An Analytical Study of Awareness and Use of Electronic Resources in Selected Arts and Science Colleges in Coimbatore District, Tamil Nadu

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Abstract

This analytical study investigates the awareness and utilization of electronic resources in selected Arts and Science Colleges in Coimbatore District, Tamil Nadu. The researchers aim to understand the perspectives of respondents regarding electronic resources, focusing on their thoughts, future expectations, advantages, disadvantages, impact, and overall satisfaction. The study also delves into the barriers hindering optimum use of electronic resources in surveyed colleges. The definition of electronic resources, as per the Library of Congress and International Federation of Library Associations and Institutions, is provided, emphasizing materials accessible through computers, either remotely or via direct access. A review of related literature includes studies on the impact of value co-creation on satisfaction and intention to adopt e-resources, usage patterns among academic staff and students, and user perceptions of e-resources. The objectives of the study encompass exploring the advantages and disadvantages of electronic resources, distribution of questionnaires, assessing respondents' preferences and future opinions, determining the impact on academic activities, gauging overall satisfaction, identifying barriers to optimal use, and evaluating awareness and usage of electronic resources. Results show high awareness and usage of e-books, e-journals, e-databases, and other electronic documents. Respondents express a preference for electronic resources due to their informativeness, 24x7 availability, and speed of access. Future expectations include electronic resources supplementing print resources. The study also highlights barriers such as inadequate IT infrastructure and lack of IT knowledge. Overall satisfaction with electronic resources is reported, with suggestions for improvement including better internet bandwidth and increased subscription to electronic resources. In conclusion, the study sheds light on the current status of electronic resource awareness and usage in the surveyed colleges, providing insights into user opinions, preferences, and areas for improvement.

Keywords: Awareness and use of electronic resources, advantages and disadvantages, impact and overall satisfaction and arts and science colleges in Coimbatore district

Introduction

In modern libraries the electronic resources are becoming more and more important. The printed resources are now being digitized, which has given rise in increases of the availability of books, journals and other printed resources in electronic form (Sinha, Singha, & Sinha, 2011) [8]. The electronic resources available in a library play a prominent role in facilitating access to required information to the users in an easy and expeditious manner. Further, one need not go to the library to make use of print formats as the digital resource can be made use of by any user through online access via networks or authentication methods at any time comfortably by sitting at department or residences. In view of all these e-resources like e-journals, e-books, online databases, Internet etc., are gradually replacing the importance and usage of print resources.

In recent years, academic users have become more dependent on article databases and electronic journals to obtain information pertinent to their academic needs. In India, especially higher education has tremendous growth in providing quality education for past two decades; most of the colleges are providing pin pointed electronic information to their users. It is right time to evaluate or assess the library electronic collections. This study presents preliminary findings of the current status of awareness and use of electronic resources in selected arts and science colleges in Coimbatore district, Tamil Nadu.

Definition

According to Library of Congress (LoC) an "electronic resource" is defined as "any work encoded and made available for access through the use of a computer" (Misra, 2013) [5]. It includes electronic data available by

i). Remote access and
ii). Direct access (fixed media).

In other words: Remote access (electronic resources) refers to the use of electronic resources via computer networks. Direct Access (electronic resources) refers to the use of electronic resources via carriers (e.g., discs/disks, cassettes, cartridges) designed to be inserted into a computerized device or its auxiliary equipment.

According to IFLA (International Federation of Library Associations and Institutions) "electronic resources" refer to those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device. They may either be accessed remotely via the Internet or locally (Johnson, *et al*., 2012) [3].

Review of Related Literature

Konduru and Dhanamjaya (2021) [3] conducted a study to explore the awareness and utilization of electronic resources (e-resources) among faculty and students at Bengaluru City University (BCU). The research employed a questionnaire-based survey method to gather primary data from participants. The analysis of collected data encompassed the reasons for using e-resources, how users became aware of them, methods of access, frequency of e-resource usage, preferred formats, challenges faced, and user satisfaction. The findings revealed that 89% of the respondents were aware of e-resources, and 52% expressed a preference for both print and electronic formats. Additionally, 64% of users reported satisfaction with the available e-resources. The study identified low internet speed and difficulty in finding relevant information as significant barriers, as reported by the respondents.

Shivaraju and Sivasami (2019) [7] conducted a study with the aim of assessing the utilization of electronic resources among the faculty and research scholars at Alliance University in Bengaluru. The research employed a questionnaire method to survey the use of electronic resources by faculty members and research scholars. The data analysis included exploring the purposes of using e-resources, the most frequently utilized types, challenges encountered during access, and user satisfaction levels. Responses indicated a preference for electronic resources in searching for scholarly information. The study unveiled that a majority of respondents were aware of electronic resources, with a significant number utilizing e-journals for information retrieval. Moreover, the majority of users in the study expressed a preference for e-resources in their research and project work. Notably, the findings highlighted that electronic resources had a positive impact on teaching and research activities, as reported by the majority of users involved in the study.

In Wijetunge's study conducted in 2017, the focus was on exploring the utilization of electronic resources among Library and Information Science (LIS) professionals in Sri Lankan public universities, primarily accessed through CONSAL (Consortium of Sri Lankan Academic Libraries) and other channels. The research involved 99 librarians from these institutions, and data collection was carried out using a structured questionnaire. The findings revealed that 65% of the respondents frequently utilized open access materials for their research, with a majority (33%) incorporating them into their research activities. Additionally, 60% of the participants believed that the available e-resources adequately met their needs. Common barriers to e-resource usage included the inability to access databases from home, the absence of some full-text articles, a lack of relevant material, and restricted access to archival resources. To enhance the utilization of e-resources, the study recommended improvements in home access, the addition of more LIS-specific material, and increased training programs targeting a broader audience of LIS professionals. It's important to note that the study focused on the period from 2014 to 2015, following the establishment of CONSAL.

Objective of the study

The present study primarily aims to maintain a comprehensive record as well as examine the level of awareness and use of various electronic resources in selected arts and science colleges in Coimbatore district, Tamil Nadu. This study throws light on the extent of use of library electronic resources by the user of respective Arts and Science Colleges. The present study, therefore, has the following objectives:

- The advantages of electronic resources
- The disadvantages of electronic resources
- To distribution of questionnaire for the selected arts and science colleges in Coimbatore under survey
- To distribution of respondents opinion for preferring electronic resources
- To distribution of respondents opinions on the future of electronic resources
- To find out the respondents opinion regarding impact of electronic resources on academic Activity
- To find out the respondents opinion regarding overall satisfaction
- To find out the respondents opinion regarding the barriers that hinders optimum use of electronic resources
- To identify awareness and usage of electronic resources by the respondents

Table 1: Distribution of Questionnaire for the selected Arts and Science Colleges in Coimbatore under survey

S. No	Selected Colleges in Coimbatore	Respondents	Percentage	Cumulative Percentage
1.	Kongunadu Arts and Science College	60	20.83	20.83
2.	A.J.K. College of Arts and Science	59	20.49	41.32
3.	Hindusthan College of Arts and Science	58	20.14	61.46
4.	Rathinam College of Arts and Science	56	19.44	80.90
5.	Sri Krishna Arts and Science College	55	19.10	100.00
	Total	288	100.00	

Among the total selected respondents (Students and Staff members), there are Sixty (~2.83 percent) percent of the respondents were from Kongunadu Arts and Science College, fifty nine (~20.49 percent) percent of the respondents were from A.J.K. College of Arts and Science, fifty eighty (~20.14 percent) percent of the respondents were from Hindusthan College of Arts and Science, fifty six (~19.44 percent) percent of the respondents were from Rathinam College of Arts and Science and fifty five (~19.10 percent) percent of the respondents were from Sri Krishna Arts and Science College for this study.

Table 2: Distribution of Respondents opinion for preferring Electronic Resources

S. No	Reasons	Respondents	Percentage	Mean	SD
1.	More informative	278	96.53		
2.	24x7 availability	265	92.01		
3.	Speed of Access	252	87.50		
4.	Frequency	238	82.64	245	24.91318
5.	Ease of Storage	219	76.04		
6.	Environmental Impact	216	75.00		

The respondents who indicated that they would prefer electronic resources were asked to specify the reasons from among the choices included in the survey. There are more than ninety six (~96.53) percent of the respondents opinion that more informative, followed by more than ninety two (~92.01) percent of the respondents opinion that 24x7

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availability, more than eighty seven (~87.50) percent of the respondents opinion that speed of access for preferring electronic resources.

The distribution of opinion for preferring Electronic Resources by respondents in selected arts and science colleges in Coimbatore district, Tamil Nadu, had mean average of 245 with the standard deviation 24.91318 seems to lie within the high distribution.

Table 3: Distribution of Respondents opinions on the future of Electronic Resources

S. No	Opinions	Respondents	Percentage	Mean	SD
1.	Electronic resources will supplement print resources	259	89.93		
2.	Electronic resources will eventually print resources	245	85.07	245	14.000
3.	Electronic resources will dominate print resources	231	80.21		

The above table revealed that the distribution of respondents opinions on the future of electronic resources, there are more than eighty nine (~89.93) percent of the respondents opinions on the future of electronic resources will supplement print resources, followed by more than eighty five (~85.07) (~89.93) percent of the respondents opinions on the future of electronic resources will eventually print resources and more than eighty (~80.21) percent of the respondents opinions on the future of electronic resources will dominate print resources.

The distribution of opinion on the future electronic resources by respondents in selected arts and science colleges in Coimbatore district, Tamil Nadu, had mean average of 245 with the standard deviation 14.000 seems to lie within the high distribution.

Table 4: Advantages of Electronic Resources

S. No	Advantages	Respondents	Percentage	Mean	SD
1.	Easily searchable	265	92.01		
2.	Faster and easier access	254	88.19		
3.	Multiple Access	243	84.38		
4.	Provide up-to-date information	231	80.21	254	13.21666
5.	Access to a wider range of information	222	77.08		
6.	Easy navigation	213	73.96		

There are more than ninety two (~92.01) percent of the respondents said to electronic resources are 'easily searchable', followed by more than eighty eight (~88.19) percent of the respondents said to electronic resources are 'faster and easier access', more than eighty four (~84.38) percent of the respondents said to electronic resources are 'multiple access' and more than eighty (~80.21) percent of the respondents said to electronic resources are 'provide up-to-date information'.

The advantage of electronic resources by respondents in selected arts and science colleges in Coimbatore district, Tamil Nadu, had mean average of 254 with the standard deviation 13.21666 seems to lie within the high distribution.

Table 5: Disadvantages of Electronic Resources

S. No	Disadvantages	Respondents	Percentage	Mean	SD
1.	Overload of information	221	76.74		
2.	Difficult to read it from screen	185	64.24	184	19.49359
3.	Periodic updating	183	63.54		
4.	Cause distraction	179	62.15		

There are more than seventy six (~76.74) percent of the respondents said to electronic resources are 'overload information', followed by sixty four (~64.24) percent of the respondents said to electronic resources are 'difficult to read it from screen', sixty three (~63.54) percent of the respondents said to electronic resources are 'periodic updating' and sixty two (~62.15) percent of the respondents said to electronic resources are 'cause distraction'.

The disadvantage of electronic resources by respondents in selected arts and science colleges in Coimbatore district, Tamil Nadu, had mean average of 184 with the standard deviation 19.49359 seems to lie within the high distribution.

Table 6: Awareness and usage of Electronic Resources by the Respondents

S. No	Electronic Resources	Awareness	%	Usages	%
1.	E-Books	288	100.00	221	76.74
2.	E-Journals	288	100.00	203	70.49
3.	E-Databases	265	92.01	199	69.10
4.	Inter linked hypertext documents	258	89.58	195	67.71
5.	Online study materials	235	81.60	185	64.24
6.	E-Theses	230	79.86	181	62.85
7.	Other E-Documents	211	73.26	178	61.81

The above table revealed that awareness and usage of electronic resources by the respondents in the selected Arts and Science Colleges in Coimbatore District, there are hundred (~100.00) percent of the respondents are aware of e-book and e-journals and more than seventy six (~76.74) and seventy (~70.49) percent of the respondent are use of e-book and e-journals, followed by more than ninety two (~92.01) percent of the respondents are aware of e-database and more than sixty nine (~69.10) percent of the respondent are use of e-databases.

Table 7: Respondents opinion regarding impact of Electronic Resources on Academic Activity

S. No	Impact	Respondents	Percentage
1.	Made it easier to find material	245	85.07
2.	Made it easier to get hold of the material	241	83.68
3.	Reduced working time	231	80.21
4.	Improved the quality of work	214	74.31
5.	Improved professional competence	201	69.79
6.	Made it easier to keep up with the development	196	68.06

The above table revealed that respondents opinion regarding impact of electronic resources on academic activity, there are more than eighty five (~85.07) percent of the respondents opinion regarding impact of electronic resources on 'made it

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easier to find material', followed by more than eighty three (~83.68) percent of the respondents opinion regarding impact of electronic resources on 'made it easier to get hold of the material', more than eighty (~80.21) percent of the respondents opinion regarding impact of electronic resources on 'reduced working time' and more than seventy four (~74.31) percent of the respondents opinion regarding impact of electronic resources on 'improved the quality of work'.

Table 8: Respondents opinion regarding the barriers that hinders optimum use of Electronic Resources

S. No	Barriers	Respondents	Percentage
1.	Inadequate IT infrastructure	223	77.43
2.	Lack of IT knowledge	215	74.65
3.	Lack of effective information retrieval skills	203	70.49
4.	Poor network connectivity	189	65.63
5.	Lack of information about e-resources	164	56.94
6.	Lack of Training	149	51.74

The above table analyses that the respondents opinion regarding the barriers that hinders optimum use of electronic resources, there are more than seventy seven (~77.43) percent of the respondents opinion regarding the barriers that hinders optimum use of electronic resources are 'Inadequate IT infrastructure', followed by more than seventy four (~74.65)

percent of the respondents opinion regarding the barriers that hinders optimum use of electronic resources are 'Lack of IT knowledge', more than seventy (~70.49) percent of the respondents opinion regarding the barriers that hinders optimum use of electronic resources are 'Lack of effective information retrieval skills' and more than sixty five (~65.63) percent of the respondents opinion regarding the barriers that hinders optimum use of electronic resources are 'Poor network connectivity'.

Table 9: Respondents opinion regarding overall satisfaction

S. No	Overall Satisfaction	Respondents	Percentage
1.	Highly satisfied	85	29.51
2.	Satisfied	156	54.17
3.	Dissatisfied	29	10.07
4.	Very dissatisfied	18	6.25
	Total	288	100.00

Among the total respondents, there are more than fifty four (~54.17) percent of the respondents overall satisfied with the using of electronic resources, followed by more than twenty nine (~29.51) percent of the respondents overall highly satisfied with the using of electronic resources, more than ten (~10.07) percent of the respondents overall dissatisfied with the using of electronic resources and more than six (~6.25) percent of the respondents overall very dissatisfied with the using of electronic resources.

Table 9: Suggestions offered by the Respondents

S. No	Suggestions Offered	Respondents	Percentage
1.	Internet with good Bandwidth	234	81.25
2.	E-Portfolios	221	76.74
3.	Subscription to more E-Resources	218	75.69
4.	Resources	215	74.65
5.	Mobile optimized resources	214	74.31
6.	Social media based promotional activities	199	69.10
7.	Remote access	195	67.71
8.	Building Institutional Repositories	164	56.94
4.	E-resources training	159	55.21
5.	Discovery services	158	54.86
6.	Informative library Website	145	50.35

It is obvious that some suggestions would definitely come from the respondents for this study. So, the respondents offered more than one suggestion which covered a wide range of topics across a wide range of library electronic resources. There are more than eighty one (~81.25) percent of the respondents suggested need to 'Internet with good Bandwidth', followed by more than seventy six (~76.74) percent of the respondents suggested need to 'E-Portfolios', more than seventy five (~75.69) percent of the respondents suggested need to 'Subscription to more E-Resources' more than each seventy four (~74.65) and (~74.31) percents of the respondents suggested need to 'Resources' and 'Mobile optimized resources'.

Conclusion
The results of the electronic resource for library users indicate that that most respondents used their respective library electronic resources. Most of the respondents felt that the opinion about that more informative, 24x7 availability, speed

of access for preferring electronic resources. More than eighty nine (~89.93) percent of the respondents opinions on the future of electronic resources will supplement print resources, there are more than ninety two (~92.01) percent of the respondents said to electronic resources are 'easily searchable'; more than seventy six (~76.74) percent of the respondents said to electronic resources are 'overload information'.

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