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Utilization of E-Resources among Women Faculty Members in Higher Educational Institutions in South Tamil Nadu

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Abstracts **- This study is aimed to examine the use and utilisation of E-Resources among the Women faculty members in higher educational institutions in South Tamil Nadu. Nearly 800 Questionnaires were distributed to the respondents, the women faculty members working in the higher educational intuitions in South Tamil Nadu. 630 were received back from this, making the response rate 78.75%. The 265(42.06%) of the Women faculty members used E-resources in Arts and Science. Only 8.25 per cent of the Women faculty members were using E-resources below 2yrs, and 6.35 per cent were using more than 8years. Followed by in Engineering and Technology, 8.73 per cent were using Electronic resources 4-6yrs and 7.14 per cent of the Women faculty members were using below 2yrs.**
Keywords**: E-Resources, Women Faculty, Higher Educational Institutions**

I. INTRODUCTION

In the knowledge era, much information was found, and people moved to electronic resources to adapt to new technologies. The E-Resource has been developed, maintained & organised depending upon the needs of the users at present & the future requirements of the users. Besides, the E-Resource development should accommodate within the financial structure of the library. The Collection Management is much more than collecting buildings along and the budget includes managing the use of the e-collection, storage, organisation and making it available to the users. In 2001, the Massachusetts Institute of Technology (MIT), in an unprecedented move, announced the release of nearly all its courses on the internet for free access. As the number of institutions offering free or open courseware increased, UNESCO organised the 1st Global OER Forum in 2002, where the term Open Educational Resources (OER) was adopted. Electronic publishing is one of the milestones in the open access movement. People preferred the open because of free from the fairness of copyright issues. Moreover, open-access resources were user friendly, and the access is more convenient than the print media. The developing countries also advocated the open-access movement.

II. REVIEW OF LITERATURE

Bao (2020) was perhaps the first to describe how universities moved from classroom-based education to online education because of the raging pandemic. Researchers have tried to understand the viewpoint of students on online education during the COVID-19 pandemic using empirical studies in India

Carroll & Conboy, (2020) studied the pandemic forced various organisations to modify their workflow strategies and adopt new technologies suddenly. In most cases, these organisations did not get enough time to reflect upon how the new system and the associated technologies should be introduced and integrated into their existing setup. Universities around the world were no exception.

Zhu & Liu, (2020) studied the existing substantial infrastructure for online education in many countries before the pandemic. However, no university was ready for a complete shift to online education. Empirical studies have found that students learn better in physical classrooms than in online education. Students miss the help they receive from their peers in classrooms and laboratories and access to the library. Nevertheless, students feel that online education helped them continue their studies during the pandemic. Universities are now using innovative strategies to ensure the continuity of education for their students.

Balasubramanian, P. & Shahnaz, P. (2021) studied that the University teachers are now delivering various platforms. Professors use online educational platforms, video conferencing software, and social media to teach their courses. Like Google Classroom and Blackboard, online educational platforms allow professors to share notes and multimedia resources related to their studies with students.

The online educational platforms also enable students to turn in their assignments and professors to keep track of their progress. Like Google Meet, Zoom, and Microsoft Teams, video conferencing tools help organise online lectures and discussion sessions. Such devices typically support slideshows and a chatbox. They are also disseminating course material through their websites and learning management systems. Additionally, professors are taking the help of virtual laboratories to teach science courses.

Taufiq, M., Rehman, S. & Ashiq, M. (2020) conducted a research on the level of User Satisfaction with Resources and Services and the problems faced by the public library users of Public Libraries of Lahore Pakistan. A survey method and structured questionnaire were designed to collect data. They used a convenience sampling technique for sample selection. The findings showed that the majority of the respondents tended to visit the public library daily and were satisfied with the circulation service. However, they were dissatisfied with the internet-based services and lack of a library-user relationship. This study results also highlight the need for the government policies to devise a benchmark for quality service delivery in public libraries in Pakistan.

III. STATEMENT OF THE PROBLEM

The world of education is changing as the modern world continues to grow. With so much progress happening, education must reach students in new ways to prepare them for the future. Today's students are tomorrow's leaders, inventors, teachers, and businessmen (and women). Without the proper skills, these students will not be prepared to survive. Electronic resources play an essential role in modern libraries due to the rapid advancement of information technologies, including the internet and digitising techniques.

The electronic resources include CD-ROMs, e-books, e-journals, e-databases (online databases), e-theses and dissertations (ETD) and websites. These are very popular among all users due to their varying characteristics such as easy and remote access, frequent updating, less storage space, easy downloading and user-friendliness. The present study analyses the respondents' satisfaction with the e-resources available in the higher educational institutions of south Tamil Nadu.

IV. OBJECTIVES OF THE STUDY

1. To identify the awareness on electronic resources among the Women faculty members.
2. To know the frequency wise distribution of using E-Resources.
3. To assess the time spent by the Women faculty members to access E-Resources.
4. To analyse the satisfaction of respondents about the availability of e E-Journals than printed journals.

V. METHODOLOGY

This analysis attempts to study the use and utilisation of E-Resources among the Women faculty members in higher educational institutions in South Tamil Nadu. The well-tested questionnaire was distributed personally to the women community, and also sufficient time was given to the respondent to furnish the information. 800 Questionnaires were distributed to the respondents; out of this, 630 were received back, making the response rate 78.75%. The collected data were classified and tabulated according to the study's objectives analysed by using statistical tools, such as percentage analysis.

VI. ANALYSIS AND INTERPRETATION

A. Distribution of Questionnaires to the Women Faculty

The Distribution of Questionnaires to the Women faculty members has been analysed based on the opinion and responses of the Women faculty members, and it is shown in the Table I. The distribution of questionnaires to the Women faculty members in South Tamil Nadu was classified under the Type of Institutes.

TABLE I AGE WISE DISTRIBUTION OF WOMEN FACULTY MEMBERS IN HIGHER EDUCATIONAL INSTITUTIONS IN SOUTH TAMIL NADU

Sl. No.	Type of Institute	Age Frequency			
		Below 35	36-50	Above 50	Total
1	Arts and Science	56(8.89)	108(17.14)	101(16.03)	265(42.06)
2	Engineering and Technology	63(10.00)	94(14.92)	91(14.44)	248(39.37)
3	College of Education	23(3.65)	55(8.73)	39(6.19)	117(18.57)
Total		142(22.54)	257(40.79)	231(36.67)	630(100.00)

(Figures in the parentheses denote percentage)

Table I indicates the age-wise distribution of the women faculty members. Among the 630, 22.54 per cent of the Women faculty members were in the age frequency of 'below 35', which includes 63(10%) were from Engineering and Technology, 56(8.89%) per cent were from Arts and Science, and 23(3.65%) were from the category of College of Education. Followed 40.79 per cent of the Women faculty members were in the age frequency of '36-50 years' and 36.67 per cent of the Faculty members were in the age frequency of 'Above 50'. It is observed from the table the majority of the respondents in the age group of 36-50 years'.

B. Awareness of Electronic Resources among the Women Faculty Members Vs Type of Institute

Awareness of Electronic Resources among the Women faculty members was analysed with Type of Institute based on the opinion and responses, shown in table II.

TABLE II AWARENESS OF ELECTRONIC RESOURCES AMONG THE WOMEN FACULTY MEMBERS VS TYPE OF INSTITUTE

Sl. No	Type of Institute	Yes	%	No	%	Total	%
1	Arts & Science	256	40.63	9	1.43	265	42.06
2	Engineering & Technology	246	39.05	2	0.32	248	39.37
3	College of Education	117	18.57	0	0.00	117	18.57
Total		619	98.25	11	1.75	630	100.00

It is identified from the Table II, the Awareness on Electronic Resources among the Women faculty members by the Type of Institute. Out of 265 Women faculty members in the Arts & Science Category, 40.63 per cent were aware of electronic resources, and 1.43 per cent were only not knowledgeable about electronic resources. Followed by In Engineering and Technology Category, 39.05 per cent of the Women faculty members were aware of E- help, and 0.32 per cent were unaware of the electronic resources.

It is highlighted from the table all the college of education faculty members were mindful of electronic resources.

C. Frequency wise Distribution of Using E-Resources Vs Type of Institute

The Frequency wise Distribution of Using E-Resources Vs Type of Institute wise among the Women faculty members have been analysed based on the opinion and shown in Table III.

TABLE III FREQUENCY WISE DISTRIBUTION OF USING E-RESOURCES VS TYPE OF INSTITUTE

Sl. No.	Frequency	Arts and Science	Engineering and Technology	College of Education	Total
1	Below two years	52(8.25)	45(7.14)	21(3.33)	118(18.73)
2	2-4	70(11.11)	26(4.13)	13(2.06)	109(17.30)
3	4 - 6	58(9.21)	55(8.73)	43(6.83)	156(24.76)
4	6-8	45(7.14)	113(17.94)	26(4.13)	184(29.21)
5	More than 8 years	40(6.35)	9(1.43)	14(2.22)	63(10.00)
	Total	265(42.06)	248(39.37)	117(18.57)	630(100.00)

(Figures in the parentheses denote percentage)

Table III depicts the frequency wise distribution of using E-Resources with their institute-wise. 265(42.06%) of the Women faculty members used E-resources in Arts and Science. Only 8.25 per cent of the Women faculty members were using E-resources below 2yrs, and 6.35 per cent were using more than 8years. Followed by in Engineering and Technology, 8.73 per cent were using Electronic resources 4-6yrs and 7.14 per cent of the Women faculty members were using below 2yrs. 4.13 per cent of the Women faculty members were using Electronic resources 6-8yrs in the category of College of Education.

TABLE IV TIME SPENT BY THE WOMEN FACULTY MEMBERS PER DAY VS TYPE OF INSTITUTE

Sl. No.	Time-Frequency	Category institute			Total
		Arts and Science	Engineering and Technology	College of Education	
1	Below 15 Minutes	15(2.38)	16(2.54)	2(0.32)	33(5.24)
2	15-30 Minutes	38(6.03)	42(6.67)	15(2.38)	95(15.08)
3	30-60 Minutes	94(14.92)	147(23.33)	80(12.7)	321(50.95)
4	More than 1 hour	98(15.56)	30(4.76)	15(2.38)	143(22.7)
5	No commands	20(3.17)	13(2.06)	5(0.79)	38(6.03)
Total		265(42.06)	248(39.37)	117(18.57)	630(100)

(Figures in the parentheses denote percentage)

Table IV it is showed the type of institute-wise distribution of time spent by the respondents per day. In engineering and technology, 6.67 per cent of the Women faculty members were spent 15-30 minutes, and 4.76 per cent spent more than 1 hour. In Arts and Science, 14.92 per cent were spent 30-60 minutes, and 15.56 per cent were more than 1 hour. In the college of education, 12.70 per cent of the Women faculty members were spent 30-60 minutes per day. It is analysed from the table that 50.95 per cent were spent 30-60 minutes per day among the total number of women faculty.

D. Types of E-Resources Accessed in Library by the Women Faculty Members Vs Type of Institute

The Types of E-Resources in Library by the Women faculty members with the type of institute have been analysed based on the opinion and shown in Table V.

TABLE V TYPES OF E-RESOURCES ACCESSED IN LIBRARY BY THE WOMEN FACULTY MEMBERS VS TYPE OF INSTITUTE

Sl. No	Types of E-Resources	Type of Institute			Total
		Arts and Science	Engineering and Technology	College of Education	
1	E-Journals	96(15.24)	59(9.37)	97(15.40)	252(40.00)
2	E-News Papers	35(5.56)	20(3.17)	1(0.16)	56(8.89)
3	E-Projects	29(4.60)	26(4.13)	2(0.32)	57(9.05)
4	E-Books	72(11.43)	23(3.65)	5(0.79)	100(15.87)
5	E-Patents	11(1.75)	0(0.00)	2(0.32)	13(2.06)
6	E-Theses	13(2.06)	118(18.73)	10(1.59)	141(22.38)
7	Others	9(1.43)	2(0.32)	0(0.00)	11(1.75)
Total		265(42.06)	248(39.37)	117(18.57)	630(100.00)

(Figures in the parentheses denote percentage)

It is identified from Table V the type of institute and types of E-Resources accessed in the library by the women faculty members. In the category of Engineering and Technology, 9.37 per cent of the Women faculty members have accessed the E-Journals, 3.17 per cent were accessed E-Newspapers. In Arts and Science, 15.24 per cent of the Women faculty members accessed the E-Journals, 4.60 per cent accessed the E-projects, 5.56 per cent were accessed E-Newspapers, and 1.43 per cent were accessed the other types of electronic resources. In the college of education category, 15.40 per cent of the Women faculty members have accessed the E-Journals, 9.05 per cent were E-Projects, and 15.87 per cent were accessed electronic books.

TABLE VI ADVANTAGES IN USING E-RESOURCES BY WOMEN FACULTY
(SDA- STRONGLY DISAGREE, A-DISAGREE, NO- NO OPINION, A-AGREE, SA- STRONGLY AGREE)

Sl. No.	Advantages	SDA	DA	NO	A	SA	Mean	Rank
1	High storage	8(1.27)	8(1.27)	23(3.65)	272(43.17)	319(50.63)	4.41	1
2	Data integrity/security	18(2.86)	16(2.54)	160(25.40)	283(44.92)	153(24.29)	3.85	10
3	Saves space/time	12(1.90)	15(2.38)	23(3.65)	268(42.54)	312(49.52)	4.35	3
4	Easy to handle	11(1.75)	6(0.95)	33(5.24)	274(43.49)	306(48.57)	4.36	2
5	Universal access	7(1.11)	10(1.59)	157(24.92)	269(42.70)	187(29.68)	3.98	9
6	Reduced costs	10(1.59)	16(2.54)	100(15.87)	356(56.51)	148(23.49	3.98	8
7	Multiple access/use	5(0.79)	12(1.90)	99(15.71)	362(57.46)	152(24.13)	4.02	7
8	Consortia approach	48(7.62)	66(10.48)	323(51.27)	121(19.21)	72(11.43)	3.16	13
9	Multimedia effect	36(5.71)	64(10.16)	142(22.54)	252(40.00)	136(21.59)	3.62	12
10	Search ability	3(0.48)	11(1.75)	87(13.81)	323(51.27)	206(32.70)	4.14	4
11	Hyperlinks	24(3.81)	29(4.60)	17(27.78)	283(44.92)	119(18.89)	3.70	11
12	Speed of communications	3(0.48)	6(0.95)	95(15.08)	370(58.73)	156(24.76)	4.06	6
13	Anytime/anywhere access	2(0.32)	7(1.11)	102(16.19)	344(54.60)	175(27.78)	4.08	5

(Figures in the parentheses denote percentage)

Table VI stated that the Women faculty members had priority to the advantage of 'High storage' in using electronic resources. 'Easy to handle' and 'Saves space/time' are the advantages of second and third preference given by the Women faculty.

The little choices were given for the 'Multimedia effect' and 'Consortia approach'. The mean value of all the variables ranges between 3.16 and 4.41. The deviation of opinion ranges between 0.690 and 1.103.

E. Attitude of Women Faculty Members towards Library E-Resources/Features

The study has been analysed the Attitude of Women faculty members towards Library E-resources/Feature among the women faculty. The five-point scales of strongly Disagree, Disagree, Not Agree, Agree, Strongly Agree were used for the study. The Mean, Standard Deviation and their Rank for Nature Attitude of Women faculty members towards Library E-resources/Feature have been calculated and shown in table VII.

TABLE VII ATTITUDE OF WOMEN FACULTY MEMBERS TOWARDS LIBRARY E-RESOURCES/FEATURES

Sl. No.	Features	SDA	DA	NO	A	SA	Mean	Rank
1	Library is a Quiet Place	17(2.70)	4(0.63)	6(0.95)	240(38.10)	363(57.62)	4.47	1
2	Documents & CDs/ DVDs are neatly arranged	23(3.65)	39(6.19)	138(21.90)	292(46.35)	138(21.90)	3.77	9
3	Physical Access is Easy	8(1.27)	6(0.95)	39(6.19)	317(50.32)	260(41.27)	4.29	2
4	Working Hours are Convenient	2(0.32)	16(2.54)	56(8.89)	287(45.56)	269(42.70)	4.28	3
5	Comprehensive Print Resources	5(0.79)	26(4.13)	64(10.16)	398(63.17)	137(21.75)	4.01	6
6	Collection of CDs/ DVDs/E-Books	3(0.48)	11(1.75)	115(18.25)	301(47.78)	200(31.75)	4.09	5
7	OPAC	4(0.63)	21(3.33)	95(15.08)	414(65.71)	96 (15.24)	3.92	7
8	Remote access of Library Resources	2(0.32)	20(3.17)	82(13.02)	320(50.79)	206(32.70)	4.12	4
9	Resources are Available through Website	4(0.63)	10(1.59)	170(26.98)	341(54.13)	105(16.67)	3.85	8
10	Library allows On-Line Reservations/ Renewal	8(1.27)	25(3.97)	294(46.67)	208(33.02)	95(15.08)	3.57	11
11	Good Networking with Other Libraries	7(1.11)	26(4.13)	309(49.05)	198(31.43)	90(14.29)	3.54	12
12	Response of queries via LAN/ Internet is Very Fast	10(1.59)	24(3.81)	274(43.49)	232(36.83)	90(14.29)	3.58	10

(Figures in the parentheses denote percentage)

It is observed from Table VII that the Women faculty members have given priority to the Attitude of Women faculty members towards Library E-resources/Feature on 'Library is Quiet Place'. 'Physical Access is Easy 'and 'Working Hours are convenient' are the Attitude of Women faculty members towards Library E-resources/Feature on 'Library. The least preference was given for the library to allow Online Reservations/Renewals. The mean value for all the variables ranges between 3.54 and 4.47. The deviation of opinion ranges between 0.698 and 0.980.

F. Opinion about Accessed to E-Journals than Printed Journals

The study has been analyses for the Opinion about Accessed to E-Journals than Printed Journals among the women faculty. The five-point scales of Strongly Disagree, Disagree, Not Agree, Agree, and Strongly Agree, were used for the study.

TABLE VIII RESPONDENTS' SATISFACTION WITH E-RESOURCES

Factors	Unstandardised Coefficients		SD	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.535	.404		-3.799	.000***
More User Friendly than Printed Journals	.722	.093	.603	7.781	.000***
More Frequently used	.703	.057	.749	12.263	.000***
Enhance access to Scientific/ Research Papers	.098	.035	.135	2.771	.006***
Decrease the Quality of Research Literature	-.340	.046	-.399	-7.440	.000***
Increase Scholarly Productivity in terms of Publishing Papers	-1.002	.136	-.504	-7.389	.000***
Keep Current about Global Research & Development	.214	.076	.145	2.833	.005***
Distribution of Articles Easier and Less Costly	1.101	.157	.533	6.990	.000***
Features like Editorial News, links to Other Papers, Alerts etc. are Useful	.309	.120	.165	2.582	.010**

Table VIII discloses the regression coefficient between the respondents' opinions about the importance of e-resources and their satisfaction with the availability of e-resources in the higher educational institute of south Tamil Nadu. The "t" value of all the independent variables are more than the threshold level of 1.96. Hence it is concluded that there is a significant association between the importance of the e-resources and respondents' opinion about the availability of e-resources in the higher educational institutions of south Tamil Nadu.

VII. FINDINGS OF THE STUDY

1. It is observed that the majority of the respondents are in the age group of 36-50 years'.
2. The study revealed that most respondents are well aware of the e-resources and their importance.
3. The researcher found that most respondents use the e-resources from 4 – 6 years.
4. Most of the respondents prefer e-journals followed by e-books and e theses.
5. The Women faculty members had priority to the advantage of 'High storage' in using electronic resources. 'Easy to handle' and 'Saves space/time' are the advantages of their second and third preference.
6. The availability of the e-resources and their benefits influences the respondents' satisfaction.

VIII. SUGGESTIONS

1. Good Networking facilities should be available in the higher educational institutions' Libraries.
2. The library allows Online Reservations/ Renewal of books and journals.
3. Response of queries via LAN/ Internet should be speedy.
4. Documents & CDs/ DVDs should be neatly arranged in the library.
5. Resources should be available through the Library Website.

IX. CONCLUSION

Nowadays, e-resources occupy an essential position in academic activities and daily teaching and learning activities. Several e-books, reference books, e-journals, inter-linked hypertext documents, online help centres, expert views, and other study-oriented material can make learning very easy in higher educational institutions. The Women faculty members are well known to use the e-resources in their academic activities and research. The teacher can share the books, journals, and various learning materials in online learning classrooms. So, the Women faculty members are very familiar to access the e-resources, and it is one of the unavoidable sources in the academic environment.

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