

**Awareness, access and usage of information and communication technologies between female researchers and extensionists**

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**ABSTRACT**

Information and communications technology (ICT) has become a very important feature in the Nigerian agricultural sector in contemporary times. Even though it is still a new concept, an increasing number of professionals are appreciating its use for development work. Female researchers and extensionists are important stakeholders in the development of agriculture in Nigeria. They are important because they are required to provide support to the female farmers who ordinarily would be more comfortable with female researchers. It is therefore pertinent that female researchers and extensionists be abreast with modern information and communication technologies so as to discharge their duties more effectively. This study examines awareness, access and utilization of ICT among female researchers and female extensionists. Data was obtained from 106 female researchers and 27 female extensionists in SouthEastern Nigeria, with the aid of a questionnaire.

ICT in agricultural extension and rural development is significant especially now that its use has witnessed an upsurge in almost all areas of rural life in several African countries where it has provided a medium to adequate access to agricultural information, despite the persisting problems of access, connectivity, literacy, content and costs (CTA, 3a

*Awareness, access an*

**RESULTS AND DISCUSSION****Personal characteristics of female researchers and female extensionists**

*Personal characteristics of respondents*

<b>Variables</b>	<b>Female Researchers</b>	<b>Female Extensionists</b>
<b>Marital Status</b>	<b>(n = 106)</b>	<b>(n=27)</b>
Singl		

experience of 4 years suggesting that female researchers had relatively higher working experience than female extensionists. Findings further showed 89.6 percent of the female researchers had MSc as highest academic qualification, while 57.3 percent of the female extensionists reported having MSc. The findings revealed that 50.9 percent of female researchers belong to educational institutions (universities, colleges of Agriculture/Technology, and Research Institutes). However, 41 percent of the female extensionists belong to the Agricultural Development Programmes (ADP). The ADP is the major organ of agricultural extension in Nigeria, while some rural development NGOs also carry out extension work.

In order to determine if respondents were skilled in the use of ICT, they were requested to rate their skills themselves. Among the female researchers, information technology self-rating of between 0 and 1, with mean rating of 1.49, while ICT rating of female extensionists was between 2 and 3, with mean rating of 2.29. The implication of this finding is that female extensionists had higher mean ICT skill rating than female researchers. Female extensionists have been more receptive to ICT suggesting a moderate level of ICT skills.

Gregg and Irani (2004) reported average self-rating of ICT skills among Extension agents. This present study reveals that 68.9 percent and 70.4 percent of female researchers and female extensionists respectively have been exposed to ICT for between 2 and 5 years with mean years of exposure of 4.5 years. It is pertinent to note that ICT made significant entry into Nigeria around Year 2000. This obviously could have accounted to the few years of exposure. The findings of the study showed that 81 percent of female researchers and 59 percent of female extensionists travel for between 12 and 23 km to use ICT facility far away from their respective offices because their office computers are not connected to the Internet. This shows thata

*Awareness, access and utilization of ICT between female researchers and extensionists*

	<b>Female Researchers</b>	<b>Female Extensionists</b>
<b>Awareness</b>	89 (84.0) 17 (16.0)	22 (88.5) 5 (18.5)
Yes No		
<b>Do you know how to access Internet on your own?</b>	87 (82.1) 19 (17.9)	20 (74.1) 7 (25.9)
Yes No		
<b>Do you have adequate access to ICT?</b>	30 (28.3) 76 (71.7)	16 (59.3) 11 (40.7)
Yes No		
<b>Do you have Personal Computer in your office?</b>	42 (32.6) 64 (60.4)	11 (40.7) 16 (59.3)
Yes No		
<b>Is it connected to the Internet?</b>	17 (16.0) 89 (84.0)	4 (14.8) 23 (85.2)
Yes No		
<b>Frequency of ICT use (number of times per week)</b> 0-2 3-5	47(44.3) 59(55.7)	8(29.6) 19(70.4)

*Source: Field survey data, 2005*

**Types of ICTs needed by respondents**

Using an open ended question, the types of ICT needed by female researchers and female extensionists were found to include; World Wide Web, Electronic mail (Email), Electronic Spreadsheet, Word Processing, CD-ROM, Use of Projector, Use of computer, Web Design, Chatroom.

*Types of ICT needed by respondents*

World Wide Web
Electronic Mail
Electronic Spreadsheet
Word Processing
CD-ROM
Use of Projector
Use of Computer
Training on Web Design
Chatroom

*Source: Field survey data, 2005*

Gregg and Irani (2004) reported the use of Email, Microsoft PowerPoint, World Wide Web, Spreadsheets, Web page editing and development. There is no doubt that Information and Communication Technologies such as email, www, etc., are required for effective agr

**Differences in hours used on ICT between female researchers and female extensionists**

Table 4 shows that female researchers spent an average of 3.5 hours on ICT, while female extensionists spent an average of 4.4 hours on ICT. The result reveals that female extensionists spend relatively higher number of hours on ICT compared to female researchers.

*Z-test analysis showing differences in hours used on ICT between female researchers and female extensionists*

<b>Category</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>df</b>	<b>z-value</b>
<b>Researchers</b>	106	3.528	2.458	131	

## CONCLUSION

The study investigated awareness, access and utilization of ICT between female researchers and female extensionists. Female scientists are significant stakeholders in the agricultural sector. The study identified that awareness of ICT among female researchers and female extensionists is high and found that respondents know how to access the Internet but reported inadequate access to ICT. Most respondents do not have computers in their offices and for those who indicated that they have personal computers in their offices reported that they are not connected to the Internet. It was found that majority of the respondents used ICT for between 3 and 5 times a week. The study found that female researchers spent an average of 3.5 hours on ICT weekly, while female extensionists spent 4.4 hours weekly. There was no significant difference in the number of hours spent on ICT weekly between female researchers and female extensionists. Also, it was found that the distance between ICT facility and office of female researchers is approximately 14km, while for the female extensionists a distance of approximately 13km was indicated. The types of ICT needed by female researchers and female extensionists include World Wide Web (www), Electronic mail (E-mail), Electronic spreadsheet (Microsoft Excel), word processing, compact Disk Read Only memory (CD ROM). Use of projector, use of computer, training on web design, chatroom, VCD and DVD.

## RECOMMENDATIONS

Based on the findings of the study the following recommendations are hereby made: Since a dearth of computers in offices of female researchers and female extensionists was identified, the need to equip offices with personal computers and link them up with the Internet is very important. This will reduce the stress of travelling for distance of 13-14 km to utilize ICT facilities. A situation where scientists go to public cafes to use ICT tools is saddening. The use of CD ROM, chatroom and Electronic spreadsheet should be given serious consideration in ICT applications among respondents. It is disappointing that many researchers and extensionists find it difficult to use these tools. This has serious implication for scientific agriculture in Nigeria as a whole.

## Acknowledgement

We wish to express sincere appreciation to the World Summit on Information Society, Gender Caucus, Ottawa, Canada for providing the grants that supported this work.

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