THE INFLUENCE OF DEMOGRAPHIC CHARACTERISTICS OF WOMEN CROP FARMERS ON THE ACCESS TO AND USE OF AGRICULTURAL INFORMATION IN BADE AND JAKUSKO LOCAL GOVERNMENT AREAS OF YOBE STATE

By

Laraba Kagana Muhammed
Auwalu Dansale Yahaya

Abstract

The study investigated the influence of demographic characteristics of women on the access and use of Agricultural Information in support of their efforts to attain food security in Yobe State. The study applied quantitative methodology using survey research design. The design used questionnaire to collect information from the respondents. A sample of 388 women crop farmers' was used to obtained data used for this study. The study revealed that majority of the women crop farmers were within the age of 20-30 years. This finding reveals that these categories of ages are in their active ages and will access and use agricultural information effectively and contribute too immensely to the food security and economic development of the State. The findings further indicated low literacy level among the women crop farmers. The findings further revealed that less than half of Women Crop Farmers in Yobe State have the experience in farming, most of the women Crop Farmers in Yobe State are poor, women Crop Farmers additional occupation was low. The study then established that there is a statistically significant correlation between the demographic characteristics of women crop farmers and their use of agricultural information. The study recommends the need for more support from Government and relevant agencies to strengthen women's crop farming activities. They also need up-tp-date information in order to address the challenges of modern crop farming to achieve effective food security.

Introduction

Information has become the most important element for progress in society. Abdullahi (2016) observed that Information has been described as the fifth need of man ranking after air, water, food and shelter. Everyone needs information about everything even in his day to day life. In the agricultural environment, relevant and timely information helps the farmers' community to take the right decision to sustain the growth of agricultural activity. He further stated that the use of information in agriculture enhances farming productivity in a number of ways, providing

information on weather trends and best practice in farming. Timely access to information helps farmers make the correct decisions about what crop to plant and where to sell their produce and buy inputs. Every field of profession, industry, etc. needs relevant information to help in the realization of their missions and visions. Despite this development, it is sad to mention that Women Crop Farmers in Yobe State cannot identify their needs for crop farming. One major factor that has contributed to this development but has often been overlooked is that governments have been unable to identify and meet the information needs of these farmers. This trend can only be made possible if the sources of agricultural information for farmers are explored and made available for these categories of users, as stated by Wilson (2006), that information need and use depend on the individual evaluation of the cognitive and emotional relevance of the sources of information use by clienteles.

The demographic information of Women Crop Farmers refers to the unique features, which are naturally attached to their individual life and closely- related with their information access and use, such as age, marital status, family size, literacy level, and experience in farming activities, level of income and off farm occupation. Crop farming is the main source of economic activity for Women Crop Farmers in Yobe State and generally at subsistence level (YOSADP, 2017). They participate in all the operations related to crop production, such as sowing, transplanting, and hoeing, weeding, harvesting, and post-harvest operations, such as threshing, winnowing, drying, grinding, husking and storage.

Yobe State has diverse climatic variation, ranging from low rainfall in the North to fairly heavy rainfall in the Southern parts. Crops such as Rice, Wheat, Maize, Sorghum, Millet, Legumes and Vegetables are more cultivated in the Southern parts, while millet, sorghum, cowpea, etc. are predominantly cultivated in the Northern parts. Crop farming is the main source

of economic activity for Women Crop Farmers in Yobe State and generally at subsistence level. They cultivate various types of cash and food crops on small pieces of land, averaging 0.3 to 0.9 hectares (*Yobe State Agricultural Development Program, 2017*). They participate in all the operations related to crop production, such as sowing, transplanting, and hoeing, weeding, harvesting, and post-harvest operations, such as threshing, winnowing, drying, grinding, husking and storage. Apart from engaging in crop production, they also engage in food preparation, caring for children and the aged, fetching wood for fuel and water, among others. Women Crop Farmers sustain activities both at home and farm. In view of the above, it is clear that their information needs vary. Hence, they need different information from different sources to make informed decisions.

Statement of the Problem

Information has become the most important element for progress in society. The use of information in agriculture enhances farming productivity in providing information on weather trends and best practice in farming and timely access to market information helps farmers to make correct decisions about what crop to plant and where to sell their produce and buy inputs. Despite this importance, it is sad to mention that experience and preliminary investigations have shown that Women Crop Farmers in Yobe State cannot identify their needs for crop farming. One major factor that has contributed to this and has often been overlooked is that governments have been unable to identify and meet the information needs of these farmers. This trend can only be made possible if the sources of agricultural information for farmers are explored and made available for these categories of users.

Due to their demographic variations, women Crop farmers sustain various activities both at home and farm. In view of this, it is clear that their information needs vary. Hence, they need

different information based on their demographic characteristics so as to make informed agricultural decisions. This justify the need for a study to explore the Influence of Demographic Characteristics of Women Crop Farmers on the access to and use of agricultural information with reference to Bade and Jakusko Local Government areas of Yobe State.

Research Questions

1. What are the demographic characteristics of women crop farmers in Yobe state in terms of: a.Age Range, b.Marital Status, c.Estimated Family Size, d.Literacy, e.Level, f.Farming Experience, g.Level of Income, h.Other Occupation?

2. Is there any significant relationship between the demographic characteristics of Women Crop Farmers and information utilization?

Hypotheses

H_{01}: There is no statistically significant relationship between the demographic characteristics of Women Crop Farmers and information utilization.

Literature Review

The Information Needs of Women Crop Farmers

Information needs is defined as a state when one perceives that there is a gap between the information and knowledge available to solve a problem and the actual solution of the problem. Information competencies are defined as "the capabilities developed to find solution for a problem by searching for new information or new knowledge that could fill the perceived gap". According to Laloo (2014) information need is what "an individual ought to have for his work, for research, edification and for recreation". From this assertion, information need means any gap an individual has to create ideas and obtain resources to reach his goal. In a different version, information need as an "impediment (hindrance) that prevents an individual from moving cognitive time to space". Hence, it was established that an individual has a gap, which must be bridged to create ideas and obtain resources. To fill this gap, an individual need to ask questions and answers are given to him in form of information resources. In another context, information need is more than a question of information provision, because information need occurs at any time. Whenever, people find themselves in a situation that requires some form of knowledge or resolution. Similarly, information need describes how the Women Crop Farmers obtain an answer from an information system through conscious or unconscious process.

Abdullahi (2016) reported that use of information in agriculture sector is enhancing farmers productivity in a number of ways, providing information on weather trends, best practices in farming, timely access to market information helps farmer make correct decision about what crop to cultivate and where to sell their corps and buy inputs. Information has, therefore, become the most important element for progress in society. In view of this, it is

therefore important to note that information is indispensable to human life and, as such, every human being needs information in order to fit properly into the society.

Zangoma (2016) stated that "farmers of wheat production in Borno State of Nigeria were shown to require information about market rate, transport facilities, etc". Furthermore, the study of information need of the rice farmers' community in Niger State, Nigeria revealed that majority (89.9%) need information about crop production. Abdullahi (2016), in a study of onion farmers in Kebbi State, Nigeria, revealed that majority (73.7%) need information on fertilizer and on preservation measures (85.3%). Agricultural information generation is a basic component of crop farming activities. Oladele (2011) observed that, lack of agricultural information is a key factor that has greatly limited agricultural advancement in developing countries. Thus, agricultural information interacts with, and influences farming activities in a number of ways. This tends to imply that agricultural information influences decision making regarding land, labor, capital and management.

Methodology

The study applied quantitative methodology using survey design. A questionnaire was used to collect information from the respondents. Simple Random Sampling Equation (SRS-Equation) was used to determine the appropriate sample size for the Woman Crop Farmers. For the purpose of this study, the marginal error used was 5% (that is 95% confidence level). A sample of 388 Women Crop Farmers' was used to obtained data used for this study, out of which 294 copies were successfully completed, returned, collected and used for further analysis.

Findings and Discussions

Response Rate

The respondents of this study and the number of instruments administered were reported and the usable ones returned were also reported in Table 4 below. Based on the information obtained, it can be observed that out of 388 copies of the questionnaires administered to the respondents, 294 copies were successfully completed, returned and collected by the researcher for further analysis as reported in Table 4 below. The remaining 94 copies of questionnaires were not collected despite all the efforts by the researcher. Statistically, the response rate with respect to questionnaires used in this study is approximately 76% (i.e. 294÷388×100). This shows that the respondents to the questionnaires (76%) are sufficient enough to provide the study with data that can represent the sampled respondents. The analysis was done based on 294 copies of questionnaire returned and found usable.

1. **Demographic Information of Women Crop Farmers**

The demographic information of Women Crop Farmers refers to the unique features, which are naturally attached to their individual life and closely- related with their information access and use, such as age, marital status, family size, literacy level, and experience in farming activities, level of income and off farm occupation. This demographic information was seen to be very significant with agricultural information access and use by Women Crop Farmers. For all of the above farmers were asked to respond on each as they affected them and the summary of the responses were reported in the table below

Table 1: Demographic Information of Women Crop Farmers (N=294)

S/N	Variables		S/N	Variables	
1	**Age Range**	**Freq. (%)**	2	**Marital Status**	**Freq. (%)**
	20-30	109 (37.1)		Single	129 (37.1)
	31-40	91 (31.0)		Married	68 (31.0)
	41-50	55 (18.7)		Divorced	35 (18.7)

	51-60	16 (5.4)		Widowed	17 (5.4)
	No Response	23 (7.8)		No Response	45 (7.8)
	Total	294 (100.0)		Total	294 (100.0)
3					
	Estimated Family Size	**Freq. (%)**	**4**	**Literacy Level**	**Freq. (%)**
	1-5	13 (4.4)		Adult Education	11 (3.7)
	6-10	165 (56.1)		Primary Education	60 (20.4)
	11-15	66 (22.4)		Secondary Education	87 (29.6)
	15 and above	14 (4.8)		Tertiary Education	107 (36.4)
	No Response	36 (12.2)		Others	29 (9.9)
	Total	294 (100.0)		Total	294 (100.0)
5					
	Farming Experience	**Freq. (%)**	**6**	**Level of Income**	**Freq. (%)**
	Less than 1-4 Years	15 (5.1)		10,000-100,000	37
	5-10 Years	71 (24.1)		101,000-500,000	68
	11-15 Years	105 (35.7)		501,000-800,000	86
	16-20 Years	73 (24.8)		801,000-1,000,000	70
	No Response	30 (10.2)		No response	33
	Total	294 (100.0)		Total	294
7	**Other Occupation**	**Freq. (%)**			
	Civil Servants	68 (23.1)			
	Personal Business	47 (16.0)			
	Craft Work	51 (17.3)			
	NGO (Private for Profit)	121 (41.2)			
	NGO (Non-profit)	1 (.3)			
	No Response	6 (2.0)			
	Total	294 (100.0)			

Demographic analysis was conducted to determine the age range, marital status, estimated family size, literacy level, experience in farming activities and the respondents' level of income per annum in Naira. **Table 1** shows that majority of Women Crop Farmers were between the ages of 20-30 years, 109(37.1%) and 31-40years, 91(31.0%) respectively. This finding reveals that these categories of ages are in their active ages and will generate and utilize agricultural information effectively and contribute

immensely to the economic development of the State. This finding supports what Zangoma, (2015) said that increased farmers production will influence socio-economic development of the farmer.

Regarding marital status, majority were single. This finding showed that youth are now returning to farming activities as an alternative employment and economic empowerment. This is not surprising to the researcher because of the economic situation in Nigeria and the longtime insurgency in the study area where thousands of men were killed and many families dispersed.

In relation to estimated family size, the study found that Women Crop Farmers who are poor depend on family labor for their crop farming. Having large household size can provide the needed labor required for farming activities. Mohammed, (2016) rightly observed "that those families with larger numbers have advantage of cheap labor" as mentioned in this study. The study found that less than half 105(35.7%) had 11-15 family size and 73(24.8%) had 16-20 family size respectively. This finding also support what Mohammed had reported that, family responsibilities necessitates Farmers to embark into farming activities.

Pertaining to literacy level, the result shows that Women Crop Farmers in Yobe State have low literacy level which means that they need information in simple form and translated into their common language (Hausa) to enable them generate and utilize relevant agricultural information. Zangoma, (2015) who reported that education improves human capital, farm management capacity and ability to understand and use new agricultural technologies. Bachhav, (2012) added that knowledge and information could change the rate of crop production and the nation's economy

The finding shows that less than half of Women Crop Farmers in Yobe State have the experience in farming therefore, they can use modern information to improve practices... The

finding is similar to that of Isaya, (2015) that farming experience is an important factor determining the level of crop production.

Regarding their incomes the study found that Women Crop Farmers in Yobe State are poor; therefore they need more support from Government and relevant agencies to strengthen their crop farming activities. This finding is in line with findings of Mohammed, (2016) and Zangoma, (2015) who stated that additional income will enable farmers to purchase more inputs.

Finally about the off-farm occupation, the study found that Women Crop Farmers additional occupation was low. Additional occupation generally enhances one's financial capability to expand production.

Inferential Statistics

H_{01}: There is no statistically significant relationship between the demographic characteristics of Women Crop Farmers and information utilization.

Table 2: Demographic Characteristics of Women Crop Farmers and Information Utilization Correlations

		DEMOGRAPHIC CHARATERISTICS	INFORMATION UTILIZATION
DEMOGRAPHIC CHARATERISTICS	Pearson Correlation	1	-.079
	Sig. (2-tailed)		.203
	N	294	261
INFORMATION UTILIZATION	Pearson Correlation	-.079	1
	Sig. (2-tailed)	.203	
	N	261	261

Table 2: showed that there was a strong negative correlation (relationship) between the demographic characteristics of Women Crop Farmers and information utilization, which was

statistically significant (r = -.079, n =294, p = .203, i.e. greater than 0.05). Therefore, the study accepts the alternative hypothesis and rejects the null since p > .05.

In response to the hypothesis testing therefore, the study established that there is a statistically significant relationship between the Demographic Characteristics of women crop farmers and their use of agricultural information.

Conclusion

The study showed that Women Crop Farmers in Yobe State are active participants in crop production. They can make significant contributions in terms of food security in Yobe State and indeed Nigeria; however, this depends largely upon gaining access to adequate and sufficient information utilization. An increased information flow among them will facilitate effective information utilization, thereby improving food security. Therefore, women crop farmers in Yobe State need more support from Government and relevant agencies to strengthen their crop farming activities. They also need up-tp-date information in order to address the challenges of modern crop farming to achieve effective food security.

Recommendations

Based on the findings of this study, the researcher recommends that:

1. Extension workers should provide a medium for sharing agricultural information to the Women Crop Farmers so as to boost their socio-economic characteristics.
2. There is need for setting up a group media to overcome the likelihood of reaching almost all the Women Crop Farmers in Yobe State, thereby eliminating the barrier of distance and poor road infrastructure.

3. Contrary to conventional culture, married women crop farmers can now interact with fellow farmers across geographical locations even in their homes especially with the aid of social media technologies.

References

Abdullahi, A., (2016) Information Needs, Sources and Information Repackaging for Onion Farmers in Aliero Local Government Council, Kebbi State. Unpublished Thesis (MLS), Bayero University, Kano. pp.3

Creswell, J.W. (2009). *Research design: qualitative, quantitative, and mixed methods approach*. 3rded. Los Angeles: Sage publications.

Daudu, S. and Anyawu, A.C. (2009) Folk media preference and prospects for agricultural extension service delivery in Benue State, Nigeria. Tropical Agricultural Research and Extension 12(1); 2009p1-7.

Mohammed,A.(2016) Accessibility and Utilization of Agricultural Information: The Role of Communication Media in the Delivery of Information to Small Holder Farmers in Kano State: Thesis, Unpublished; Bayero University, Kano. pp. 1-35

Isaya, E.L.(2015)Sources of Agricultural Information for Women Farmers in Hai and Kilosa Districts, Tanzanita:Graduate Programme in Agricultural and Extension Education;Ohio State University. pp. 3-24

Oladele, O. I. (2011). Effect of Information Communication Technology on Agricultural Information Access among Researchers, Extension Agents and Farmers in South-Western Nigeria. *Journal of Agriculture and Food Information*, 12, 167-176

Wilson, T. D. (2006). On User Studies and Information Needs. Journal of Documentation, 62(6), 658-670

Yobe State Agricultural Development Program (2017)

Zangoma, B.A (2015) Impact of assessment of improved Cowpea varieties on Women Farmers in Southern part of Borno State, Nigeria. Unpublished MLS Thesis, University of Maiduguri. pp. 1-25