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Internet-users and Internet Non-users Attitude towards Research: A Comparative Study on Post-Graduate Students

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Abstract

The purpose of the present study was to compare the Internet-user and Internet Non-user post-graduate students on their attitude towards research. The sample comprised 600 post graduate students (300 Internet-users and 300 Internet-Non-users) drawn from different faculties of University of Kashmir (J&K), India. Random sampling technique was used. Attitude towards Research Scale by Vishal Sood and Y. K. Sharma used to collect the data. Besides, Information Blank developed by the investigators to find the Internet-users and Non-users. The data was subjected to statistical analysis by computing Mean, S.D. and test of significance. The results concluded that Internet-users and Internet non-users differ significantly on all the four dimensions and on composite score of Attitude towards Research. Internet-users were found to have favourable Attitude towards Research. Gender differences on attitude towords research between the groups under the investigation were also found significantly different.

Keywords: Internet-users; Non-users; Attitude towards Research, Post-Graduate students, University Students; Gender.

Introduction

The first decade of the 21st have seen dramatic changes due to the exponential proliferation of the Internet to all aspects of life. What has been called the digital culture has had an extensive influence on education. Internet use has become very popular in many areas as well as in education in recent years. It has affected the field of education at all levels (Sati and Khalid, 2002). The Internet has experienced vast expansion in recent years, leading to its extensive use by people from all generations. For a generation of young people, technology has assumed a substantial stake in their social and educational lives. With the increased role of modern technology in the students' lives has come the increased concern about how students might be affected. Students accepted that the Internet is more informative, useful, less expensive, time saving. It has made a tremendous impact on their academic activities. Ojedokun (2001) posited that the Internet has many benefits in the academic cycle, including provision of round-the-clock access to a wide variety of information sources globally and the ability to discuss and share experience. Glenda *et al*. (2006) asserted that some of the most important reasons why students go online include research, school assignments, e-mails and chatting. With the Internet, activities which previously required students to be physically present in the classroom can now are done virtually without attending classrooms (Foster, 2003). For the most university students the Internet is a functional tool, one that has greatly changed the way they interact with others and with information as they go about their studies. They use Internet to accomplish a wide range of academic tasks. Many students prepare course assignments, make study notes, tutor themselves with specialized multimedia, and process data for research projects. Students have received the opportunity to use the Internet to seek and obtain scholarly material. Omidian (2011) identified that university students prefer to use the Internet for their information need more than traditional print sources due to being quickly and easily valuable resource At many countries in the world, it has been seen that especially the students have utilized the Internet for the university education (Isman & Dabaj, 2004). Students use Internet because of the perceived effectiveness of the facility in information access on assignments and research projects. Technologies like the Internet to accelerate university students' learning enhance and democratize access to educational opportunities, and support interactivity, interaction, and collaboration (Draper & Brown 2004; Oliver 2006).Most university students use Internet because of the perceived effectiveness of the facility in information access on assignments and research projects. Mathew and Schrum (2003) university students use the Internet for communicating with the professors through emails by asking for clarification or reporting information, e-mailing papers, and getting feedback. Secondly, they use the Internet to get materials (web links, notes, practice, quizzes, hints for test etc.) from professional websites, checked grades, and accessed resources from Web CT. Adegboji & Toyo (2006) concerned that Internet contributed significantly to the ease of research through downloading course related materials. They relied mostly on Internet sources for the big project they downloaded study aides. Similarly, Yusuf (2006) stated that the Internet provides wide range opportunities for easy access of relevant and current literature, wide range of instruments, online opportunity for validation of instrument, simulation of an on-going research, and so on. He further adds that collaboration of research (trans-institutional, trans-national and trans-continental) is possible, and wide range of opportunities exist for the dissemination of research findings (journals, personal web page, foundations/organizations' web pages and so on). The only way to pursue

knowledge is through research and the Internet is having a profound impact on the research process and dissemination of information. The Internet might thus be described as a 'sea of information' and 'reservoir of information' containing texts which are not housed between library and bookshop walls and subject areas span across all fields of knowledge. In addition to those information services, the number of on-line journals, newspaper and trade magazines increase each month. Much of the information in these publications is free. It is a virtual treasure trove of information. Any kind of information on any topic under the sun is available on the Internet. It is a truly "open technology", allowing users with any hardware and software to derive the necessary information from the network, independently from the location of data and knowledge bases. Hence, Internet can therefore be described as a super highway of information carrier, where information seekers on any subject or area of discipline can obtain current and useful information and knowledge. Some students strongly prefer using the Internet as their primary information source (Gibson & Mazur, 2001). One reason students give for preferring the Web over traditional print materials; they feel they can locate information faster when using the Internet. Other students decide whether to use electronic or print materials based upon the type of information they are seeking. For example, students tend to favour the Web for locating up-to-date or relatively obscure information and they favour print sources for obtaining comprehensive, organized information on general topics (Large & Beheshti, 2000).

With respect to uses of the Internet, there is evidence that some of these too are gendered as males and females use the Internet for different purposes. Odell *et al.* (2000) the gap in use of the Internet among male and female students has nearly closed, there remain differences in how male and female students use the Internet. Although researchers have shown little difference in the amount of time men and women spend online, they have consistently found that men and women differ in their reasons for accessing the Internet. Moreover, there is a difference in academic interest between genders; males are more extrinsically motivated while females are more intrinsically motivated in terms of furthering their education. On the other hand, Heimrath & Goulding (2001) female students felt that the Internet was too big and unstructured thus, searching the Internet difficult, not enjoyable and will use it only when unavoidable whereas male students were happy to search the Internet for relevant information. Weiser (2000) found males were more likely than were females to use the Internet for purposes related to entertainment and leisure, whereas females used it primarily for interpersonal communication and educational assistance. In relation to the different purposes of Internet use, studies show gender differences in a range of topics of interest. Women tend to go online for a narrower range of topics, such as health and religion, while men tend to engage in a broader range of activities (Fallows, 2005). Similarly, Jones *et al.* (2009) reported that male students pursue a wider variety of activities including games, sports, technology, politics, personal finance and adult content than do their female counterparts. So the notion of Internet use among males is more task-oriented than women's, and the tendency for women to use e-mail more accords with their greater interpersonal orientation (Jackson *et al.,* 2001). Gender difference was also found to be significant in the students' confidence about computers and stereotypical views of computer users (Chen & Tsai, 2007). Concern about gender inequality has now shifted from access to intensity. Skills do play an important role in framing gender inequalities in terms of Internet usage. Skills are the user's ability to locate content online effectively and efficiently. Therefore, men and women may differ significantly in their attitudes towards their technological abilities (Hargittai & Shafer, 2006).

Despite the positive effects of Internet, there is growing literature on the negative effects of its use many researchers herald the Internet to be beneficial and educational (Donnerstein & Smith, 2001 & Hitlin & Rainie, 2005; Pew Internet and American Life Project 2005b). Nevertheless, concerns about online risks and consequences are increasing (Byun *et al.,* 2009; The Star, 2009; The Strait Times, 2009b). Yet, it should not be thought that Internet is beneficial under every circumstance and situation, and can be resorted to regardless of any regulation concerning it. Hicks (2002) Internet is a double-edged sword, although some welcome it as a panacea while others fear it as a curse, all would agree that it is quite capable of transforming society. For example, students' attitudes toward the Internet may influence their motivation and interests toward learning to use the Internet, or vice-versa. Many students use the Internet, there are many who may not. Studies carried out by Vogel & Heinz (2000) & Minks (2000) clearly show that there is a group of students interested in and competent with technology and also a group of students not interested in and not very competent with technology. Some students prefer to reference only traditional print materials, despite the increasing prevalence of electronic sources (Large & Beheshti, 2000). Every year thousands of young students register at universities. It becomes clear that not all of them have the necessary skills to work with all of the ICT resources available to them. Closer inspection many of the studies actually convey a sense that not all students are as inclined to integrate Internet use into their studies as might be assumed. As is usually the case in educational debate, blame for this disparity has been most frequently attributed to deficits of skills, motivation and know-how on the part of students, For example, some researchers have reasoned that university students' (non) engagement with the Internet is influenced by perceptions of usefulness, ease-of-use and other psychological attitudes towards both technology and learning (Cheung & Huang, 2005). Users and Non-users have different ideas of what the online

world is like. Horrigan (2009) claimed that the main reason behind the student's non-use was a lack of interest in using the Internet, which they considered irrelevant to their daily lives. Other criteria included cost, availability and usability. With the surge in the use of information and communication technology, Users and Non-users of Internet can be considered to be more than just a simple anomaly, especially where the Internet is concerned. Therefore, there is a need to have standardized and more reliable research. Present paper providing an insight to determine the Attitude towards Research with special reference to gender among university students from university of Kashmir (J&K), India.

Objectives of the Study

The fallowing objectives have been formulated for the present investigation:
1. To identify the Internet-users and Internet Non- users.
2. To find and compare the Attitude towards research of Internet-users and Internet Non- users.
3. To find and compare the Attitude towards research of Male Internet-users and Female Internet–users.
4. To find and compare the Attitude towards research of Male Internet Non-users and Female Internet Non-users

Hypotheses of the study

Following hypotheses have been framed for the present investigation:
1. There is significant difference between the mean scores of Internet-users and Internet Non-users on their Attitude towards research.
2. There is significant difference between the mean scores of Male Internet-users and Female Internet–users on their Attitude towards research.
3. There is significant difference between the mean scores of Male Internet Non-users and Female Internet–Non-users on their Attitude towards research.

Methodology and Procedure

Descriptive study was conducted in University of Kashmir. The study population comprised students from three fields of study namely sciences, social sciences and Arts. Random sampling was implemented with the aim of identifying differences that might exist between Internet-users and Internet Non-users in relation to their Attitude towards research.

Sample

A sample of 600 post graduate students 300 Internet-users (150 Male and 150 Female) and 300 Internet Non-users (150 Male and 150 Female) were selected through simple random sampling technique from various departments of three faculties i.e. (faculty of Science, faculty of Social science and faculty of Arts) of University of Kashmir, (J&K) India. It needs to be mentioned that the subjects (Internet-users and Internet Non-users) reading in 3rd and 4th semester has been considered the sample for the present study.

Data Collection

Tools

1. *Information Blank:* Self constructed *Information blank* developed by investigator with the purpose to ascertain the Internet-users and Internet Non-users. In the present study **Internet-Users** are those university students who have direct access to the worldwide network and have their own exposure and skill to use Internet and have minimum of one year's experience of Internet usage are considered as Internet-users. On the other hand Internet-*Non-users* are those university students who have no direct access to the worldwide network and have not their own exposure and skill to use Internet. Those who can be described as Non-users are respondents who claim not to have used the Internet or who did not list any Internet activities, leaving all of the possibilities blank.

2. *Attitude Scale towards Research*: In the present study, Attitude towards Research refers to the dominant set of scores as measured by Attitude Scale towards Research by Vishal Sood and Y. K. Sharma (ASTR–SVSY).The scale consists 42 items with Four Dimension—I. General Aspects of Research and Research Process, II. Usefulness of Research in Professional Career, III. Relevance of Research in Personal- Social Life, IV. Difficulties in Research and Research Anxiety.

Statistical analysis and Interpretation

Table 1.00: Showing the Significance difference between the Mean Score of Internet-users and Internet Non-users on Attitude towards Research (N =300 each)

	Dimensions of Attitude towards Research	Group	Mean	S.D.	SEM	t-value
I.	General aspects of Research and Research Process	IUs	48.44	2.739	.158	12.27**
		INUs	45.42	3.307	.191	
II.	Usefulness of Research In Professional Career	IUs	33.74	1.904	.110	15.73**
		INUs	30.62	2.826	.163	
III.	Relevance of Research in Personal Social Life	IUs	31.87	2.173	.125	5.98**
		INUs	30.66	2.875	.166	
IV.	Difficulties in Research and Research Anxiety	IUs	40.70	2.987	.172	5.49**
		INUs	39.04	4.270	.247	
Total		**IUs**	**154.75**	**6.641**	**.383**	**16.96****
		INUs	**145.74**	**6.154**	**.355**	

Note: **p<0.01 ; ***p<0.05; *Insignificant

Index: *IUs =Internet-users*
INUs =Internet Non-Users

Table 1.00 depicts that there is a significant mean difference between the two groups on all the four dimensions and on composite score of Attitude towards Research. The obtained 't'- value came out to be (t=14.01) which is significant at 0.01 level of confidence. Result reveals that the mean difference favaours Internet-users (M=154.75) as compared to Internet Non-users (M=145.74). It has found that the Internet-users were found to have favourable Attitude towards Research. While comparing the two groups on various dimensions of attitude towards research results it has been revealed that that there was a significant difference between the mean score of Internet-users and Internet Non-users, on each of the dimensions of Attitude towards Research i.e. General aspects of Research and Research Process, Usefulness of Research in professional Career, Relevance of Research in Personal Social Life and Difficulties in Research and Research Anxiety at 0.01 level of confidence. Internet-users were found have favourable tendency towards all the four dimensions of attitude towards research.

Figure 1.00: Showing the Significance of difference between the Mean Score of Internet-users and Internet Non-users on Attitude towards Research (N =300 each).
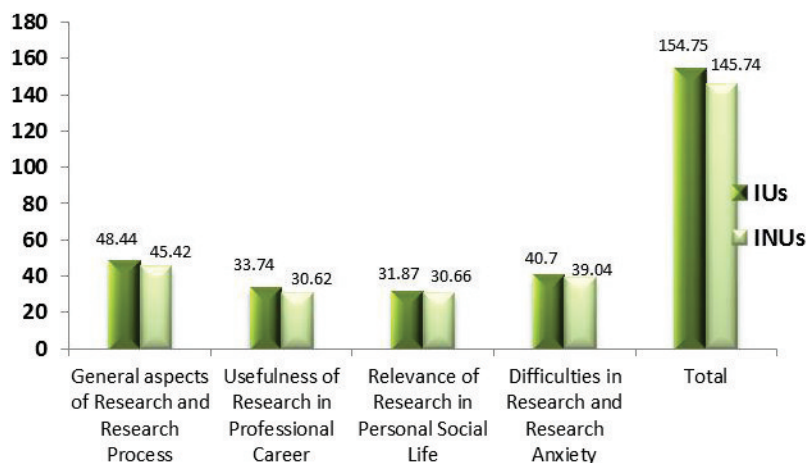
Table 2.00: Showing the Significance of difference between the Mean Score of Male and Female Internet-users on Attitude towards Research (N =150 each).

Dimensions of Attitude towards Research		Group	Mean	S.D.	SEM	t-value
I.	General aspects of Research and Research Process	MIUs	49.61	4.853	.396	1.96***
		FIUs	48.61	4.060	.331	
II.	Usefulness of Research in Professional Career	MIUs	32.77	3.603	.294	2.65**
		FIUs	31.57	4.636	.379	
III.	Relevance of Research in Personal Social Life	MIUs	30.77	4.282	.350	0.30*
		FIUs	30.62	5.096	.416	
IV.	Difficulties in Research and Research Anxiety	MIUs	39.63	4.885	.399	2.11***
		FIUs	38.55	4.340	.354	
Total		**MIUs**	**152.78**	**10.467**	**.855**	**2.74****
		FIUs	**149.35**	**11.240**	**.918**	

Note: **p<0.01 ; ***p<0.05; *Insignificant

Index: *M IUs =Male Internet-users*
            FIUs =Female Internet-users

Table 2.00 depicts that there is a significant of mean difference between the male and female Internet-users on different dimensions on composite score of Attitude towards Research. The computed 't' value out to be (t=2.74) which is significant at 0.01 level of confidence. Mean difference favaours male Internet-users (M=152.78) as compared to female Internet-users (M=149.35). It has been found that the male Internet-users found to have favourable Attitude towards Research. While comparing the two groups on various dimensions of attitude towards research, it has been found male Internet-users were found to have favourable tendency towards General aspects of Research and Research Process, Usefulness of Research in professional Career and Difficulties in Research and Research Anxiety. However, rest of the one dimension i.e. Relevance of Research in Personal Social Life the difference between the mean score of the two groups could not be established.

Figure 2.00: Showing the Significance of difference between the Mean Score of Male and Female Internet-users on Attitude towards Research (N=150each)
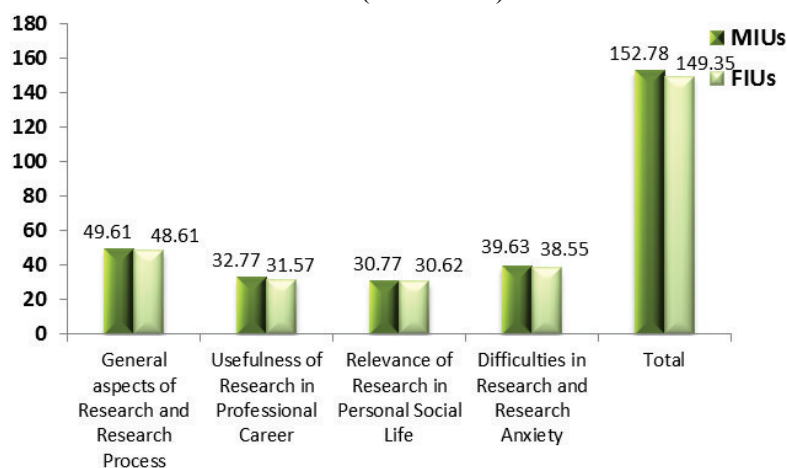

Table 3.00 Showing the Significance of difference between the Mean Score of Male and Female Internet Non-users on Attitude towards Research (N =150 each)

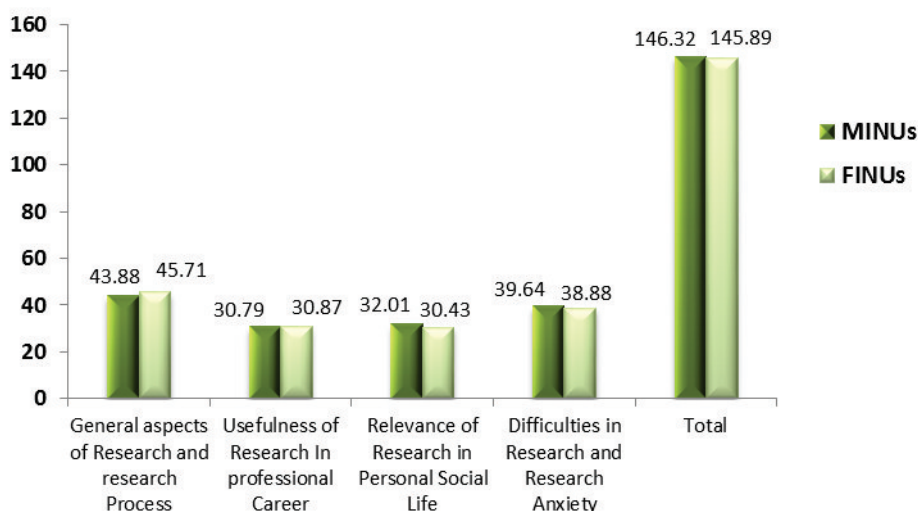| Dimensions of Attitude towards Research		Group	Mean	S.D.	SEM	t-value
I.	General aspects of Research and Research Process	MINUs	43.88	4.327	.353	3.87**
		FINUs	45.71	3.895	.318	
II.	Usefulness of Research in Professional Career	MINUs	30.79	3.808	.311	0.16*
		FINUs	30.87	3.741	.305	
III.	Relevance of Research in Personal Social Life	MINUs	32.01	4.578	.374	3.13**
		FINUs	30.43	4.212	.344	
IV.	Difficulties in Research and Research Anxiety	MINUs	39.64	3.354	.274	1.79*
		FINUs	38.88	3.882	.317	
Total		**MINUs**	**146.32**	**8.887**	**.726**	**0.40***
		FINUs	**145.89**	**9.275**	**.757**	

Note: **p<0.01 ; ***p<0.05; *Insignificant

Index: *M INUs = Male Internet Non-Users*
            FINUs =Female Internet Non-Users

Table 3.00 depicts that male and female Internet Non-users failed to arrive at any level of significance on composite score. The computed 't' value has been found insignificant, i.e. the difference between the two groups on Attitude towards Research could not be established. While comparing the two groups on various dimensions of attitude towards research, it has been found male Internet Non-users were found to have favourable tendency towards the Relevance of Research in Personal Social Life. Rest of the two dimensions the difference between the mean score of the two groups could not be established on Usefulness of Research in Professional Career and Difficulties in Research and Research Anxiety.

Figure 3.00 Showing the Significance of difference between the Mean Score of Male and Female Internet Non-users on Attitude towards Research (N =150 each)

Discussion and Conclusion
The comparative analysis of the Internet-users and Internet Non-users reveals significant difference on various dimensions of attitude towards research. The two groups were found significantly different on all the four dimensions and on composite score of attitude towards research. Internet-users have been found to have a favourable tendency towards the Attitude toword research. However Internet Non-users did not show any favourable attitude towards the any dimension of attitude towards research. It can be inferred that that Internet-users' shows favourable attitude towards the concept of research, research process, and current scenario of research works. They believe that research work does not impose any extra workload on them. They are aware about the importance of position of supervisor in research works. They develop cordial relationship with their research supervisor during research process and publication of research findings etc. They are well-known about the essentiality to publish the research findings in order to enhance the authenticity and acceptability of research works among academic community. They have strong belief that research requires an expert, accurate and systematic observation and have positive feelings with regard to significance and usefulness of research in their professional life and career. Internet-users have positive feelings with regard to significance and usefulness of research and research findings is useful for their field of study and for their career and profession. They consider research skill would be helpful for their future and believe that research projects should be an integral part of every post graduate course. They have constructive outlook that research is essential to improve the process and practice of education at any level. They think conducting research is an effective means to become a successful educator. They believe research provides insight to solve the related issues of their career and profession. They have constructive ideas about relevance of research and research-related activities in their personal and social life and shows the favourable attitude towards the application of research methods/processes and findings to solve daily problems in their personal and social life. They feel that knowledge acquired through research is more useful in their lives as compared to knowledge gained through reading some literature. They employed research approaches in their lives and consider that research is highly relevant and beneficial for their personal and social lives. They also believe that society gets benefited from research and makes them systematic and hardworking in their daily lives. They feel ease at the time of planning or conducting research activities. They feel stress-free when they are engaging themselves in different sort of theoretical and practical research-related activities. They feel comfortable to get engaged in research and scholarly activities. They would love to work on research projects and have a much interested in research and research related activities. They feel ease with arithmetic and statistical computation in research and feel very much confident to understand research terminology. They understand the methodology of conducting the research works and aware about the steps to fallow in pursuing a research project. They easily understand research reports and engaged in discussions about research. The reason

may be that Internet Non-users university students think research as a tough and difficult course and want to avoid this course. Results showed that Internet Non-users attitudes towards research are generally not positive. Students think that it is tough and dry to study the research. They does not understand the concepts of research and its importance in their personal and professional life. It is possible that they assumed research in negative manner because they had to face several obstacles and could not understand the concepts of the research. On the other hand Internet-users university students may take research course more positively and seriously because they may think that it would help them in their personal and professional life. While comparing the mean score of male and female Internet-users on various dimensions of Attitude towards Research. It has been found that male Internet-users found to have a favourable tendency towards all the three dimensions of attitude towards research i.e. General aspects of research and research process, Usefulness of research in professional career and Difficulties in research and research anxiety; however female Internet-users did not show any favourable attitude towards the any dimension of attitude towards This can be said that both groups have more or less similar Attitude toword the Relevance of Research in Personal Social Life. While comparing the male and female Internet Non-users on different dimensions of Attitude towards Research, the two groups failed to arrive at any level of significance. Male Internet-users were found to have tendency towards on one dimensions of attitude towards research, i.e. General Relevance of research in personal-social life and on the other hand female Internet Non-users' shows favourable tendency towards the General aspects of research and research process. Rest of the two dimensions of the attitude towards research, the difference between the mean score of the two groups could not be established. This can be said that male and female Internet Non-users have more or less similar Attitude towards the usefulness of research in professional career and Difficulties in research and research anxiety. So it could be seen that Internet has an impact in many areas including the research interest among the university students. It heralded the development and implementation of new and innovative research strategies among higher education students. It is a functional tool, which has greatly changed the way they interact with others and with information as they go about their studies. They may use Internet to accomplish a wide range of academic tasks and prepare course assignments, make study notes, tutor themselves with specialized multimedia, and process data for their research projects. The Internet is fast changing the methods for accessing and using information and research activities. It furthers the sharing of information; and it promotes multidisciplinary research. Students have received the opportunity to use the Internet to seek and obtain scholarly material. It provides opportunities for students to communicate with one another through email, mailing lists and new groups and chat rooms. They may exchange emails with faculty, peers, and remote experts. They keep up to-date in their fields on the Internet, accessing verity of web sites and posted by professional organizations. They use the Internet for research in their jobs and their everyday lives. They access library catalogs, bibliographic databases, and other academic resources in text, graphics, and imagery on the World Wide Web. The Internet enable communication between students as they can post research, assignments, books or journal lists references to on-line materials. Problems and solutions can be discussed between researchers and scholars can react to the work of others in an electronic manuscript. The use of Internet further provides greater opportunities for research collaboration and networking among students spread throughout the world, thus, national and international dimensions of research issues can be studied as they can allow for communication with peers and experts around the world. Through collaborative knowledge building, studies can spotlight trans-national trend analysis through human and instrumentation collaboration. Students have easier access to a wider range of material, and can draw links between different information in new ways. Internet offers a world of information in one place. The use of Internet can facilitate research in any discipline as they provide quicker and easier access to more extensive and current information through digital libraries that provide digitized full-text resources to learners and researchers. Others are the electronic list- a directory of scholarly and professional e-conferences containing relevant topics and articles relevant to researchers and electronic reference desks or virtual libraries, including electronic journals and catalogues and image database can provide a researcher with current, in depth, first-hand information. It can be used to do complex mathematical and statistical calculations which are important in research. Students can be used for data manipulation and analysis. The Internet facilitated the compilation of data on time, performance of statistical analysis. In fact, complex statistical analyses are not only performed instantaneously but also more accurately than possible manually. These results agree with some of the studies as (Fasae & Aladenyi's 2012; Sakina Bashir 2011; Agarwal & Dave (2009). Kamba (2008) Tella 2007; Asan & Koca 2006; Genoni, et al. 2006; Massaquoi 2006; Penny 2006; Jagboro 2003; Kode & Lode 2003; Ramayah *et al*. 2003; Steve Jones & Madden 2002).

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