

## Effect of Training in ICT on Utilization among Extension Managers in the Niger Delta Area of Nigeria

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**Abstract:** The study investigated the effect of training in Information and Communication Technology (ICT) on utilization among extension managers in the Niger delta area of Nigeria. Data was collected with the aid of questionnaire from 87 randomly selected Extension managers in the study area. This study found that Extension managers received training in computer operations, computer appreciation, email, knowledge of software and hardware. Trainings received were through workshops, short courses and personal development and these enhanced the level of utilization of ICT among Extension managers. Based on the findings of the study it was recommended that intensified training on the use of ICT should be encouraged. Also, adequate funding and investment in ICT should be pursued especially in skills acquisition of Extension Managers especially because of their strategic roles in decision making in Extension organizations.

**Key words:** Information and Communication Technology (ICT), extension managers, training

### INTRODUCTION

In extension systems, effective training must be able to take care of all the theories of learning in order to change the action, belief and knowledge components of a trainee simultaneously (Halim and Ali, 1997). The importance of manpower development in the national economy of any country hardly needs any emphasis. Training is the process by which desired knowledge, skills and attitude are inculcated, fostered and reinforced in a trainee. It is the major means to improve the competence of the trainee or personnel. Apart from this, it is purposive, developmental, comprehensive, scientific and imaginative in nature. Training involves learning and sharing of the concept of progressiveness so that maximum amount of transfer of training can take place when needed (Akintobi, 1989). Training according to FAO (1987) is a term which covers a wide range of activities. The length of a training activity can vary from a continuous employee improvement programme to an afternoon workshop of staff. Staff training is the programme and activities conducted by the organization for the purpose of maintaining and upgrading competencies of the staff to perform those tasks related to their jobs which aid the organization to reach its goals within its stated missions (Malone, 1984).

Oladosu (2006) reported that the necessity for professionalizing extension and rural development training and services suggest that the extension

practitioners require up-to-date training and information to make them achieve effectively on the job. Apart from basic background in the various areas of agricultural and rural development they need to update their knowledge. The solution to this is the development of effective educational media to support extension work, the most prominent and current being ICT development. Because employees need to learn how to work with new equipment such as word processors, computers and robots, companies are finding that they must offer training programmes that often are quite sophisticated. Training and development include all attempts to improve productivity by increasing an employee's ability to perform. Training focuses on short term skills which most times are on the job. On the job training is the most fundamental type of training. According to FAO and World Bank (2000) training is a major tool for development, because education and training are not only processes of transferring knowledge or information, but are means of empowering people to become critical thinkers and problem solvers who are better to help themselves.

Allmand, Balantyne and Ngwira (2001) observed that in this new millennium the information world faces an era of great changes, which influence directly the way scientific information is produced, processed by intermediaries, distributed and accessed. They noted that information and communication technology and especially the internet have made a huge impact. It was

therefore stated that information services, traditionally responsible for managing this information, are passing through a process of change. Meera *et al.*, (2004) noted that a new paradigm of agricultural development is fast emerging. It was noted that old ways of delivering important services to citizens are being challenged; and traditional societies are being transformed into knowledge societies all over the world. Intranets and other new forms of technology are leading to cost-effective on-the-job training programmes available 24 h a day, all year long (Nickels *et al.*, 2002). Training in Information and Communication Technology (ICT) is a vista to organization development in the twenty first century. Of growing importance are e-training, e-learning and distance learning via the internet (Kreitner and Kinicki, 2004)

Asiabaka (2002) observed that the service of competent employees is the key to effectiveness in the organizations. Training ensures competence and hence individuals involved can be up-to-date. Consequently, all levels of staff of the extension organization need to have competencies in the technical subject matter area, rural social system, communication skills, programme planning, monitoring and evaluation. This underscores the importance of training in the organization.

The main purpose of agricultural extension activities is to communicate relevant and useful information to the end-users in order to persuade them to adopt that which will eventually lead to increase in agricultural production. To achieve this, extension workers and their trainers should be knowledgeable and skillful in communication (Okunade and Oladosu 2006).

Agricultural extension organization in this century are repositioning for the challenges of Information Technology. This is why emphasis is being placed on computer literacy among extension personnel. However, it seems that extension personnel are contented with just computer literacy. Information and Communication Technology training is gaining credence gradually and it is hoped that extension personnel will take advantage of this. The study focuses on the extension personnel who are charged with the responsibility of making vital decisions in the extension organizations. They are referred to in this work as extension managers. The study therefore is concerned with ascertaining the effect of ICT training on the utilization of ICT among extension managers in the Niger Delta area of Nigeria.

## MATERIALS AND METHODS

The study area is the Niger Delta area of Nigeria which is made up of nine states comprising Rivers, Bayelsa, Imo Abia, Delta, Edo, Akwa Ibom, Cross river

and Ondo states. Out of the 9 states that make up the Niger Delta region, 7 were involved in the study namely Imo, Rivers, Bayelsa, Delta, Edo, Ondo and Cross River. The target population for the study was agricultural extension managers in extension based organizations in the study area. The extension-based organizations involved in the study included the Agricultural Development Programmes (ADPs), Green River Project (GRP) of Nigerian Agip Oil Company (NAOC) and the Agricultural Programme of Shell Petroleum Development Company (SPDC). Directors and their deputies, zonal managers, supervisors, extension Advisers and coordinators were purposively selected for the study. Seventy five Extension Managers/Supervisors were identified in the public organizations but 60 participated in the study. On the other hand 32 Extensions managers/supervisors were identified in the private organization while 27, participated in the study. On the whole 87 respondents were involved in the study. The instrument used for data collection was a structured questionnaire. Data collected were analyzed using descriptive (frequency, Percentage, mean) and inferential statistics (chi square).

## RESULTS AND DISCUSSION

**Personal characteristics of respondents:** Table 1 shows that majority of the respondents had working experience

Table 1: Personal characteristics of respondents (n = 87)

Personal characteristics	Frequency	Percentage
<b>Working experience</b>		
5-15years	56	64.37
16-25years	25	28.74
26-35years	6	6.89
<b>Marital status</b>		
Unmarried	8	9.20
Married	78	89.70
Widowed	1	1.10
<b>Gender</b>		
Male	77	88.50
Female	10	11.50
<b>Age</b>		
Less than 40years	16	18.40
40-45 years	28	32.20
46-50years	24	27.60
51-55years	14	16.10
56-60years	5	5.70
<b>Academic qualification</b>		
BSc	36	41.40
MSc	43	49.40
PhD	4	4.60
Others (MPhil, PGD, HND)	4	4.60
<b>Knowledge of information technology</b>		
Yes	85	97.7
No	2	3.3
<b>Adequate access</b>		
Yes	54	62.10
No	33	37.90

ranging from 5 to 15 years with a mean working experience of 15.52 years. Most respondents were married and were male. It was also found that majority of the respondents were between 40 and 45 years old, with mean age of 42.4 years. It was found that most respondents had an MSc degree. Also, 62.10% of the respondents indicated that they have adequate access to information Technology, while 37.90% indicated that they do not. About 98% of the respondents agreed that they were aware about information technologies, while 2.3% were not. This means that most of the respondents were aware of information technologies especially as they concern Agricultural Extension work.

**Training in information technology:** Figure 1 shows that 75.9% of the respondents had some form of training in Information technology while 24.1% had no training. This suggests that most of the respondents had training in Information Technology. The importance of training in Information Technology cannot be overemphasized in the contemporary extension delivery perspective. Munyua noted that training and capacity building must be an integral part of all ICT projects in developing countries. He however, observed that most staff managing ICT-based projects lack adequate training that would enable them take full advantage of the new technologies.

**Areas of training:** Table 2 shows that 18.4% of the respondents had training in computer networking, 54% had training in computer operations, 51.7% had training in computer appreciation, 12.6% had training in accessing data from Compact Disk (CD), 17.2% had training in Database Management, 13.8 had training in Internet, 5.7% had training in website design, 20.7% had training in Electronic mail (E-mail) use and 18.4% had training in knowledge of software and hardware.

From the analysis, most respondents (54.0%) had training in computer operations, followed by computer appreciation (51.7%), this was then followed by Electronic mail (E-mail) use (20.7%). This means that most respondents had training in basic operations of computer use.

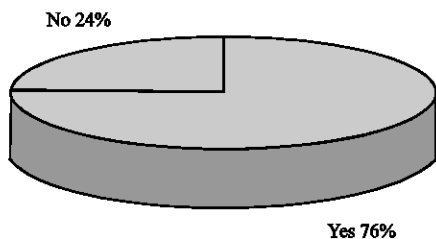


Fig. 1: Whether training was received in information technology

**Sources of training:** Table 3 shows that 27.6% of the respondents obtained training in Information Technology through workshop, 14.9% got training through seminar, 12.6% got training through conference, 26.4% got training through short courses, 11.5% training through personal development, while another 27.6% got training through in-service training.

Table 4 shows that 28.8% of the respondents who had training in ICT exhibited low level of utilization of ICT, 57.6% exhibited moderate level of ICT, while 13.6% exhibited high level of ICT. The findings showed that utilization of ICT among respondents was moderately high (65.5%) but utilization was higher (71.2%) for those who received training in ICT than those who did not receive training in ICT (42.7%).

Table 5 shows that training received in ICT influenced utilization level significantly ( $X^2 = 5.722$ ;  $p < 0.05$ ). The implication of this finding is that training received in ICT affected Extension managers' utilization favourably, suggesting that training in Information Technology increases the need for Information and Communication Technology. This is expected since the

Table 2: Distribution of respondents according to area of training

Areas	Frequency*	Percentage
Computer networking	16	18.40
Computer operations	47	54.00
Computer appreciation	45	51.70
Accessing data from CD	11	12.60
Database management	15	17.20
The web	12	13.80
Website design	5	5.70
E-mail use	18	20.70
Knowledge of Software/hardware	16	18.40

\*Multiple responses recorded

Table 3: Distribution of respondents according to source of training

Source	Frequency*	Percentage
Workshop	24	27.60
Seminar	13	14.90
Conference	11	12.60
Short course	23	26.40
Pre-service training	10	11.50
Personal development	22	25.30

\*Multiple responses recorded

Table 4: Cross tabulation of training and utilization levels of ICT among respondents

Training	Utilization levels			Total
	Low	Moderate	High	
Yes	19 (28.8)	38 (57.6)	9 (13.6)	66
No	11 (52.3)	10 (42.7)	0 (0)	21
Total	30 (34.5)	48 (55.2)	9 (10.3)	87 (100)

\*Figures in parentheses are percentages

Table 5: Chi-square analysis showing relationship between training in ICT and utilization level

Variable	Chi-square	CC	Df
Usage	5.722*	0.248	2

Extension Managers may be curious to explore other areas that will further enhance their skills in Information and Communication Technology and ultimately their job function. Oladosu (2006) noted that extension personnel will continue to be relevant if adequate knowledge on the use of ICT for information management is acquired. In the same vein, (Wijekon and Newton, 2000) posited that without appropriate grounding in communication skills the technical assets of training programmes can quickly become ineffectual. Ajayi (2005) had reported that training significantly influenced farmers' adoption.

### CONCLUSION

The importance of training in effective use of Information and Communication Technology (ICT) cannot be overemphasized. This study found that Extension managers received training in computer operations, computer appreciation, email, knowledge of software and hardware. Trainings received were through workshops, short courses and personal development and these enhanced the level of utilization of ICT among Extension managers. Based on the findings of the study it was recommended that intensified training on the use of ICT should be encouraged. Also, adequate funding and investment in ICT should be pursued especially in skills acquisition of Extension Managers especially because of their strategic roles in decision making in Extension organizations.

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