An Analysis Of The Difference In Gender Level Of Cassava Production And Access To Land In Abia State, Nigeria

Onumadu F.N., Onuoha L.U.

Abstract: The study examined the male and female level of access and ownership to land for cassava production in Abia state. The objectives of the study were to describe the socio-economic characteristics of the respondents, determine the differences in quantity of cassava produced by both male and female farmers. A multi-stage random sampling technique was used select 218 respondents. Questionnaire was used for data collection while frequency counts, mean, percentages and Z-test were used in analyzing the data generated. The result shows that the mean age for male and the female were 52.7 and 46.2 years respectively. 94.5% of the male and 97.2% of the female had one form of formal education. The mean household size of the male and the female were 8 and 7 persons per house. The mean farming experiences of the male and female were 16.54 years and 13.26 years respectively. Mean income generated from cassava stand to be (#) 54882.57 and (#) 126082.60 respectively for both male and female. The Z- test analysis result shows that mean farm sizes of the respondents were 2.91 hectares and 2.45 hectares respectively for both male and female. The analysis also showed that there was significant difference between access to farmland of male and the female farmers at t = -2.613 at 5% significant level and cassava output of male and the female at t = -4.764 at 1% significant level. It was therefore recommended that a micro- credit scheme be established by government and nongovernmental organization target mainly on female cassava farmers for purchase of resources for cassava production.

Key Words: Difference, Gender Level, Cassava, Production, Access, Land

INTRODUCTION

Gupta (2000) views gender to refer to the widely shared expectations and norms within a society about appropriate male and female behavior, characteristics, and roles. It is a social and cultural construct that differentiates women from men and defines the ways in which women and men interact. Worthy to note that there has been some controversy on the social relationship between the two sexes that make up gender and this has raised a lot of dust and storm. Agriculture is the most assured engine of growth and development and reliable key to industrialization. Nigeria is the largest producer of cassava in the world (Ogbe et al, 2003). It is a very important staple food consumed in different forms by millions of Nigerians. Cassava roots are rich in energy, containing mainly starch and soluble carbohydrates, but are poor in protein. Cassava is once seen as the food for the poor but due to its value addition it is therefore a food for all. These and other features endowed it with a special capacity to bridge the gap in food security, poverty alleviation and environmental protection (Clair et.al, 2000). In many rural areas in Nigeria and several developing countries, women play a crucial role in providing and improving household food security (CTA, 2005).

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Women also provide most of the labour for harvesting and post-harvest activities (FAO, 1996). Cassava is important, not only as a food crop but even more as a major source of income for rural households (Davies et al., 2008). As a cash crop, cassava generates cash income for the largest number of households in comparison with other staples. However the sustainability of this staple crop depends on the enormous availability of land for its cultivation. Land is the foundation of all human, social and economic activities that lie at the heart of social, political, or economic life of most nations especially African nations. Land is recognized as a primary source of wealth, social status and power, the basis for shelter, food, and economic activities and significantly provides employment opportunities in the rural areas. Land is fundamental to agriculture, yet the different challenges women face in accessing them are rarely fully addressed. For women, it is often particularly difficult to access, own or control land due to legal or cultural restrictions (Emeasoba, 2012). This problem is widespread; women hold title to approximately two percent of land globally and are frequently denied the right to inherit property (World Bank, 2005). The wealth obtainable from cassava production, processing and marketing as a result of gender inequality remains under serious threat if nothing is done to improve the operating environmental and socio-economic conditions of the farmers in terms of asset holding, welfare and credit availability. The broad objective of the study is to analyze male and female access to land for cassava production in Abia state and specifically to describe the socio-economic characteristics of the respondents and the difference in quantity of cassava produced by both male and female respondents.

METHODOLOGY

The study was carried out in Abia state, Abia state is situated between latitude 04^0 45' and 06^0 07' north and longitude 07^0 00' and 08^0 10'east it is bordered by Imo, Anambra, and River in the west, northwest and southwest respectively. To the north, northeast, east and southeast is

bordered by Enugu, Ebonyi, Cross River, and Akwa-Ibom state respectively. Abia state is located in the southeast geopolitical zone of Nigeria, and is located within the forest belt with temperature ranging between 20^0c – 36^0c. According to the National Population Commission (2006), Abia state has a population of 2,833,999 people and a land mass cover of 5,833.77$_{sq.}$km. A multi-stage sampling technique was employed in sample selection. In the first stage, the three agricultural zones in the state were purposively selected. Aba, Umuahia and Ohafia. In the second stage three local governments actively involved in agricultural production was purposively selected from each of the agricultural zone making it a total of nine blocks. While In the third stage two communities was randomly selected from each of the local government. Twelve respondents was randomly selected from two sampling group. six each for male and female giving twelve respondents from each cell. A total of 218 respondents was selected for the study. The research instrument used for this study was structured questionnaire and scheduled interview. The result of the objective of the study was analyzed using descriptive statistics such as frequency, percentage, and mean inferential which involves the use of Z-test analysis. The formula used to compute the mean used in this study is specified below. The mean was computed by multiplying the frequency (f) of the responses under each response category by assigned value and dividing the (∑) of the product by the (N) no of respondents to the particular indicator as shown:

$X = (\sum fx)/N$..... (1)

Where
∑=Summation
f = frequency
x =assigned score to response category
N = number of respondents
X = Arithmetic mean

The z- test used to determine whether significant difference existed between the output and access to farmland of male and the female cassava farmers is given as:

$$Z_{cal} = \frac{X_i - X_j}{\sqrt{\frac{S^2X_i}{n_i} + \frac{S^2X_j}{n_j}}}$$

Were
X_i = mean of cassava output or farm size for the male household farmers
X_j = mean of cassava production activities of female farmer
S^2X_i = variance of cassava output or farm size for the male household farmer
S^2X_i = variance cassava output or farm size for the female household farmers
Z = Standard normal score
n_1 = number of male respondents
n_2 = number of female respondents

RESULT AND DISCUSSION

Table 1: Distribution of respondents according to socio-economic profile

The result in Table1 showed that majority (35.8%) of male headed households was within the age range of 50-59 years while majority (40.1%) of the female headed households were within the age range of 40-49 years. The mean age of the male and the female were 52.7 and 46.2 years old respectively. From the result it could be deduced that there are younger women in farming in the study area compare to their male counterpart. This could be as a result of the fact that nowadays men prefer business than farming as an occupation and only have full interest in farming at their well advanced age in life compared to the females who are mostly left to take care of the farming business of their household. Table 1 also showed that (77.1%) of the male respondents and (72.9%) of the female respondents were married. Marriage confers some amount of stability on the individual and household and puts them in a better position to practice their occupation. The indication of the result in table 1 is that a very high proportion of respondents are matured and responsible enough to take decisions on issues bordering on cassava production. The result in Table 1 also shows that about 94.5% of the male respondents and 97.2% of the female respondents had one form of formal education of another, while fewest (5.5 %) of the male and 2.8% of the had no formal education. The mean number of years spent schooling for the male and female headed households were 10.1 and 14.8 years of schooling respectively. The result revealed that the female headed households had more education than the male headed households. This may be a pointer to the realization of the number two millennium development goal which has to do with “closing the gap between boys and girls in education” Nowadays; it is obvious that the population of the female folks is doubling those of their male counterparts in our institutions of learning. In the male headed household, a large proportion (33.0%) of the male and (54.1%) of the females had a household consisting of between 4-6 persons. The mean household size of the male and the female were 8 and 7 persons. This showed that most of the respondents had fairly large household size. This is consistent with the findings of Adegbite *et al.,* (2008) who found that majority of the household sizes they studied vary between 6-10 persons. Large household size implies availability of more persons that will serve as source of family labour thereby reducing cost of production by reducing the cost of hiring labour (Ani, 2004 and Nani, 2005). The result in Table 1: showed that a greater number of the male (60.6%) and female headed household (74.3%) own a farm size of at most 2.0 hectares. The mean farm sizes of the respondents were 2.91 hectares and 2.45 hectares for the male and female respectively. This indicates that the respondents were smallholder farmers. However the male farmed more area of land than their female counterparts. Limiting output to subsistence level without surplus for the market. As shown in Table1 a larger proportion of the male (41.3%) had at most 20 years of farming experience while a larger proportion of the female headed households (43.1%) had at most 10 years of farming experience. The mean farming experiences of the male and female headed households were 16.54 years and

13.26 years for the male and the female farmers. Table 1: also show that a greater number of the male and female 51.4% and 51.4% generated income of at most ₦100,000 and ₦50,000 respectively while fewest 1.8% and 0.9% of the male and female generated at most ₦ 200, 000.00 from their farming business respectively. The mean annual farm incomes of the male and female were ₦54882.57 and ₦ 126082.60 respectively. This implies that the annual farm income generated by the male and female in the study area is low. The low annual income generated by both parties could be attributed factors such as lack of accessibility to market due to bad road net work, the land tenure practice in the area leading to land fragmentation which leads to cultivation of cassava on a small piece of land

Table 2: Distribution of respondents according to bags of cassava produced yearly

Also shown in Table 2: The number of cassava products produced by both male and female headed house hold. Therefore it was deduced of the table that the female headed house hold produces more cassava than their female counterpart. This is represented with an average mean of 388.9 for female and 179.09 for their male counterpart.

Table 3: Analysis of the different between male and female level of access to land and cassava production

The result in table 3: revealed that the mean cassava output of the male headed household was 374.76 kilogram while that of the female headed households was 388.99 kilogram. There was significant difference between the cassava output of male headed households and the female headed households at t = -4.764 at 1% significant level. This implies that the female farmer had more cassava output than their male counterpart by producing about 14.23 kilogram of cassava output more than was produced by the males. Similarly, the result in table 4.17 showed that the mean access to farmland (measured using farm size) among male and female farmers head were 2.91 hectares and 2.06 hectares. There was significant difference between access to farmland of male headed households and the female headed households (t = -2.613) at 1% significant level. This implies that the male had more access to farmland than their female counterpart with about 0.85 hectares of farm size more than accessed by the females.

CONCLUSION AND RECOMMENDATION

From the analysis, it was found that lands were acquired majorly by inheritance and the resultant effect of this is the fragmentation of land during the acquisition and sharing of either family or community lands. The evident of this was seen on the sizes of the land cultivated by both the male and female farmers of which majority of both sexes cultivate a small farm size of 0.1-2.0ha of land with just a few who cultivate a reasonable land size this can also be seen on the number of bag of both garri and fufu produced yearly. However this Land holding in hectares favors more males than females in the study area and females had better production in cassava than male.

Recommendation

Base on the findings the study recommends that

- Financial incentives through governments and non-governmental organizations such as IFAD, IITA, FAO, USAID, should be given to the women folk to procure their separate plots in order to increase production and enjoy maximum satisfaction from their labour.
- Gender equality should be encouraged in all aspects of human endeavor to harness the potentials of both the masculine and feminine gender for economic, social, agricultural growth and national development.

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Table 1: Gender Distribution of Respondents According to Their Socio-Economic Activities

Variables	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Age				
20 – 29	3	2.8	4	3.7
30 – 39	13	11.9	23	21.1
40 – 49	23	21.1	44	40.4
50 – 59	39	35.8	30	27.5
60 – 69	20	18.3	5	4.6
70 – 79	7	6.4	2	1.8
80 – 89	4	3.7	1	0.9
Total	109	100.0	109	100.0
Mean	52.65		46.18	
Education				
No formal education	6	5.5	3	2.8
Primary education	34	31.2	20	18.3
Secondary education	36	33.0	44	40.4
Tertiary Education	33	30.4	42	38.5
Total	109	100.0	109	100.0
Mean	10.11		14.81	
Household size				
1-3	14	12.8	12	11.0
4 -6	36	33.0	59	54.1
7 – 9	27	24.8	12	11.0
10 -12	15	13.8	10	9.2
13 -15	11	10.1	6	5.5
16 –above	6	5.5	10	9.2
Total	109	100.0	109	100.0
Mean	7.78		7.08	
Farm size				
0.1 -2.0	66	60.6	81	74.3
2.1 – 4.0	23	21.1	36	33.0
4.1 – 6.0	3	2.8	6	5.5
6.1 – 8.0	13	11.9	2	1.8
8.1 – 10.0	4	3.7	2	1.8
Total	109	100.0	109	100.0
Mean	2.91		2.45	
Farming experience (years)				
1- 5	10	9.2	11	10.1
6-10	25	22.9	47	43.1
11 – 15	29	26.6	20	18.3
16 – 20	45	41.3	31	28.4
Total	109	100.0	109	100.0
Mean	16.54		13.26	
Income from cassava(#)				
0 -50,000	40	36.7	56	51.4
50, 001 – 100,000	56	51.4	45	41.3
100,001 – 150, 000	5	4.6	2	1.8
150,001 – 200,000	2	1.8	1	0.9
200, 001 – 250,000	3	2.8	2	1.8
300, 001 – 350,000	3	2.7	3	2.7
Total	109	100.0	109	100.0
Mean	54882.57		126082.60	

Source: *Field Survey 2014*

Table 2: Distribution of Respondents According to Bags of Cassava produced yearly

Cassava produced (in bags)	Male		Female	
	Frequency	Percentage %	Frequency	Percentage %
1 – 10	3	2.8	4	3.7
11 – 20	20	18.3	13	11.9
21- 30	60	55.0	20	18.3
31 – 40	17	15.6	60	55.0
41 – 50	6	5.5	9	8.3
≥ 50	3	2.8	3	2.8
Total	109	100.0	109	100.0
Mean	179.09		388.99	

Source *Field Survey, 2014*

Table 3: Analysis of the difference between Male and Female Access to Land and cassava output

Variables	Mean	Std.Deviation	Std. Error Mean	Df	Z-test
Male cassava output	374.76	146.687	14.050		
Female cassava output	388.99	123.586	11.837		
(a – b)	-14.229	31.183	2.987	108	-4.764***
Access to Farm Land					
Female farm size	2.061	1.4707	.1409		
Male farm size	2.907	2.5288	.2422		
(a – b)	-.8459	3.3793	.3237	108	-2.613**

Source: *field survey, 2014.*