Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development
Vol. 18, Issue 1, 2018
PRINT ISSN 2284-7995, E-ISSN 2285-3952

FACTORS INFLUENCING INFORMATION NEEDS OF FLUTED PUMPKIN FARMERS IN YOLA NORTH LOCAL GOVERNMENT AREA OF ADAMAWA STATE, NIGERIA

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Abstract

The study analysed factors influencing information needs of fluted pumpkin farmers in Yola North Local Government, Adamawa State, Nigeria. The specific objectives were to: describe the socio-economic characteristic of the respondents; identify the sources of information by the respondents; evaluate the relationship between socio economic characteristics of the respondents and information utilization as well as identify the constraints faced by the respondents in the study area. Three wards were purposively selected based on their high involvement in fluted pumpkin farming, 96 commercial fluted pumpkins farmers were identified using snowballing sampling technique and were used for the study. Interview schedule was used to collect data. Data collected were analysed using descriptive and inferential statistics. Result shows that most (85.4%) of the respondents were male and 35.4% were between 30-39 years with mean age of 37 while 78.2% were educated as well as cultivated average of 1.6 hectares. The distribution of the respondents by source of information revealed that 80.3% sourced their information through friends and neighbours. The result of multiple regression showed that the coefficients of gender, household size and educational status were positive and significant. The study also revealed that inadequate fund (65.6%), poor provision of extension services (47.9%), poor access of irrigation facilities (40.6%) as the most serious constraints faced by the respondents. It was concluded that fluted pumpkin farmers had formal education which enable them utilized any available knowledge as information. The study recommended that farmers growing fluted pumpkin should be sensitized on how to borrow not only for production but for the value chain.

Key words**:** *information needs, influence, fluted pumpkin*

INTRODUCTION

The farmers' information utilization is increasing constantly in this dynamic world. It is obvious that the development of agriculture is highly dependent on the innovation as knowledge changing rapidly [22]. According to [9], rural communities need a wide variety of information such as availability of agricultural support services, Government regulations, wages rates, crop production and managements, disease outbreaks, adaptation of technologies by other farmers, and so on. The content of the information services needs to reflect their diverse circumstances and livelihoods. Therefore, the basic element in any development activity is information which can be seen, available and accessible to all farmers in order to bring the desired development most especially in their farming activities [22]. In other words, farmers seek for desired information in order to boost their production and productivity. The fluted pumpkin is one of the most important vegetable which was believed to be the first indigenous vegetable crops priority rating of south-eastern Nigeria [3]. As it's well known that, information is the key to power in addressing food and nutrition, and access to information is very essential for farming productivity [12].Fluted pumpkin is an important diet for children, women, nursing mothers, men as well as livestock due to its high nutritive value. But in Nigeria, the yield

has not been able to meet the demand for human food not to mention that of livestock feed [18]. Among the different foods, consumption and production, fluted pumpkin has contributed to good health by providing cheap sources of minerals, protein, essential oils and vitamins needed to supplement people's diet mainly carbohydrates and had increased human resistance to disease [1].

One of the ways of achieving and creating awareness of fluted pumpkin production is through effectiveness of information sources on improved farm practices.

However, considering the fact that it was initial produces as a backyard crop, producers now see its production as business and produce all year round. A number of studies [11]; [7]; [16] and [14] have been carried out on fluted pumpkin production in other part of Nigeria, but little or no information exist on factors influencing information needs of fluted pumpkin farmers in Yola North Local Government area of Adamawa State, Nigeria.

Therefore, this study was conducted to analyse the information needs and utilization by fluted pumpkin farmers in Yola North Local Government Area of Adamawa State.

The specific objectives of the study were to:

(i)describe the socio-economic characteristic of respondent in the study area;

(ii)identify the sources of information by the respondents;

(iii)evaluate the relationship between socio economic characteristics of the respondents and information utilization and

(iv)identify the constraints faced by the respondents in the study area.

MATERIALS AND METHODS

Study Area

The study was carried out in Yola North Local Government Area of Adamawa State, Nigeria. Three (3) wards were purposively selected for this research because a considerable quantity of fluted pumpkin is produced and marketed in this area. These wards were; Jambutu, Gwadabawa, and Rumde. Snowball sampling technique was used, a total of Ninety-six (96) fluted pumpkin farmers were identified and they were all used for the study.

Descriptive statistics such as frequency distribution, means and percentages were used to achieve objects i, ii and iv. Multiple regression models were used to analyse objective iii which determine the relationship between the socio-economic characteristics of the respondents and the information utilized by the respondents. The explicit formula is shown as:

$Y=f(X_1, X_2, X_3, X_4, X_5, X_6)$

The implicit model was specified as follows:

$Y= bo + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + Ui$

Where;

Y= number of information utilized by the respondents (percentage information used by the respondent)

X_1= gender (dummy male 1, female 0)

X_2= age (years)

X_3= educational status (years of schooling)

X_4= household size (number)

X_5= farm size (in hectare)

X_6= farming experience (in years)

μ= error terms

Four functional forms (linear function, exponential function, semi logarithm and double log function) were tried; the model with best fit was taken as the lead equation.

RESULTS AND DISCUSSIONS

Socio-economic Characteristics of the Respondents

The result from Table 1 indicates that both males and females were involved in Fluted pumpkin production. The result reveals that majority (85.4%) of the respondents were male while female constituted only (14.6%). This result shows that fluted pumpkin production in the study area is majorly carried out by male gender which could be as a result of the responsibility the male being household head to cater for his family therefore, ventures into fluted pumpkin production in other to generate quick income. This agree with the finding of [13] who reported that fluted pumpkin are remunerative crops and that farmers, particularly young men, turn towards it production as is known to generate quick income for sustenance. The age distribution of

the respondents revealed that majority (35.4%) of the respondents were between 30-39 years of age, 34.4% were within the age range of 40-49 years of age and 20-29 years represent 22.0% while 8.3% of the respondents are more than 50 years of age. This implies that more than 70.9% of the farmers were between 30-49 years of age while the mean age of the farmers was 37 years. This result indicates that majority (70.9%) of the respondents are young. Young farmers have the strength and capacities when fully involved in fluted pumpkin production thus their productivity will be high. The result is in line with the finding of [15], who reported that younger farmers are more likely to take risk by seeking and adopting better fluted pumpkin leaf production methods than older farmers who are more often than not conservative. The distribution of the respondents according to educational level shows that majority (78.2%) of the farmers had attend more than primary school level. However, 21.9% of the fluted pumpkin farmers had no formal education. It is well known that the level of education of farmers have significant impact on their productivity and ability to adopt new innovations and learn from what the extension agents teach them. They may also have the ability to combine different inputs to improve their productivity [4].The distribution of the respondents by farming experience indicated that majority (58.3%) of the respondents had farming experience between 1-5 years while 35.5% and 5.2% of the farmers had farming experience of 6-10 years and above 10 years respectively. This indicates that fluted pumpkin cultivation is an emerging enterprise in the study area while 5.7 years is identified as mean farming experience among the respondents. This means that, gradual increase of years of faming will therefore be sufficient potential for increase production and sustainability of fluted pumpkin cultivation in a study area [23].

Table 1.Descriptive Statistics of the Respondents

Socio-economic Characteristic	Frequency	Percentage (%)
Gender		
Male	82	85.4
Female	14	14.6
Age (years)		
20-29	21	22.0
30-39	34	35.4
40-49	33	34.3
≥ 50	8.0	8.3
Mean age- 37 years		
Educational level		
No formal education	21	22.0
Primary education	14	14.6
Secondary education	43	44.8
Tertiary education	7	7.3
Adult education	11	11.5
Farming experience		
1-5	56	58.3
6-10	35	35.5
≥ 11	05	5.2
Farm size		
≤1	43	44.8
1.0 - 1.5	37	38.5
> 1.6	16	16.7
Mean farm size 1.6 hectares		

Source: Field survey, 2016

The distribution of the respondents according to farm size shows that 44.8 % of the respondents has farm size of 0.5 - 1.0 hectares while 38.5 % had between 1.0 – 1.5 hectares

and 16.7 % had farm size of 1.6 hectares and above. The mean farm size of the respondents is about 1.6 hectares. Most of the farmers which accounted for 83.3 % cultivated 1.5 hectares. The finding reveals that fluted pumpkin farmers in the study area are mainly small scale farmers; thus fluted pumpkin production is at subsistence level. [18] classified small scale farmers as those having 0.1 - 1.59 hectares farm size. This result is in line with the finding of [2] that majority of Nigerian farmers are small scale farmers who cultivate less than 5 hectares. The distribution of the respondents based on access to extension agent shows that 92.7% had no access to extension services. About 7.3% reveals to have a rare (once to twice a year) contact with extension agents. [5] states that, poor extension contact will often result in poor access to relevant information on how to improve agricultural production and this could be a discouraging factor for the farmers.

Source of Information of the Respondents

The distribution of the respondents by source of information revealed that majority (80.3%) sourced their information through friends and neighbours (Table 2).

Table 2. Distribution of the Respondents Based on Their Sources of Information

Extension contact	Frequency	Percentage
Radio	13	9.8
Television	5	3.8
Newspaper	2	1.5
Extension agent	3	2.3
Non-government organisation	3	2.3
Friend/Neighbour	106	80.3
Total	**132**	**100**

Source: Field survey, 2016
*Multiple response

Only 2.3% revealed that they got their information on recommended methods of production through extension agents. By implication, there is an inadequate extension service to fluted pumpkin farmers in the study area which may deny the respondents modern agricultural techniques. This result is in line with the findings of [17] who stated that farmers sought information by asking friends, neighbours, talking to relatives and discussions with those whom they thought had the needed and right information.

Relationship between socio-Economic characteristics and Information Needs and Utilization of Respondents

The result of the regression analysis on the relationship between socio-economic characteristics and information utilization revealed a coefficient of multiple determination (R^2) of 0.64 (Table 3). This shows that 64% of the variation is accounted by explanatory variables use in the model. Most variables involved in the model jointly influenced the information used significantly as shown by the F- value (4.837) which is significant at 1% level of probability (Table 3).

From the result on Table 3, gender, household size and education were positively related to information used by the respondents. Gender (0.264), household sizes (0.0307) are found to be significant at 5% level of significance while educational level (0.0002) was found to be significant at 1% level of probability. This means that as the family size increase, so also utilization of the recommended practices of fluted pumpkin production. This could be true because large family give large labour which may lead to increase of farm size thereby looking for more information to maximize output. According to [21]; [19] large family size implies more family labour and more information will be available for the household farm activities. It is evident that women in other part of the country are restricted due to either socio cultural and religious believe, not participating in most social event as men which according to [6]; [10], stated that both men and women contribute significantly to agricultural production yet, their access to these agricultural resources differ which could be as a result of cultural restriction. Furthermore, as [20] argues, farmers with basic education are better equipped for making more informed decision for lives and for their communities as well as becoming active participants in economic, social, and cultural dimension of development. These result shows that majority of respondent were males, comes

from large homes and attained certain level of education beyond primary school and therefore appreciate the important of needs of information and uses.

Table 3. Relationship Between Socio-economic Characteristics and Information Needs and Utilization of Respondents

Variables	Coefficient	Std Error	t-Statistic	Prob.
C	12.57591	2.135830	5.888067	0.000
Gender (X_1)	3.159007	1.399329	2.257515	0.0264**
Age (X_2)	1.139334	0.749673	1.519774	0.1321^{ns}
Household size (X_3)	0.673175	0.306506	2.196287	0.0307**
Educational status (X_4)	2.593450	0.678423	3.822764	0.0002***
Farming experience (X_5)	0.676934	1.342784	0.504128	0.6154^{ns}
Farm size (X_6)	0.479273	0.530632	0.903212	0.3689^{ns}
R-squared	0.636818			
Adjusted R-squared	0.595896			
F- Statistic	4.837568			

Source: Data analysis 2016. ***significant at 1%; **significant at 5%, Ns-not significant

Constraint Faced by the Respondent in Fluted Pumpkin Production

Result of the constraints faced by respondents in the study area was presented in Table 4. Inadequate fund (65.6%), poor provision of extension contact (47.9%), poor access to irrigation facilities (40.6%) and high cost of seeds (36.5%) has been identified as the most serious problem facing the farmer in the study area. Small holder farmers often lack access to appropriate inputs and the necessary technical production skills due to inadequate input and soft credit market as well as weak extension systems [24].

Table 4. Constraint of Fluted Pumpkin Production

Constraints	Frequency	Percentage
Poor access of irrigation facilities	39	40.6
Poor technical know- how on production	20	20.8
Poor access to improved seed	29	30.2
High cost of transportation	26	27.1
High cost of labour and farm input	22	22.9
Poor pricing system	13	13.5
Poor provision of extension service	46	47.9
Inadequate/ lack of funds	63	65.6
Pest and disease problem	6	6.3
Poor knowledge on health benefit	10	10.4
Weed problem	1	1.0

Source: Field survey, 2016

This finding agrees with that of [8] who confirm that farmers experience a number of constraints in agricultural production; these includes inadequate fund, inadequate training and extension support, inadequate irrigation facilities, high cost of farm inputs and road conditions among others.

CONCLUSIONS

Based on the study, it was concluded that 85.4% were males, most (35.4%) of the respondents were between the age 30-39 years with mean age of 37 and 78.2% had attended formal education. The result of regression analysis showed that gender (X_1, 0.024) and household size (X_3, 0.0307) are significant at 5% while formal education (X_4, 0.0002) is significant at 1% which revealed that the respondents level of education, gender and household size positively and significantly influence their information needs. It was finally concluded that the respondents are influence by their levels of education as majority of them are males. Based on the finding of the study, the following recommendations are suggested to improve access to and productivity by farmers in the study area.

(a)Government should create other source or channel of information by working with local stake holders as this may give the farmer comfort to easily access information at their convenient.

(b)Farmers growing fluted pumpkin should create a cooperative association which will sensitize them on how to borrow not only for production but for the value chain, thus local processing, marketing and distribution.

(c)Extension service for farmers should be

strengthened by the extension institution situated within the study area by making frequent visits to farmers, so as to encourage farmers who lacked the zeal on fluted pumpkin production and apply good agronomic practices for improving fluted pumpkin productivity.

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