

## **An Assessment of Internet Use for Research in Selected Universities in North-Central Nigeria**

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### **Abstract**

This study assesses how often students use and rate the Internet for research purposes. Three universities from North-central Nigeria (one federal, one state and one private) were selected using survey design. The findings from the study show that students always make use of the Internet for research and that Google is the Internet search engine mostly used by students in the selected universities for research purposes. With regard to accessing information from the Internet, the students rate information they get from the Internet very high and claim they derive high satisfaction in using the Internet for research purposes. Based on these findings, it is recommended that researchers should cultivate the habit of verifying all information they get from the Internet before use, and that other sources of information gathering like the physical library should also be used to support or complement information gotten from the Internet.

**Keywords:** Internet, Research, Assessment, Library, Google, North-central, University.

### **Introduction**

One great development in the field of Information and Communication Technology (ICT) that has influenced information processing and use is the Internet. Kahn and Cerf (1999) state that once upon a time, the Internet was seen as something special, available only to wizards and geeks. Now it has become part of everyday life. The great advantage of the Internet is its usability for information sourcing on almost anything.

We now live in the Information Age where access to Internet resources is just a few clicks away. The Internet as a medium of communication and source of information has enabled students, researchers, business men and professionals to access information to enhance their work and communicate effectively. Kahn and Cerf further state that the net is revolutionising our society, our economy and our technological systems. During the Industrial Revolution, we learned to put machine to work to magnify human and animal muscle power. In the new Information Age, we

learn to magnify brainpower and to provide information services on a global basis. Computer resources are infinitely flexible tools; networked together, they allow us to generate exchange, share and manipulate information in different ways.

Internet has emerged as a main source of information in modern age. Researchers the world over are finding that their works thrive in a networked environment. Quick access to the work of colleagues and a virtual library of millions and thousands of paper afford them the ability to incorporate a huge amount of knowledge. Bansode and Pujar (2008, p.123) assert that:

The use of Internet by research scholars is an important area of study in today's wired information environment. The Internet has become an important component in academic institutions as it plays a pivotal role in meeting information and communication needs of institutions and individuals. It makes it possible to access a wide range of information such as journal articles, papers etc from anywhere in the world. It also enables scholars and academic institutions to disseminate information to a wider audience around the globe through having websites and a way to search them and organise output. Today the Internet has become an invaluable tool for teaching, learning and research.

The Internet has certainly made it possible for researchers of all ages to pursue knowledge and skills in this age than in any other time age in history. There are many services such as the World Wide Web, E-mail coupled with the power search engine – Google available on the Internet. One reason for its advancement and popularity is that the users can access up-to-date information with the help of these services in the least possible cost. It is against this background that this paper assesses the use of Internet for research.

### **Statement of the Problem**

Higher institutions of learning are not only established for learning; they are also places for conducting research. Universities as higher institutions of learning engage in research in different fields for knowledge advancement, societal development, and provision of solutions to problems confronting people and communities.

Having access to information aids research. Markhama and Buchanon (2012) state that “one of the major objectives of developing the Internet is for research” (p. 4). Thus, following the coming of the Internet, information became very easily available. Thus, one can easily gain access to any information in any sphere of knowledge with just a simple device connected to the Internet. This has helped research tremendously as many researchers can easily gain access to E-Books, E- Journals, E-Libraries etc from any part of the world.

However, one thing that is yet to be fully ascertained is how researchers especially lecturers and students use the Internet for research. Do they verify the information they get from the Internet before using it in their research paper? Do they

reference the source of the information they get from the Internet? Has the use of Internet in research made researchers to abandon the library? It is against this backdrop that this paper assesses the use of the Internet in research with critical emphasis on selected universities in North-central Nigeria.

### **Objectives of the Study**

The principal objective of the study is to assess the use of the Internet for research purposes. Other objectives of the paper include to:

1. Ascertain how often students use the Internet for research purposes in the selected North-central universities.
2. Assess the rating of Internet information sources by student researchers of the selected North-central universities.
3. Assess the level of satisfaction students derive in using the Internet for research purposes in the selected North-central universities

### **Research Questions**

Based on the objectives of this study, the following research questions were posed to guide the study:

1. How often do students use the Internet for research purposes in the selected North-central universities?
4. What is the rating of Internet information sources by student researchers of the selected North-central universities?
5. What is the level of satisfaction students derive in using the Internet for research purposes in the selected North-central universities?

### **Literature Review**

#### **The Internet, Libraries and Research**

Markhama and Buchanon (2012) state that the Internet is a social phenomenon, a tool, and also a (field) site for research. Depending on the role the Internet plays in the research project or how it is conceptualised by the researcher, different epistemological, logistical and ethical considerations will come into play.

The term Internet is originally described as a network of computers that made possible the decentralised transmission of information. Now, the term serves as an umbrella for innumerable technologies, devices, capacities, uses, and social spaces. Within these technologies, many ethical and methodological issues arise and as such, Internet research calls for new models of ethical evaluation and consideration. Because the types of interaction and information transmission made possible by the net vary so widely that researchers find it necessary to define the concept more narrowly within individual studies. This is complicated by the fact that studies on the Internet cut across all academic disciplines.

Markhama and Buchanon (2012) state that Internet research encompasses inquiry that:

1. utilizes the Internet to collect data or information, e.g.; through online interviews, surveys, archiving, or automated means of data scraping;
2. studies how people use and access the Internet, e.g., through collecting and observing activities or participating on social network sites such as Facebook, Twitter, YouTube, WhatsApp, web sites, blogs, games, virtual worlds, or other online environments or contexts;
3. utilises or engages in data processing, analysis, or storage of datasets, databanks, and/or repositories;
4. studies software, code, and Internet technologies;
5. examines the design or structures of systems, interfaces, pages, and elements;
6. employs visual and textual analysis, semiotic analysis, content analysis, or other methods of analysis to study the web and/or Internet-facilitated images, writings, and media forms.
7. and studies large scale production, use, and regulation of the Internet by governments, industries, corporations, and military forces.

In his study, Niels (2006 cited in Kumah, 2015), found that “students do not bypass the physical libraries and it is also evident that the use of physical libraries and digital resources complement each other. The place of Google in the students' information is prominent and positively correlated to the use of traditional library resources” (p. 4).

In their multi-disciplinary study that explored the information seeking behaviour of graduate students, George *et al* (2006) cited in Kumah (2015) found that “students rely heavily on the Internet as well as the university libraries' online resources for information, though still using the physical library for hard copy materials such as books, journals and papers” (p. 4). Friedlander (2002) cited by Kumah (2015) indicates that “library directors, college and university administrators face an increasingly complex institutional and informational environment. Faculty and graduate students, in particular, seem to be omnivorous in their appetite for information, creative in their strategies for seeking and acquiring information in all forms, and very independent. Most faculty, graduate and undergraduate students seem to prefer a hybrid information environment in which information in electronic form does not supplant information in print but adds to the range of equipment, resources, and services available to teachers and students” (p. 4).

Liew *et al* (2000) in Kumah (2015), hinted that “study of graduate student end-users' current use and perception of e-journals compared with their print counterparts indicated a growing interest in e-journals. There was a strong acceptance of and high expectation and enthusiasm for future e-journals, although with some reservations” (p. 4).

In another study Baruchson-Arbib and Schor (2002) as cited in Kumah (2015), found that students prefer general search engines and it seems that they have difficulties differentiating between Internet resources and library resources. Teachers' recommendations and how they put forward requirements and demands are very important for the student's use of information. When high-quality electronic collections are made available, people use them. Use of electronic journals increases every year. Among faculty members, graduate students, and other professionals, higher use of electronic journals is accompanied by a decrease in visits to the physical library. Research has confirmed that in terms of information seeking, today's researcher seems to be at home with using a wide variety of sources for information (Tenopir, 2003 in Kumah, 2015).

Internet search engines, e-print servers, author websites, full-text databases, electronic journals, and print resources are all used to some degree by most users. The relative amounts of use and enthusiasm for use vary as described above, but today's users are mostly flexible and adaptable. However, while the Internet is a big research resource, you are still more likely to find detailed, accurate, and more credible information in the library than on the Web.

Moreover, Kumah (2015) further posited that when it comes to education and research, Internet is paving way for a great leap and sure library and information centres is of no exception. The Internet makes information to be on our finger tips. The libraries of the developed world has adopted the Internet facilities to provide the fast and better library services to its patron but this is not the case with many developing nations and third world countries. The libraries of the third world countries still do not have the basic Internet access facilities in many cases because of the poor funding and budget crisis, while we are talking about web 2.0 in countries like United States, Europe and other developed nations.

The coming of the Internet has made research an interesting business. Researchers, through the help of the Internet can now access different libraries in the world in the comfort of their homes. The instantaneous information that the Internet guarantees has also inspired people to get interested and involved in research. Gagan and Rakesh (2013) submit that the ever increasing bulk of recorded information available on the Internet in electronic form, book form or non-book form or together with satellite data has created a formidable phenomenon called 'Knowledge or Information Explosion' or more appropriately, 'Information Revolution'. Under the circumstances, researchers find themselves at their wits end to know what is published where in their own areas of interest and how to gain access to required piece of information pin-pointedly, exhaustively and expeditiously.

Inadequacy of traditional methods of information handling have recently led to the growing use of computer and communication technologies in the storage and retrieval of information and its communication through various networks at local, national and international levels. In fact, the traditional view of the library, as a store

of information held locally, is being eroded, as the library is becoming a gateway to information resources worldwide. The resources of such libraries are available in digital form and can be accessed from any corner of the globe through the Internet etc. These advances have not only revolutionised the discipline but also compelled the researchers, and library professionals to equip themselves with the latest information and communication technologies.

Gagan and Rakesh (2013) affirm that “the Internet is more effective, useful and informative and it provides a lot of information in less time with low cost. Research scholars also find it helpful to browse e-books, e-journals and research papers, which could be downloaded at faster rate” (p. 194). More so, through the introduction of Internet-based survey, the rigorous processes involved in the distribution of questionnaire to respondents has been eased considerable. Backing this observation, Fricker and Schonlau (2002) confirm that “with the advent of the World Wide Web (web or www) and electronic mail (e-mail), the Internet has opened up new vistas in surveying. A respondent can now be given a hyperlink to a website containing the survey. Or, in an e-mail survey, a questionnaire is sent to a respondent via e-mail, possibly as an attachment. As an alternative or an adjunct to conventional survey modes (e.g., the telephone, mail, and face-to-face interviewing), Internet-based surveys offer unique new capabilities” (p. 347).

This suggests that a researcher in Nsukka could comfortably get his copies of questionnaire shared in Kano. This would definitely take away the cost of travelling to Kano and the stress involved in going to administer the copies of the questionnaire. All the researcher needs to do is to use the contacts available to him to get the e-mail addresses of the respondents or get to direct them to a website where they can go and get the questionnaire filled and submitted. However, with the use of e-mail powered by the Internet, researchers can get to submit their work to their supervisors and their supervisors can go through their work and point out areas that need to be reviewed or corrected and afterwards send the work back to the researcher or better still the supervisee.

In the submission of research topics for approval, the Internet has made it easy for both the student and the lecturer. The student can submit the topics he wants to write on via the e-mail address of the lecturer or send it via the social networking site specified by the lecturer for example the topic of this paper – *An Assessment of the Use of the Internet in Research: A Study of Selected Universities in North-Central Nigeria* – was approved via E-mail which was facilitated through the Internet.

The Internet equally enables researchers to present their work before a panel of assessors even without being there in person. Skype, a social networking site can comfortably help in doing this. Here, the assessors can watch the researcher tell what he did and afterwards they can equally communicate to him. For example in February, 2017, a PhD student of the Department of Mass Communication, UNN, presented one of his seminar papers via Skype to the department.

The Internet has also made it easy for researchers to assess international libraries while sourcing for materials to write their work. For example, through the Internet one can visit a library in one of the frontline universities either in United States of America or in the United Kingdom. In the same vein, one can equally sit back in the comfort of his room and download any book on the Internet provided that it will help him in getting the needed information for his research work. Though one may be asked to pay for the book before downloading it but the cost is not usually high.

Apart from providing a researcher with a plethora of information with which to write a research paper, the Internet also helps in publishing and publishing research works. Thus, a researcher can get his work published on online journals. Once the work is published online, everyone in all corners of the world can easily have access to the research paper. The published paper then adds to the literature on the subject of discourse and can also be used for reference purposes.

The Internet has made the world a global village and closed the difference people have in space and time. Researchers all over the world are benefiting tremendously from the numerous opportunities Internet provides.

### **Theoretical Framework**

This paper is situated within two theories: Diffusion of Innovations and Technological Determinism theories.

#### **Diffusion of Innovations Theory**

Diffusion of Innovations Theory was propounded by Everett Rogers. Rogers' Diffusion of Innovations theory is the most appropriate for investigating the adoption of technology in higher education and educational environments. Rogers (2003) defined diffusion as “the process in which an innovation is communicated through certain channels over time among the members of a social system” (p. 5). However, Rogers (2003) states that “an *innovation* is an idea, practice, or project that is perceived as new by an individual or other unit of adoption” (p. 12).

Diffusion of innovations is a theory that is positioned to explain how, why and at what rate new ideas and technology spread. The Diffusion of Innovations theory is based on four elements:

1. An intent of idea
2. The ideas must be pass through a medium
3. Deals with time
4. Within the sequence of societal members

The diffusion of innovation goes through specific procedures. In his expatiation on Rogers' explanation of the theory, Wogu (2008, p.163) states that that when new technological innovations are introduced, they will move across a series of stages before they are generally adopted. First majority of people will know of the

innovations, often from mass media information. Second, the innovations will be adopted by a very small group of innovators or early adopters. Third, opinion leaders take over from the early adopters and try out the innovation themselves. Fourth, if opinion leaders find the innovation helpful, they persuade their friends – the opinion followers. Finally, after the majority has adopted the innovation, a group of laggards or late adopters makes the change. It was discovered that this process applied to nearly all American agricultural innovations.

Wogu (2008) further states that the theory provided a perfect example of the power and the limitations of a middle-range theory. Like information flow theory, diffusion theory is a source-dominated theory that sees the communication process from the point of view of elite that decided to diffuse an innovation. The theory, therefore, provides more and better strategies for overcoming barriers to innovations.

Making the understanding of the Diffusion of Innovation theory to be clearer, Okunna (2002) defines diffusion as the “process of spread of a given idea or practice, over time, via specifiable channels, through a social structure such as a neighbourhood, a factory or a tribe” (p. 21). Katz *et al* (1963) cited in Okunna (2002) posits that for “a new idea or innovations records that for a new idea or innovation to diffuse, there must be awareness stage, interest stage, evaluation stage, and trial and adoption stages. They added that different types of innovations require different kinds of adoption units, for example a new research for scholars”(p.22).

Thus, this theory is of importance to this paper based on the premise that the Internet underwent different stages during its evolution coupled with the fact that the use of the Internet for research and other purposes diffused/spread all over the world at specific stages. Students all over the globe did not begin to use the Internet for research or other purposes at the same time. It is obvious the various stages identified in Diffusion of Innovation theory have taken place in the adoption of the Internet for research.

### **Technological Determinism**

The term is believed to have been coined by Thorstein Veblen (1857–1929), an American social scientist. Technological determinism is a reductionist theory that presumes that a society's technology drives the development of its social structure and cultural values. The first major elaboration of technological determinism came from the German philosopher and economist Karl Marx, whose theoretical framework was based upon the idea that changes in technology and productive technology are the primary influence on the organisation of social relations, and that social relations and cultural practices ultimately revolve around the technological and economic base of a society. Marx's position has become embedded in contemporary society, where the idea that fast changing technologies alter human lives is all-pervasive.

Technological determinism seeks to show technical developments, media, or

technology as a whole, as the key mover in history for social change. Strict adherents to technological determinism do not believe the influence of technology differs based on how much a technology is or can be used. Instead of considering technology as part of a larger spectrum of human activity, technological determinism sees technology as the basis for all human activity ([www.masscommunicate.files/technological-determinism](http://www.masscommunicate.files/technological-determinism)). According to Adler (2006), "Technological determinism, simply put, is the idea that technology has effects on our lives" (para. 1). The bearing of this theory to this work stems from the fact that the Internet as a technological invention/development is making dramatic influences and having a great effect in the world of research today.

### **Research Method**

The research design adopted for this study is the survey method. This design is deemed suitable and reliable in unravelling the views, perceptions, views, and feelings of students in selected universities in North-Central geopolitical zone of Nigeria on the assessment of the use of the Internet for research purposes.

The population of the study comprises all the students of the selected universities in North-central Nigeria: University of Ilorin (Kwara state), Kogi State University (Kogi state), and Bingham University (Nassarawa state). The universities were purposively selected in order to have a federal, state and private university represented in the study.

According to the Academic Planning Unit of University of Ilorin, the University has 30,000 students. Kogi State University has about 50,000 students while Bingham University has an estimated population of about 2,000 students. The addition of the entire population of these students in the aforementioned universities above is 82,000. This figure served as the working population for this study.

### **Sampling Technique**

Multi-stage technique was used for the study. First, simple random sampling technique was used to pick the states to be studied: Kwara, Kogi, and Nassarawa states. Purposive sampling technique was used to pick one university each from the list of the federal, state and private universities in the selected states. Before the specific elements from each of the universities were selected, the researcher distributed the sample size across the three universities according to their numerical strength. That was done by dividing each of the university's population by the sample size as follows:

$$\text{University of Ilorin} = \frac{30,000 \times 383}{82,000 \times 1} = 140$$

$$\text{Kogi State University} = \frac{50,000 \times 383}{82,000 \times 1} = 234$$

$$\text{Bingham University} = \frac{2,000 \times 383}{82,000 \times 1} = 9$$

The researcher further applied cluster sampling in selection of the sample. This method was considered appropriate because of the large area the study covers; this was in line with the observation of Ohaja (2003) that “where the population for a study covers a wide geographical area, instead of attempting to choose a random sample from the whole of this vast area, it is advisable to do cluster sampling. This is done in several stages before the individual elements of the sample are picked” (p. 81).

To apply the above the researcher used simple random sampling to select one faculty from each of the three selected universities. From the cluster of university faculties, the researcher applied simple random sampling again to select one department from each of the faculties. Thus, from faculty of Education, University of Ilorin, Education Management Department was chosen; in the faculty of Agriculture, Kogi State University, Crop Production Department was chosen and from the Faculty of Science and Technology, Bingham University, Industrial Physics was chosen. Accidental/availability sampling technique was used to distribute the questionnaire.

### **Sample Size**

The Meyer sample size determination formula was used to arrive at the sample size for this study. Meyer (1973) presents a population and sample size range for studies. The table contains the range from 1000 to infinity. With reference to the 82,000 population of study the initial sample size of the study is 383.

**Table 1: Population and sample sizes as determined by Meyer**

| S/N | Population | Sample size |
|-----|------------|-------------|
| 1   | Infinity   | 385         |
| 2   | 500,000    | 384         |
| 3   | 100,000    | 383         |
| 4   | 50,000     | 381         |
| 5   | 10,000     | 370         |
| 6   | 5,000      | 357         |
| 7   | 3,000      | 341         |
| 8   | 2,000      | 322         |
| 9   | 1,000      | 278         |

Meyer (1973), sample size determination formula

### **Instrument for Data Collection**

In this study, a self-administered questionnaire was used as instrument for data collection. The questionnaire was divided into two sections, A and B. In section A, all the information regarding the respondent's personality were described while section

B are questions addressed to the respondents in order to offer solution to the three research questions. Out of the 10 items, three items x-rayed the demographic characteristics of respondents while 7 examined the psychographic characteristics of respondents all geared towards drawing the required information needed for the execution of this study.

In an effort to ensure the validity of this study, the face and content validation of the instrument was done by experts in the field who instructed on the rewording and reordering of the questions in the questionnaire.

### **Data Presentation and Analysis**

Data analysis was made with the use of frequency tables and simple percentages. A total of 383 copies of questionnaire were distributed but only 361 copies or 94% were completed and returned. 17 copies were not returned while 5 copies were not filled properly. The analysis for this study was therefore based on the 361 copies of the questionnaire duly completed and returned.

The demographic features of the respondents show that in the sex distribution there were more male respondents, 219 (60.66%) than female, 142 (39.34%) in the study. Thus, the questionnaire was filled manly by the male gender. On the age distribution of the respondents, it was found that most of the respondents were within the age range of 18-23. They were 173 representing 48% of the respondents while this was closely followed by respondents within the age range of 24-29, 136 representing 38% of the respondents. This implies that the questionnaire was mainly filled by the youngest set of the respondents. However, it was found that most of the respondents were predominantly Muslims 272 (75%). Christians were 76 (21) while Traditionalists were 13 (4%).

This section would provide the respondents' psychographic data. This would be used to answer each research question in line with the questions contained in the questionnaire.

**Research Question 1: How often do students use the Internet for research purposes in the selected North-central universities?**

**Table 2: Frequency of Internet Use**

| <b>Responses</b> | <b>F</b>   | <b>%</b>   |
|------------------|------------|------------|
| Always           | 268        | 74         |
| Often            | 59         | 16         |
| Occasionally     | 21         | 6          |
| Not sure         | 13         | 4          |
| <b>Total</b>     | <b>361</b> | <b>100</b> |

**Source: Field Survey 2017**

**Research Question 2: What is the rating of Internet information sources by student researchers of the selected North-central universities?**

**Table 3: The Most Used Information Source/Search Engine for Research/Academic Activities**

| <b>Responses</b> | <b>F</b>   | <b>%</b>   |
|------------------|------------|------------|
| Wikipedia        | 73         | 20         |
| Ask.com          | 51         | 14         |
| Bing             | 10         | 3.         |
| Google           | 106        | 29         |
| Amazon           | 23         | 6          |
| All the Web      | 28         | 8          |
| AOL Search       | 14         | 4          |
| Yahoo            | 56         | 16         |
| <b>Total</b>     | <b>361</b> | <b>100</b> |

**Source: Field Survey 2017**

**Research Question 3: What is the level of satisfaction students derive in using the Internet for research purposes in the selected North-central universities?**

**Table 4: The Rating of the Information Sources/Search Engines**

| <b>Responses</b> | <b>F</b>   | <b>%</b>   |
|------------------|------------|------------|
| Excellent        | 94         | 26         |
| Very Good        | 163        | 45         |
| Good             | 67         | 19         |
| Poor             | 28         | 8          |
| Very Poor        | 9          | 2          |
| <b>Total</b>     | <b>361</b> | <b>100</b> |

**Source: Field Survey 2017**

### **Discussion of Findings**

Research question one sought to ascertain how often students use the Internet for research in the selected North-central universities. It was found that all the respondents do use the Internet for research in the selected universities. It was also found that the most of the respondents, 268 (74.24%), *always* make use of the Internet for research. This was followed by 59 (16.34%) respondents who were of the opinion that they *often* use the Internet for research. Despite the fact that 21 (5.82%)

respondents said they *occasionally* use the Internet for research and 13 (3.60%) respondents were *not sure* of how they use it, it is pertinent to assert that there is massive use of the Internet for research in the selected North-central universities.

We are in the jet age where information is at the fingertips of people. Thus, with the simple use of a device like a smart phone, one is able to connect to the Internet and get all the information he/she desires. This has also made many people to skip going to the library in search of information on what they are researching on. It is based on this kind of scenario that Khare, Thapa and Sahoo (2007) assert that Internet has emerged as a main source of information in today's information technology age. Researchers from all corners of the earth are finding that their work thrives in a networked environment. Quick access to the work of colleagues and a virtual library of millions and thousands of paper afford them the ability to incorporate a huge amount of knowledge.

Research question 2 sought to assess the rating of the Internet information sources in the academic activities of the selected North-central universities. It was found that the most used information source/search engine used by the respondents, 106 (29.36%), in getting information for research is Google. This is not surprising as searchenginewatch.com stated that Google has estimated unique monthly visitors of 1.6 billion which made it the most sought after search engine. The next search engine indicated by the respondents, 73 (20.22%), was Wikipedia. More so, Niels (2006) in Kumah (2015), in his study, found that “the place of Google in the students' information is prominent and positively correlated to use of traditional library resources” (p. 4).

It is worthy to state that there is always a need to verify the information gotten from the search engines in order to ascertain their authenticity. This is because anybody could upload anything on the Internet nowadays. The majority of the respondents, 163 (45.15%), however, rated the Internet information sources/search engines as used in academic activities by the students of the selected universities as *very good*. This was closely followed by 94 (26.04%) respondents who opined that it is *excellent*. This places a high value and reliability on the information sources in its usage for research in the universities.

Research question 3 sought to assess the level of satisfaction students derive from using the Internet for research in the selected universities. It was found that most of the respondents, 156 (43.21%), opined that the level of satisfaction they derive using the Internet for research is *high*. This was closely followed by the 118 (32.67%) respondents who said theirs is on the *average*. This shows that the students in the universities are okay with the use of Internet for research as they usually get almost any information they are looking for in the Internet. In relation to the high level of satisfaction that the Internet can give, Gagan and Rakesh (2013) stated that “the Internet is more effective, useful and informative and it provides a lot of information in less time with low cost. Research scholars also find it helpful to browse e-books, e-

journals and research papers, which could be downloaded at faster rate” (p. 194).

### **Implications of the Findings**

The findings of this paper have numerous implications. These are discussed below:

1. Based on the premise that the respondents always make use of the Internet for research which speaks volumes of the fact that students are no longer relying on their school libraries in getting information while conducting research.
2. Due to the fact that the respondents rate Internet information sources/search engines as very good, this means that the students are at home with the quality and quantity of the information they get from the search engines which they use for research.
3. More so, the respondents said they derive high satisfaction with the use of the Internet for research. This implies that the challenges associated with using the Internet do not overwhelm the students. Some of the challenges include low availability of Internet network, slow network speed, insufficient information on the area been researched.

### **Conclusion and Recommendations**

This paper has assessed the use of the Internet for research with a focus on selected universities in North-central Nigeria. It is not out of place to note that in this 21<sup>st</sup> century, the Internet has made research very easy. It has trimmed down some of the rigorous procedures a researcher goes through just to get the information needed to write a research paper. This observation finds support in Gagan and Rakesh (2013), who observe that “the Internet has become an important component in academic institutions as it plays a pivotal role in gathering information and communication needs of institutions and individuals. Internet makes it possible to access a wide range of information, such as journal article, papers etc. from anywhere in the world” (p. 198).

Based on this, the following will be very fruitful if taken into consideration.

1. Researchers should cultivate the attitude of verifying all the information they get from the Internet because anybody can post anything on the net nowadays. This will serve researchers from the embarrassment of documenting information that is truthful and objective.
2. The bandwidth of universities that have Internet WI-FI which students and researchers use to browse should be increased in order to check slow Internet service which demoralizes them while researching on the Internet.
3. Researchers and students should not abandon the library because of the Internet as there are still books and journals in the library that might be very relevant to a researcher but not uploaded on the Internet. Thus, researchers should consult both the library and the Internet while carrying out a research.

4. Government and research institutes should organize sensitisation programmes for researchers on the use of Internet for research. This will make them use the Internet in the right way while surfing the Internet for information for their papers.
5. Government should ensure that all libraries in the country are equipped with Internet facilities. This will further enable researchers to enjoy the business of research.

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