

## **Awareness and Use of E-resources among the users of Vishveshwarya Technical University (VTU) Library Belagavi**

**Abstract** *The study aimed at finding the awareness and use of e-resources by the students, research scholars and faculty members of various disciplines of Vishveshwarya Technical University (VTU) of Karnatak state. There are 120 questionnaires were distributed among the respondents, out of which 106 were returned. Results shows that 88.33% of respondents revealed the purpose of using e-resources, frequency of use, location of accessing e-journals, problems encountered in using e-resources and extent of users satisfaction towards e-resources.*

**Key words:** E-resources, ICT services, User study, VTU-Consortium etc.

### **1. Introduction**

The twenty first century was shaped by sweeping changes in communication technologies. The emergence and use of information technology is the century's most significant development affecting scholarly communication. Today, libraries are shifting their role from the custodian of traditional information resources to the provider of service-oriented digital information resources. (Ganiyu Oluwaseyi Quadri-2012). The emergence of technological development in the context of computer, telecommunication, electronic, reprography and micrography have been adopted in libraries. E-Resources usually consist of e-books, e-Journals, articles, newspaper, thesis, dissertation, databases and CD-ROMs, which are likely to be the alternative to the print media. Emerald, Ebsco, Scopus are some of the examples of online databases. The familiarity and use of electronic information resources in the libraries for rapid development is necessary and important. The aim of this study is to identify how electronic information resources are utilized by academic faculties and students. Further the study also examine the use pattern, acceptance, perceived importance and satisfaction on electronic resources over print resources. (Dhanavandan and others-2012)

### **2. Review of Literature:**

T. Prabakaran (2013) critically examines that the users are dependent some extent on libraries with new technologies such as e-resources. Dhanavandan, S. Mohammed Esmail, S. and Nagarajan, M., (2012) studied on use of e-resources at Krishnaswamy college of engineering and technology library, the study reveals that the students are the leading users of e-resources in terms of respondents. 42% of the respondents indicated that they preferred print version of resources. Dadzie (2005) has investigated the use of electronic resources by students and faculty of Ashesi University, Ghana, the level of use, the type of information accessed and the effectiveness of the information communication tools for information research. Ron Houlihan (2005) has discussed to the critical importance of providing a comfortable and stimulating environment for students and the rewards for doing so are confirmed, with reference to various Canadian and US schools. Some of the almost –universal characteristics of today's academic research and communication. Rogers (2001) studied faculty and graduate student use of electronic journals, printed journals and electronic databases was conducted at Ohio State University (OSU) during the years 1998-2000. Haneefa K (2007) 2 presented the results of an investigation in the study "Use of ICT Based Resources and Services in Special

Libraries in Kerala, India. The email service was used by the largest percentage of the users. WWW was being used by 60 per cent of the library users. A good no. of users was not satisfied with the application of ICT in the libraries and indicated 'inadequate ICT infrastructure' as their reason for dissatisfaction.

### 3. Objectives

- 1) To know the present status of e-resources and services in VTU library
- 2) To study the purpose and frequency of use of e-resources and services in VTU library;
- 3) To assess the benefits of e-resources over conventional sources of information;
- 4) To determine the perceived impact of the resources on their academic efficiency;
- 5) To know extent of awareness and retrieved information resources from VTU-Consortium and
- 6) To trace out the problems of faculties and students while using e-resources

### 4. Scope of the study

The Vishveshwarya Technical University (VTU) is technological university in Karnataka State, India. It was established on 1 April 1998 by the Government of Karnataka as per *VTU Act* 1994, to improve the quality of technical education in the state. Apart from a few notable exceptions, VTU has complete authority in the state of Karnataka. It is a statutory requirement for colleges offering any program in engineering or technology in the state to be affiliated with the university. VTU is one of the largest universities in India with 208 colleges affiliated to it with an intake capacity of over 67100 undergraduate students, 12666 postgraduate students and around 1800 PhD candidates. The university encompasses various technical & management fields which offer a total of 30 undergraduate and 71 postgraduate courses.

### 5. Methodology

As a study is confined to VTC, a standard research tool has been proposed to find facts, figures and other much needed rel Based on the objectives of the study the questionnaire method is found suitable for collecting the data. The structured questionnaire has been designed that it could be answer within a short time by eliminating descriptive type of questions. This questionnaire was distributed with personal visit amongst 120 (users belonging to various disciplines. Out of which, 106 filled in questionnaire were received with the response rate of 88.33%. The data was analyzed statistically.

### 6. Results and Discussion

The data obtained through the questionnaires provided an in depth interpretation for fulfilling the research paper objectives.

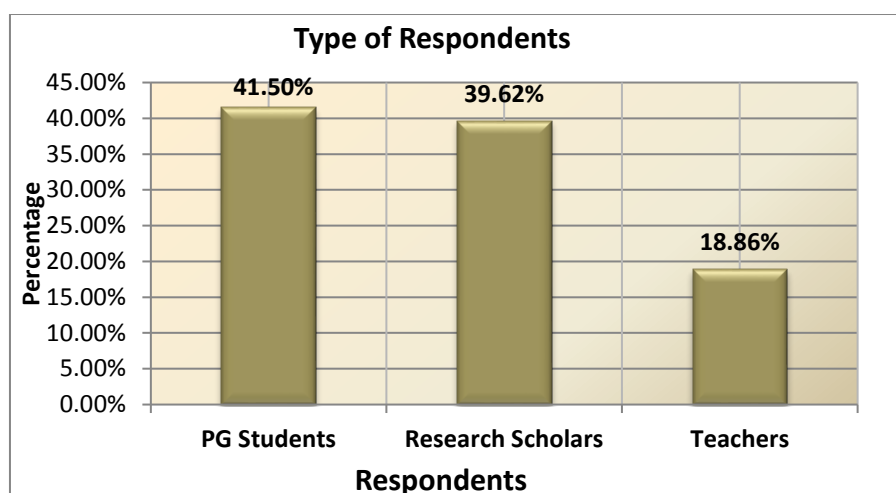
#### 6.1 Demographic characteristics of the study

The table-1, is clearly indicates that, out of 106 respondents 44 (41.50%) are PG students, 42 (39.62%) are research scholars and 20(18.86%) are teachers.

***Table No-1: Type of respondents***

Respondents	No of Respondents	%
PG Students	44	41.50

Research Scholars	42	39.62
Teachers	20	18.86
Total	106	100

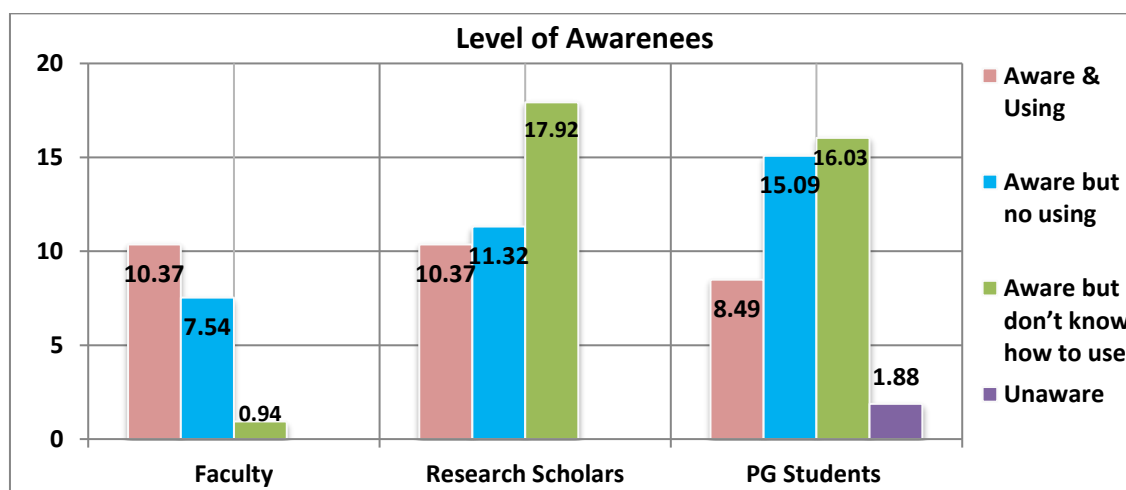


## 6.2 Level of awareness of e-resources and services

Table- 2 indicates that, 33.96% of respondents are aware but they are not using e-resources followed by aware and using 29.24%, aware but don't know how to use are 34.93% and only less number of respondents are unaware.

**Table No-2: Awareness and use of e-Resources and services**

Awareness and use of e-resources	Faculty (%)	Research Scholars (%)	PG Students (%)	Total (%)
Aware & Using	11 (10.37)	11 (10.37)	9 (08.49)	31(29.24)
Aware but no using	08 (07.54)	12 (11.32)	16 (15.09)	36(33.96)
Aware but don't know how to use	01 (0.94)	19 (17.92)	17 (16.03)	37(34.90)
Unaware	0	0	02 (01.88)	02(01.88)

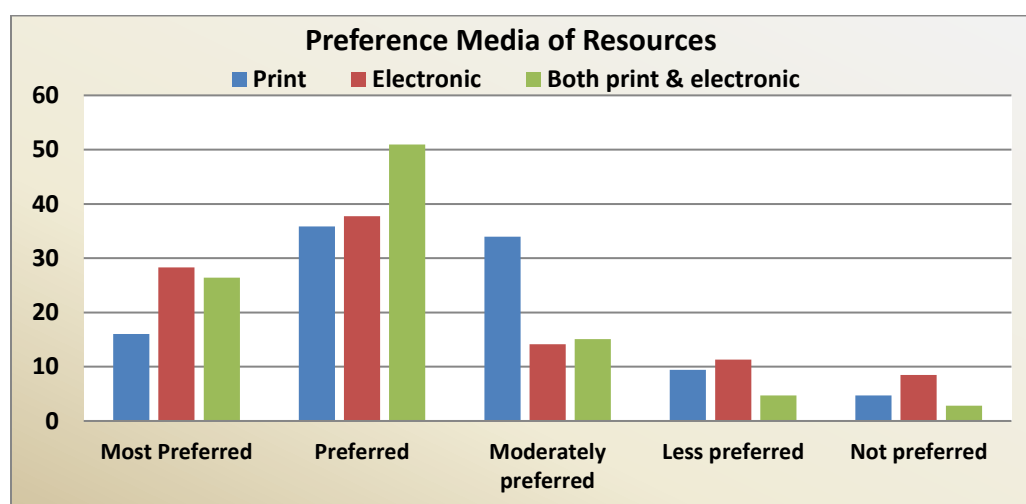


## 6.3 Preference media of information resources.

Table-3 shows, preference media of information resources. The print (35.84%), electronic (37.73%) and both print & e-resources (50.94%) are the preferred sources of information. Followed by moderately Print (33.96%), electronic (14.15%) and both print and electronic (15.09%).

**Table No3:- Preference of media of information resources**

Media preferences	Most Preferred	Preferred	Moderately preferred	Less preferred	Not preferred
Print	17 (16.03)	38 (35.84)	36 (33.96)	10 (9.43)	5 (4.71)
Electronic	30 (28.30)	40 (37.73)	15 (14.15)	12 (11.32)	9 (8.49)
Both print & electronic	28 (26.41)	54 (50.94)	16 (15.09)	5 (4.71)	3 (2.83)

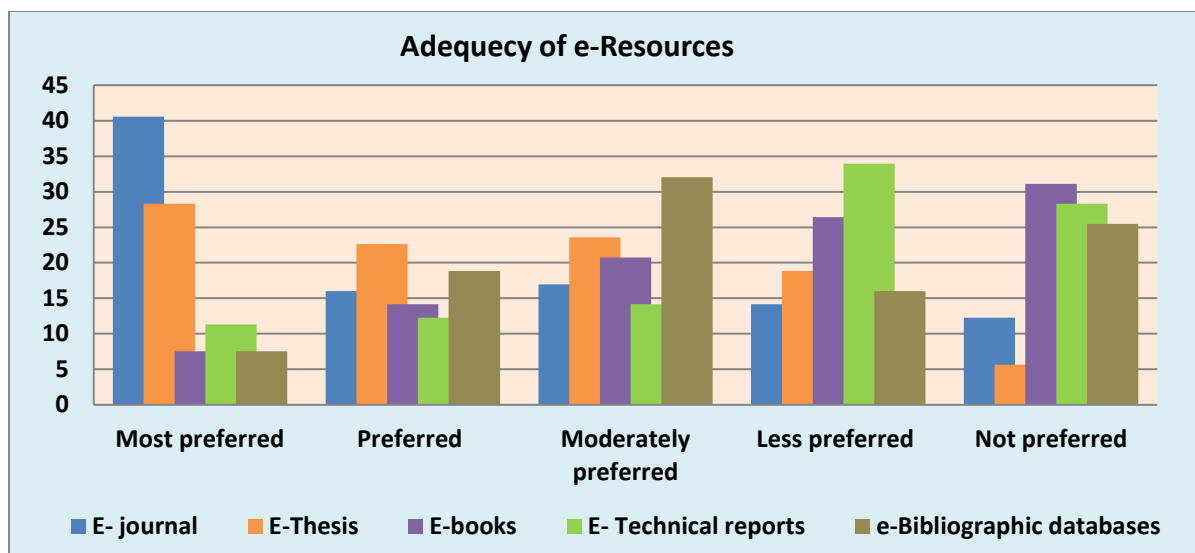


#### 6.4 Adequacy of e-resources

The data in table-4 indicates the adequacy of e-resources. The majority of respondents said, e-Journals (40.56%) and e-Thesis (28.30%) are the most preferred source of information. Followed by, e-Bibliographic databases (32.07%) are moderately preferred, e-Technical reports (33.93%) less preferred and more than 31.13% of respondents responded e-books not preferred.

**Table No-4: Adequacy of e- resources**

Adequacy of E- resources	Most preferred (%)	Preferred (%)	Moderately preferred (%)	Less preferred (%)	Not preferred (%)
E- journal	43 (40.56)	17 (16.03)	18 (16.98)	15 (14.15)	13 (12.26)
E-Thesis	30 (28.30)	24 (22.64)	25 (23.58)	20 (18.86)	06 (5.66)
E- Technical reports	12 (11.32)	13 (12.26)	15 (14.15)	36 (33.93)	30 (28.30)
E-books	08 (7.54)	15 (14.15)	22 (20.75)	28 (26.41)	33 (31.13)
Bibliographic databases	08 (7.54)	20 (18.86)	34 (32.07)	17 (16.03)	27 (25.47)

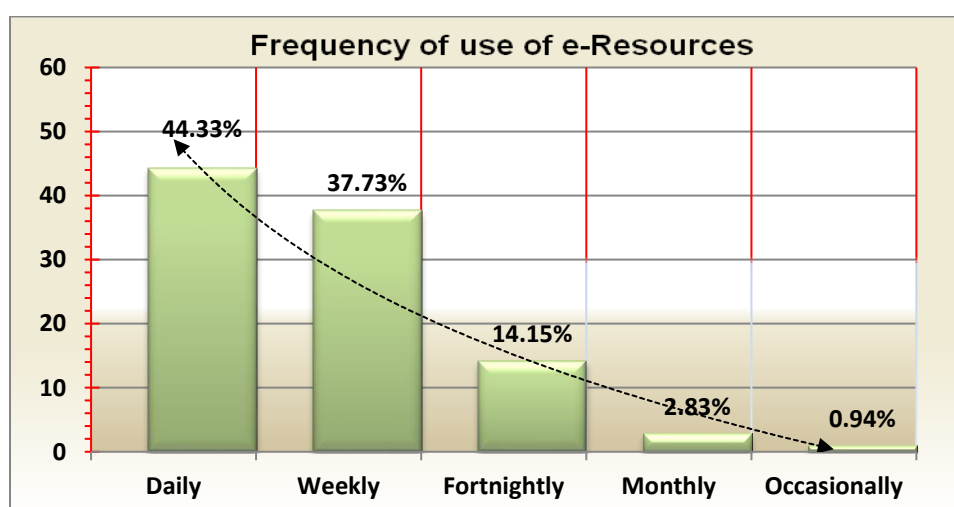


### 6.5 Frequency of access e-resources

Table-5 shows frequency of use of e-resources. Among the total of 106 respondents majority 44.33% of respondents use e-resources daily. Followed by 37.73% weekly, 14.15% fortnightly, 2.83% monthly and only one respondent use e-resources occasionally.

**Table No-5: Frequency of access e-resources**

Frequency of use	No of Respondents	Percentage%
Daily	47	44.33
Weekly	40	37.73
Fortnightly	15	14.15
Monthly	03	02.83
Occasionally	01	00.94
	106	100



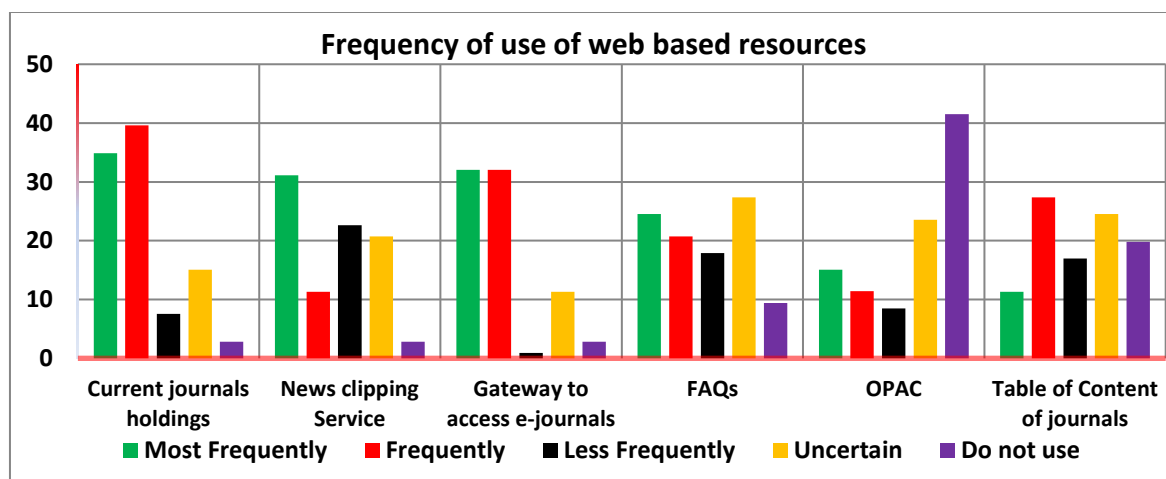
### 6.6 Frequency of use of Web-enabled information services

The VTU library, provide various type of web based information services to its users. The table-6 reveals that, majority 39.62% and 34.90% of respondents use Current journals of holdings frequently and most frequently respectively. Towards the News paper clipping

service and Gateway to access e-journals, majority 31.13% and each 34.07% of respondent respectively use most frequently. while it is surprise that 41.50% respondents do not use OPACs service.

**Table No-6: Frequency of use of Web-based information services**

Web based Inf'n Services	Most Frequently (%)	Frequently (%)	Less Frequently (%)	Uncertain (%)	Do not use (%)
Current journals holdings	37 (34.90)	42 (39.62)	8 (7.54)	16 (15.09)	3 (2.83)
News clipping Service	33 (31.13)	12 (11.32)	24 (22.64)	22 (20.75)	3 (2.83)
Gateway to access e-journals	34 (32.07)	34 (32.07)	01 (0.94)	12 (11.32)	3 (2.83)
FAQs	26 (24.52)	22 (20.75)	19 (17.92)	29 (27.35)	10 (9.43)
OPAC	16 (15.09)	12 (11.42)	09 (8.49)	25 (23.58)	44 (41.50)
Table of Content of journals	12 ( 11.32)	29 (27.35)	18 (16.98)	26 (24.52)	21 (19.81)



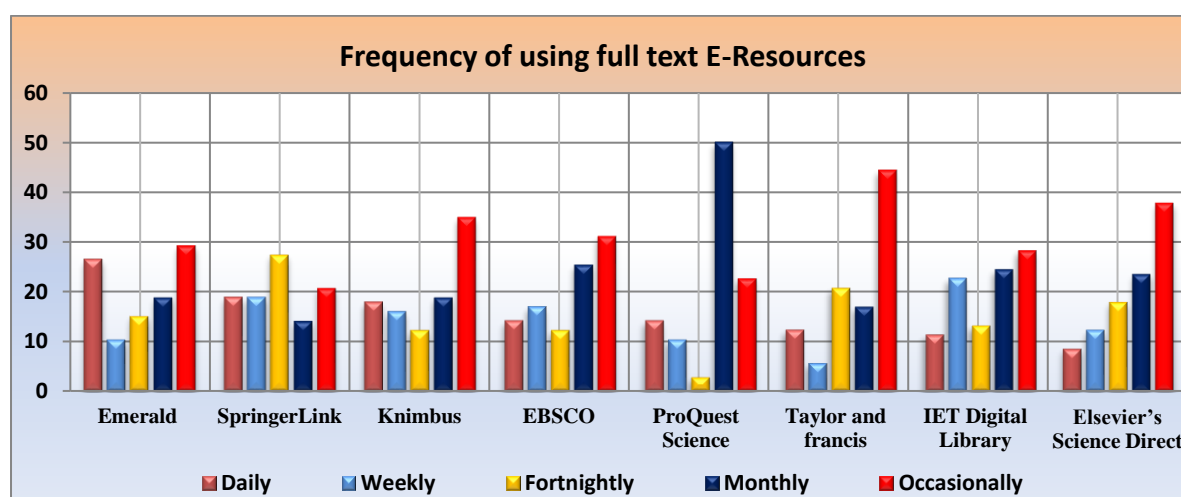
## 6.7 Frequency of use of full text e-resources

Users are asked to rate the use of publishers and vendor e-journal databases and same has been presented in table-7. Majority 26.41% of respondents use Emerald databases daily followed by 18.86% and 27.35% of respondents use Springer Link database weekly and fortnightly respectively. Less i.e. 8.49% of respondents use Elsevier's Science Direct databases daily, and the table also reveals that average 35% of respondents use all listed full text e-resources occasionally. It indicates that most of the respondents use e-resources occasionally.

**Table No-7: Frequency of using full text E-Resources**

e-Resources	Daily	Weekly	Fortnightly	Monthly	Occasionally
Emerald	28 (26.41)	11 (10.37)	16 (15.09)	20 (18.86)	31 (29.24)

SpringerLink	20 (18.86)	20 (18.86)	29 (27.35)	15 (14.15)	22 (20.75)
Knimbus	19 (17.92)	17 (16.03)	13 (12.26)	20 (18.86)	37 (34.90)
EBSCO	15 (14.15)	18 (16.98)	13 (12.26)	27 (25.47)	33 (31.13)
ProQuest Science	15 (14.15)	11 (10.37)	3 (2.83)	53 (50.00)	24 (22.64)
Taylor and francis	13 (12.26)	6 (5.66)	22 (20.75)	18 (16.98)	47 (44.33)
IET Digital Library	12 (11.32)	24 (22.64)	14 (13.20)	26 (24.52)	30 (28.30)
Elsevier's Science Direct	9 (8.49)	13 (12.26)	19 (17.92)	25 (23.58)	40 (37.73)

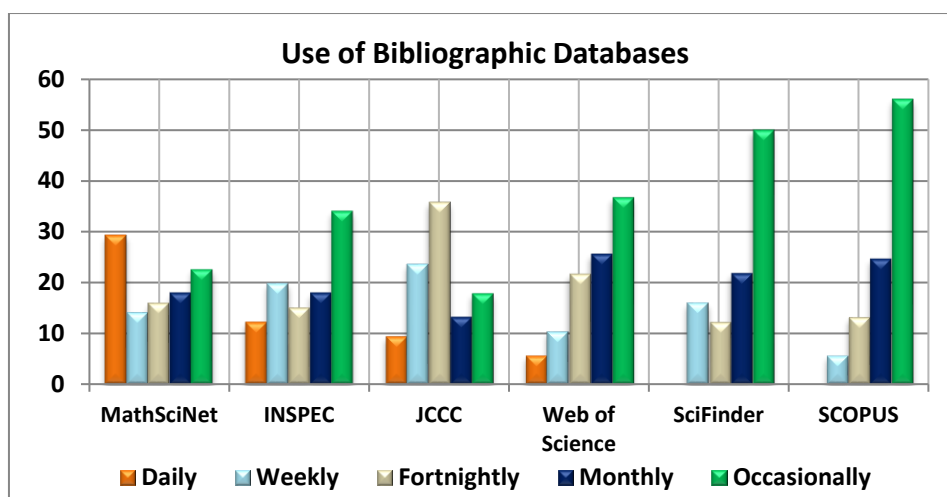


## 6.8 Use of bibliographic databases

The table-8 above reveals that the use of Bibliographic Databases, Majority 29.24% of respondents use MathSciNet databases daily, while 23.58% and 35.84% of respondents use JCCC database weekly and fortnightly respectively. Less 5.66% of respondents use Web of Science daily and none of respondents use SciFinder and SCOPUS databases daily. More than 50% of respondents use Scopus and SciFinder databases occasionally.

**Table No-8: Use of Bibliographic Databases**

e-Resources	Daily	Weekly	Fortnightly	Monthly	Occasionally
MathSciNet	29.24	14.15	16.03	17.92	22.64
INSPEC	12.26	19.81	15.09	17.92	34.09
JCCC	9.43	23.58	35.84	13.2	17.92
Web of Science	5.66	10.37	21.69	25.47	36.79
SciFinder	-	16.03	12.26	21.69	50
SCOPUS	-	5.66	13.2	24.52	56.06

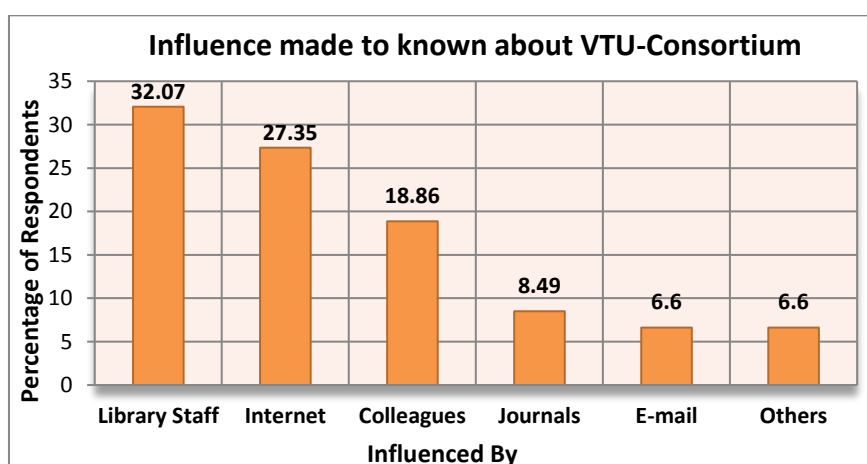


### 6.9 Influence made to know about “VTU-Consortium”?

This table-9 shows that the influence made to know about VTU-Consortium. Majority, 32.07% of respondents came to know VTU-Consortium by library staff. Followed by internet 27.35%, and 18.86% by colleagues and very less each 6% of respondents came to know through email and other mode.

**Table No-9: Influence made to known about VTU-Consortium**

Influences by	No of Respondents	Percentage
Library Staff	34	32.07
Internet	29	27.35
Colleagues	20	18.86
Journals	9	08.49
E-mail	7	06.60
Others	7	06.60
	106	100



### 6.10 Purpose of using “VTU-Consortium”.

As the information increases manifold, respondents use e-resources for varied purposes. The main purpose of use of VTU-Consortium has categories accordingly and asked the respondents to select multiple options based on their preferences of interest. It can be noted from the below table that almost 77.35% of respondents use e-Resources for

research purpose, followed by 68(15%) for publishing articles/books, 52(49.05%) for study, 39(36.79%) for finding relevant information in the area of specialization 30(28.30%) completion of assignments and seminar presentations and least 28(26.41%) for keeping up to date with the subject

**Table No-10: Purpose of using “VTU-Consortium”**

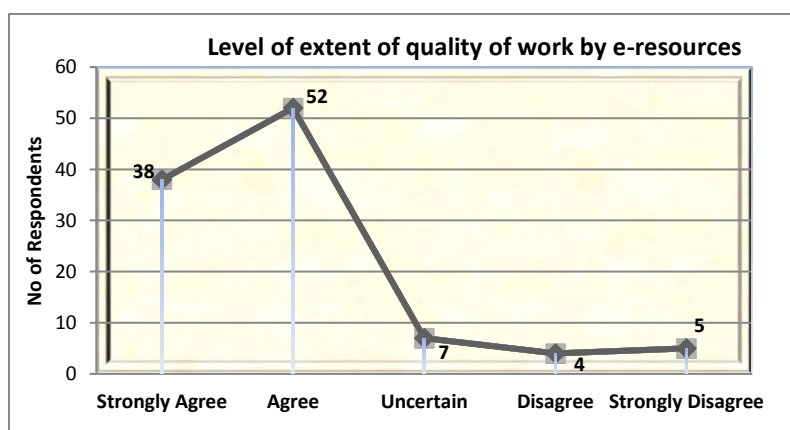
Purposes	No of Respondents	Percentage %
Research purpose	82	77.35
Publishing articles/books	68	64.15
For Study	52	49.05
Finding information in area of specialization	39	36.79
Assignments/Seminar presentations	30	28.30
Up-to-date with subject	28	26.41

### 6.11 Extent of quality of study/research/teaching improved by e-information resources

The below table-11 depicts, extent of benefits in improvement of study, research and teaching. Majority 52 (49.05%) of respondents agree that the e-resources helps in study, research and teaching. Followed by this 38 (35.84%) respondents strongly agree, 7 (06.60) respondents uncertain, 5 (04.71%) strongly disagree and only four (03.71%) respondent expressed disagree.

**Table No-11: Quality of study/research/teaching improved by using e-resources**

Level of use of e resources	No of Respondents	Percentage
Agree	52	(49.05)
Strongly Agree	38	(35.84)
Uncertain	7	(06.60)
Disagree	4	(03.77)
Strongly Disagree	5	(04.71)
	106	100



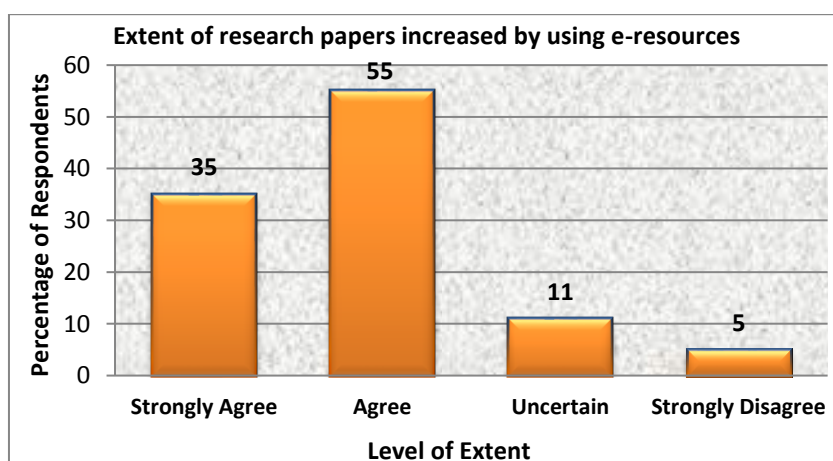
### 6.12 Extent of research papers increased by using e-resources

E-Resources plays very important role in research and development activities. Through the access of journals and other materials through library consortium, Digital library, open access directory and subject gateways have made lot of contributions specifically in research contributions. The below table-12 shows majority 55 (51.88%) respondents agreed that the

use of e-resources helps them to increase their research papers more. Followed by this 35 (33.01%) of respondents strongly agree, 11 (10.37%) respondents expressed uncertain and only five (04.71%) respondents strongly disagree that not only e-resources makes to increase research paper but also print resources.

**Table-12 Extent of research papers increased by using e-resources**

Level of extent	No of Respondents	Percentage
Agree	55	(51.88)
Strongly Agree	35	(33.01)
Uncertain	11	(10.37)
Strongly Disagree	5	(04.71)
	106	100



### 6.13 Obstacles in using “VTU-Consortium” e-resources

In order to know the obstacles faced by the respondents, a question was posed, and the results are given in the table 13. Majority 23.58% of respondents that lack of knowledge to use is the major obstacle, followed by lack of sufficient internet nodes 19.81%. Least 5.66% of respondents responded lack of assistance by library staff.

**Table No-13: Obstacles in using “VTU- Consortium” e-resources**

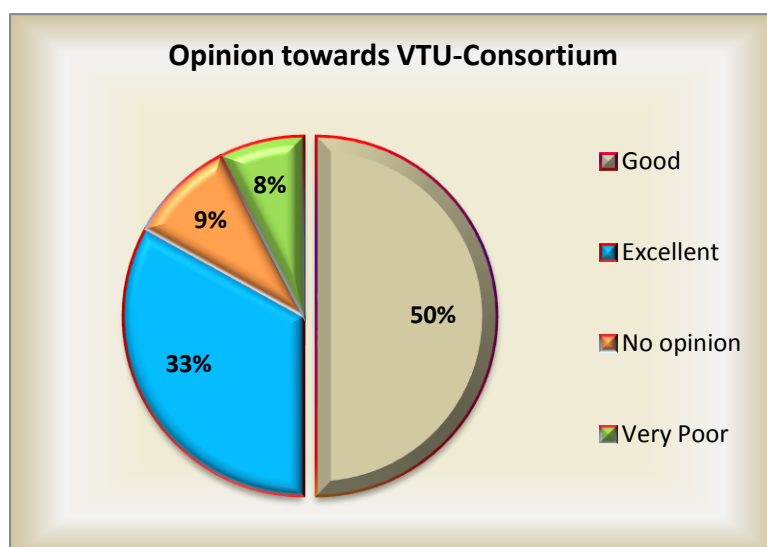
Problems	No of Respondents	Percentage
Lack of knowledge to use	25	23.58
Lack of sufficient internet nodes in university library	21	19.81
No accessibility VTU- Consortium at department	11	10.37
Slow internet bandwidth	11	10.37
Technical problems	15	14.15
Frequent power cut	10	9.43
Lack of relevant information sources	7	6.60
Lack of assistance by library staff	6	5.66
	106	100

### 6.14 Opinion towards VTU-Consortium

Table-14 shows majority, of the opinion to VTU-Consortium. Majority, 50% of respondent expressed good opinion about VTU-Consortium followed by Excellent 33%. Least 7.54% of respondents expressed VTU-Consortium is very poor.

**Table-14 Opinion towards VTU-Consortium**

Opinion	No of Respondents	Percentage
Good	53	50.00
Excellent	35	33.01
No opinion	10	9.43
Very Poor	8	7.54
	106	100



## 7. Findings

1. In the aspect of awareness and use of e-resources, it is found that, Research scholar category is the highest users of e-resources and more aware. (Table-2)
2. Highest, 37% of respondents expressed that, e-resources are the preferred source of information among the different type e-resources highest 40.54% of respondents expressed e-journals are the most preferred type. (Table-3&4)
3. In the aspect of frequency of e-resource it is found that 44 % of users use e-resources daily and 0.94% of use occasionally. (Table-5)
4. It is found that, 32% of respondents most frequently use Gateway for access to e-journals. (Table-6)
5. In the aspect o frequency of use of databases highest 26% and 29% (full-text & Bibliographic respectively) of users use databases daily. (Table-7&8)
6. Highest, 44.33% of users have come to know about "VTU consortium" by the library staff members. (Table-10)
7. It is found from the study that highest 77.35% of respondents using VTU Consortium for the purpose of research. (table-11)

8. The highest 49.05% of the users strongly agree that they improve their study, research and teaching just because of e-resources. (Table-13)
9. From the study it is found that highest 23.58% of respondents expressed that Lack of knowledge about e-resources is the major obstacle for access and use of e-resources. (Table-14)
10. They are giving more importance to electronic version of documents. With the availability of more resources through the Internet with high-speed connectivity the demand for E-resources in their specific subject is increasing.
11. Accordingly, the libraries have to evolve more scientific methods to develop a standard collection of E-resources along with print documents assessing the requirements of the users community.

## **8. Suggestions:**

Form the above findings it is clear that the more and more e-Resources should be provided to the students of the VTU university library. Library should provide internet accessibility with more number of terminals to the users. VTU library should educate on available engineering databases information among users. Now-a-days there is a lot of improvement in online databases access, the people who are in engineering courses there should be an immediate access of the information. These people should be always updated with the current knowledge, that to within less time. So online databases access is one of the means which updates and educates one knowledge. VTU library must provide access to online databases access with big number. There is a need to design scientific search engines on the basis of individual disciplines. VTU library has to conduct formal training/orientation programmes to overcome the obstacles and effective utilization of e-resource.

## **9. Conclusion**

Today the World Wide Web has emerged as most powerful medium for information publishing and access. A plethora of information sources for education and research are available on the web, including scholarly journals, technical reports, theses, courseware, concern pages, data sets, patents and discussion forms. It is evident from the present study that Vishveshwarya Technical University (VTU) library system plays an important role in exploring and communicating impact of e-Resources process. The study concludes that almost all users of PG students, research scholars & faculty members are aware of e-resources as it is users friendly and delivers informative literature with least expenses in reduced time as well. Study highlights that all types of e-resources are available through the website of are rapidly used by their users. The availability of e-resources in the VTU Consortium are almost sufficient for the existing disciplines and will encourage students, research scholars & faculty members to excise more of these resources.

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