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Use of the internet by researchers in agricultural research institutes in Ibadan, Oyo State

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The study examined the use of the Internet by researchers in Agricultural Research Institutes in Ibadan, Oyo State, Nigeria. A descriptive survey method was used for the study. A purposive sampling technique using an interval of two was employed to select 50% of the researchers from each of the research institutes to give a total of 106 respondents from the research institutes. Data were collected through the use of a structured questionnaire. A total number of ninety eight questionnaires were retrieved which is 92.45% of the total sample. The data were subjected to frequency counts and percentages. The result showed that most researchers acquired computer knowledge without undergoing formal training in the use of the internet. Mostly they learnt through self-development (51.02%), friends (30.61%), workshops seminars and conferences (20.41%) and computer school (15.31%). The researchers used the Internet mostly for research purposes (76.53%), communication (40.82%), knowledge acquisitions (20.41%) and news sourcing (10.20%). However, researchers in agricultural research institutes have identified slow Internet connections (75.51%) as the major problem in their use of the Internet. The study identified the readiness of the researchers to use the Internet for their research work but the usage of the resource is limited due to the slow speed of connections available to them. The study therefore recommends that various institutes should acquire more bandwidth for their Internet connections to accommodate more computers and to improve the Internet speed. Internet networks must be active and continuously sustained in order to make this valued resource effective in all our agricultural research institutes.

Key words: Researchers, agricultural research institutes, internet use.

INTRODUCTION

Agriculture remains the mainstay of the Nigerian economy despite its decline in the 1970s. Greater proportions of the population depend on the agricultural sector for their livelihood and the rural economy is still basically agricultural. The Agricultural Research Council of Nigeria (ARCN) was established in 1971 to advise on policies and priorities for research and training in the agricultural sciences, to ensure implementation of Government policies in agricultural research and training, and to fund agricultural research. National Agricultural Research Institutes (NARIs) were established to provide solutions to some problems facing agricultural sectors with the aim of boosting the production of the main

source of foreign exchange earnings. Information on existing research activities on which other research work are based today are disseminated through the use of the internet. The Internet has been described as an information superhighway of information infrastructure to emphasize the expectation that it would transform the way information is created, manipulated, stored, retrieved, transferred and utilized (Ehikhamenor, 2003). The technology offers new opportunities for rapid communication and access to information worldwide as it is increasingly being used by all sectors of the society and this has made the resources of the world more accessible to ordinary people all over the world. Thus, the Internet has the capacity to provide an enabling environment for Nigerian scholars and researchers to overcome the barriers of communication and collaboration.

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The Internet also provides us with the means of carrying out research online by acting as the main engine for exchanging information especially among researchers. According to Manir (2007) internet will lead the academic community (in Nigeria) to exploit opportunities that will make them to be educated, more literate and conscious of the potentials for research. The use of the Internet for the exchange of research materials give rise to the concept of electronic resource sharing which had reduced the shortage of information resources in Nigeria and consequently increased the output of research publications (Olalude, 2007). This is supported by Ngetch (2003) who asserted that electronic publishing on the Internet has provided a greater opportunity for scholars and researchers to publish and present their ideas and research findings. Also, the Internet has provided a way for researchers to have better access to each other and as tool to facilitate research (Ojedokun and Owolabi, 2003; Oketunji, 2001). The Internet has provided Nigerian scholars, researchers, individuals, and their institutions with an opportunity to present their ideas and research findings. Fagbami (2005) reported that agricultural researchers rated Internet (25%), next to seminar/conference/workshop (34.92%), as most reliable source of information on tree crops research in Nigeria.

As agricultural research improves in Nigeria, the need for relevant data and their systematic organization for easy retrieval need to be strengthened. Successful storage and retrieval of the exponentially growing body of scientific information is quickly becoming dependent upon the internet, CD-ROM, databases and World Wide Webs (WWW) (Oladele, 2010). According to Internet World Statistics (2005), Africa had Internet user growth rate of 25.8% only between 2000 and 2005 but this still accounted for only 1.7% of the world's internet usage (Olalude, 2007). Olayiwola and Akintola (2005) revealed that a lot of agricultural researchers have benefitted from correspondences through emails. This has partly replaced mode of correspondences in the National Agricultural Research Institutes, either locally or internationally. Fagbami (2005) rated Internet usage as being incomparable to books and journals, this was supported by the rating of research scientists in the use of Agricultural websites such as Access to Global Online Research in Agriculture (AGORA) database where relevant literature are being downloaded. Online searches are carried out on Internet without visiting the library, using various databases such as PROTA, AGORA and recent publications and ongoing research to avoid global duplications which are available free or at low cost through Internet (Olayiwola and Akintola, 2005).

Statement of the problem

Apart from texts and CD databases, other sources of information on agriculture are online (Chifwepa, 2003).

The Internet is now prominent in making information and data available to researchers. There is no doubt that the Internet is a major source of knowledge and information and these have complemented physical library resources. Despite the advantages of Internet usage to research, many developing countries continue to have very low Internet penetration rates (United Nation reports, 2005). Hence, it becomes imperatives to find out the extent of Internet usage in conduct of research works by researchers in Agricultural Research Institutes in Ibadan, Oyo State.

Objectives of the study

The major objectives of this study are to: (1) find out how accessible the Internet is to the researchers (2) find out the purpose of the use of the Internet by the researchers in Agricultural Research Institute in Ibadan, Oyo state (3) investigate the frequency of use of Internet by researchers and (4) investigate challenges encountered using the Internet

METHODOLOGY

The method chosen for the study is the survey research method. The populations of the study were agricultural researchers in four research institutes of the study area that is, Cocoa Research Institute of Nigeria (CRIN), Forestry Research Institute of Nigeria (FRIN), Institute of Agricultural Research Institute of Nigeria (IAR and T), and National Institute of Horticultural Research (NIHORT). There are two hundred and thirteen researchers in the agricultural institutes in the study area. The distribution is as follows: NIHORT (50), CRIN (56), FRIN (57) and IAR and T (50). The descriptive survey method, using an interval of two sampling was employed to select 50% of the researchers from each of the research institutes to give a total of 106 respondents. The instrument used for data collection was a well structured questionnaire, which was administered to the respondents. A total number of ninety eight questionnaires were retrieved which is 92.45% of the total sample. The analysis of the data collected was done using frequency counts and percentages.

RESULTS AND DISCUSSION

Table 1 showed that 75(76.53%) respondents were males while 23(23.47%) were females. This result showed that there were more male researchers than female researchers in Agricultural Research Institutes under study located in Ibadan, South West Nigeria. Table 2 showed that masters' degree holders were the highest respondents 55(56.12 %). This could be due to the fact that many scientists were employed with masters' degree, while some have developed themselves to obtain PhD degrees. While the least was 8(8.16 %) who were holders of postgraduate diploma. Most of the respondents 50(51.02%), acquired computer knowledge through self-development. This could be due to the

Table 1. Gender of researchers.

Respondent	No of respondents	%
Male	75	76.53
Female	23	23.47

Table 2. Highest educational qualifications of researchers.

Respondent	No of respondents	%
PhD	15	15.31
Masters	55	56.12
Bachelors	10	10.20
Post graduate diploma	8	8.16
Others	10	10.20

Table 3. Acquisition of computer knowledge and the internet.

Mode of the Internet knowledge acquisition	No of respondents	%
Computer school	15	15.31
Workshops seminars and conferences	20	20.41
Friends	30	30.61
Self development	50	51.02
Others	30	30.61

Table 4. Reasons for use of the internet.

Use of the internet	No of respondents	%
Research challenges	75	76.53
Determination of research topic	48	48.98
Literature search	70	71.43
Crosschecking works	40	40.82
Determination of a journal to send research work	45	45.92
Communication	40	40.82
Recreation	20	20.41
Online business transaction	30	30.61
Foreign news accessibility	30	30.61
Urge to do what others do	10	10.20
Others	10	10.20

increase in the number of researchers that have access to computers and Internet facilities at their disposal, which gave them the opportunity to learn on their own. While 15(15.31%) had the computer skills through computer training schools as shown in Table 3.

Researchers used the Internet for various purposes. 75(76.53%) of researchers had used the Internet due to their research challenges (Table 4), which showed that the Internet is an identified source of information required for a meaningful research work on the mandate of any research institute. Only 10(10.20%) used the Internet for other things which were not specific. This is possible because researchers made contacts and disseminate information to their colleagues majorly through the use of internet (Fagbami, 2005). Table 5 showed that 54(55.10%) of the respondents used the Internet every day, meaning researchers need this for latest information available on their research work. Adetimirin (2009)

Table 5. Frequency of internet usage.

Frequency of usage	No of respondents	%
Everyday	54	55.10
Twice a week	5	5.10
Thrice a week	20	20.41
Once a week	2	2.04
Occasionally	7	17.35

Table 6. Challenges encountered using the internet.

Challenges in using internet	No of respondents	%
Quality and reliability of the information	40	40.82
High cost	34	34.69
Slow internet	74	75.51
Inadequate number of connected system	30	30.61
Inadequate surfing skill	35	35.71
Lack of qualified personnel	20	20.41

confirmed that Internet usages are daily events for researchers today in her study on the use of Internet by some selected professionals in universities of southwest Nigeria. The usage was attributed to the fact that many researchers have access to the Internet in their offices and that many of them have modem for browsing in their homes, only few of them go to cybercafés to browse.

This also indicated that the researchers found the Internet to be a useful tool for their different research work while 20(20.41%) signified using the Internet thrice a week, and only 17(17.35%) signified using the Internet occasionally. The Internet has been seen as an important part of research information source for most researchers, while those who do not use it regularly may be as a result of lack of Internet facilities in the organization. Results obtained in Table 6 revealed that 74(75.51%) of the respondents indicated that the Internet facilities used was usually slow, while 40(40.8%) questioned the authenticity and reliability of the information obtained from the Internet. Also, inadequate browsing skill was a challenge to 35(35.71%) of the respondents and 34(34.69%) specified that the cost of using wireless modem as alternative connection to Internet is prohibitive. However, the slow Internet could be traced to fault from Internet Service Provider (ISP).

It could also be traced to inadequate bandwidth problem. If the bandwidth requested for is small compared to the number of system on it, the Internet will be slow. This can be traced to high price of bandwidth which many institutions could not afford. Most of these institutions are placed on shared platform on bandwidth rather than being on dedicated platform due to high cost of subscription. Also, slow Internet can also be linked with non-availability of an orbiting Internet satellite over

Nigeria until late October 2003, thereby making all ISP to link up with countries like USA, UK and other countries in Europe for bandwidth. It is expected that with Nigeria having its own satellite, the need to link up to far away countries to purchase bandwidth will be eliminated (Adetimirin, 2009).

Conclusion

The study revealed that researchers are aware of the importance of the Internet for their research activities and effectiveness. It is therefore concluded that Agricultural research institutes in Nigeria can no longer play down on the need to put reliable Internet in place for these researchers to carry out their research without stress. This was corroborated in a study of cybercafés use by research scientists in research institutes due to epileptic internet (Fagbami et al., 2009). Hence, research institutes should acquire more bandwidth for their Internet connection to be able to accommodate more computers and this will make the Internet to be fast. Also, researchers should develop themselves on search engines, and other uses that Internet could be put to through attendance of courses on computer application. Network must be actively and continuously sustained in other to make Internet effective in all our agricultural research institutes.

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