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# The Influence of Household Decision Making on Vegetable Farming among Rural Women in Kwara State

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**Abstract**

The role of women in agricultural production in Nigeria can never be underestimated. Male dominance in decision making in the household and economy as well as agricultural production has continued even in areas where women are the key providers. The study was carried out to analyze the influence of household decision making on vegetable farming among rural women in Kwara state, Nigeria. One hundred and twenty women vegetable farmers were randomly selected from four local government areas in twelve villages across two Agricultural Development Programme Zones in Kwara state. The primary data were collected with the use of structured questionnaire through interview schedule. Both descriptive and inferential statistics were used to analyze the data. The results showed that only few (9.17%) of the women have control over land. Interestingly, unlike land, a large number (71.67%) of the women have access and control over farm inputs such as fertilizer, insecticides etc. Unfortunately, none of the women have access to credit and only 38% of the women have access to extension information. Conclusively, women have limited individual influence on household decision making. However, they have a high level of participation in joint decision making with their husbands and children.

**Keywords**:
Vegetable, Participation, Rural, Women, Constraints, Nigeria

## 1. Introduction

Women make essential contributions to the agricultural and rural economies in all developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Africa is a region of female farming compared with other regions of the world where women have the responsibility for food production, processing, marking, cooking, child care and other home related activities. It is argued that women account for 70-80 percent of household food production in sub-Sahara Africa. Sabo (2006), Adisa and Okunade (2005), Meludu et al (1999), and Jiggins et. al; (1997) found that between 60-80% of agricultural production activities were carried out by women farmers in the continent of Africa. Women own farm lands and help their husband in virtually all farm activities in rural communities. They are also involved in other productive activities besides farming, which includes craft and dyeing, weaving and spinning, food processing, retail trade and other home-based informal activities (Oladejo, Olawuyi and Anjorin, 2011). Just like other parts of Africa, Nigerian women works side by side with men in agriculture with some spelt out division of labour between them.

Despite the important role women play in agricultural production in the country, they are hardly given any attention in the area of training and/or visitation by extension agents with improved technologies. Banks hardly grant

them loans and they are hardly reached with improved seeds, fertilizer and other inputs (Damisa, Samndi and Yohanna, 2007). Most Africa women has been reported to have poor household decision making ability as a result of gender-based power inequalities. Evidence from other developing countries shows that women's age and family structure are the strongest determinants of women's authority in decision making (Sathar and Shahnaz, 2010). Older women and women in nuclear households are more likely than other women to participate in family decisions. The socio-cultural context conditions the relationship of women's individual-level characteristics to decision making, Women have little autonomy in many cultures, she doesn't have a voice in her household. An African study highlights that ethnicity plays a very important role in shaping a wife's decision-making authority and is even more important than other individual-level characteristics as a determinant of authority. Educated and employed partners are more likely to participate in the final decisions (Becker, Fonseca & Schenck, 2006). Population and development programmes are most effective when steps have simultaneously been taken to improve the status of women in household decision making process (Dyson and Moore, 2009).

**Objectives of the Study**

The general objective of this study is to analyze the influence of household decision making on vegetable farming among rural women in the study area. The specific objectives of this study are to:

- Describe the socio-economic characteristics of women in vegetable farming in the study area
- Determine the level of access and control of women over productive resources
- Identify the sources of information available to the respondents on vegetable farming
- Examine the level of decision making of the women in vegetable farming.

**Hypothesis of the study**

Based on the objectives of the study, the following hypotheses were tested:

$H_{01}$: There is no significant relationship between the socio-economic characteristics of women in vegetable farming and their level of involvement in household decision making.

$H_{02}$: There is a significant relationship between the socio-economic characteristics of women in vegetable farming and their level of involvement in household decision making.

## 2. Methodology

The study for this research was conducted in Kwara State in Northern Nigeria. Kwara State is located in the North Central Geographical Zone of Nigeria within latitudes 7o 45'N and 9o 30'E and 6o 25'E. It covers a total land area of about 36,825 square kilometers. The state comprises of 16 Local Governments Areas (LGA's) which are further grouped by Kwara State Agricultural Development Project (KWADP) into four zones. The topography is mainly plain to slightly gentle rolling lands. The annual rainfall ranges between 1000mm and 1500mm. Average temperature ranges between 300C and 350C. It also has an estimated figure of 203,833 farm families with the majority living in the rural area.

A 4-stage sampling technique was used to select 120 respondents for the study using structured questionnaire through interview schedule. Kwara state Agricultural Development Programme (ADP) has four(4) zones, zone A, B, C and D. Zone C and Zone D were purposively selected due to the predominance of women vegetable farmers in Kwara state. Out of five local government areas in Zone C, three(3) was purposively selected and one(1) local government was selected from zone D because women vegetable farmers dominate the selected area. Twelve (12) villages were visited from the four (4) local government areas and ten(10) respondents were selected from each of these villages. The selected villages are Lasoju, Afon, Kanakan, Gbago, Odo-ore, Aluku, Alalubosa, Ojutaiye, Oke-odo, Maraba, Bayero and Ago. The data collected was analyzed using descriptive statistics, such as frequency counts, mean scores, percentages and standard deviation. The hypotheses were tested using linear regression.

## 3. Results and discussion

3.1 Socio-economic characteristics of the respondents

Result presented in table 1 shows that 45% of the women were between 51 and 60years of age, thus a higher percentage of the women are old. The percentage of youths was very low which signifies that women that are of the working age were very few. Table 1 further revealed that 75% of the women were married, which is appropriate for this study. This trend seems to agree with the findings of Fabiyi et al (2007) in Gombe State, where they observed about 50% of their sampled women being married, while 13% and 17% were divorced and widowed, respectively.

Table 1. Socio-economic characteristics of respondents (n=120)

| Variables | Frequency | Percentage % | Mean |
|---|---|---|---|
| Age (years) | | | |
| 31-40 | 16 | 13.3 | 52 years |
| 41-50 | 33 | 27.5 | |
| 51-60 | 54 | 45.0 | |
| 61-70 | 17 | 14.2 | |
| Marital Status | | | |
| Married | 90 | 75.0 | |
| Widow | 21 | 17.5 | |
| Separated | 9 | 7.5 | |
| Household Size | | | |
| 1-4 | 35 | 29.2 | 6.3 persons |
| 5-8 | 69 | 57.5 | |
| 9-12 | 16 | 13.3 | |
| Level of Education | | | |
| No formal education | 71 | 59.2 | |
| Adult/Quranic education | 31 | 25.8 | |
| Primary education | 18 | 15.0 | |
| Religion | | | |
| Islam | 117 | 97.5 | |
| Christianity | 3 | 2.5 | |
| Farming Experience | | | |
| 10-20 | 74 | 61.7 | 23 years |
| 21-30 | 28 | 23.3 | |
| 31-40 | 18 | 15.0 | |
| Farm Size(Hectares) | | | |
| 0.0016-0.0030 | 6 | 5.0 | 70m$^2$ |
| 0.0031-0.0045 | 16 | 13.3 | |
| 0.0046-0.0060 | 26 | 21.8 | |
| 0.0061-0.0075 | 25 | 21.8 | |
| 0.0076-0.0090 | 25 | 20.8 | |
| 0.0091-0.0115 | 5 | 4.3 | |
| 0.0116-0.0130 | 17 | 14.3 | |
| Income(Weekly) | | | |
| 100-1000 | 16 | 13.3 | N2717.5 |
| 1100-2000 | 38 | 31.8 | |
| 2100-3000 | 35 | 29.3 | |
| 3100-4000 | 16 | 13.3 | |
| 4100-5000 | 6 | 5.0 | |
| 5100-6000 | 9 | 7.5 | |

Furthermore, it was shown that the women farmers have large household sizes as depicted by mean score 6.3. Education is a set of activities that occurs at different levels with the purpose of imparting knowledge or skill. Unfortunately, 59.2% of the women farmers had no formal education, this confirms a finding by Kabeer (2002), who said women often have poor access to education unlike their male counterparts. This will have a negative impact on their agricultural production. 97.5% of the women are Muslims while 2.5% of them are Christians, this shows that Islam is the predominant religion in Kwara state.

Farming experience is an important factor in agriculture. This refers to the duration of practice of farming activities in years. The result showed that the sample population has many years of practical experience on farming as indicated by a mean score of 23 years of vegetable farming experience. Furthermore, the women farmers have small farm size which is depicted by the mean score 69.6 metre$^2$. From the above table, 31.8% of the women earns between N1100 and N2000 weekly. The mean of the income of the women farmers is N2717.5 per week, this is very low, Kashor (1999) also discovered in a study that majority of the women interviewed were found not to be formally educated and are of the low income group. A low income have a negative implication on the standard of living of the

women and will reduce their ability to make decisions in their household because her level of dependency on her husband will be high, as Dyson and Moore, 2009, asserts that limitation to women economic autonomy affects their ability to make decision within the household.

3.2 The level of access and control of the women over productive resources

Women farmers have been reported by past studies to have low access and control over productive resources. As shown in table 2, a portion of the women (49.2%) acquire land for vegetable farming through their community, while others (45%) got lands through their husband or their membership of a family that owns the land. Therefore, the women acquire land through their husband, extended family or their community.

Table 2. Distribution of Respondents based on access and control of productive resources

| Means of Land Acquisition | Frequency | Percentage |
|---|---|---|
| Family | 54 | 45 |
| Communal | 59 | 49.2 |
| Gift | 7 | 5.8 |
| Inheritance | 0 | 0 |
| Lease | 0 | 0 |
| Purchase | 0 | 0 |
| Control of Land | | |
| Individual | 11 | 9.2 |
| Husband | 23 | 19.2 |
| Community/Government | 59 | 49.2 |
| Family | 27 | 22.5 |
| Access over Productive Resources | | |
| Land | 120 | 100 |
| Farm Inputs | 86 | 71.7 |
| Credit | 0 | 0.0 |
| Control over Productive Resources | | |
| Land | 11 | 9.17 |
| Farm Inputs | 86 | 71.7 |
| Credit | 0 | 0.0 |

Furthermore, very few (9.2%) of the women have control over the land, this is quite too low and below average. All the women have access to land but very few of them have control of the land. Interestingly, unlike land, a higher number (71.7%) of the women have access and control over farm inputs such as fertilizer, insecticides etc. unfortunately, none of the women have access to credit. This agrees with (Marcela, 2010) that asserts that there is a striking gender bias in favour of men when it comes to access to ownership of land in Africa. Buth,et al, (2010) also found women having incomplete access to farm input/resources, agricultural extension education services, and newest technical knowledge and information sources.

3.3 The sources of extension information available to the women in vegetable farming

The result from table 3 shows that only 38% of the women have access to extension information. Among the 38% of women that have access to extension information, 32.5% of them have extension agents as their source of information and they were rarely visited by the extension agents this trend agrees with Saito and Spurling (1993), who reported that women do not have adequate access to agricultural information and innovations. 26.7% of the women claimed to be visited on yearly basis, Kolapo (1991) and Folorunsho (1991) emphasized that inadequate contact with extension agents are serious constraints faced by women farmers.

3.4 The level of decision making of the women

Table 4 shows how household decisions were being made on vegetable farming. The type of vegetable cultivated is market driven, the market has a higher influence (38.33%) on the type of vegetable planted. The women have more influence in determining the time of planting, as 46.7% of the women makes decision on the time of sowing. This may be as a result of their high farming experience. Decisions on management practices were made mostly by the women and their husbands.

Table 3. Distribution of Respondents based on their sources of information

| Access to Extension information | Frequency | Percentage |
|---|---|---|
| Yes | 46 | 38.0 |
| No | 74 | 61.7 |
| Source of Information | | |
| Radio | 3 | 2.5 |
| Television | 0 | 0.0 |
| Print Media | 0 | 0.0 |
| Friend | 4 | 3.3 |
| Extension Agent | 39 | 32.5 |
| How often the women get extension information | | |
| Daily | 0 | 0.0 |
| Weekly | 0 | 0.0 |
| Fortnightly | 0 | 0.0 |
| Monthly | 7 | 5.8 |
| Yearly | 32 | 26.7 |

Table 4. Different areas of household decision making in vegetable farming

| Area | Husband | Children | Self | Market | Family needs |
|---|---|---|---|---|---|
| Type of vegetable | 20 (16.7) | 5 (4.3) | 34 (28.3) | 46 (38.3) | 15 (12.5) |
| Time of planting | 15 (12.5) | 6 (5.0) | 56 (46.7) | 20 (16.7) | 23 (19.3) |
| Management Practices | 40 (33.3) | 4 (3.3) | 47 (39.2) | 24 (20.0) | 5 (4.3) |
| Harvesting | 12 (10.0) | 8 (6.8) | 10 (8.3) | 80 (66.8) | 10 (8.3) |
| Where to Sell | 11 (9.3) | 30 (25.0) | 20 (16.7) | 50 (41.8) | 9 (7.5) |
| Farm Size | 46 (38.3) | 4 (3.3) | 40 (33.3) | 20 (16.7) | 10 (8.3) |
| Utilization of Income | 32 (26.7) | 14 (11.7) | 24 (20.0) | 3 (2.5) | 47 (39.17) |
| Farm Location | 53 (44.3) | 0 (0.0) | 40 (33.3) | 15 (12.5) | 12 (10.0) |

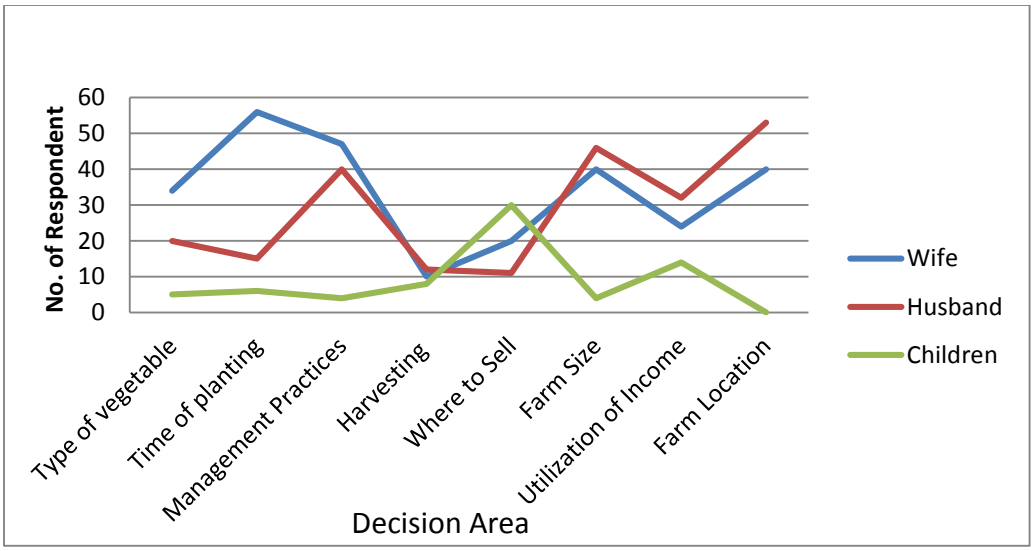


Figure 1. Decision making survey among husbands, wives and children

Furthermore, market demand (66.8%) determines the time of harvesting. Due to the lack of adequate storage facilities for vegetables, the women cannot harvest anytime, they harvest their farm produce as the market demands.

Similarly, the market (41.8%) also has a higher influence on where to sell, followed by the children (25.0%). Some of these women involve their children to hawk or sell the vegetables at different markets and places. The farm size was mostly decided by their husband (38.3%), this could be because most of the women do not own the land, they acquire land through their husband, family or the community. This agrees with a study by United Nations, 2008 that women play second fiddle in household decision making because of their lack of access to and control over productive resources like land. The decision on how the income from vegetable farming was spent was mostly influenced by the family needs (39.2%), this indicates that the women's proceeds was usually used to cater for the family needs. This goes in line with Kortz, 2005, who asserts that the role of women in the household economy and their contribution towards food production and food security cannot be overemphasized. The decision on farm location was mostly influenced by the women's husbands (44.3%). Apart from the fact that most of the women acquire lands through their husbands, they also cannot locate their farms far from their husbands' houses. In a nut shell. There are underlining factors that determine who makes decision in the household. Also, the women do not have autonomy in decision making, this confirms the study of Dryson and Moore, 2009 that most African women lack autonomy in decision making. However, she is actively involved in joint household decision making (Figure 1).

Table 5. Results of Linear Regression analysis of the relationship between socioeconomic characteristics of women vegetable farmers and their level of involvement in household decision making.

| Variable | Coefficients | Standard Error | Sig. | Significance Status |
|---|---|---|---|---|
| Age | 0.72 | 0.06 | 0.23 | Not significant |
| Marital Status | -1.16 | 0.45 | 0.01** | Significant |
| Household Size | 0.05 | 0.18 | 0.76 | Not Significant |
| Level of Education | 0.71 | 0.46 | 0.13 | Not Significant |
| Religion | -2.17 | 1.77 | 0.22 | Not Significant |
| Farming Experience | -0.06 | 0.07 | 0.32 | Not Significant |
| Farm Size | -0.03 | 0.02 | 0.05** | Significant |
| Income | 0.00 | 0.00 | 0.18 | Not Significant |

Significant at the 0.05 level

The result from the table 5 shows that a significant relationship was found between the marital status of the women, their farm size and their level of household decision making. There is a negative relationship between the women's marital status and their level of decision making. This implies that widows and those separated from their husband have a higher capacity or ability to make decisions than the married women. The married women depends more on their husbands in decision making. The level of involvement of the women in household decision making reduces with an increase in farm size in the study area.

**4. Conclusion and Recommendation**

Most of the rural women have limited individual influence in household decision making. However, they participate in joint house-hold decision making with their spouses and children. It's interesting to know from the findings that house-hold decision making stems into rural women's businesses as their husbands, children and family needs influence decisions made in vegetable farming. A high percentage of the rural women do not have access to extension information.

The study therefore recommends that there is need for special programmes that empowers and recognizes women, especially through education, finance and information. Rural women should be constantly visited by extension agents in order for them to have access to extension information on vegetable farming, as this will enable them to be aware of new technologies in farming and improve their income. Rural women farmers also needs government support in the provision of subsidized farm input such as fertilizer, insecticides etc.

Socio-cultural factors that limit women participation in household and society decision making should be addressed through the implementation of government policies that enables women to participate in decision making.

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