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Use of ICT Technologies and its Dependency Level among P.G. Students and Faculty Members of G.B. Pant University of Agriculture and Technology

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Abstract **- In this cyber age, information plays a pivotal role in different spheres of human endeavors such as education, research and development, decision and policy making. The role of library and information centers in providing information for these endeavors is well documented. The generators and users of information play a key role in information transfer and utilization process. The information required by the users is available in a variety of sources, primary, secondary and tertiary sources and in different formats. The present article lights on the use of e-resource information and its impact on P.G. Students and faculty members of G.B. Pant University of Agriculture and Technology, Patnagar, Uttarakhand, India. The study focuses on e-resource information provided and the dependency level of users, gender-wise analysis in using ICT information by the respondents.**

Keywords: **ICT Facilities, E-Mail Facility, Internet Browsing, Net Phone, Video Conferencing**

I. Introduction

Information seeking behaviour is mainly concerned with who needs what kind of information and for what reasons; how information is found, evaluated and used, and how there needs can be identified and satisfied. The five laws of library sciences enunciated by Dr. S. R. Ranganathan are considered the basis and basic principles of librarianship. All the basic concepts of library science embedded and radiated from these fundamental laws. Based on the analogy of five laws of library science, Prof. Bhattacharyya has enunciated five principles of information viz. (i) Information is for use: (ii) every information user his information: (iii) every piece of information its user: (iv) Save the time of information user: (v) the universe of information is ever growing. We are living in an age of information explosion. Computer and other electronic resources has become an indispensable tool in our society. The main function of a library is to provide information to the users. With the help of electronic resources the staff, students and the researchers can access to the huge volume of information with speed and accuracy.

II. Reviews Of The Study

Anna Marie Johnson (2007) has discussed the characteristics of current scholarship and describes as sources that contain unique scholarly contributions and quality reproductions.

Barbara Elam (2007) studies the "Readiness or avoidance: E-resources and the art historian", in which the study emphasis the impact of electronic resources and digital image databases on the research methodologies adopted by the art historians today.

Chinnasamy K *et al.* (2008) made a survey on the usage of electronic resource by management students of Jansons School of Business, Coimbatore. They also studied the impact of electronic resources on the academic work. The study reported that the students used electronic resources for academic and the frequency of use was very high.

Gopalakrishnan *et al.* (2008) has conducted a study on Information Use Pattern by the Academicians of NIFT Centres in India. This study is to examine the information needs and information use pattern of the academicians of seven institutes of fashion technology in India.

Shashi P Singh (2009) stated that power point presentations were used in a demonstration to explain how to use various types of e-resources and databases, both subscribed and in the public domain. Based on the feedback analysis, it was found that instruction materials was useful (94.90%), 88.47% respondents are now better prepared to use e-resources.

Thanuskodi (2010) identified and tested ten e-journal sources: Highwire Press, MedBio World, Ingeta, All Health Net, Blackwell Synergy, Medind, Science Direct, LWW

Online, Springer Link, and Health Inter Network India and found that the respondents preferred the Highwire Press CD-ROM database with a mean score of 4.15 on a 5 point rating scale.

Satish kumar etc., (2011) analyzes the information needs and information seeking behaviour of Defence Research and Development Organisation (DRDO) scientists working in nine life science laboratories in India. Results revealed that DRDO life science scientists depend greatly on their respective library/information centers.

III. Objectives of The Study

1. To know the dependency of using different ICT Technologies by the Respondents;
2. To know the dependency of using Internet Browsing Technology by the Respondents;
3. To know the dependency of using E-mail Technology by the Respondents;
4. To know the dependency of using Video Conferencing Technology by the Respondents;
5. To understand the dependency of using Net Phone Technology by the Respondents.

IV. Hypotheses of The Study

1. There is no association between the ICT technologies used by respondents and their scales of dependency.
2. There is no association between the categories of respondents and the scales of dependency of using Internet Browsing technology.
3. There is no association between the categories of respondents and the scales of dependency of using E-mail technology.
4. There is no association between the categories of respondents and the scales of dependency of using Video conferencing technology.
5. There is no association between the categories of respondents and the scales of dependency of using net phone technology.

V. Method of Study

Normative survey method has been used for this study. The respondents were selected by the method of random sampling. It is through the questionnaires, an attempt has been made by the researcher to know the users' Use of ICT technologies and its dependency among P.G. students and Faculty members of G.B. Pant University of Agriculture and Technology, Uttarakhand, India.

VI. Data Analysis And Interpretation

The present study analyses the scale of dependency of using different ICT technologies by the respondents. The ICT technologies surveyed in the present study are Internet browsing, E-mail, net phone, Video conferencing, CD-server, Fax, Database DVD, and Mass media.

Table I Using Different ICT Technologies by The Respondents

Technology	Highly Dependent	Moderately Dependent	Occasionally Dependent	Rarely Dependent	Total
Internet Browsing	457 (57.23)	193 (24.13)	131 (16.36)	19 (2.36)	800
E-mail	487 (60.86)	201 (25.23)	101 (12.63)	11 (1.36)	800
Video Conferencing	388 (48.50)	220 (27.50)	136 (17.00)	56 (7.00)	800
Net Phone	366 (45.75)	230 (28.75)	147 (18.36)	57 (7.13)	800
CD Server	352 (44.00)	226 (28.25)	138 (17.25)	84 (10.50)	800
Fax	22 (2.75)	59 (7.36)	230 (28.75)	489 (61.23)	800
Database DVD	15 (1.86)	32 (4.00)	245 (30.63)	508 (63.50)	800
Mass Media	8 (1.00)	12 (1.50)	260 (32.50)	520 (65.00)	800
Overall Total	2191 (34.23)	1159 (18.11)	1368 (21.38)	1682 (26.28)	6400

Chi-square	Df	P Value
3211.73	21	0.001 Significant

The data in the table ranks e-mail technology at the top level and explains 60.86 % of respondents highly depend on this ICT technology followed by 25.23% in other scale of moderately dependant. The next rank goes to Internet browsing as it records 57.23% of users in the highly dependent scale and in moderate dependant scale it is noted about 24.13%. The information in the internet attracts maximum number of respondents invariably. The third rank is occupied by the ICT technology of Video conferencing at the highly dependent ratio of 48.50% and in moderately dependent it is about 27.50%.

The next rank is secured by the ICT technology of net Phone. It is calculated in the highly dependent rate by the participant at 45.75% and also in the moderately dependent ratio of 28.75%. This technology is a blooming one and it is securing attention among the respondents at a greater level nowadays.

The other technologies are gradual in dependency level on par with the usage of the respondents. Though they are securing less numbers of data in the first 2 point scales, they are also gradually used by the respondents when and where it is required. The chi square analysis results the p value at 0.001 which is inferred significant. It is less than the table value. Hence the formulated null hypothesis of "There is no association between the ICT technologies used by respondents and their scales of dependency" is rejected.

The following table explains Gender-wise Analysis of the scale of dependency of using E-mail Technology by the respondents. The respondents mainly using E-mail technology for sharing the ICT communication to the colleagues and friends.

Table II Gender-Wise Analysis of The Scale of Dependency of Using E-Mail Technology by The Respondents

Respondents	Gender	Highly Dependent	Moderately Dependent	Occasionally Dependent	Rarely Dependent	Total
PG Students	Male	250 (51.33)	112 (55.72)	58 (57.43)	2 (18.18)	422 (52.75)
	Female	120 (24.64)	27 (13.43)	10 (9.90)	3 (27.27)	160 (20.00)
	Total PG Students	370 (75.97)	139 (69.15)	68 (67.33)	5 (45.45)	582 (72.75)
Faculty Members	Male	95 (19.51)	55 (27.36)	27 (26.73)	1 (9.09)	178 (22.25)
	Female	22 (4.52)	7 (3.48)	6 (5.94)	5 (45.45)	40 (5.00)
	Total FC members	131 (24.03)	51 (30.84)	25 (32.67)	11 (54.54)	218 (27.25)
Overall Total		487 (60.88)	201 (25.13)	101 (12.63)	11 (1.38)	800
Total Male Respondents		345 (57.50)	167 (27.83)	85 (14.17)	03 (0.5)	600
Total Female Respondents		142 (71.00)	34 (17.00)	16 (8.00)	08 (4.00)	200

Chi-square	Df	P Value
141.5	9	0.001 Significant

It is true with the data shown in the table that about 250 male and 120 female P.G students highly dependent E-mail technology and the moderately dependents of this category are 112 male and 27 female respondents. About 63.57% of respondents in this category are found highly dependent. While analysing the faculty members, 95 male and 22 female respondents highly rely on E-mail for their academic purposes. It is calculated to 60.09% out of total population. The data in moderately dependent among faculty members shows 55 male and 7 female respondents. It is calculated to 28.44% out of total. The study also reveals the fact that about 57.50% of male and 71.00% of female respondents highly dependent of E-mail services irrespective of their categories.

The chi square analysis results the p value at 0.001 which is found significant. It is less than the table value. Therefore the formulated null hypothesis of "There is no association between the categories of respondents and the scales of dependency of using E-mail technology" is rejected. The study further shows Gender-wise Analysis of the scale of dependency of using Internet Browsing Technology by the respondents. The majority of the respondents make use of ICT technology of Internet for each and every information requirement.

Table III Gender-Wise Analysis of The Scale of Dependency of Using Internet Browsing Technology by The Respondents

Respondents	Gender	Highly Dependent	Moderately Dependent	Occasionally Dependent	Rarely Dependent	Total
PG Students	Male	224 (49.02)	112 (58.03)	80 (61.07)	6 (31.58)	422
	Female	102 (22.32)	30 (15.54)	26 (19.85)	2 (10.53)	160
	Total PG Students	326 (71.34)	142 (73.57)	106 (80.92)	8 (42.11)	582 (72.75)
Faculty Members	Male	106 (23.19)	44 (22.79)	20 (15.27)	8 (42.11)	178
	Female	25 (5.47)	7 (3.63)	5 (3.82)	3 (15.79)	40
	Total FC members	131 (28.66)	51 (26.42)	25 (19.09)	11 (57.90)	218 (27.25)
Overall Total		457 (57.13)	193 (24.13)	131 (16.38)	19 (2.37)	800 (100.0)
Total Male Respondents		330 (55.00)	156 (26.00)	100 (16.67)	14 (2.33)	600 (75.00)
Total Female Respondents		127 (63.50)	37 (18.50)	31 (15.50)	05 (2.50)	200 (25.00)

Chi-square	Df	P Value
21.73	9	0.001 Significant

Out of 582 P.G Students there have been 224 male and 102 female respondents are found in highly dependent. It is about 56% of this category. In addition to that there are 112 male and 30 female respondents accept that they are moderately dependent of internet browsing technology. It is 24.39% of the P.G students' total.

While analysing the faculty members, there have been 106 male and 25 female members are found in highly dependent scale. It is about 60% out of the total population of this category. So the majority of the male (330) and female (127) respondents of both categories are highly dependent of Internet Browsing. The chi square analysis results the p value at 0.001 which is found significant. It is less than the table value. Therefore the formulated null hypothesis of "There is no association between the categories of respondents and the scales of dependency of using Internet Browsing technology" is rejected.

Further, the table explains Gender wise analysis of the scale of dependency of using video conferencing technology by the respondents. It is from the table it is evident that majority of male (180) and female (75) respondents of P.G students are found highly dependent of video conferencing technology. The moderately dependent respondents observed are 125 males and 48 females.

The analysis of faculty members brings out the findings that 115 male and 18 female respondents are highly dependent of this technology. They have shared 48.50 % in highly dependent level. The moderately dependent respondents noted are 38 male and 9 female members. The overall male those highly dependent this technology calculated is 49.17% and the female is 46.50 %. It is irrespective of categories. As fewer percentages are noted in rarely dependent level, it is clear that this technology has high impact among the respondents.

The chi square analysis brings out the p value at 0.001 which is found significant. It is less than the table value. Therefore the formulated null hypothesis of "There is no association between the categories of respondents and the scales of dependency of using Video conferencing technology" is rejected.

The following table focuses on what percent of dependency that the respondents rely on the net phone technology. The data in the table further discusses the gender wise inferences. Out of total 582 P.G Students, There have been 155 male and 90 female respondents are noted highly depending net phone technology. It is about 42.09% of P.G students' total population and 66.94% of this category's share in this scale.

Table IV Gender-Wise Analysis of The Scale of Dependency of Using Video Conferencing Technology by The Respondents

Respondents	Gender	Highly Dependent	Moderately Dependent	Occasionally Dependent	Rarely Dependent	Total
PG Students	Male	180 (46.39)	125 (56.82)	90 (66.18)	27 (48.21)	422 (52.75)
	Female	75 (19.33)	48 (21.82)	22 (16.18)	15 (14.29)	160 (20.00)
	Total PG Students	255 (65.72)	173 (78.64)	110 (82.36)	42 (62.50)	582 (72.75)
Faculty Members	Male	115 (29.64)	38 (17.27)	17 (12.50)	8 (14.29)	178 (22.25)
	Female	18 (4.64)	9 (4.09)	7 (5.15)	6 (10.71)	40 (5.00)
	Total FC members	133 (34.28)	47 (21.36)	34 (17.65)	14 (25.00)	218 (27.25)
Overall Total		388 (48.50)	220 (27.50)	136 (17.00)	56 (7.00)	800
Total Male Respondents		295 (49.17)	163 (27.17)	107 (17.83)	35 (5.83)	600 (75.00)
Total Female Respondents		93 (46.50)	57 (28.50)	29 (14.50)	21 (10.50)	200 (25.00)

Chi-square	Df	P Value
38.40	9	0.001 Significant

Table V Gender-Wise Analysis of The Scale of Dependency of Using Net Phone Technology by The Respondents

Respondents	Gender	Highly Dependent	Moderately Dependent	Occasionally Dependent	Rarely Dependent	Total
PG Students	Male	155 (42.35)	142 (61.74)	93 (63.27)	32 (56.14)	422 (52.75)
	Female	90 (24.59)	34 (14.78)	22 (14.97)	14 (24.56)	160 (20.00)
	Total PG Students	245 (66.94)	176 (76.52)	115 (78.24)	46 (80.70)	582 (72.75)
Faculty Members	Male	105 (28.69)	40 (17.39)	26 (17.69)	7 (12.28)	178 (22.25)
	Female	16 (4.37)	14 (6.09)	6 (4.08)	4 (7.02)	40 (5.00)
	Total FC members	121 (33.06)	54 (23.48)	32 (21.77)	11 (19.30)	218 (27.25)
Overall Total		366 (45.75)	230 (28.75)	147 (18.34)	57 (7.13)	800
Total Male Respondents		260 (43.33)	182 (30.33)	119 (19.84)	39 (6.50)	600 (75.00)
Total Female Respondents		106 (53.00)	48 (24.00)	28 (14.00)	18 (9.00)	200 (25.00)

Chi-square	Df	P Value
87.03	9	0.001 Significant

While analysing the faculty members, 105 male and 16 female members highly depend net phone technology. The moderately dependent data among P.G Students are 142 male and 34 female and in the case of faculty members it is 40 male and 14 female respondents. The overall male respondents fall in the highly dependent scale is 43.33% and female respondents are 53%. The rarely dependent scale shows only 19%. Therefore it seems to be an important technology highly using by the respondents.

The chi square analysis results the p value at 0.001 which is found significant. It is less than the table value. Therefore the formulated null hypothesis of "There is no association between the categories of respondents and the scales of dependency of using net phone technology" is rejected.

VII. Conclusion

The study has brought out the valid findings that the P.G Students and Faculty members of G.B.Pant University of Agriculture and Technology, Pantnagar, Uttarakhand, India highly use ICT technologies for their academic purposes and in result it has made high impact on the use pattern and information seeking approaches.

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