

Empowering Rural Women through Access to Information and Knowledge Resource in Abia State, Nigeria

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ABSTRACT

In the last few decades, there has been steady increasing awareness of the need to empower women in order to improve their socio-economic status, to be able to cope and also contribute effectively in this period of economic crisis. Provision and access to information are vital factors in empowerment, the study investigated rural women access to information and knowledge resources as an empowerment strategy to boost their agricultural production. The study area is Abia State. Abia State is made up of 17 local government areas. Multi-stage sampling procedure was used in selection of 240 rural women farmers. Data were generated through questionnaire and focus group discussion. Data generated were analyzed using descriptive statistics like mean distribution and regression multiple model for the inferential analysis. Results revealed that rural women access to channels of information to all the variables tested were not significant except spacing, intercropping and mix-cropping practice. For factors influencing access to information use-age, sex, education and income were all significant and related to access and use. Therefore, the paper recommends proper training of the women on vocational skill and provide appropriate rural radio centres and other information source within the communities for easy access and use of information on their farms.

Keywords: Information use, empowerment, knowledge resource.

INTRODUCTION

Information is defined as 'ideas' facts, imaginative works of the mind and data of value potentially useful in decision making, question answering and/or problem solving. Knowledge is internalized and contextualized information within an individual or group of individuals. The information flow in Nigeria is characterized by the presence of noise elements in the channels of communication. This impedes the free flow of information, thus distorting, the messages functionally or structurally reducing the value of the information in one way or the other. With the advance in information and communication technologies (ICTs) development towards information based economies and globalization is considered critical if individual, business and national economies are to gain comparative advantage.

Although, many years have elapsed since Samsha (1978) identified some of the problems affecting the communication of information in the agricultural sector, the situation has not changed much in the ACP countries including Nigeria.

- Ineffective repacking of information for particular stakeholders, especially farmers; (women in particular).
- Release of information on research carried out locally.
- Not all research results being released due to lack of publication media.
- Lack of adequate indexes for effective retrieval of collected information.
- Lack of appropriate training for development officers.

Information is an important requirement for sustainable agricultural development in any economy (Agbonkile *et al.*, 2008). It is one of the appropriate tools, which can be relied upon to increase food production. It can be seen as the data for decision making and as a resource that must be acquired and

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used in order to make informed decision (Samuel, 2001). Information as a factor of production is necessary to increase productivity; hence timely available of relevant information is vital for effective performance of any agricultural activities. According to FAO (1999) report that has established that poverty in Nigeria has a strong linkage with agricultural stagnation due to decline productivity as a result of low use of information on improved technologies. Lack of information has impacted negatively on the development process. Therefore, information should be seen as being tangible physical and concrete to women farmers most especially through extension services.

The information society is where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and people to achieve their full potentials in promoting sustainable development and improve their quality of life (Olorund, 2004). An old adage says if you think that knowledge is not necessary, you try ignorance. A state of not knowing is one which is not desirable for anyone and is more devastating when a women do not know. This is because she is most likely to transfer this ignorance to her offspring and then results to more ignorant men and women. Information and knowledge are central to food security and sustainable development. FAO (2013) reported that a total of 842 million people between 2011–2013 or around one in eight people in the world were estimated to be suffering from chronic, regularly not getting enough food to conduct an active life. According to Nwalo (2002), knowledge and information, now rival natural resources namely capital, land and labour as key factors of production. Increase in agricultural production is dependent on transfer of information and with information and communication technology (ICTs) as a tool for timely advice and information. ICTs with the capacity of getting vast amount of could be used vise-a-vis the traditional media. For an example, the use of mobile phone and it emerging application have greatly improved information exchange where they are widely applied by livestock farmers (ICT 4 AG. ORG). Omeruo (2012) supporting this assertion averred that results of improved access to new media can be seen in increased farm production and efficient marketing of produce. He concluded by saying that improved access to information will equally be measured by increased income across the agricultural value chain. In the same vain, a major tool that has been identified in transforming the Nigerian agricultural sector is the planned massive deployment of new media targeting the entire agricultural value chain.

Even where commitments have been implemented nevertheless, African women are persistently marginalized in accessing information and communication technologies due to the resources and situational impediment experienced by women (African Development Forum, 2008). Most Nigerian women do not have influence or control over management of economic resources in the agricultural sector, a situation that has wasted the potential in them and thus brought a decline in agricultural development.

But generally Assembly Resolution 58/146 stressed the need to ensure that rural women have access to and full participation in the area of information and communication technologies. Therefore, the broad objective of the study is to investigate how rural women have been empowered through their access to information and knowledge resource in the study area with the following specific objectives.

- 1) Identify their level of access to channels of information knowledge resources
- 2) ascertain their preferred sources of information
- 3) ascertain the information needs of respondent
- 4) determine their level of access to knowledge resource
- 5) examine their level of knowledge on their information needs
- 6) Determine the factors affecting their access and use of the information dissemination to them.

METHODOLOGY

The study area is Abia State made up of seventeen (17) Local Government Areas (LGAs) located between longitude 7¹ 23¹ and 8⁰ 2¹ East and latitude 55⁰ 47¹ and 60¹ 12¹ North. Abia States shares boundaries with Akwa-Ibom, Anambra, Cross River, Ebonyi and Rivers State of Nigeria. It cover an estimated land area of 776, 70 square kilometers and has a population of 2293, 978 people NPC (2006). The State is dominated by the culturally diverse Igbo ethnic group. purposive, multi-stage and random sampling technique were employed in selecting sample size. In the first stage, two LGAs each from two agricultural zone were purposively selected and in the second stage basically because of their homogeneity and intensity of agricultural activities. The LGAs involved include Ohafia, Bende,

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Isialangwa North and Ikwuano LGAs. In the third stage, one autonomous community from each of the LGA selected while at the fourth stage, two villages from each of the communities were selected. At the fifth stage, two farmers from each village were randomly selected.

A structured interview schedule was developed, validated and employed in data collection. The interview schedule was organized in sections and reflected issues on socio-economic characteristics of the rural women farmers, access to information and use. Descriptive statistics were employed to analyze objective 1 and 2 while 4-point Likert scale type was used to realize the data for the analysis. 3 was analyzed using regression model. The explicit form is started below;

$$Y = F(X_1, X_2, X_3, X_4, X_5, X_6, + e)$$

Where,

- X_1 = Sex (dummy variable: female, 0; male, 1)
- X_2 = Age (measured in years as supplied by the respondents)
- X_3 = Educational level (measured in years of formal education)
- X_4 = Household size (number of people living together in a household)
- X_5 = Farm size (measured in hectare)
- X_6 = Farming experience (measured in year)
- e = Error term

Level of access to knowledge resources was determined using the following rate:

| | | |
|-----------|---|---|
| Very high | - | 4 |
| High | - | 3 |
| Low | - | 2 |
| Very low | - | 1 |

A total mean score 2.5 was generated by adding $\frac{4+3+2+1}{4} = \frac{10}{4} = 2.5$

RESULTS AND DISCUSSION

Level of Access to Knowledge Resource

Table 1 indicates that fellow farmers with a mean score of ($M = 3.1$) were the major source of information on agricultural messages. The pre-eminent positive of fellow farmers a source of information is not surprising as the farmers were brought together under the umbrella of women farmers association for mutual benefits especially exchange of information on improved management practices. The result is in line with the findings of Opera (2008) who noted that interpersonal communication is more robust with built-in feedback mechanism. It is instructive to note that upon all the electronic media mentioned as sources of information, only radio was significant with a mean score of ($M = 283$), even though there is a lot of on going agricultural programmes on radio and television. Daudu *et al.* (2009) in his findings, also coronate this fact, that the internet and other e-resources are still an elitist communication media for most people. The implication of this result is that stakeholders in the provision of agricultural information need to do more in the area of information delivery and dissemination to rural women. Giving rural omen ace to a variety of information sources, which are accessible, affordable, relevant and reliable is the ultimate aim of providing agricultural information services (Gibbon and Warren, 2009) . the verbal communication channel has traditionally been used for delivery of indigenous information, but it is not efficient and sometimes ineffective information delivery system. It is difficult to sustained retain reliability of information that is transmitted by word of most, over government and over long distance. According to Segujja *et al.* (2010), socio-economic characteristics of farmers highly influenced the type of and frequency of using a given information dissemination telecommunication union, limited infrastructure, affordability income are the main effective barriers for rural women in Africa.

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Table1. Level of access to information channels

| Variable (Max. 4) | Very High | High | Low | Very Low | Total | Mean | Remark |
|-------------------|-----------|------|-----|----------|-------|------|--------|
| Radio | 296 | 246 | 103 | 31 | 678 | 2.83 | *** |
| Television | - | 112 | 324 | 104 | 540 | 2.25 | * |
| Newspaper | - | - | 432 | 24 | 456 | 1.9 | * |
| Phones | 144 | 174 | 184 | 54 | 556 | 2.3 | * |
| Extension | 72 | 84 | 220 | 84 | 460 | 1.90 | * |
| Traditional media | - | - | 256 | 112 | 368 | 1.53 | * |
| Magazines | - | - | 420 | 30 | 460 | 1.90 | * |
| Fellow farmers | 367 | 243 | 130 | - | 749 | 3.1 | *** |

Source: Field data, 2014

*** - significant

* - not significant

Decision rule

2.5 – absolute significant

2.4 – below not significant

Areas of Agricultural Information Needed by the Farmers

Results on Table 2 show 10 management practices that are relevant to the rural women farmers. Three of the practices mulching (M = 3.15), weeding (M = 2.65) and planting (M = 2.75) were frequently performed by the farmers. The data in Table 2 shows the various farming aspects that farmers need information about for higher productivity. The Table revealed that information or access to fertilizer and its application had a mean score of (M = 2.5) which is significant. The implication of the result is that information on access and availability of fertilizer application. Planting and pruning of crop had a mean score of (M = 2.43) which is not very important to them. Most of the time, the rural women apply indigenous knowledge in planting and pruning domain their crop. Irrigation technology had a mean score of (M = 2.54) which means that they need information on irrigation technology since they depend on rainfed agriculture and may need irrigation during dry season farming. Market information was not significant. This can be attributed to the fact the women are producing at subsistence level and may not have much surpluses to sell outside the community where they are residing. Information on nursery techniques had a mean score of (M = 2.5) which means that information on nursery management is necessary. Animal husbandry (M = 2.65), fisheries (M = 3.15) and credits (M = 2.75), agro-chemical (M = 2.48) where all significant and between and above (M = 2.5), farm machinery and implement had a mean score of (M = 1.83) which means they were not needed by the farmers, this could be due to lack of capital or education to acquire such implements or their lo hectares which may be inappropriate for mechanization.

Table2. Areas of agricultural information needed by the farmers

| Variable | Very High | High | Low | Very Low | Total | Mean | Remark |
|--|-----------|------|-----|----------|-------|------|--------|
| Access to fertilizers and applications | 244 | 156 | 146 | 54 | 600 | 2.5 | *** |
| Planting/ pruning of crop | - | 234 | 267 | 83 | 584 | 2.43 | * |
| Irrigation | 216 | 204 | 144 | 46 | 610 | 2.54 | *** |
| Market information | 96 | 174 | 184 | 66 | 520 | 2.17 | * |
| Nursery | 204 | 186 | 170 | 42 | 602 | 2.50 | *** |
| Husbandry animal | 284 | 171 | 138 | 43 | 636 | 2.65 | *** |
| Fisheries | 388 | 246 | 122 | - | 756 | 3.15 | *** |
| Credits facilities | 288 | 204 | 130 | 39 | 661 | 2.75 | *** |
| Agro-chemicals | 288 | 164 | 142 | 62 | 594 | 2.48 | * |
| Farm machinery implements | 96 | 114 | 102 | 127 | 439 | 1.83 | * |

Source: Field data, 2014

*** - significant

* - not significant

Factors Influencing Women Access to Information use

Coefficient of determination ($R^2 = 0.7527$) showed that 75% of the variation on women access to information use was explained by the joint action of the independent variable ($X_1 - X_6$) a investigated while the remaining 25% of the women information use explained by other variable not included in the model. The Chi-square ratio value is statistically significant at 1% implying that model is adequate for further analysis.

Factors influencing women access to information use is shown in Table 3. The coefficient of age was significant at 5% level and negatively related to access to and use of use of information. In rural areas, the younger farmers are intense in utilizing agricultural information. However, the older rural women farmers are more risk averse and likely to be flexible to access and utilize agricultural information to enhance their productivity. Haba (2004), assessed rural farmer willingness to pay for agricultural information delivery technologies and revealed that older farmers were less willing to get information than younger ones.

The coefficient of sex was significant at 1% and positively related to access to information use. This is one of the major factors that limit access and utilization of agricultural information. According to Katungi (2006) due to prevailing socio-cultural value and norms, males have freedom of mobility, participation in different meetings and trainings and consequently expose them to have greater number of access to information on bests practices. Yahaya (2001) reported a similar result which indicates that utilization of agricultural information is along gender lines. He posited that rural women are less likely to participate because they have limited time to access or utilize available information due to pressure of household responsibilities. The coefficient of years of formal education was significant at 1% level and positively related to access to information use. This implies that the higher the educational attainment of the respondent, the more information seeking he/she might be. So since education can leads to more level of exposure, it is possible that as new idea to assumed. Dauda (2010) opined that education is a key ingredient in rural farmers attainment of household food security as it enable them to source and utilize information on food availability and accessibility.

The coefficient of household size was significant at 1% level and positively related to access to information use. Larger households imposes much responsibilities on household heads and so information seeking to increase production become necessary .

The coefficient of farming experience was significant at 1% and significantly related to access to information use, because they can afford to purchase and utilization guards. So as farmers advances in education, and farming experience more agronomical information will be sought or accessed by the farmers.

Table3. Factors influencing women access to information use

| Variables | Co-efficient | Std. error | T-ratio |
|-----------------------------|--------------|------------|----------|
| Intercept | 3.865 | 1.002 | 3.86*** |
| Age (X_1) | -1.943 | 0.905 | -2.15** |
| Sex (X_2) | -0.004 | 0.001 | -3.89*** |
| Educational level (X_3) | 0.161 | 0.049 | 3.28*** |
| Household size (X_4) | 0.122 | 0.048 | 2.57*** |
| Farm size (X_5) | -0.002 | 0.002 | -1.61 |
| Farm Experience (X_6) | 0.061 | 0.025 | 2.45*** |
| R^2 | 0.7527 | | |
| Chi-square Ratio | 37.71 | | |

Source: Field data, 2014

Constraints to Information Assessment

Factors that hinder effective access and acquisition of agricultural information by the farmers are found in Table 4. Lack of internet facilities (16.4%), illiteracy (15.9%) and poor infrastructure facilities (15.8%) ranked highest among the identified constraints. Lack of regular contact with extension, distance from information centre, poor information contact and lack of knowledge were also identified as serious constraints. Availability of accurate information to farmers is identified as a major key to economies of scale in farm business. Agricultural information as a critical resources for socio-economic development enable farmers make informed choice towards improving their operations and livelihood (Matovero, 2000).

Table4. Constraints to information assessment

| Variables | Frequency | Percentage | Rank |
|--|-----------|------------|-----------------|
| Lack of regular contact with extension workers | 218 | 15.0 | 4 th |
| Poor infrastructure | 232 | 15.8 | 3 rd |
| Distance from information centre | 214 | 14.6 | 5 th |
| Illiteracy | 234 | 15.9 | 2 nd |
| Lack of internet facilities | 240 | 16.4 | 1 st |
| Lack of knowledge about existing information sources | 118 | 8.05 | 7 th |
| Lack of fund | - | - | |
| Poor information contact | 210 | 14.3 | 6 th |

Source: Field data, 2014

Multiple Response

CONCLUSION AND RECOMMENDATION

The study investigated rural women access to information and knowledge resource. It was discovered that of all the channels available to them, only radio was accessed easily with a mean score of (M = 2.83), on some innovative and production capabilities in farm business.

Information need of the farmers, it was discovered that the women needs virtually all the types listed except on information on marketing (M = 2.17) and farm machinery (M = 1.83) women contributes a significant proportion in agricultural production, empower them through knowledge resource behaves necessary.

For Nigeria agriculture to achieve its full potential and women being a major actor in the game, it must be transferred from subsistence activity to a profitable sustainable business, through empowering women.

Again, if we consider farming or industry or an organization as a machine and education as a training by which one can operate a machine successfully, information is like a fuel that will run the machine. Availability and accessibility of information will enable the rural women make a rational decision to reduce uncertainty concerning farm business. Therefore the paper recommends proper training of the women on vocational skills and provide appropriate information centres within the communities for easy access and use.

- Appropriate information must be made available in the form suitable to the rural women.
- It must be delivered as efficiently as possible in order to provide basis for informed decision making.

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