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# QUANTITATIVE ANALYSES FOR ACCESS OF ELECTRONIC INFORMATION BY THE FACULTY MEMBERS IN THE ENGINEERING AND TECHNOLOGY INSTITUTIONS IN COIMBATORE DISTRICT.

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#### **Abstract**

The study analyses the majority of the respondents 221 (42.5%) are assistant professors/ lecturers/senior lecturers, and 195 (37.5%) of them are associate professors followed by 104 (20%) of the respondents are professors. 331 (26.7%) of the respondents followed by the use of e-magazines by 182 (14.7%) respondents. The data shows that a large number of 263 (50.6%) of the respondents are "Highly Satisfied" with the lecturing materials followed by 257 (49.4%) of the respondents "Satisfied" with e-resources offering lecturing materials. This data presents that a large number of respondents 265 (51.0%) prefer gateway portal to a "Large Extent' and 139 (26.7%) of the respondents prefer to a "Very Large Extent". On the other hand, it has also been noticed that 105 (20.2%) of the respondents are "Less satisfied" whereas 11 (2.1%) of the respondents opted "No Comment".

**Keywords:** Faculty members, e-resources, Engineering and Technology, E-Journals, E-Books, E-databases and UGC- Inflibnet

#### Introduction

Libraries today, buy licenses for an ever-increasing number of information resources from an array of publishers and providers and use diverse technologies for information delivery. In addition, a trove of relevant resources is freely available on the web for libraries to incorporate into their e-collections and to make them readily available to their users. Materials may be in print and/or electronic form; formally and/or informally published; and stored locally for access via an institution's Intranet or remotely accessible via the internet. A number of services are outside the library's control but, nonetheless, libraries, want to integrate their resources, presenting the information from any particular source within the context of the complete collection. Searching across repositories is only part of the solution. While not all subscriptions lend themselves to electronic delivery, electronic subscriptions offer a great potential for increased value to the entire organization. The move from atoms to bits complicates the jobs of information professionals but the benefits - competitive advantage, access to information by a wide spectrum of users - could be tremendous. In other words, we are slowly transforming ourselves to be 'bit-keepers' as against the age-old version of 'book-keepers'.

#### **Review of Literature**

Sumit Paul, Sur Chandra Singha and Shibojit Choudhary (2015)1 evaluated the use of electronic resources by library users at Assam University and thereby, subsequently assessed their level of satisfaction with the existing ICT infrastructure facilities available in the university library. Hira Tariq and Muhammd Waseem Zia (2014)<sup>2</sup> did a thorough examination to identify the use of Electronic Information Resources by the students of Faculty of Science, University of Karachi. The study aimed to determine the frequency of utilization, major problems faced by users while using EIR, to study the purpose of use, to find out the advantages and disadvantages in using EIR, and to identify the preferred format by the user. Selvaraj A.D. and G.Rathinasabapathy (2014)<sup>3</sup> in their 'A Study on Electronic Information Use Pattern of Faculty Members of Self-Financing Engineering Colleges in Tiruvallur District, Tamilnadu' aimed to comprehend the information use pattern by the faculty members of 16 engineering college libraries in the district. Dzokotoe Plockey (2017)<sup>4</sup> stated the objective of this study was to examine the use of electronic resources by lecturers of the University for Development Studies, Wa campus. Baskaran (2011)<sup>5</sup> explained that tackles systemic problems first rather than individual pieces of technology within that system. In this respect, information science can be seen as a response to technological determination, the belief that technology" develops by its own laws, that it realizes its own potential, limited only by the material resources available, and must therefore be regarded as an autonomous system controlling and ultimately permeating all other subsystems of society. Baskaran, (2018)<sup>6</sup> explored that distance education is the most renowned descriptor used when referencing distance learning. It often describes the effort of providing access to learning for those who are geographically distant. During the last two decades, the relevant literature shows that various authors and researchers use inconsistent definitions of distance education and distance learning. As computers became involved in the delivery of education, a proposed definition identifies the delivery of instructional materials, using both print and electronic media. Baskaran (2018)<sup>7</sup> explained that MOOC has been around since 2008, but the concept began to generate significant media attention and debate in 2012 with the launch of MOOCs offered by or in association with prestigious US institutions through providers such as EdX, Coursera, and Udacity. In response to widespread media attention and debate, uptake of MOOCs has since spread globally. Coursera and EdX have partnered with elite institutions in Europe, Asia, and Australasia, and new MOOC platforms have been developed including Future Learn in the UK, OpenupEd, and iVersity in Europe and Open2 Study in Australia. Baskaran and Ramesh (2019)8. 31 (6%) respondents have completed Arts, Science and Management studies graduates by the faculty members, 91 (17.5%) have completed graduation in Engineering. highest number of respondents that about 409 6(33%) makes this sources for use of e-journals among the respondents. maximum number of 251 (48.3%) respondents rated that information sought from e-books are "Excellent" large number of 280 (53.8%) respondents "Agree" that electronic journals save the time of the user. majority of 337 (64.8%) of the respondents "Agree" that eresources are help them to keep abreast of knowledge. Binu PC and Baskaran C. (2019)9 analysed that the respondents of the study were 421 from selected State Universities in Kerala State, India. The Respondents categorize include Teaching faculty, Research Scholars and PG Students, the analysis made effective use of

Electronic resources in rely on academic research prevalence of their needs in the Six State Universities of Kerala. The results examined out of 421 respondents, 220 (52.3%) of them belong to Research scholar. majority of respondents 109 (25.9%) are post graduates and 75 (17.8%) are having PG with NET qualification. Mean value for 'To borrow books' was 3.86 and assigned the rank one. Majority of respondents 416 (98.8%) are searching for educational and research Information. Baskaran Ramesh (2019)<sup>10</sup> analyses the faculty members have tried to get the e-resources for them needful in terms of academic research at South State Universities of Tamilnadu. It analyses that Out of 380 respondents, the male respondents are found 263(69.21%), the Ph.D. qualified respondents are found 285(75%). it is found that Madurai Kamaraj University and Alagappa University have respondents of each 130 (34.21%). Prasad M and Baskaran C. (2019)11 analyses the faculty members have tried to get the eresources for them needful in terms of academic research at South State Universities of Tamilnadu. It analyses that Out of 380 respondents, the male respondents are found 263(69.21%), the Ph.D. qualified respondents are found 285(75%). it is found that Madurai Kamaraj University and Alagappa University have respondents of each 130 (34.21%). it is found that all 380 (100%) respondents are aware of E-Resources available in the University Library.

#### **Objectives of the Study**

- 1. To find out the designation wise Distribution of Respondents among the faculty members in the Engineering and Technology Institutions in Coimbatore District.
- 2. To observe the Types of Electronic Resources access among the respondents
- 3. To analyze the adequate Training Provided by Library to Use Electronic Resources
- 4. To analyze the Level of Satisfaction in Using Electronic Resources by the respondents
- 5. To find out the Preference to Access E-Resources by the respondents
- 6. To analyze the level of Satisfaction in Using Electronic Journals

#### Methodology

The present study was initiated by data collection among 39 engineering institutions in the Coimbatore district using structured questionnaire. Widespread literature survey was adopted to influence the topic of study and other research areas. This study was completed with the aid of electronic resources and other reference sources. The questionnaire was personally distributed to respondents in the engineering institution in Coimbatore districts. Out of 600 questionnaires distributed, 520 (86%) were received back. In order to explain and summarize the properties of the mass of data collected from the respondents, descriptive statistics was used. Parametric statistics like chi-square test were used for comparison of the factors considered between different levels of variables. A level of 0.05 was established prior for determining statistical significance.

#### **Results and Discussions**

**Table 1 Designation wise Distribution of Respondents** 

SI.No	Designation	Frequency	Percent
1	Asst.Professor/Lecturer/Sr.Lecturer	221	42.5
2	Associate professor	104	20
3	Professor	195	37.5
	Total	520	100

#### **Designation wise Distribution of Respondents**

Table 1 shows the designation wise distribution of the respondents in engineering institution. It indicates that majority of the respondents 221 (42.5%) are assistant professors/ lecturers/senior lecturers, and 195 (37.5%) of them are associate professors followed by 104 (20%) of the respondents are professors (Fig.1).

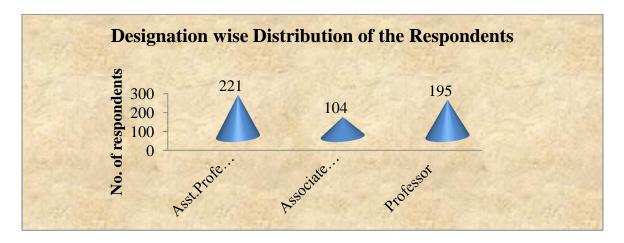


Figure – 1 Designation wise Distributions of Respondents

**Table 2 Types of Electronic Resources** 

SI.No	Electronic resources	Frequencies	Percent
1	E-journals	409	33.00%
2	E-books	331	26.70%
3	E-magazines	182	14.70%
4	CD/DVD/E-databases	162	13.10%
5	OPAC	154	12.40%
	Total	1238	100.00%

#### **Types of Electronic Resources**

Table 2 shows that the highest number of respondents that is 409 6(33%) makes use of e-journals. E-books are widely used by 331 (26.7%) of the respondents followed by the use of e-magazines by 182 (14.7%) respondents. The use of CD/DVD/E-databases is acknowledged by 162 (13.1%) of them which is closely followed by 154 (12.4%) of the respondents who use OPAC

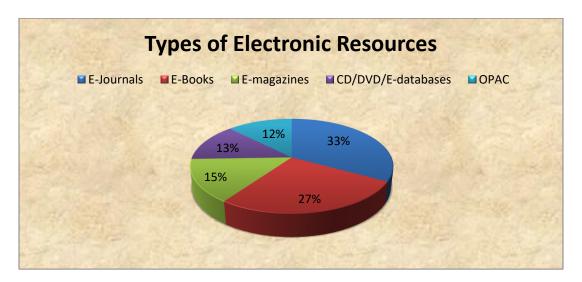


Figure – 2 Types of Electronic Resources

**Table 3 Adequate Training Provided by Library to Use Electronic Resources** 

SI.No	Response	Frequency	Percent
1	Yes	480	92.3
2	No	40	7.7
Total		520	100

# Adequate Training Provided by Library to Use Electronic Resources

Table 3 reveals that 480 (92.3%) of the respondents concede that adequate training is given to them on how to use electronic resources while 40 (7.7%) of them are of different opinion.

Table 4 Level of Satisfaction in Using Electronic Resources

SI.No Resources Satisfied Satisfied Satisfied Comments Total	SI.No	Electronic Resources	Highly Satisfied	Satisfied	Less Satisfied	Not Satisfied	No Comments	Total
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1.	Lecturing materials	263 (50.6)	257 (49.4)	00	00	00	520 (100)
2.	Publishing paper in journals	291 (56.0)	229 (44.0)	00	00	00	520 (100)
3.	Preparing articles for seminar/conference	194 (37.3)	326 (62.7)	00	00	00	520 (100)
4	Research and development	20 (3.8)	448 (86.2)	00	00	52 (10.0)	520 (100)
5.	Project works	143 (27.5)	290 (55.8)	46 (8.8)	00	47 (7.9)	520 (100)
6.	Writing of books	69 (13.3)	274 (52.7)	93 (17.9)	00	84 (15.8)	520 (100)
7.	Exchanging of ideas	223 (42.9)	174 (33.5)	41 (7.9)	00	82 (15.8)	520 (100)

# **Level of Satisfaction in Using Electronic Resources**

# (a) Lecturing materials

The data shows that a large number of 263 (50.6%) of the respondents are "Highly Satisfied" with the lecturing materials followed by 257 (49.4%) of the respondents "Satisfied" with e-resources offering lecturing materials.

#### (b) Publishing paper in journals

The data indicates that a maximum number of 291 (56.0%) of the respondents are "Highly Satisfied" in publishing paper in journals as against 229 (40.0%) of the respondents who are "Satisfied".

#### (c) Preparing articles for seminars/conferences

The data reveals that a large number of respondents 326 (62.7%) are "Satisfied" in preparing articles for seminar/conference as against 194 (37.3%) of the respondent who are "Highly Satisfied".

#### (d) Research and development

The interpreted data indicated that a large number of respondents 448 (86.2%) are "Satisfied" in research and development as against 52 (10.0%) of the respondents stating "No comments" followed by 20 respondents (3.8%) who expressed that they are "Highly Satisfied" in research and development.

#### (e) Project work

The data explicates that a maximum number of respondents 290 (55.8%) are "Satisfied" in project work, 143 (27.5%) of the respondents are "Highly satisfied" 46 (8.8%) of the respondents are "Less satisfied" and 47 (7.9%) of the respondents have "No Comments".

# (f) Writing books

The data explains that a large number of respondents 274 (52.7%) are "Satisfied" in writing books as against 93 (17.9%) of the respondents are "Less Satisfied", 84 (16.2%) of the respondents stating "No Comments" and 69 (13.3%) of the respondents are "Highly Satisfied" in writing books.

# (g) Exchange of ideas

The data shows that majority of the respondents 223 (42.9%) are "Highly Satisfied" in exchanging ideas as against 174 (33.9%) of the respondents who are "Satisfied", 82 (15.8%) of the respondents have "No Comments" and 41 (7.9%) of the respondents are "Less Satisfied" in exchanging ideas.

Table 5 Preference to Access E-Resources

SI.No	Preference to access E- Recourses	Very Large Extent	Large Extent	Less Satisfied	Less Extend	No Comments	Total
1.	Gateway	139	265	105	00	11	520
	portal	(26.7)	(51.0)	(20.2)		(2.1)	(100)

2.	Publishers Websites	293 (56.3)	59 (11.3)	157 (30.2)	00	11 (2.1)	520 (100)
2	Online	313	185	00	00	22	520
3.	3. Gateways	(60.2)	(35.6)	00	00	(4.2)	(100)

#### **Preference to Access Electronic Resources**

#### (a) Gateway portal

This data presents that a large number of respondents 265 (51.0%) prefer gateway portal to a "Large Extent' and 139 (26.7%) of the respondents prefer to a "Very Large Extent". On the other hand, it has also been noticed that 105 (20.2%) of the respondents are "Less satisfied" whereas 11 (2.1%) of the respondents opted "No Comment".

#### (b) Publisher websites

This data indicates that a majority of 293 (56.3%) respondents prefer publishers' websites to a "Very large extent" as against 157 (30.2%) of the respondents to "Some Extent". The data also highlights that 59 (11.3%) of the respondents preferred them to a "Large Extent" followed by 11 (2.1%) of the respondents opted "No Comment".

#### (c) Online gateways

This table shows that maximum number of 313 (60.2%) of the respondents prefer online gateways to a "very large extent" as against 158 (35.6%) of the respondents to a "Large Extent". This is followed by 22 (4.2%) of the respondents who opted "No Comment".

**Table 6 Level of Satisfaction in Using Electronic Journals** 

SI.No	Source of Information	Very Useful	Useful	Not useful	No comment	Total
1.	Bibliographical information	264	235	21	00	520
	information	(50.8)	(45.2)	(4.0)		(100)
2.	Current	96	403	21	00	520
	Information	(18.5)	(77.5)	(4.0)		(100)

3.	Retrospective	65	399	56	00	520
	information	(12.5)	(76.7)	(10.8)		(100)
4.	Conceptual	62	273	141	44	520
	Information	(11.9)	(52.5)	(27.1)	(8.5)	(100)
5.	Statistical	162	196	125	37	520
	information	(31.2)	(37.7)	(24.0)	(7.1)	(100)

#### **Level of Satisfaction in Using Electronic Journals**

#### (a) Bibliographical information

The data indicates that a majority of 264 (50.8%) of the respondents rated bibliographical information to be "Very useful" as against 235 (45.2%) of the respondents rated that as "Useful" followed by 21 (4.0%) of the respondents who rated it as "Not Useful".

#### (b) Current information

The data reveals that most of the respondents 403 (77.5%) rated that the current information to be "Useful" as against 96 (18.5%) of the respondents rated that are "Very useful" followed by 21 (4.0%) of the respondents who rated it as "Not Useful".

#### (c) Retrospective information

The data analysis indicates that a maximum number of 399 (76.7%) of the respondents rated that they "Useful" as against 65 (12.5%) of the respondents rated as "Very Useful" followed by 56 (10.8%) of the respondents who rated as "Not Useful".

#### (d) Conceptual information

The data expounds that a maximum number of 273 (52.5%) respondents rated it to be "Useful" as against 141 (27.1%) of the respondents rated it as "Not Useful". It has also been observed that 62 (11.9%) of the respondents find the information to be "Very Useful" followed by 44 (8.5%) respondents who did not comment.

#### (e) Statistical information

The data displays that a majority of 196 (37.7%) respondents find the statistical information to be "Useful" while 162 (31.2%) of the respondents rated that as "Very useful". Moreover, 125 (24.0%) of the respondents find it to be "Not useful" followed by 37 (7.1%) of the respondents who opted "No Comment"

#### Conclusion

The study discussed that impact significant access on the Electronic resources access among the faculty members in Engineering and Technology Institutions in Coimbatore District. The result of the research could be drawn that majority of the respondents 221 (42.5%) are assistant professors/ lecturers/senior lecturers, and 195 (37.5%) of them are associate professors. E-books are widely used by 331 (26.7%) of the respondents followed by the use of e-magazines by 182 (14.7%) respondents. 480 (92.3%) of the respondents concede that adequate training is given to them on how to use electronic resources while 40 (7.7%) of them are of different opinion. large number of 263 (50.6%) of the respondents are "Highly Satisfied" with the lecturing materials followed by 257 (49.4%) of the respondents "Satisfied" with e-resources offering lecturing materials. large number of respondents 265 (51.0%) prefer gateway portal to a "Large Extent' and 139 (26.7%) of the respondents prefer to a "Very Large Extent". majority of 264 (50.8%) of the respondents rated bibliographical information to be "Very useful" as against 235 (45.2%) of the respondents rated that as "Useful".

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