample of the study and handed over the questionnaires. Necessary instructions for filling up the questionnaire were given. The response from research scholars and faculties were very encouraging.

5. ANALYSIS OF DATA

5.1. ADVANTAGES OF ELECTRONIC RESOURCES

There are many advantages for e-resources over printed resources. These advantages of e-resources can be the factors which promote the faculties and research scholars to use e-resources. These responses are interpreted using the table 5.1 which is given below.

Table 5.1: Advantages of electronic resources

Advantages	Number of responses		
	Faculties	Research scholars	Grand total
Time saving	20(52.6%)	40 (67.7%)	60 (61%)
Convenient to use	31 (81.5%)	46 (77.9%)	77 (79.3%)

Latest information	31 (81.5%)	48 (81.3%)	79 (81.4%)
Less expensive	17 (44.7%)	32 (54.2%)	49 (50.5)
Easy access	34 (89.4%)	48 (81.3%)	82 (84.5%)

Table 5.1 reveals that a large majority of (89.4 per cent) faculties say easy access as the advantage of e-resources and about half of the faculties (44.7 per cent) say less expensive as advantage of e-resources. Among research scholars, a large majority (81.3 per cent) say that e-resources are providing latest information and easy access and half of (54.2 per cent) them say that it is less expensive to use e-resources.

On further analysis, more than half of the (52.6 per cent) faculties say that it saves time and large majority (81.5 per cent) say it is convenient to use and provides latest information, as advantages of e-resources. In the case of research scholars majority (77.9 per cent) of them say that it is convenient to use and more than half (67.7 per cent) says it saves time.

The overall analysis reveals that a large majority of (84.5per cent) faculties and research scholars consider easy access as advantage of e-resources but half of them (50.5 per cent) say it to be less expensive as an advantage.

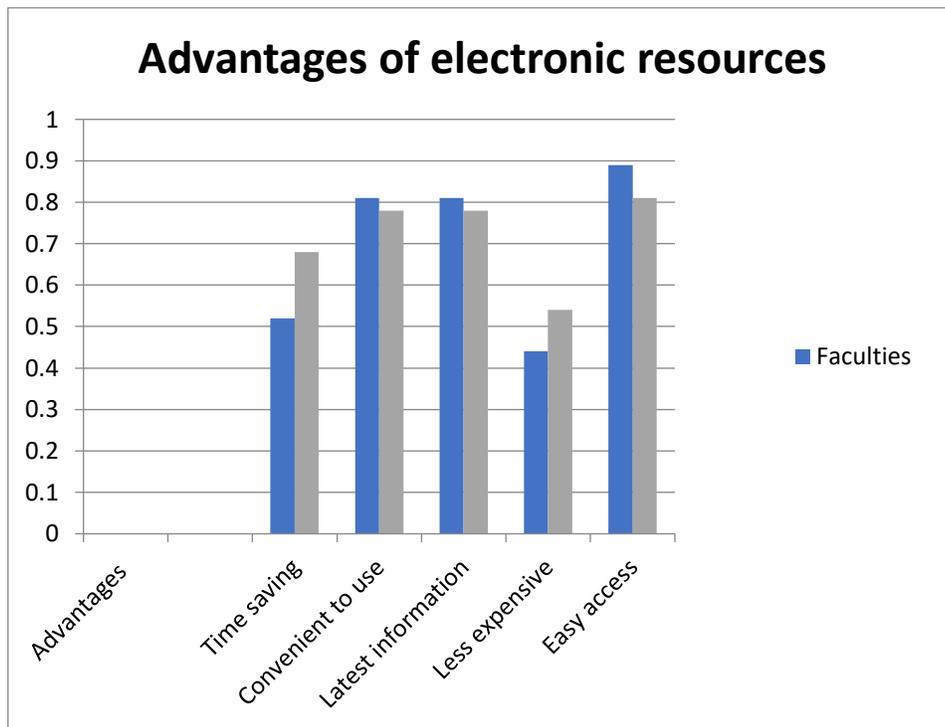


Figure 1: Advantages of electronic resources

5.2. PROBLEMS OF ELECTRONIC RESOURCES

Users may encounter many problems while using e-resources such as information overload, lack of e-resources etc. These can be the factors which hinder the user from using e-resources. The investigator is intended to know what are the problems faced by research scholars and faculties of NITC institution while using e-resources.

Table 5.2: Problems of electronic resources

Problems	Number of responses		
	Faculties	Research scholars	Grand total
Lack of free e-resources	6 (15.7%)	27 (45.7%)	33 (34%)
Information overload	10 (26.3%)	18 (30.5%)	28 (28.8%)
Difficulty in retrieving Relevant information	17 (44.7%)	23 (38.9%)	40 (41.2%)
Slow access speed	2 (5.2%)	9 (15.2%)	11 (11.3%)

The table 5.2 shows that among faculties about half of (44.7 per cent) them find retrieving relevant information as problem of the e-resources and very few numbers of them (5.2 per cent) finds slow access as the problem. In the case of research scholars about half of them (45.7 per cent) say there is lack of e-resources in the institution and very few respondents (15.2 per cent) say slow access speed as the problem they face while using e-resources.

It is found that more than half of the faculties and research scholars do not face any problem while using e-resources. About half of the research scholars and faculties (41.2 per cent) say that there is difficulty in retrieving relevant information from e-resources in the library and a very few (11.3 per cent) of them say that the access speed is slow.

5.3. MOST PREFERRED ELECTRONIC RESOURCES

There are many types of e-resources. The preference of use of e-resources differs from one user to another. This question is put forwarded to know which e-resource is mostly preferred by research scholars and faculties of the institution. The respondents were requested to choose the e-resources they prefer the most. The data received is analyzed in the following table.

Table 5.3: Most preferred electronic resources

e-resources	Number of responses		
	Faculties	Research scholars	Grand total
e-books	27 (71%)	30 (50.8%)	57 (58.7)
e-research reports	27 (71%)	32 (54.2%)	59 (60.8%)
e-learning materials	24 (63.1%)	26 (44%)	50 (51.5%)
e-journal/magazines	34 (89.4%)	56 (94.9%)	90 (92.7%)
e-theses & e-dissertation	20 (52.6%)	34 (57.6%)	54 (55.6%)
e-abstracting & indexing databases	13 (34.2%)	26 (44%)	39 (40.2%)
e-news paper	17 (44.7%)	8 (13.5%)	25 (25.7%)

The table 5.3 reveals that a large majority of faculties (89.4 per cent) and almost all the research scholars (94.9 per cent) choose e-journal/magazines as their preferred e-resources and a good number of faculties (34.2 per cent) select e-abstracting and databases as their preferred e-resource. In the case of research scholars very few (13.5 per cent) of them selected e-newspapers as their preferred e-resource.

On further analysis the table reveals that majority (71 per cent) of the faculty selected e-books and e-research reports as their preferred one. Among research scholar's half of them (50.8 per cent) selected e-books and e-research reports (54.2 per cent) as their preferred one.

Table 5.3 also shows that, almost all the faculties and research scholars (92.7 per cent) select e-journal/magazines as their preferred e-resources and only few number of them (25.7 per cent) select e-newspaper as their preferred e-resources.

The overall analysis reveals that e-journal/magazines are the most preferred e-resources and e-newspaper is the least preferred e-resources by faculties and research scholars of the institution.

5.4. STATUS OF ELECTRONIC RESOURCES AVAILABLE IN THE NITC LIBRARY

To evaluate the e-resources in the NITC library it is important to rate the status of e-resources by the users. Here the respondent was asked to rate some characteristics of e-resources available in the NITC library. Through this question the investigator intended to know the users view point to the characteristics of e-resources available in the library. This also reveals the familiarity of the research scholars and faculties of NITC with the e-resources provided by the library.

Table 5.4: Status of electronic resources in NITC library

Status	Number of responses							
	Strongly Agree		Agree		Disagree		Strongly disagree	
	Faculties	Research Scholars	Faculties	Research Scholars	Faculties	Research scholars	Faculties	Research Scholars
Adequate	17(45%)	26 (44%)	21 (55%)	29 (49%)	0	4 (7%)	0	0

Relevant	25 (66%)	28 (47%)	12 (31%)	31 (53%)	0	0	0	0
Recent	19 (50%)	17 (29%)	18 (47%)	35 (59%)	0	7 (12%)	0	0
Comprehensive	12 (31%)	11 (18%)	23 (60%)	46 (78%)	2 (5%)	2 (3%)	0	0
Concise	9 (26%)	8 (14%)	26 (68%)	46 (78%)	2 (5%)	5 (8%)	0	0
Clear	13 (34%)	16 (27%)	24 (63%)	38 (64%)	0	5 (8%)	0	0
Helpful in practical	15 (39%)	22 (37%)	20 (52%)	35 (59%)	2 (5%)	2 (3%)	0	0
Ease of access	18 (47%)	32 (54%)	19 (50%)	25 (42%)	0	2 (3%)	0	0
Speed of retrieval	21 (55%)	34 (57%)	17 (45%)	23 (39%)	0	2 (3%)	0	0

From the table 5.4 we can say that in every nine cases half of the respondents rated either strongly agree or agree, only a very few number of respondents rated disagree and none of them rated strongly disagree. This also reveals the familiarity of research scholars and faculties with e-resources provided by NITC library.

5.5. BARRIERS OF ELECTRONIC RESOURCES

Barriers are the obstacle that prevents the use of e-resources. There will be many barriers that keep users apart from using e-resources. It is important to know these barriers which prevents user from using e-resources. Through this question investigator can understand the barriers felt by respondent while using e-resources. These questions are expressed and analyzed in the following table.

Table 5.5: Barriers of electronic resources

Barriers	Number of responses		
	Faculties	Research scholars	Grand total
Lack of technical knowledge	0 (0%)	7 (11.8%)	7 (7.2%)
Electricity power failure	0 (0%)	2 (3.3%)	2 (2%)
Lack of system speed	10 (26.3%)	3 (5%)	13 (13.4%)
Lack in infrastructure	0 (0%)	13 (22%)	13 (13.4%)
Instability of network	2 (5.2%)	27 (45.7%)	29 (29.8%)

From the table 5.5, it is clear that many of the faculties do not face any of these barriers while using e-resources but a few numbers of faculties (26.3 per cent) feels lack of system speed as a barrier. In the case of research scholars, about half of them (45.7 per cent) say instability of network while using e-resources and a very few number (3.3 per cent) of research scholars feels electricity power failure as a barrier.

On further analysis it is clear that a few number (29.8 per cent) of research scholars and faculties feel instability of network and very few (2 per cent) of them feels electricity power failure as a barrier.

Overall result shows that more than half of the research scholars and faculties do not feel any barrier while using e-resources in NITC library.

5.6. INFLUENCE OF ELECTRONIC RESOURCES

Use of e-resources may influence users in different ways. These influences may promote the use of e-resources. This data will help to understand the extent to which e-resources influence research scholars and faculties of the institution. The data collected are analyzed in the table given below.

Table 5.6: Influence of electronic resources

Influences	Number of responses		
	Faculties	Research scholars	Grant total
Speed up the research process	24 (63.1%)	38 (64.4%)	62 (63.9%)
Easy information gathering	31 (81.5%)	46 (77.9%)	77 (79.3%)
Easy to collect cited sources	31 (81.5%)	42 (71.1%)	73 (75.2%)
To update information	27 (71%)	36 (61%)	63 (64.9%)

The table 5.6 shows that a large majority (81.5 per cent) of faculties say that easy information gathering and easy to collect cited sources is the greater influence of e-resources and more than half of (64.4 per cent) them say that speed up the research process is the influence. Among research scholars majority (77.9 per cent) say easy information gathering as the greater influence of e-resources and more than half of them (61 per cent) say that to update information is the influence.

On further analysis we can say that majority of research scholars and faculties (79 per cent) choose easy information gathering as the influence of e-resources and more than half of them (63.6 per cent) say speed up the research process as greater influence.

Altogether we can say that more than half of the total research scholars and faculties choose all the four influences of e-resources. This shows their result of usage of e-resources.

5.7. USER SATISFACTION

Satisfaction is the fulfillment of one's need or expectation. Satisfaction of e-resources means fulfillment of needs or expectation of e-resources. This question is asked to the respondent to know the satisfaction level of e-resources provided by NITC library. Interpretation of the data received from the table below shows the effectiveness of collection management of e-resources done by the librarian.

Table 5.7: User satisfaction

Satisfaction level	Number of responses		
	Faculties	Research scholars	Grand total
Fully satisfied	24 (63.1%)	26 (44%)	50 (51.5%)
Partially satisfied	14 (36.8%)	33 (56.9%)	47 (48.4%)
Not satisfied	0	0	0

Table 5.7 shows that among faculties more than half of them (63.1 per cent) feel fully satisfied and a good number among them (36.8 per cent) feel partially satisfied by the e-resources. Among research scholars half (56.9 per cent) of them feel partially satisfied and about half of them (44 per cent) feel fully satisfied by the e-resources.

The Overall analysis reveals that half of the research scholars and faculties (51.5 per cent) feel fully satisfied by the e-resources also about half of them (48.4 per cent) feel partially satisfied and none of the respondent feels dissatisfaction by the e-resources provided by the institution.

5.8. ANALYSIS OF INTERVIEW

In this study, interview method is done with the librarian of NITC library. Through these questions, investigator tends to know how the collection management of e-resources is done in the library. The questions are listed in the table given below.

Table 5.8: Interview method

Sl.No	Questions	Answers
1.	Working hours of the library	There are three shift in working hours of library they are 8am to 4.30pm, 9am to 5.30am and 3pm to 11 pm.
2.	Which software is used for inter library management?	Koha software is used for inter library management.

3.	Which software is used in digital library?	Greenstone software is used in digital library.
4.	Is there any problems faced because of budget? If yes mention it.	There is no problem faced due to budget. Because each and every year there will be a fixed amount for purchasing collections to library.
5.	What are the problems faced due to license issue	There is no problems faced due to license
6.	Does your library have a written collection development policy for e-resources? If yes please permit to have a copy collection development policy of your library.	There is no written collection development policy in the library.
7.	What are the criteria used for selecting e-information resources?	There are two committees fixed for purchasing collections in the library, (these collections include printed and electronic resources) they are advisory committee and purchase committee these advisory committee includes teaching faculties of NITC. They collect opinion from faculties of every department. And according to it both the committee decides what to purchase.
8.	How many e-resources collections are there? What are they?	There are 4 e-resources collections, they are e-books, e-journals, e-theses and e-databases
9.	Whether the library a member of any Indian consortia initiative?	The library is a member of e-shodhsindhu.
10.	What are the other problems faced during maintenance issue?	Some links will be inactive sometimes and it is difficult to check whether the link is active or not.

Table 5.8 reveals that the working hours of the NITC library is divided into 3 shifts they are 8am to 4.30am, 9am to 5.30am and 3pm to 11pm. Koha software is used as the software for inter library management and greenstone software is used in the digital library. Librarian does not face any challenges due to budget issue and license issue. There is no written collection development policy for e-resources. In NITC library the selection of e-resources and printed collections are decided by two committees that is advisory committee and purchase committee on the basis of opinions collected from faculties of every departments of the institution. The library has four e-resource collections they are e-books, e-journal, e-database and e-theses. The library is a member of e-ShodhSindhu. There is a maintenance issue in the case of e-resources that is checking whether the link is active or not.

6. MAJOR FINDINGS OF THE STUDY

- 1) A large majority of research scholars and faculties consider easy access as the advantage of e-resource.
- 2) More than half of the research scholars and faculties of institution do not have any problem while using e-resources.
- 3) Almost all the research scholars and faculties prefer e-journal/magazines over the other e-resources.
- 4) A few numbers of research scholars and faculties prefer e-news papers over the other e-resources.
- 5) A large majority of the faculties and research scholars of the institution has a positive opinion regarding status of e-resources available in the NITC library. This shows their familiarity with e-resources.
- 6) More than half of the research scholars and faculties do not face any barriers while using e-resources in the institution.
- 7) Use of e-resources had a great influence on more than half of the research scholars and faculties and this shows that there exists effective usage of e-resources.
- 8) More than half of faculties and research scholars are fully satisfied with the e-resources in accordance with the information requirement in NITC Calicut.
- 9) There is no written collection development policy in NITC library.
- 10) Librarian does not face any problem due to budget in collection management process of e-resources.
- 11) Librarian does not face any problems due to license issue in collection management process of e-resources.

- 12) Librarian face problem during maintenance of e-resources that is some links will be inactive so it is difficult to check every time whether the link is active or not.

7. CONCLUSION

The investigator has attempted to make a study on collection management of e-resources in NITC library. The findings of the study reveals that librarian while managing e-resources faces fewer challenges like maintenance issue and does not face major challenges like budget issue or license issue which shows the proper management of e-resources. Majority of research scholars and faculties of the institution doesn't say anything about problems or barriers while using e-resources, this shows the level of user satisfaction of e-resources provided by the library.

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None.

CONFLICT OF INTEREST

None.

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