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Role of Women in Farm and Family Decision Making Process in Udi Local Government Area of Enugu State, Nigeria

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Abstract
Women are key players in the agricultural sector of most developing countries like Nigeria. But, despite their well recognized roles, men have continued to dominate both farm and non-farm decision making process. This study investigated the role of women in farm and family decision making process in Udi L.G.A of Enugu State, Nigeria. Multi-stage random sampling technique was employed in collecting primary data from 120 respondents with the aid of a questionnaire and interview schedule. Both descriptive and inferential statistical tools were used in data analysis. Result showed that women influenced decisions on the following farming activities: sowing/planting, fertilizer applications, marketing of farm products among others. They also took part in non-agricultural farming decisions such as marriage issues, domestic activities, family medical and health issues among others. The result of multiple regression analysis showed a high value of R^2 of 78.1% which indicates that about 78.1% change in participation of women farmers in farm and family decision-making was caused by changes in the socio-economic characteristics of the women farmers. The null hypothesis was rejected at 5% level of significance. This shows that the socio-economic characteristics of the women farmers influenced significantly their participation in decision making. The result of factor analysis identified institutional, socio-cultural and financial constraints as hindrances to women full participation in farm and non-farm decision making. It was concluded that empowering women through direct involvement in development and implementation of agricultural policies and projects can enhance their decision-making ability. Necessary recommendations such as legislative changes, formation of functional women groups and reform of land tenure system in favour of women were made among others.
Keywords: Agriculture, Women, Role, Farm, Family, Decision Making, Enugu State, Nigeria.

INTRODUCTION

Decision-making can be regarded as the mental processes (cognitive process) resulting in the selection of a course of action among several alternative scenarios. Every decision making process produces a final choice. Decisions have to be made when persons having limited resources have alternative courses of action and therefore must take some choices (Oji, 2002). Farmers make decisions on a number of pre-harvest and post harvest activities such as what to produce, input to use, harvest and post-harvest issues, which according to William (2003) affect production, processing, distribution, prices and costs. Farming decisions are made to maximize farm objectives subject to available materials and human resources.

The Nigerian economy is still predominantly agrarian and women are key players in the business of agriculture in the country especially in rural areas. Despite the significant role played by women in agricultural production, processing and marketing in Nigeria (Nweke and Enete 1999, Barasa 2006) men have continued to dominate farm decision making, even in areas where women are the largest providers of farm labour (Mosha 1992, Anyanwu and Agu 1996, Amaechina 2002). Women are more or less relegated to playing second fiddle in farm decision making. This could be counterproductive because there is bound to be conflict when women as key players, carry out farm tasks without being part of the decision process especially when the decisions fail to recognize their other peculiar household roles and responsibilities.

Women contribute between 40 and 60% of all hours spent in agricultural production and processing and also undertake 60 to 90% of the rural agricultural products marketing, thus providing more than two thirds of the workforce in agriculture (FAO, 1985) cited in Sabo, (2006). Olawoye (2000) reported that 50% of women in Oyo State were involved in planting, 97% in weeding, 35% in harvesting, 91% in transportation, 92% in processing and 79% in marketing.

Women make essential contributions to agricultural activities in Udi Local Government Area of Enugu State. They manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops and animals as well as involved in other rural enterprises such as collecting fuel wood and water, engaging in trade and marketing, caring for family members and maintaining their homes. Many of these activities are not defined as economically active employment but they are essential to the well-

being of rural households.

Women play a significant role in the domestic and socio-economic life of the society. There are more women as agricultural workers, food producers and processors and also marketers. Most of the farm labour in the State is done by women, yet the roles of women have remained obscure for long because women seldom play major roles in decision making processes (Spore, 1993). The involvement of women in the family and to the national economy has been grossly under estimated and even unrecognized. In both rural and urban areas of Nigeria, women are important stakeholders in the economic support of their households through intensive involvement in agricultural activities. Unfortunately empirical information on women's role in farm and family decision making in the area of study seems not to be in existence in any literature. This underscores the need to investigate the roles of women in farm and family decision making in the study area.

Objectives of the Study

The broad objective of the study is to analyze the role of women in farm and family decision making process in Udi Local Government Area of Enugu State, Nigeria. The specific objectives are to:

i. ascertain the role of women farmers in farm and family decision-making;
ii. determine the effects of socio-economic characteristics of women farmers on their participation in farm and family decision-making; and
iii. identify constraints to women participation in farm and family decision-making process.

Hypothesis

H_{o1}: The socio-economic characteristics of the women farmers have no significant effect on their participation in farm and family decision making.

Methodology

The study was conducted in Udi L.G.A of Enugu State, Nigeria; which lies approximately on latitude $16^0$12'N and on longitude $7^0$16 E; with a land mass of 973.805 KM^2 and a population of 234,002 (NPC, 2006). Multistage random sampling technique was used to select respondents for the study. Firstly, six (6) out of seventeen autonomous communities were selected. Secondly, four (4) villages were randomly selected from each community. Thirdly, five (5) women farmers from five farm families were selected from each of the twenty four (24) villages to give a total of 120 women farmers. A well-structured questionnaire and interview schedule were used to collect primary data for the study. Both descriptive and inferential statistics were employed in data analysis. Objectives I, II and III were analyzed with mean scores derived from a 4-point likert scale, multiple regression and factor analysis respectively. The null hypothesis was tested at 5% alpha level using F-test.

Results and Discussion

The results and discussion were based on the specific objectives of the study.

Role of women in farm and family decision-making

Table 1: Mean scores on the extent of participation of women in farm decision making process in the study area.

	Farm decision making	Means scores (X)	Remarks
i	Land preparation	2.4	Rejected
ii	Time of sowing/planting	2.6	Accepted
iii	Manure/fertilizer types and time of application	2.8	Accepted
iv	Time of weeding	2.6	Accepted
v	Number of hired labourers and wages to pay them	2.3	Rejected
vi	Time of harvesting	2.8	Accepted
vii	Marketing of farm products	2.7	Accepted
viii	Purchase of farming implements	2.2	Rejected
ix	Farm credit acquisition and management	2.2	Rejected
x	Type of crop or livestock to produce	2.3	Rejected

Source: Field Survey, 2013.

The result in Table 2 indicates that women participated in farm five out of ten decision making areas such as taking decision on time of sowing/planting (2.6), manure/fertilizer types and time of application (2.8), time of weeding (2.6), time of harvesting (2.8) and marketing of farm products (2.7). Such farm decisions like land preparation (2.4), purchase of farming implements (2.2) and farm credit acquisition and management (2.2) were mainly taken by their male counterparts.

Table 2: Extent of participation of women in non-farm (family) decision making in the study area.

	Non-agricultural decision making	Mean scores (X)	Remarks
i	Marriage issues	2.8	Accepted
ii	Domestic issues	3.0	Accepted
iii	Education of children	2.9	Accepted
iv	Occupation of household members	2.7	Accepted
v	Financial management/expenditure pattern	2.2	Rejected
vi	Religions issues	2.9	Accepted
vii	Employment/marketing	2.3	Rejected
viii	Family medical/health issues	2.8	Accepted
ix	Transportation/communication	2.6	Accepted
x	Settling conflict	2.3	Rejected
xi	Taking quick actions during emergencies	2.1	Rejected

Source: Field Survey, 2013.

The result obtained in Table 3 shows that women participated in the following non-farm family decisions making process such as: marriage issues (X = 2.8), domestic issues (X = 3.0), education of children (X = 2.9) among others. However, financial management/expenditure pattern (X = 2.2), employment/marketing (X = 2.3), settling of conflict (X = 2.3) were majorly undertaken by their men counterparts. This result showed that most of the domestic decisions are taken mainly by women while men are left to take key decisions on the family economic and welfare matters. Traditionally, women dominate domestic activities while men fend for their families to ensure provision of household needs.

Effects of socio-economic characteristics of women on their participation in farm and family decision making.

Multiple regression analysis was carried out in order to determine the effects of the socio-economic characteristics of women on their participation in farm and family decision making in the study area. The result obtained was presented in Table 3.

Table 3: The Result of Multiple Regression Analysis

Variable code	Variable Names	Regression Co-efficient	Standard Error	t-value	Level of sign
b_o	Constant	6.58	0.382	-5.907	*
X_1	Annual income	0.004	0.008	-0.472	**
X_2	Age	-0.016	0.010	1.513	*
X_3	Marital status	-0.006	0.007	0.509	**
X_4	Educational level	0.056	0.048	9.178	*
X_5	Farm size	0.340	0.785	0.679	***
X_6	Household size	0.014	0.009	1.577	NS
X_7	Farming experience	0.079	0.113	-0.696	***
X_8	Membership of women organization	0.521	0.083	6.307	*

Source: Field Survey, 2013.

$R^2 = 0.781 = 78.1\%$

Adj $R^2 = 0.767 = 76.7\%$

Standard error of estimates = 0.3678

F-ratio = 57.051

Durbin-Watson constant = 2.312

A co-efficient of multiple determination (R^2) of 78.1% was obtained. This means that about 78.1% change in the participation of women in farm and family decision making process was influenced by their socio-economic characteristics. This is quite high indicating that the socio-economic characteristics of the women had strong influence on their level of participation in farm and family decision making. The overall influence was depicted by the value of F-ratio (57.051) which was greater than F-tab (2.10) at 5% level of significance. The result met a priori expectations and was statistically reliable.

The annual income (X_1) bore a positive co-efficient and was statistically significant at 5% level of significance. This implies that the higher the annual income of the women, the more they participate in farm and family decision making. This is true and conforms to a priori expectations because women's financial contribution to farm activities increases their involvement in decision-making on allocation of farm resources.

Age (X_2) was negatively signed and statistically significant at 1% level of significance. This implies that the higher the age of the women, the less they partook in their farm and family decision making. This is true because old women have grown up children who take care of them and influence their decisions.

The marital status (X_3) was negatively signed and statistically significant at 5% level of significance. This

indicates negative relationship and implies that discrimination exists between married and unmarried women in terms of decision making. It could be that married women own farm and children, thereby, they tend to be involved in decision making processes about farm and family more than unmarried women.

Educational level (X_4) was positively signed and statistically significant at 5% level of significance. This means that educated women participated more in farm and family decision making than uneducated women. This is similar to the work of Enete *et al*., (2002) who reported that educated women may be more aware of their rights and responsibilities in the household and may be more assertive about them than uneducated ones.

Farm size (X_5) showed a positive coefficient and was significant at 10% level of significance. This implies that the higher the farm size of the women, the more they take decisions. This is true because women farmers with large farm size involve in many agricultural activities which may induce their decision input in family matters.

The household size (X_6) was positively signed but was not significant; meaning that women with large family size participated in farm and family decision making more than those with smaller household size.

The farming experience (X_7) was positively and significantly related to the dependent variable at 10% level of probability. This means that the higher the farming experience of the respondents, the more they participated in farms and family decision making. Experienced women farmers seem to be more knowledgeable in farm and family management and thus make useful contributions in family and farm decision process.

Membership of women organizations (X_8) had a positive co-efficient and was significant at 1% level. This shows that women who belonged to many organizations take part in decision making than those who do not belong to organizations. This is because they engage in multiple activities and interactions through those organizations which can enhance their decision making ability.

Finally, the multiple regression equation is shown below:

$$Y= 6.58+ 0.004X_1-0.016X_2-0.006X_3+0.056X_4+0.340X_5+0.014X_6+0.079X_7+0.521X_8$$
$$(0.382)\ (0.008)\ (0.010)\ (0.007)\ (0.048)\ (0.785)\ (0.009)\ (0.113)\ (0.083)$$

Test of Hypothesis

The null hypothesis was tested at 5% level of significance as shown:

F-cal = 57.051

F-tab at 5% alpha level = 2.10

V1 = N-K = 120-8 = 112

V2 = K-1 = 8-1 = 7

Decision rule: If F-cal > F-tab, reject the null hypothesis otherwise accept. Since F-cal (57.051) > F-tab (2.10), the null hypothesis was rejected while its alternative was accepted. This implies that the socio-economic characteristics of the respondents significantly influenced their participation in farm and family decision-making in the study area.

Constraints to women's Participation in Farm and Family Decision-Making Process.

Factor analysis was used to identify those factors that limit women's farm and family decision making. High loading variables were identified and named accordingly. Kaiser (1958) developed a simple rule of thumb that variables with co-efficient of (0.30) or more have high loading and may be used in naming a factor. The rule has been generally applied (Child, 1978), Ogunfiditimi, (1979). The result of factor analysis is shown in Table 4.

Table 4: Varimax Rotated Factor Matrix on Constraints to Women Participation in Farm and Family Decision Making

Variable code	Variable Names	Factor I Institution constraint	Factor II Socio-cultural constraint	Factor III Financial constraint
Vo_1	Poor educational level	0.375	0.062	0.105
Vo_2	Gender discrimination in my community	0.228	0.914	0.229
Vo_3	Lack of women focused on agricultural extension activities	0.662	-0.094	0.021
Vo_4	Poor access of women to farm information	0.140	0.357	0.291
Vo_5	Low financial contribution by women	-0.007	-0.265	0.659
Vo_6	Lack of access to credit support groups	0.117	-0.058	0.559
Vo_7	My unwillingness to make farm women	-0.212	0.853	0.219
Vo_8	Low self confidence of women in decision making	0.267	0.632	-0.151
Vo_9	Multiple domestic responsibilities of farm women	0.105	0.630	0.088
Vo_{10}	Lack of govt. policies on women empowerment	0.813	0.091	0.091
Vo_{11}	Lack of collateral by farm women	0.235	-0.161	0.417
Vo_{12}	Inability of farm women to operate farm machines	0.741	-0.571	0.183
Vo_{13}	Religious beliefs of the farming households	-0.758	0.209	-0.021
Vo_{14}	Customs that deny women access to land	0.255	0.376	-0.073

Source: Computed from field data, 2012.

Table 4 shows the Varimax-rotated constraints militating against women's contributions to farms and family decision making in Udi Local Government Area of Enugu State. From the data obtained from field survey, three (3) major constraints were extracted based on responses of the respondents. Only variables with constraint loading of 0.30 and above at 10% overlapping variance (Ashley, et al 2006, Madukwe, 2004) were used in naming the constraints. Variables that loaded in more than one constraint and those lower than 0.3 were not

considered. The next step as reported by Kessler (2006) was giving each constraint a denomination that best describes or characterizes the set of variables contained in the constraint. In this regards, the variables were grouped into three (3) major constraints as: Constraint I (Institutional factor), Constraint II (Socio-cultural factor) and constraint III (Financial factor).

Under constraint I (Institutional factor), the specific constraining variables against women's contributions to household farm and family decision-making include: poor educational level (0.375), lack of women-focused agricultural extension activities (0.662), lack of government policies on women empowerment (0.813) and inability of farm women to operate farm machines (0.741).

This finding agreed with the work of Rafferty (2002) that reported that agricultural extension programs and other supporting services have traditionally concentrated more on educating male farmers, and hence farm women still largely depend on their husbands for information on farm inputs and other resources for farm decision making. This was further supported by Eboh and Ogbazi (2001), who concluded that women suffer from institutional neglect and planner's indifference towards their plight.

Variables that loaded high in constraint 2 (socio-cultural factor) include: gender discrimination (0.914), poor access of women to farm information (0.357), unwillingness to make farm investments (0.853), low self confidence of women in making decision (0.632), multiple domestic responsibilities of farm women (0.630) and customs that deny women access to land (0.376). These constraints reveal attitudinal barriers against women in farming societies. Attitudinal barriers against women as reported by Amaechina (2002) are deeply rooted in patriarchal-based socialization where men are considered superior to women in socio-economic activities, resulting to low women presence in decision making bodies.

The Nigerian culture cannot be described as being gender friendly. (Suleiman, 2006) noted that Nigerian women have prime responsibility for food production but they are generally limited to users rights to land and subject to the consent of a male relative. Cultural and social practices discriminate against women to be enterprise successors and inheritors or own independent asset which could easily serve as collaterals (Adereti, 2000). Such unequal land rights are reflected in the smaller land sizes of women farmers thus limiting them economically.

Under factor 3 (Financial Constraints) the constraining variables were: low financial contribution by women (0.659), lack of access to credit support groups (0.559), lack of collateral by farm women (0.417). This agrees with the report of CIAS (2004) that women are faced with many constraints which range from lack of access to farm credit, loans, low level of income, to shortage of input supply and other economic resources, thereby limiting their contributions to household farms and family decision making. Similarly Akpa (2007) lamented that the greatest challenge for Nigerian women in agric business is lack of finance, which could be in form of equity or from external source. The author further reported that the finance obstacle among women is worsened by inability of agronomic researchers to pay attention to the role of women in the agricultural system.

Conclusion

This study reveals that women played significant roles in decision making in farm and non-farm activities in the study area. However, their decision making participation was hampered by institutional, socio-cultural and financial bottlenecks. These observations underscore the need for special programmes that empower and recognize women especially through education, finance and information.

Recommendations

There should be legislative changes in favour of women in order to facilitate women's rights and their direct access to agricultural credit. Women groups should be encouraged and strengthened to increase their access to credit, inputs and marketing. There should be urgent review or reform of land tenure system that fully considers the need of women farmers, especially in situations of female-headed households.

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