

Determinants of Rural Women Involvement in Farming Activities in Akwa Ibom State, Nigeria

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ABSTRACT

The study was conducted to examine the involvement of rural women in farming activities in Akwa Ibom State, Nigeria. The specific objectives were to examine the socio-economic characteristics of the respondents; identify the farming activities involved in and the constraints to women involvement in farming activities. Primary data was used for the study. The primary data were obtained with the aid of structured questionnaires administered to 175 rural women who were randomly selected. Frequency and percentage were used to analyze the objectives (1, 2 and 3) while multiple regression was used to test the relationship between the socio-economics characteristics and the involvement of women in farming activities. The result indicated that rural women were more into planting (39.9%), weeding (36.0%) and harvesting (14.9%) than other farming activities in the study area. On the constraints, the rural women identified lack of finance and poor returns (profit) as hinderance to women active involvement in full time farming activities. Also, the result from the regression analysis at 1% and 5% confidence interval revealed that age, marital status, household size and farm size were positively related to influencing rural women active involvement in farming activities. The study therefore recommended that government and non-governmental organization focus more in empowering rural women to access institutional credit and also build their capacity on the use of modern technology in planting, weeding and harvesting.

Keywords: Constraints, Determinants, Farming activities, Involvement, Rural women.

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Highlights of this paper

- The research outcomes highlight the important role of women in the attainment of the UN zero hunger 2030 in Nigeria and the need for government/stakeholders to support women in the aspect of farming activities of which they are mostly engaged in.

1. INTRODUCTION

Women play an important role in many parts of the world in ensuring that there is the availability of food to meet the global growing population and demand. Without the contribution of women to agriculture, there would be much food crises globally. In Africa including Nigeria, ILO [1] estimated that 78% women were actively involved in agriculture as compared to 64% of their men counterparts. Ayioko and Igben [2] stated that African women especially in Nigeria played a key role in the production of about 60-80% of agricultural produce. Despite women active participation in the planting of agricultural crops, they also perform heavy work such as land clearing, tilling and ridge making. The Nigeria agricultural sector is still dominated by agrarian and women play a key part in the agricultural activities mostly in the rural communities.

According to Action Aid [3] women constitute about 60-80% of the agricultural labor force and also produce two-third of the total food crops in Nigeria. Institute of Development Studies (IDS) [4] stated that UNHRC in 2010 estimated that female farmers cultivate over 50% of every food grown in several regions of the earth mostly especially in underdeveloped countries. In Akwa Ibom State, women constitute 50.74% of the population.

World Bank Group [5]; Muhammad, et al. [6] stated that participation is the process through which stakeholders influence and share control of the major decision in any setting and this is important in the realization of the expected goals of its members. Therefore, for Nigeria agriculture to achieve the UN 2030 mandate of zero hunger, the recognition and support of women participation in agriculture becomes very important. In most families in the rural part of Nigeria, agriculture is the source of their livelihood and most women are involved in it but still little attention or recognition or support is given to them.

It is against this background that the study analyzed the determinants of rural women involvement in farming activities in Akwa Ibom State, Nigeria.

The specific objectives were to:

1. Describe the socio-economic characteristics of women farmers in the study area.
2. Examine the farming activities of women farmers.
3. Identify the constraints to women participation in farmer activities.
4. Determine the socio-economic characteristics affecting rural women involvement in farming activities.

2. METHODOLOGY

2.1. Study Area

Akwa Ibom State is located in South-South of Nigeria. The State lies between latitude 4°31 and 5°31 North and longitude 7°35 and 8°35 East; occupies a total land area of 7, 254, 935km² and has an estimated population of 3, 920, 208 [7]. Located at an elevation of 42.58 meters (139.7 feet) above sea level, Akwa Ibom has a Tropical monsoon climate (Classification: Am). The city's yearly temperature is 28.47°C (83.25°F) and it is -0.99% lower than Nigeria's averages. Akwa Ibom State typically receives about 342.56 millimeters (13.49 inches) of precipitation and has 294.37 rainy days (80.65% of the time) annually.

2.2. Sampling Procedures

A multi-stage sampling technique was used. In stage one, five Local Government Areas (LGAs) in the State was randomly selected. The second stage, one community was selected from each of the LGAs randomly. The third stage, 35 female farming households were selected at random from each of the community which made up to 175 respondents.

2.3. Data Collection and Analysis

Data collection was done with the aid of administered structured questionnaires. Descriptive statistics involving the use of frequency counts and percentages were used to describe the socio-economic characteristics of the respondents, type of farming activities and the constraints.

Regression (Ordinary Least Square) analysis model was used to determine the socio-economic characteristic affecting rural women involvement in farming activities at 1% and 5% confidence interval. The model was specified as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \dots + e$$

β_0 = intercept.

$\beta_1 - \beta_7$ = regression coefficients.

Y (dependent variable) = level of rural women in farming activities.

The independent variables of the model were measured as follows: X_1 = age (in years), X_2 = Marital Status, X_3 = household size (number of people living under the same roof and feeding from the same pot), X_4 = farming experience (years), X_5 = primary occupation, X_6 = level of education (number of years of schooling), X_7 = farm size (acres) e = error term.

3. RESULTS AND DISCUSSION

3.1. Distributions According to Socio-Economic Characteristics

3.1.1. Age

The result in [Table 1](#) below showed that majority of the respondents (59.4%) were within the age bracket of 41-50 years, 28.6% were within the age bracket of 31-40 years and 12.0% were within the age bracket of <18-30 years. This result therefore showed that the rural women in the study area were still in their active age and as such were productive. The findings agreed with [Enete and Amusa \[8\]](#); [Adams \[9\]](#) that the sampled women fell within the age bracket of 21-50 years and therefore were in their economic active age.

3.1.2. Marital Status

The result showed that 83.4% of the respondents were married, 9.7% were single and 6.9% were widowed. This indicated that family labor was expected to be part of the farming activities. This result agreed with [Enete and Amusa \[8\]](#); [Fabiya, et al. \[10\]](#); [Adams \[9\]](#) that the sampled women in their study areas were married.

3.1.3. Household Size

The result indicated that 87.4% had household size of 5-10 persons and 12.6% had household size of <5 persons. The high percentage of household size among the rural women farmers would contribute to the farming activities. This concurred with [Adams \[9\]](#) findings that more than 56% of the respondents had family size of six members and above.

3.1.4. Farming Experiences

The result indicated that 66.9% of the respondents had farming experiences of 21-30 years, 26.3% had 11-20 years experiences and 6.8% had 1-10 years experiences. The number of years of farming experiences would make the farmers to be more productive. This concurred with [Enete and Amusa \[8\]](#) that the women sampled had a farming experience of above 21 years.

3.1.5. Primary Occupation of Farmers

An assessment of the primary occupation of the respondents indicated that majority 93.7% were engaged in farming as their primary occupation and 6.3% were engaged in other activities outside farming. The result concurred with [Adams \[9\]](#) that majority of the respondents in the study area were highly engaged in agricultural production.

3.1.6. Educational Qualification

Majority of the respondents (61.1%) had formal education and 38.9% had no formal education. The findings showed that the farmers could read and write which made it easy for adoption of innovation and improve farming technique. The result agreed with [Enete and Amusa \[8\]](#); [Adams \[9\]](#) that most of the sampled women had formal education.

Table 1. Distribution according to socio-economic characteristics.

S/N	Variables	Frequency (n=175)	Percentage (100%)
1	Age (Year)		
	<18-30	21	12.0
	31-40	50	28.6
	41-50	104	59.4
2	Marital Status		
	Single	17	9.7
	Married	146	83.4
	Widowed	12	6.9
3	Household size		
	<5 persons	22	12.6
	5-10 persons	153	87.4
4	Years of farming experiences		
	1-10 years	117	66.9
	11-20 years	46	26.3
	21-30 years	12	6.8
5	Primary occupation		
	Farming	164	93.7
	Others	11	6.3
6	Educational qualification		
	No formal education	68	38.9
	Primary	79	45.1
	Secondary	15	8.6
	Tertiary	13	7.4
7	Farmland size (ha)		
	<1	166	94.9
	1-2	7	4
	3-4	2	1.1

Source: Field study, 2022.

3.1.7. Farm Size

Majority of the respondents (94.9%) had farm size of <2 ha, 4% had 2-3ha and 1.1% had 4ha and above. This means that the respondents were mostly operating on fragmented farmland as most women were not entitled to land

inheritance. The result confirmed Adams [9]; Obot, et al. [11] that majority 85% of the respondents had below two hectares of land and as such were small scale farmers.

3.2. Distribution of Women According to Farming Activities

From the Table 2, majority of the rural women farmers were into planting (38.9%), followed by weeding (36.0%), harvesting (14.9%), bush clearing/burning (7.4%) and tilling (2.9%). This was certain as the men left the planting and weeding aspect of the farming to the women and children.

Table 2. Distribution of women according to farming activities.

S/N	Variables	Frequency (n= 175)	Percentage (100)	Ranking
1	Bush clearing/burning	13	7.4	4 th
2	Tilling	5	2.9	5 th
3	Planting	68	38.9	1 st
4	Weeding	63	36.0	2 nd
5	Harvesting	26	14.9	3 rd

Note: Field study, 2022.

3.3. Constraints to Women Participation in Farming Activities

From the Table 3, majority of the respondents complained of lack of finance (24.6%) as a constraint to their active participation in farming activities, followed by Poor returns (20.0%), 15.4% lack of farming inputs, 11.4% lack of farmland, lack of contact with extension agent (10.9%), Lack of technical knowledge (9.7%) and gender discrimination was 8.0%. The result attested to the fact that access to finance and high returns (profit) played a vital role to the active involvement of rural women in farming activities. The result concurred Adams [9]; Enete and Amusa [8]; Obot, et al. [11] findings that inadequate capital was one of the major constraints to women participation in agricultural activities.

Table 3. Constraints to women involvement in farming activities.

S/N	Variables	Frequency (n=175)	Percentage (100)	Ranking
1	Lack of finance	43	24.6	1 st
2	Lack of contact with extension agents	19	10.9	5 th
3	Lack of technical knowledge	17	9.7	6 th
4	Lack of farming inputs	27	15.4	3 rd
5	Gender discrimination	14	8.0	7 th
6	Poor returns (Profit)	35	20.0	2 nd
7	Lack of farmland	20	11.4	4 th

Note: Field study, 2022.

3.4. Socio-Economic Characteristics Affecting Women Involvement in Farming Activities

As shown in Table 4, the multiple regression model with seven predictors produced $R^2 = 0.896$, $F = 140.819$, $p < 0.000$. The R^2 was relatively high and the F values at $p < 0.000$ affirms the goodness of the model to predict the effect on the regressors. Six variables were found to be significant and explained 89% of observed variation in the level of rural women involvement in farming activities. The significant variables were: age, marital status, farming experience, household size, level of education and farm size.

3.4.1. Age

Age was positively and significantly related with the level of women participation in farming activities. In other words, active age of the women was an incentive to their active participation in farming activities. The finding

concurred with Omotesho, et al. [12]; Adams [9] that age had a positive coefficient which suggested that as the age increased, the participation of women in agricultural production increased.

3.4.2. Marital Status

Marital status was also positive and significant which indicated that marriage among the rural women encouraged the women to venture into active farming activities in order to support the family. With the high cost of living, married women in the rural areas with their children through active involvement in farming activities secured food for the family and also sell the produce to support the men's major occupation.

3.4.3. Farming Experience

Farming experience was negative but significantly related with rural women participation in farming activities. The result negated Enete and Amusa [8]; Abegunde [13]; Omotesho, et al. [12] that years of farming was positive and significantly related with women's level of contribution to farming decision.

3.4.4. Household Size

The size of household was positively significant in explaining the level of women participation in farming activities. This agreed with Nuhu, et al. [14] that most Nigerian men believe women should spend more time taking care of their children and domestic activities than working.

3.4.5. Level of Education

Level of education was significant though negative. The result negated the findings by Adams [9]; Nuhu, et al. [14] that as the respondents improved on their education level, they became influenced to participate in agricultural production.

3.4.6. Farmland Size

Farm size was positively and significantly related. This corresponded Enete and Amusa [8]; Omotesho, et al. [12] that the access to farmland made women to contribute to decision making in household.

Table 4. Socio-economic characteristics affecting women involvement in farming activities.

Variables	Coef.	Std. Error	Beta	T	Sig.
Constant	0.533	0.156		3.419	0.001
Age	0.564	0.046	0.776	12.306	0.000*
Marital Status	0.207	0.057	0.145	3.649	0.000*
Household size	0.142	0.071	0.085	1.995	0.048**
Farming experience	-0.100	0.058	-0.154	-1.710	0.089
Primary occupation	0.142	0.071	0.085	1.995	0.048**
Educational level	-0.194	0.093	-0.092	-2.092	0.038**
Farmland size	0.072	0.019	0.217	3.819	0.000*

Note: Field study, 2022.

R = 0.946. R² = 0.896. Adjusted R² = 0.889.

**p < 0.05.

*p < 0.01%.

4. CONCLUSION

The study revealed that rural women were active in farming activities mostly in planting, weeding and harvesting. It also identified the age, marital status, household size, primary occupation, educational level and farm size as the socio-economic factors that encouraged the rural women to be involved in active farming activities.

Based on the findings from the study, the study recommended that government and non-governmental organization should make access to finances by the rural women and market for their agricultural produce is available. This will encourage more women both in the rural and urban setting to venture into active and profitable farming activities.

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