

Full Length Research

USE OF WI-FI CONNECTION BY THE RESEARCH SCHOLARS OF UNIVERSITY OF MYSORE, KARNATAKA: A STUDY

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The researchers have made an attempt to find out the awareness and use of Wi-Fi service by the research scholars of University of Mysore for different research purposes. For the collection of data the investigators prepared a structured questionnaire and distributed to the research community of the University. In a total, 150 questionnaires were distributed to research scholars of 35 different departments, out of which, 114 filled questionnaires were received back from 27 departments with 76 percent response rate. Further the findings of the study show that, a large majority (91; 79.82%) of the respondents stated that they use the Wi-Fi service most frequently 'to search information related to their field of research'. Followed by, 68 (59.65%) of the researchers replied that they use 'to search E-theses and Dissertations'. Further, a large majority (96; 84.2%) of the respondents answered that they are satisfied with present Wi-Fi services. The researchers also find that, about 73 percent of respondents feel 'less internet access speed' is a problem faced while accessing Wi-Fi connection. The authors finally suggested that by increasing speed of Internet and creating awareness about use and terms and conditions of Wi-Fi service, one can help researchers to utilize the service up to a maximum extent.

Keywords: Wi-Fi connection, Use, Research Scholars, University of Mysore, Karnataka

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INTRODUCTION

Wi-Fi is a technology that allows an electronic device to exchange data or connect to the internet wirelessly using microwaves in the 2.4 GHz and 5 GHz bands. The Wi-Fi Alliance defines Wi-Fi as any "wireless local

area network (WLAN) products that are based on the Institute of Electrical and Electronics Engineers' (IEEE) 802.11 standards (Wikipedia). The Wi-Fi wireless broadband Internet connection allows users to do

anything that one would do at home or the office on the Internet. Users can freely surf on the web, check and send e-mails, connect to their corporate network, make free voice over IP phone calls, play online games, update their blog and IM with their friends (Krishnamurthy, 2011).

The high demand for Wi-Fi access has increased largely because of the growth in sales of laptops and personal mobility products (Burness et al., 2003). Internet access via wireless computers increased to their highest levels in 2008 (Centre for the Digital Future, 2008). There is continuing concern that those who lag in the adoption and use of the internet will fall behind in high-speed access and use of Wi-Fi technology (Fox and Livingston, 2007). In this connection, the researchers have taken a study to know the use of Wi-Fi facility by the researchers of different disciplines at the University of Mysore.

REVIEW OF LITERATURE

Wireless communication is the transfer of information over a distance without the use of wires. Wireless communication is generally considered to be a branch of telecommunications. Wireless operations permit services, such as long-range communications that are impossible or impractical to implement using wires. Wireless communication brings fundamental changes to data networking and telecommunications, and makes integrated networks a reality. Wireless networks focus on networking and user aspects. Network architecture for personal communication systems, wireless LANs, radio, tactical and other wireless networks, design and analysis of protocols are addressed on a regular basis. At present, the major application of Wi-Fi implementation in libraries is limited to information management. Krishnamurthy and Rajashekara (2011) have elaborated the Wi-Fi in detail, about the components, functions, area of applications, issues, and challenges in their study. In the same year, Baidwan et al. (2011) made an attempt to analyze the usage of Wi-Fi technology at Dr. Tulsi Das Library of Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh by its users. The parameters included the purpose, duration of time and preferences to access the Wi-Fi service. This study also sought users' opinions regarding both its beneficials and problems. Holden (2005) conducted a study to gauge reaction to the implementation of a wireless laptop lending program in a university library before it actually became operational and wireless access itself became available. The online survey of the author consisted of 22 multiple choice questions that all Monmouth University students and employees answered by e-mail. The vast majority of responses came from students, and most of them were ready for wireless access in the library and across campus. Several re-emphasized their desire to log-on to the network with their own laptops. Middleton

(2010) examined the relationships between demographic and situational variables and small and medium-sized enterprise (SME) owners' intentions to adopt and use free public Wi-Fi technology. A survey of 158 SME owners in the urban renewal community (RC) of a large South-western metroplex investigated the influence of known digital divisors – gender, ethnicity, age, education, and experience on the adoption and use of Wi-Fi technologies. Partial least squares were used to test the hypotheses. Contrary to previous research, gender, age, education, and experience were not related to the intention to adopt Wi-Fi technology. Ethnicity was significantly related to intent to adopt, but the relationship was small. Ethnicity and age were found to be somewhat related to Wi-Fi usage. In marked contrast from earlier research, education, gender, and experience were not significant predictors of usage.

OBJECTIVES OF THE STUDY

1. To know the preferred place for access of Wi-Fi facility by the research scholars at the University of Mysore.
2. To know the frequency and time spent in usage of Wi-Fi facility in the university campus.
3. To identify the purpose and frequency of use of Wi-Fi services by the researchers for different information requirement.
4. To find out the satisfaction level of use of Wi-Fi service by the research scholars of University of Mysore.
5. To trace the problems if any, faced by the researchers in using Wi-Fi connection facility for information requirement.

SCOPE AND LIMITATIONS OF THE STUDY

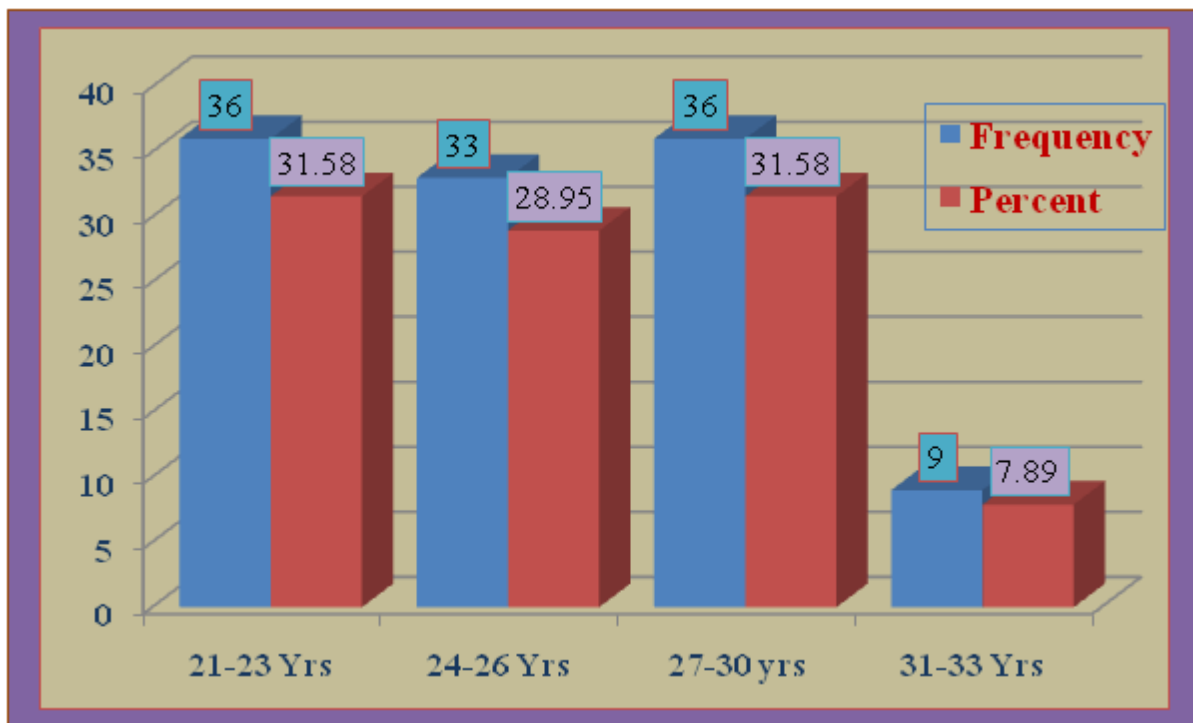
The present study is limited to the use of Wi-Fi service by the research scholars of the University of Mysore main campus. Further, this study has not concentrated on students and teaching staff of the University of Mysore.

METHODOLOGY

To fulfill the above objectives of the study, a survey method was conducted using a well structured questionnaire. In a total 150 questionnaires were distributed to research scholars of 35 different departments. Out of which, 114 filled questionnaires were received from 27 departments with 76 percent response rate. The collected data through questionnaires were analyzed by using simple statistics, graphs and charts for clear understanding.

Table 1: Gender of the respondents

S/N	Gender	Frequency	Percent
1	Male	39	34.2
2	Female	75	65.8
Total		114	100.0

**Figure 1:** Age of the respondents

ANALYSIS AND INTERPRETATION

Gender of the respondents

The Table 1 shows the gender of respondents, it is seen from the table that, majority (75; 65.3%) of the respondents is female and remaining 39 (34.2%) respondents are male.

Age of the respondents

The age of respondents is presented in Figure 1, which demonstrates that, 36 (31.58%) respondents each belong to the age groups of 21-23 and 27-30 years respectively. About 33 (28.95%) respondents are coming under the age group of 24-26 years, and only 9 respondents fit in to

the age group of between 31-33 years, representing 7.89 percent of the total response.

Department wise distribution of the respondents

Table 2 depicts the department wise distribution of the respondents. It is clear from the table that, out of 114 respondents, more number of respondents belongs to Library and Information Science accounting 13 (11.40%). About 9 respondents are from Political Science Department, it is followed by Department of Kannada 8 (7.02%), Institution of Development Studies and Biotechnology accounting representing 7 (6.14%) respondents each. From the Department of Biochemistry 6 (5.26%) responded, about 5 (4.39%) responded each from Botany, Social Work and Management. Another 4

Table 2: Department wise respondents

S/N	Departments	Frequency	Percentage
1	Library and Information Science	13	11.40
2	Political Science	9	7.89
3	Kannada	8	7.02
4	Institute of Development Studies	7	6.14
5	Biotechnology	7	6.14
6	Biochemistry	6	5.26
7	Botany	5	4.39
8	Social Work	5	4.39
9	Management	5	4.39
10	Chemistry	4	3.51
11	Psychology	4	3.51
12	Commerce	4	3.51
13	Sociology	4	3.51
14	Physics	3	2.63
15	Mathematics	3	2.63
16	Geography	3	2.63
17	History	3	2.63
18	Food Science	3	2.63
19	Zoology	2	1.75
20	Sericulture	2	1.75
21	Ancient History and Archaeology	2	1.75
22	Education	2	1.75
23	Law	2	1.75
24	M.Tech	2	1.75
25	Jainalogy	2	1.75
26	Statistics	2	1.75
27	Earth Science	2	1.75
Total		114	100

(3.51%) responded each from Chemistry, Psychology, Commerce and Sociology. About 3 (2.63%) respondents each from Physics, Mathematics, Geography, History and Food science responded respectively. In the remaining departments such as Zoology, Sericulture, Ancient History and Archaeology, Education etc. only 2 (1.75%) respondents answered for the survey.

Place of using Wi-Fi connection by the research scholars

Table 3 presents the place of using Wi-Fi connection by the research scholars of University of Mysore. We can observe from the table that, more than 35% of the respondents use Wi-Fi connection in their department, followed by, 33.33% of the research scholars use Wi-Fi connection at library premises. Further, 21.05% of the research scholar replied that they access Wi-Fi connection at hostel and only 9.65% respondents said

that they use Wi-Fi connection anywhere in the campus.

Frequency of use of Wi-Fi service

Frequency of use of Wi-Fi service is shown in Table 4. It is clear from the table that, majority (84; 73.7%) of the respondents use Wi-Fi services 'daily', about 21(18.4%) respondents use 'as and when they required', 6 (5.3%) respondents use 'twice in a week' and only 3 (2.6%) respondents use Wi-Fi services 'once in a week' interval.

The Figure 2 depicts the time spend to use Wi-Fi service by the research scholars, we can observe from the figure that, more number (45; 38.2%) of research scholars replied that they use Wi-Fi service 'whenever they want', followed by, about 27 (23.7%) respondents answered that they spend nearly 3-4 hours to use Wi-Fi services in a day. Further, 24 (21.1%) respondents accepted that they spend 1-2 hours, and only 12 (10.5%) research scholars use Wi-Fi service more than 6 hours per day.

Table 3: Place of using Wi-Fi connection

S/N	Place of using Wi-Fi connection	Frequency	Percentage
1	Library	38	33.33
2	Department	41	35.97
3	Hostel	24	21.05
4	Anywhere in the campus	11	9.65
Total		114	100

Table 4: Frequency of use of Wi-Fi service

S/N	Frequency of use of Wi-Fi service	Frequency	Percentage
1	Daily	84	73.7
2	Twice in a week	6	5.3
3	Once in a week	3	2.6
4	As and when I required	21	18.4
Total		114	100

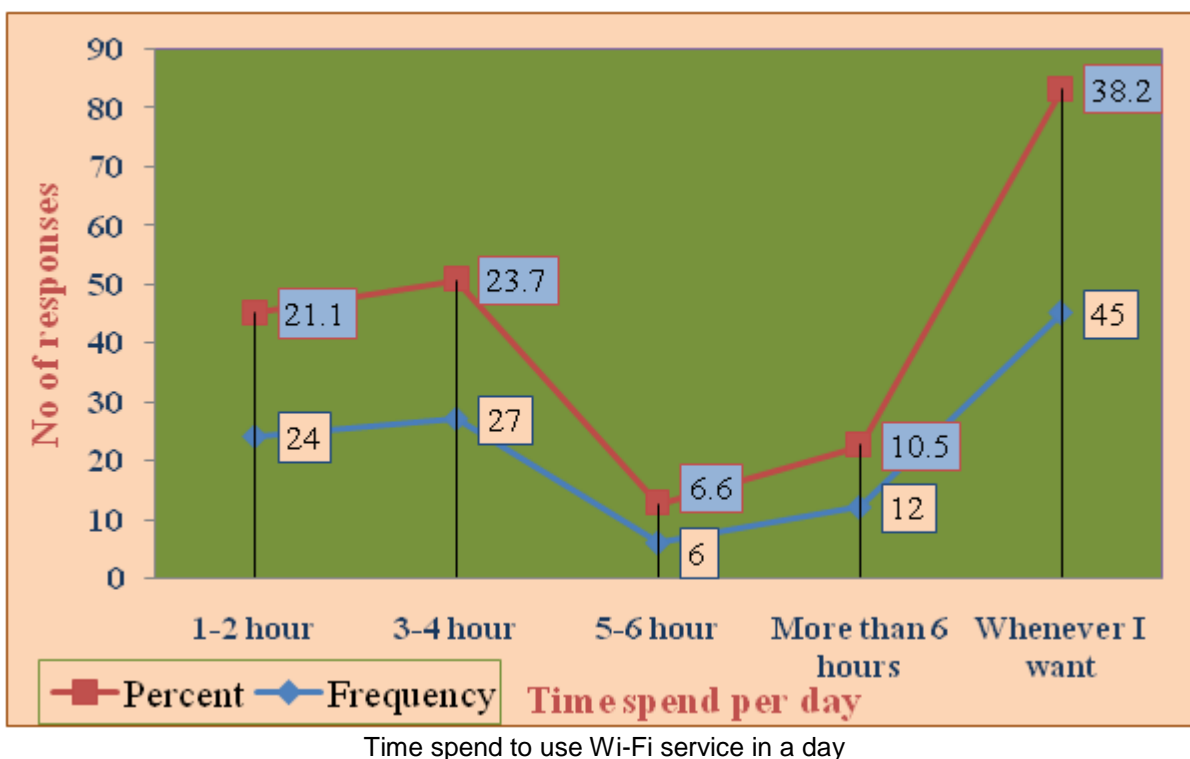


Figure 2: Time spend to use Wi-Fi Service in a day

Frequency of use of Wi-Fi service for different purposes

Table 5 shows the frequency of use of Wi-Fi services by the research scholars of University of Mysore for different purposes. Out of 10 purposes listed, the purposes like, 'to

search information relating to research subjects', 'to search E-theses and Dissertations', 'to search E- books and E-journals', 'for entertainment purpose', 'to search information relating to Jobs', 'to search e-reference sources' and 'to search Tutorials and Power point presentations' are concerned 79.82%, 59.65%, 42.58%,

Table 5: Frequency of use of Wi-Fi service for different purposes

S/ N	Purposes of use of Wi-Fi service	Frequency of Use (N=114)			
		More Frequen tly	Frequent ly	Less Frequentl y	Not Respon ding
1	To search information relating to research subjects	91 (79.82)	12 (10.53)	2 (1.75)	9 (7.89)
2	To discuss with guides and friends about research	40 (35.19)	45 (39.47)	4 (3.51)	15 (13.16)
3	To search Tutorials and Power point presentations	36 (31.58)	30 (26.32)	9 (7.89)	39 (34.21)
4	To search e-reference sources (like, online dictionaries, encyclopedias & yearbooks etc.)	40 (35.19)	24 (21.05)	11 (9.65)	39 (34.21)
5	To search E- books & E-journals	49 (42.98)	31 (27.19)	6 (5.26)	28 (24.56)
6	To search E-theses and Dissertations	68 (59.65)	10 (8.77)	3 (2.63)	33 (28.95)
7	To search information relating to Jobs	42 (36.84)	21 (18.42)	23 (20.18)	28 (24.56)
8	For communication (E-mail) purpose	30 (26.32)	42 (36.84)	21 (18.42)	21 (18.42)
9	For entertainment purpose	45 (39.47)	21 (18.42)	10 (8.77)	38 (33.33)
10	To use social network sites (like Facebook, Google+, Orkut, YouTube, Blog, LinkedIn and etc.)	21 (18.42)	40 (35.19)	11 (9.65)	42 (36.84)

Table 6: Opinion of users on satisfaction of Wi-Fi service

S/N	Opinion	Frequency	Percentage
1	Yes	96	84.2
2	No	18	15.8
Total		114	100.0

39.47%, 36.84%, 35.19% and 31.58% of the research scholars replied that they use Wi-Fi service 'most frequently' for these purposes.

Further, for the remaining purposes such as, 'to discuss with guides and friends about research', 'for communication (E-mail) purpose' and 'to use social network sites (like Facebook, Google+, Orkut, YouTube, Blog, LinkedIn and etc.)' is concerned more than 39%, 36% and 35% of the respondents agreed that they use Wi-Fi service 'frequently' for these purposes. Overall, we can observe from the table that most of the research scholars utilize Wi-Fi service most frequently to research purposes than for communication and use of social networking sites.

Opinion of the users on satisfaction of Wi-Fi service

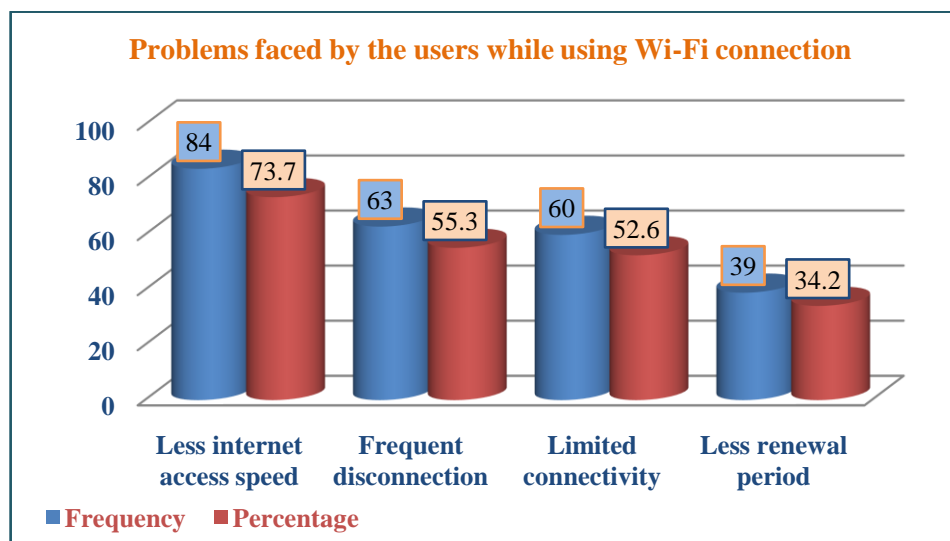
Opinion of users towards satisfaction with present Wi-Fi services is shown in Table 6. It is clear from the table that, a large majority (96; 84.2%) of the respondents replied they are satisfied towards the Wi-Fi service provided by the University of Mysore. However remaining 18 (15.8%) respondents answered they are not satisfied with this service.

Level of satisfaction with present Wi-Fi connection

Level of satisfaction with present Wi-Fi connection in the campus is presented in Table 7.

Table 7: Level of satisfaction with present Wi-Fi connection

S/N	Level of Satisfaction	Frequency	Percentage
1	Fully satisfied	27	23.68
2	Satisfied	48	42.11
3	Partially satisfied	3	2.63
4	Satisfied to a little extent	18	15.79
5	Not satisfied	18	15.79
Total		114	100

**Figure 3:** Problems faced by the users while using Wi-Fi connection

It is observed from the table that, more than 42% of the respondents replied 'just satisfied', followed by, nearly 24% of the respondents stated 'fully satisfied', another 16% of the respondents each answered 'satisfied to a little extent' and 'not satisfied' respectively. Remaining 2.63% of the respondents responded that they are 'partially satisfied' with present Wi-Fi facility.

Problems faced by the users while using Wi-Fi connection

Figure 3 shows the problems faced by the research scholars while using Wi-Fi connection. A large majority (84; 73.7%) of respondents replied that 'less internet access speed' is a major problem they face while accessing Wi-Fi connection. Followed by, 63 (55.3%) respondents agreed that 'frequent disconnection' is

another hurdle while accessing Wi-Fi connection, about 60 (52.6%) users opined 'limited connectivity is a barrier to access Wi-Fi connection' and 39 (34.2%) researchers stated 'less renewal period' is another obstacle for using Wi-Fi connection.

FINDINGS OF THE STUDY

1. One of the important findings of the study is that, a large majority (84; 73.7%) of the research scholars use the Wi-Fi service daily.
2. A large segment of the respondents i.e. 79.82 percent use the Wi-Fi service for the purpose 'to search information relating to research subjects', followed by, nearly 60 percent of the research scholars use this service 'to search E-theses and Dissertations' relating to their research areas.

3. A large majority (94; 84.2%) of research scholars are satisfied with Wi-Fi service.
4. Nearly 74 percent of the respondents agreed that, less internet access speed is a hurdle to use Wi-Fi service effectively.
5. Overall, this study finds that most of the research scholars are using Wi-Fi service for research purpose than communication and entertainment purposes.

RECOMMENDATIONS AND CONCLUSION

The study recommends that, though, most of the research scholars are satisfied with Wi-Fi service, still less internet speed is a problem to use effectively. In this connection, it is important to increase internet access speed, which will help the research scholars to access their required information very quickly and their by save the time of users. Further, by creating awareness about the use of Wi-Fi facility, terms and conditions, we can help researchers to utilize this service up to a maximum extent.

Overall, the Wi-Fi facility of University of Mysore is successful in providing satisfactory service to research community. The research scholars are using this service most satisfactory for their research and academic purposes. Further, this study helps the University and University library to understand the status of utilization of the service by the research community.

REFERENCES

1. Baidwan, K., Bala, A., Chadha, N., & Monika (2011). Usage of Wi-Fi Service among Users' of the Postgraduate Institute of Medical Education and Research Library, Chandigarh. *DESIDOC Journal of Library & Information Technology*, 31(3), 175-178.
2. Burness, I., Higgins, D., Sago, A. and Thorpe, P. (2003). Wireless LANs – present and future. *BT Technology Journal*, 21(3), 32-47.
3. Center for the Digital Future. (2008). Highlights: the 2008 Digital Future Project – year seven. Center for the Digital Future, Annenberg School for Communication, University of Southern California, Los Angeles, CA. Available at: <http://digitalcenter.org> (accessed February 10, 2008).
4. Fox, S. and Livingston, G. (2007). Latinos online. Available from www.pewinternet.org (accessed August 13, 2007).

5. Holden, H., A. (2005). A survey of potential users before the availability of wireless access and the implementation of a wireless notebook computer lending program in an academic library. *Library Hi Tech*, 23(4), 561-575.
6. <http://en.wikipedia.org/wiki/Wi-Fi>
7. Krishnamurthy, M. & Rajashekara H., M. (2011). Current Trends in Wireless Technologies in Academic Libraries. *DESIDOC Journal of Library & Information Technology*, 31(1), 41-48.
8. Middleton, K., L. (2010). Approaching digital equity: is Wi-Fi the new leveler? *Information Technology & People*, 23(1), 4-22.