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Use of Information and Communication Technologies (ICTs) in Off-Farm Activities among Women in Selected Rural Areas of Lagos State

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Abstract

This study focused on the use of ICT in off farm activities among women in selected rural area of Lagos State. A total of 120 respondents were systematically sampled from three rural Local Government Areas. Structured questionnaire were used to collect information. Data collected were analyzed using simple percentage and frequency count. Result of the study indicates that majority of the respondent (66.67%) were married. Also most of the respondents (40.83%) were between the ages brackets of 41-50 years, the occupation engage in by majority of the respondents (44.17%) is farming, while 51.67% had between 6-10person as family size, there are more muslims than Christian. Most of the respondents (60.0%) make use of traditional tool for there off farm activities. Similarly the respondent (36.6%) make use of hired labour in their off farm activities. Furthermore, majority of the respondent (54.2%) makes use of GSM to a large extent as their source of information with the weighted score of 144.2. Chi-square analysis of relationship between selected personal characteristics and use of ICTs shows that Marital status, Religion and Educational background are all significantly related to the use of ICT (P = 0.000) in the study area. On the benefit derived majority of the respondents (75.8%) agreed that they derived a great benefit on the ease of communication to customer with the weighted score of 172.4. Also on the constraint, almost all the rural women believed that unreliable power supply form their major and most serious constraints with weighted score of 154.2. It was therefore recommended that There should be an improvement in infrastructural facilities particularly electricity so as to reduce/eliminate the problem encountered in this study area and that Network service provider should be charged with responsibility to improve their services in the rural areas.

Keywords: *Rural women, off farm activities, Information and Communication Technology (ICTs)*

Background to the Study

Communication has been viewed as one of the most important aspect of human relation and means through which information are transmitted (Ishola, Raheem and Balogun, 2011). With modernization and knowledge expansion, it is imperative to know that information and communication are pair of wings of the same bird. Across the globe, countries have recognized information and communication technology (ICTs) as an effective tools in catalyzing the economic activity in governance, and in developing human resources. There is a growing recognition of newer and wider possibilities that technology presents before the society in the modern times. In the view of Abubakar (2010), information and communication technologies (ICTs) encompasses a lot of activities involving the acquisition, storage, processing and dissemination of information through the use of appropriate software and hardware designed for the purpose. In another perspective information and communication technologies (ICTs) was been defined by Adebayo and Adesope, (2007) as the tool and processes used to access, retrieve, store, organize, manipulate, produce and exchange information by electronic and other automated means. In a similar perspective CTA, (2003) defined Information and communication technologies (ICTs) as the technologies that facilitate communication as well as the processing and transmission of information by electronic means. The above definitions bring forth the integration of single track and lateral technologies in communication. Generally, information and communication technology (ICTs) type have been known to include mobile phones (GSM), video coverage, cyber cafe, computer typing service, digital printing, newspaper production, radio service, television service, internet training, internet service, video compact disc recording and production, fax machine service, digital photography, etc. Information technologies (ITs) together with communication technologies have brought about unprecedented changes in the way people communicate; conduct business; exhibit pleasure and social interaction. The evolution of new form of technologies makes us better and more comfortable in our dealings and social interaction. With Information and communication technology (ICTs) James and William, (2004) believed that it has become possible for the common man to access global information. The realm of electronic communication encompasses telecommunication, broadcasting, information technology, etc. It enabled services and industries to undergo profound changes leading to a global information infrastructure (GII) which will be capable of carrying different type of information , be it text, data, voice or video (Ajayi, 2000).

Information is now broadly defined to embrace voice in telephony, in fax and newspaper, images, in video and television, broadcasting and data in computers (Gilbert, 2008). All information can be digitized, transported, stored, retrieved, modified and then be distributed, either in the personal computers, the internet and mobile telephone, etc In the last two decades, ICTs have provided a much wider choice in collection, storage, processing, transmission and presentation of information in multiple formation to meet the diverse requirement of both skilled and unskilled people.

Posa (2006) pointed out that the policy on adoption of Information and communication technologies (ICTs) in Nigeria was initiated in the year 1999 with the advent of the civilian regime. It has since been a household name in both governmental and nongovernmental activities in the country. Gulti (2012), believed that Information and communication technologies (ICTs) has overcome many infrastructural constraints as people in rural areas can easily connect to with state, regional and national economy and can also

accessed markets, banking services and employment opportunities as in Nigeria and India. Information and communication technologies (ICTs) are believed to bring about social interaction and development by creating an enabling environment for almost every single activity in the modern world. Every activity in the present world is becoming more dependent on the application of information and communication technologies (ICTs), a doctor in a rural village can get up to date information regarding certain diseases and can use that information to advice, and treat patients, also on agricultural extension, workers can learn new technologies like rainfall forecast, and commodity prices etc and use that information to advice farmers in rural villages. The importance of information and communication technology (ICTs) development process was long recognized as an asset. It was even made one of the targets to the millennium development goals which emphasizes the benefit of new technologies especially ICT in fight against poverty, unemployment and unproductively, (Thioune, 2005).

Rural women are adult living in a geographical area that is located outsides cities and town (Njoku, 2005). The critical role and contribution of rural women include the enhancement of agriculture production and rural development to improve food, security and eradication of rural poverty, Devettiville and Gilbert (2008). FAO (2011) had reported that in many African countries, women provide 60-80% of labour to produce food for household's consumption and sales, 100% of the processing of basic foodstuffs, 90% of household water and fuel collection, 80% of food storage and transport from farm to village, 90% of the hoeing and weeding work and 60% of harvesting and marketing activities. In addition to all these women are engaged in various off farm activities. They do these to support and keep the family moving economically and other wise. Ashimolowo (2005) had buttressed this by pointing out that women possess great potential for increasing agricultural productivity and subsequently the economic development of any nation like men.

According to Oseni and Winter (2009) more than 80% of the rural households in Nigeria relate their poverty status to problems in the agricultural sector and specifically to lack of inputs and not being able to afford inputs such as fertilizers and seeds. To overcome this problem, farm household often diversify their livelihood from farm into off farm activities. OPM (2004) reports that majority of households across all income strata in Nigeria are involved in several off farm activities which account for an average of 36% of adult working hour per annum and 60% of cash income.

Many developing country government and developing agencies are focusing on extending ICT infrastructures into rural area, they seek to encourage growth, alleviate and / or eradicate poverty (Samuel, 2005). This need to extend ICT infrastructure to Africa's rural communities is derived from the fact that majority of the continent's population (up to 60%) and more in some cases lives in rural communities (Ndukwe, 2006). It is against this background that this study intends to access the use of Information and communication technology (ICTs) in off farm activities among women in selected rural areas of Lagos State.

The specific objectives of this study include:

i. To identify the ICT tools available to the rural women and the extent of used in the study area.
ii. To determine the extent of involvement in off farm activities, type of tools used and sources of labour in off farm activities of rural women in the study area.

iii. To document the benefit derived from the use of ICT facilities in their off farm activities.
iv. To determine the constraints encountered to the use of ICT in the study area.

Research Methodology

This study was conducted in Lagos State of Nigeria. Lagos State has twenty (20) Local Government Areas and thirty-seven (37) Local Council Development Authority. Three (3) Local Government Areas of Epe, Ibeju-Lekki and Badagry purposively sampled due to their high level of rurality. Total samples of 130 rural women were systematically sampled. Structured questionnaire was used to elicit information from respondents. One hundred and twenty (120) (92.31%) of the questionnaire were returned and were used for final analysis of data for this study.

The ICT available and the extent of use were measured on the basis of how respondents source for information for their off-farm activities. This was measured on a three (3) point scale of; to a large extent, to a lesser extent and not at all. Weighted score were also obtained to determine the level of extent. Also information were assessed from respondents on their involvement in off farm activities as well as type of tools used and source of labour for their off farm activities using frequency count and percentages. Furthermore, benefits derived as well as constraints were also measured on a three (3) point scale and weighted scores were also obtained to get the highest benefit and the most serious constraints respectively.

Results and Discussions

Socio-personal Characteristics of Respondents

The table 1 below shows that distribution of respondents of socio-personal characteristics. The result shows that 66.67% are married, 16.67% are divorced, 13.33% were widow while 3.33% are single. This implies that married people involved themselves in off farm activity more than the widow, divorced and single because they assist the family in taking care of the homes.

Distribution of the respondents by age reveals that 40.83% of them fall between the ages of 41-50 years, 38.33% were between 31-40years, 9.17% were between 51-60years, while 11.67% are between the ages of 20-30. This result shows that most of respondent are within the middle age. It implies that those rural women of this age bracket are hardworking. The result also shows that more than half (51.67%) had between 6-10 persons within their families, 35.83% had between 1-5 person as their family size while 12.5% had more than 10 person as their family size. This implies that rural women with averagely high members of household are engaged in off farm activities which are an indicator that they need to support the family by having additional income. This is in line with Chigbu (2008) who was of the opinion that rural women are leaders, providers' entrepreneur and service providers and their contribution are vital to the well-being of family's communities and economics and the achievement of the millennium.

Distribution of respondents education level revealed that most (48.33%) of them had secondary education, 19.17% had primary Education, 22.5% had tertiary education while 10.0% had no formal education. This result shows that majority of the respondents had secondary education in the study area which make it possible for them to be averagely

literate. Furthermore, the result shows that 44.17% had farming as their primary occupation, 25.83% were civil servant, 18.33% were into trading/artisan, while 11.67% had teaching as their primary occupation. This shows that most of the respondents had off farm activities as their secondary occupation. This implies that rural women had to do this to generate income.

Table 1: Distribution of respondents by socio-personal characteristics

Characteristics	Frequency	Percentage
Marital Status		
Widow	16	13.33
Divorce	20	16.67
Married	80	66.67
Single	04	03.33
Age (years)		
20-30	14	11.67
31-40	46	38.33
41-50	49	40.83
51-60	11	9.17
Family size		
1-5	43	35.83
6-10	62	51.67
10 and above	15	12.50
Religion		
Christianity	46	38.33
Islamic	52	43.33
Traditional	22	18.33
Primary occupation		
Civil servant	31	25.83
Trading / artisan	22	18.33
Teaching	14	11.67
Farming	53	44.17
Educational background		
Primary	23	19.17
Secondary	58	48.33
Tertiary	27	22.50

Source: Field Survey 2015

Respondents' sources of information on of farm activities

The table 2 below shows the distribution of respondent by their sources of information and the extent of use of available information and communication technologies

interventions in their off-farm activities. Information accessed through radio has a weighted score (140.1), GSM had a weighted score (144.2). Television had a weighted score 57.6, and internet had a weighted (36.7). This shows that GSM as well as radio and television are well used to fulfil information needs by most of the rural women in their off farm activities. This finding is in line with Gelb et al (2008) that pointed out that GSM enable rural communities to interact with other stakeholder. This reduces social isolation, widens the perspective of local communities in terms of national or global development in terms of business opportunities and allows easier contact with friends and relatives.

Table 2: Distribution of Respondents by their sources and the extent of use of available information and communication technologies interventions (N= 120)

Information source	To a large extent		To a lesser extent		Not at all		Weighted score
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	
Radio	59	49.2	50	41.7	11	9.1	140.1
G.S.M	65	54.2	43	35.8	12	10.0	144.2
Television	40	33.4	52	43.3	28	23.3	110.1
Newspaper	14	11.7	41	34.2	65	54.1	57.6
Internet	8	6.7	28	23.3	84	70.0	36.7

Source: Field Survey 2015

Respondents' involvement in off farm, type of tools & source of labour in off farm activities

The study pursued and obtained data o n the involvement of rural women in off farm activities in the study area. The various off-farm activities identified in the study areas The distribution of respondents in table 3 reveals that most of the rural women involved themselves in processing of garri (42.5%), 10.0% were gathering firewood, 20.0% were involved in grinding of pepper, 11.7% were involved in selling of fish while 15.8% were involved in selling of firewood. This result shows that they are involved in garri processing more than any other off farm activities. This implies that majority of them depends on garri processing for their livelihood.

Distribution of respondents on the tools that are used carryout the off farm activity shows that 60% makes use of traditional tools, while 40% makes use of modern tools. This shows that crude implement is mostly used by rural women in the study area. This implies that there is need for rural development in area of utilization of modern tools to enhance increased productivity. On the source of labour in off farm activities, the distribution revealed that 34.2% of respondents make use of family labour, 12.5% make use of friends, 36.6% use hired labour, while 16.7% make use of combined labour that is family/hired labour for off farm operation. This implies that productivity is still a low rate.

Table 3: Distribution of Respondents by their involvement in off farm, type of tools & source of labour in off farm activities (N= 120)

Off farm activity	Frequency	Percentage
Gathering of firewood	12	10.0
Garri processing	51	42.5
Grinding of pepper	24	20.0
Selling of fish	14	11.7
Selling of firewood	19	15.8
Tools		
Traditional	72	60.0
Modern	48	40.0
Source of labour		
Family	41	34.2
Friends	15	12.5
Hired	44	36.6
Family/hired	20	16.7

Source: Field Survey 2015

Respondents' benefit derived from use of ICTs in off farm activities

The study found out on the areas of benefits to the respondents' off farm activities from their use of ICTs. Finding in table 4 shows that their ability to communicate easily to customer is the most realized benefits by the respondents with weighted score of 172.4. Relevant information from radio and GSM has also assist off farm activity and had a weighted score of 112.6. Getting ideas on quality of products has a weighted score 94.2. Increased profit had a weighted score of 116.6, while risk management had a weighted score of 55.1. The result revealed that the mostly realized benefit is the one offered by the use of GSM, while other emanates from the use of mass media tools such as radio and television. According to Gelb et al (2008) mobile telephony provides access to off farm activities and has strengthened the rural women farmers bargaining power as they now have access to real time information. In addition, Marcelle (2009) also establish that the availability of this new technology has been reshaping the materials basis of the society as well as bringing about a profound benefit, reducing economic, political and cultural instability. This implies that the benefit derived from ICT gadgets are more as a result if well developed it will improve the standard of the rural area.

Table 4: Distribution of respondents by benefit derived from use of ICTs in off farm activities (N = 120)

Benefit derived	Great benefit		Minor benefit		No benefit		Weighted score
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	
Easy to communicate to customer	91	75.8	25	20.8	4	3.3	172.4
Information from Radio and GSM assist my off farm	38	31.7	59	49.2	23	19.1	112.6
Profit increased	37	30.8	66	55.0	17	14.2	116.6
Quality control	32	26.7	49	40.8	39	32.5	94.2
Risk control	8	6.7	50	41.7	62	51.6	55.1

Source: Field Survey 2015

Respondents' constraints encountered in the use of ICTs for off farm activities

Data on constraints encountered in the use of ICTs for off farm activities in the study area were solicited. Result in table 5 shows that the areas in which the respondents realized substantial constraints to the use of ICTs were unreliable power supply with weighted score of (154.2), inadequate access to ICT gadget had a weighted score (117.5), network fluctuation has a weighted score of (114.1), technical know-how had a weighted score of (117.5), while missed information had a weighted score of (74.9) among others. This revealed that irregular power supply is the most realized constraint to the use of ICTs in the study area.

Table 5: Distribution of respondents according to constraints to use of ICTs

Constraints	Serious constraint		Minor constraint		Not a constraint		Weighted score
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency
Unreliable power supply	80	66.7	25	20.8	15	12.5	154.2
Network fluctuation	37	30.8	63	52.5	20	16.7	114.1
Inadequate access to ICT gadgets	45	37.5	51	42.5	24	20.0	117.5
Technical know how	42	35.0	57	47.5	21	17.5	117.5
Missed information	28	23.3	34	28.3	58	48.33	74.9

Source: Field Survey 2015

Chi square analysis Relationship between selected personal characteristics and the use of ICTs

Table 5 shows the Chi square analysis of relationship between selected personal characteristics and ICT use. Marital status, Religion and Educational background are all significantly related to the use of ICT (P = 0.000) in the study area.

This implies that there are more married rural women using various ICT gadgets in their off – farm activities than their unmarried counterparts. It can therefore be deduced that individual that are more responsible in the society are making use of various ICT gadgets. Similarly, individual of a particular religion (Islam), and those that are fairly literate are more into off- farm activities.

Table 5: Chi square analysis Relationship between selected personal characteristics and the use of ICTs

Variables	X^2 – value	Df	Sig(P)	Decision
Marital Status	148.152	3	0.000	S
Age	55.316	3	0.445	NS
Religion	122.311	2	0.000	S
Educational Background	99.42	3	0.000	S

Source: Field Survey 2015

Conclusion and Recommendation

The importance of information cannot be over emphasized. People need information to plan and carry out their decision. This study made us to realized that rural women that are involved in off farm are responsible individual since they are mostly married. This study epitomizes the fact that rural women that are involved in off farm production are adult with the age range of 41-50 and these women are still very active as they engage in these off – farm activities to increase their income. Invariably, it can be derived that rural women are highly productive in off farm activities because they devote much of their time in off farm activities.

From the findings of the study, it can be concluded that ICT is of great benefit in off farm activities as respondents have easy access to communicate to customer, which has bring about increase in their income and standard of living of the rural women. It should be noted that there will be a better opportunities in off farm activities if research are made in solving the problem of unreliable power supply, technical knowhow, and inadequate access to ICT tools.

From the above findings, the following recommendations are hereby put forward.

1. Rural women should be assisted with necessary training about ICT in order to improve their knowledge of production capacity in their off farm activities.
2. Rural women should embrace new technologies in order to bring about increase in their level of production
3. There should be an improvement in infrastructural facilities particularly electricity so as to reduce/eliminate the problem encounter in the study area.
4. Network service provider should be charged with responsibility to improve their services in the rural areas.

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