



OFF-FARM ENTERPRISE PARTICIPATION AMONG RURAL WOMEN IN UMUAHIA SOUTH LOCAL GOVERNMENT AREA, ABIA STATE, NIGERIA

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Abstract

This study analyzed rural women participation in off-farm enterprises in Umuahia South Local Government Area of Abia State, Nigeria. A multistage sampling procedure was used to select eighty (80) respondents for the study. Cross-sectional data were collected using a well structured questionnaire and analyzed with the aid of a descriptive and probit regression model. Findings showed that women in the study area were mostly middle aged entrepreneurs, majority (53%) of whom were married. About 50% of the rural women had household size of between 6 to 10 persons, while 41% had between 1 to 5 and 9% of them had above 10 persons. Furthermore, 97% were literate with formal educational levels ranging from primary school to tertiary education, only 3% had no formal education. A good proportion (67%) of the respondents' main sources of income was from off-farm sources, with 33% from farming. Mean farming experience of 16 years was estimated from the study and farm size of between 0.1 to 1.0 hectares cultivated by 54% of the rural women. Majority (66%) of the rural women had no access to credit, and 76% had monthly income of less than N50,000. The probit regression results showed that rural women farmers' decision to participate in off-farm enterprises in the study area were negatively influenced by age, primary occupation, access to credit, farming experience and farm size, and positively influenced by educational level, cooperative membership and household size. The women were constrained from embarking on off-farm business by insufficient funds, lack of credit, and identifying off-farm businesses to embark on. The study therefore, recommends that women farmers should be encouraged to form and or join co-operative societies. Furthermore, it is important for them to attend adult education programmes, training and workshops to increase their knowledge base and skills. Lastly, government should improve social benefit programme to women farmers.

Keywords: Participation, Off-farm, Enterprise, Women farmers

Introduction

Off-farm activities have become an important component of livelihood strategies among rural households in most developing countries. Several studies have reported a substantial and increasing share of off-farm income in total household income (Kilic *et al.*, 2009 and Korir *et al.*, 2013). There is evidence that off-farm income (that is income derived from wage paying activities and self-employment in commerce, manufacturing and other services) is an important resource for farm and other rural households among urban residents (Peiffer *et al.*, 2009). According to Obinna and Onu (2017), off-farm income can also serve as collateral and thus facilitate access to credit. The additional source of credit can be used by the households to finance risky investment in agriculture (Osondu *et al.*, 2016).

Off-farm activities improve farm productivity and boost agricultural production and farm income in the short or long term (Peiffer *et al.*, 2009). The ultimate result is that

off-farm enterprise could be an important driver to foster farm income, farm commercialization, modernization or agricultural diversification into higher value activities or agricultural production intensification (Oseni and Winters, 2009). It is recognized that the off-farm income sources are becoming increasingly important for rural households in developing countries (Lanjouw and Lanjouw, 2001). The livelihood of household is the result of the interaction between complex strategies and multiple income generating activities (Kilic *et al.*, 2009). Income earned by women farmers from off-farm enterprises affect performance of agriculture by providing the women farmers with liquid capital that could be invested on the farm thereby generating higher farm revenue.

However, the degree of women participation in off-farm and farm enterprises varies according to customs in different regions and countries. In sub-Saharan Africa, women produce about 80% of basic food stuffs. In

Nigeria, women form an indispensable part of human resources for development because without their contribution, the economy will be difficult to advance to a better level (Onah *et al.*, 2011). In rural areas, poor women farmers may have strong desire to participate in rural off-farm enterprise but are constrained by financial or technical capabilities. Incentives to participate in rural off-farm enterprise differ according to women's wealth (Escobal, 2001). Thus, decisions made by women concerning the farm and extent of their involvement in off-farm enterprise (either starting the enterprise or entering the wage labour market) maybe constrained due to inadequate capital and formal education (Oko, 2005). This study therefore analysed the determinants of women's decision to engage in off-farm enterprise activities in Umuahia South LGA, Abia State.

Methodology

The study was carried out in Umuahia South Local Government Area (LGA) of Abia State, Nigeria. Umuahia LGA is located between latitudes 5° 27' N and 5°44' North of the equator and longitudes 7° 26'E and 3° 24' East of Greenwich Meridian. Its headquarters is at Apumiri. Umuahia South LGA was created out of the defunct Umuahia LGA. on 27th August, 1991, with a total land area of 140km² and a population of about 138,570 (NPC, 2006). The primary occupation of the people is agriculture. The dwellers are mostly peasant farmers and civil servants. The cropping systems are mainly mixed cropping, intercropping and sole cropping. Major food crops grown by the people of Umuahia South are maize, cassava, cocoyam, melon, yam and vegetables. Primary data was used for the study and this was collected with the use of a well-structured questionnaire. A multistage sampling technique was used for this study. First, four (4) autonomous communities were randomly selected from the autonomous communities in Umuahia South LGA. Two (2) villages were randomly selected from each of the

four (4) communities chosen, thus giving a total of eight (8) villages at the second stage. Lastly, ten (10) women farmers were selected from each village to give a sample size of 80 respondents. The collected data were analyzed using descriptive statistics such as means, frequency distribution tables and percentages, and probit regression model. The probit regression model was appropriate because the response takes one of only two possible values representing presence or absence. This is expressed as in Oko, (2005).

$$Y_i = \beta_0 + \beta_1 + \beta_2 X_2 + \dots + \beta_k X_k + \mu \dots \dots \dots (1)$$

Y_i^* is unobserved but $Y_i = 1$ if $Y_i^* \geq 0$

$$P(Y_i = 1) = P(Y_i^* \geq 0)$$

$$P(\mu_i > -\beta_1 - \beta_2 X_2 + \dots - \beta_k X_k) \dots \dots \dots (2)$$

Where;

$i = 1, 2 \dots$ (80 respondents)

Y_i = Women decision to participate in off-farm enterprise (Dichotomous dependent variable I=yes, 0=No)

β = A factor of unknown coefficients

X_1 = Age (years)

X_2 = Primary occupation (Farming = 1, Otherwise = 0)

X_3 = Level of education (years)

X_4 = Farm income (N)

X_5 = Credit access (N)

X_6 = Off-farming experience (years)

X_7 = Farm size (ha)

X_8 = Membership of cooperative society (Member=1, Otherwise=0)

X_9 = Household size (number of persons)

μ = error term

β = Coefficients

Results and Discussion

The socio-economic characteristics of the rural women farmers are shown in Table 1

Table 1: Socio-economic Characteristics of the Rural Women Farmers

Variables	Frequency	Percentage
Age (years)		
20-29	15	18
30-39	20	25
40-49	25	32
50-59	13	16
60-69	7	9
Mean	55.4	
Marital status		
Single	32	39
Married	42	53
Widowed and divorced	6	8
Education level		
No formal education	2	3
Primary	28	35
Secondary	32	40
Tertiary	18	22
Household size		
1-5	33	41
6-10	40	50
11-15	7	9
Farming experience (years)		
1-10	61	76
11-20	19	24
20-30	0	0
Access to credit		
Yes	27	34
No	53	66
Farm size(ha)		
0.1-1.0	43	54
1.1-2.0	29	37
2.1- 3.0	5	6
3.1-4.0	3	3
Monthly income level		
Below ₦50,000	28	35
₦50,000 – ₦100,000	44	55
Above ₦100,000	8	10
Total	80	100

Source: Field Survey, 2018

Results show that many (32%) of the women were within the age range of 40-49 years. This is an indication that the women in the study area were mostly middle aged entrepreneurs. The mean age of the women farmers was 55.4 years. This finding refutes Davis (2002) who inferred that increasing quest of an individual to be an entrepreneur stems from the general need of older individuals to earn additional income to support the cost of living (i.e., support domestic burden and pay for mortgage). However, it conforms to Akpabio (2005) who reported that younger people choose off-farm entrepreneurship as they are more energetic and more likely to combine farm and off-farm projects. Additionally, the predominance of younger people in this regard could be because of the labour intensive nature of off-farm activities, which requires young and energetic farmers. About 53% of the women farmers were married, while 39% were single. Furthermore, only 6% and 2% were widowed and divorced respectively. This implies that the married women were more involved in off-farm enterprises

in the study. Married women are usually involved in off-farm business because of the need to supplement family means of livelihood. Many (40%) of the women attained secondary school education, while 3% had no formal education. However, 97% of the women farmers in the study area were literate with varying formal educational levels ranging from primary to tertiary. Literacy (ability to read and write) would enable the women farmers to better utilize effectively and efficiently available resources in the area and curtail frivolous spending. As expected, higher education would enhance improved business ideas, skills, innovation and managerial ability for business sustainability. This result is in agreement with Igwe *et al.* (2011) who noted that as an individual increases his educational attainment, his entrepreneurial quest and skill also increases, thus expanding his knowledge base, which makes him more alert to new opportunities, and increase the opportunity cost of being self-employed. The results revealed that 50% of the women farmers had household size range of 6-10 members, while

41% and 9% had between 1-5; and above 10 persons respectively. This result implies that these respondents have moderate family sizes. This has implications on labour supply to the business. This may justify the need to augment family labour with hired labour. In the absence of well-functioning labor markets, smaller households face higher labor bottlenecks at critical points in their business (Ezeh *et al.*, 2012; Osondu and Ibezim, 2013). This further corroborates with the findings of Onah (2011) who stated that household sizes have been noted to affect family labour available for farm work and other household activities, that large family size is the most important input for unpaid labour, especially in the rural areas. Majority (76%) of the women farmers had farming experience of between 1-10 years, while 24% had 11 years and above. This could be explained by the fact that farmers who were highly experienced in farming, and most likely, older farmers are not very active economically to seek off-farm enterprise investment opportunities. They therefore prefer to depend on farming only (Korir *et al.*, 2013). The number of years a farmer has spent in the farming business may give an indication of the practical knowledge he has acquired on how he can overcome certain inherent farm production problems. About 34% of the women had access to credit for their off-farm business enterprise, while majority (66 %) had no access to credit. Inadequate capital is a major problem confronting small-scale enterprises in Nigeria especially in the study area. However, lack of access to credit facilities constitutes a constraint in purchasing raw materials and other enterprise inputs. Meanwhile, access to credit is regarded as one of the most important elements in raising productivity (Igwe *et al.*, 2011). About 54% of

the respondents in the study area had farm size range of 0.1-1.0 hectares, while 37%, 6% and 3% had 1.1-2.0, 2.1-3.0 and 3.1-4.0 hectares respectively. This result shows that the farmers in the study area were small scale subsistence farmers as they were operating on 1-2 hectares of land. The results also showed that majority of the respondents (76%) had monthly income of less than N50,000 and as such were classified as low-income earners. Also, 16% of the respondents had monthly income range of N50,000 - N100,000. These were grouped as middle-income class, while 8% had monthly income of N100,000. These were grouped as the high income class and comprised solely the big business women. These classifications were based on Ezeh *et al.*, (2012) who carried out a study on technical efficiency in poultry broiler production in Umuahia Capital Territory of Abia State.

Distribution of the rural women farmers according to off-farm enterprises engaged in is presented in Table 2. The results show that many (35%) of the respondents engaged in trading as off-farm enterprise; followed by off farm employment (25%) and salon services (13%). Others were civil service (9%), laundry (8%), canteen (5%) and other off-farm activities (6%) as alternative sources of income. This implies that trading is the most popular type of off-farm enterprise that the women farmers engaged in. This result corroborates with the findings Osondu *et al.*, (2016) who obtained similar result in their study on non-farm income generation and its predictors among rural women in Ikwuano Local Government Area of Abia State.

Table 2: Distribution of the respondents according to off-farm enterprises engaged in

Source of off-farm income	Frequency	Percentage
Trading	28	35
Tailoring	20	25
Saloon business	10	13
Civil service	7	9
Laundry services	6	8
Canteen services	4	5
Others	5	6
Total	80	100

Source: Field Survey, 2018

Table 3 shows the regression estimates of factors influencing the decision of the rural women farmers to engage in off-farm enterprise.

Table 3: Factors Influencing the Decision of Women Farmers to engage in off-farm Business Enterprises in UmuahiaSouth Local Government of Abia State

Variable	Coefficient(estimated)	Standard errors	Z
Age	-0.0261776*	0.0156750	-1.67
Primary occupation	-0.635899**	0.3001245	-2.12
Education level	0.0045142	0.1693254	0.03
Farm income	0.2760421*	0.1498301	1.84
Credit access	-0.5817876***	0.1763347	-3.50
Farming experience	-0.652114***	0.146555	-4.43
Farm size	-0.0640065	0.1087731	-0.59
Co-operative society	0.5326133*	0.2761284	1.93
Household size	0.1102986**	0.0465268	-2.37
Log likelihood = 56.85			
McFadden R ² : 0.65			
Degree of freedom: 8			
Chi squared: 51.36			

Source: Field survey, 2018. *, ** and * = Significant at 10, 5% and 1%**

The likelihood ratio test showed a significant value of 56.85 and chi-square value of 51.36 implying that the estimated model is statistically significant. Hence, the model is considered to be good and equally consistent with theory. Also the value of fit measure, McFadden R² (0.65) indicate a very satisfactory fit. Seven out of ten explanatory variables were statistically significant at different levels and these are the coefficients of age, farming experience, access to credit, farm income household size, primary occupation and membership of cooperative society. The coefficient of age was significant at 10% level and negatively signed implying that age of women negatively influenced their decision to embark on off-farm enterprises. Increase in age will bring about a decrease in probability to engage in off-farm enterprise. This suggests that the older the women farmers get, the less willing to participate in off-farm activities. This result is in line with Omonona (2009) who noted that younger people are more likely to get involved in riskier projects. He also indicated that at the early stage of life, earnings rise before gradually declining in later years. This could also be because older women are more rigid and do not always show willingness to participate in off-farm enterprises. The coefficient of primary occupation was negative and significant at 5.0% level. This implies that the primary occupation of the women farmers take much of their time and hinder them from engaging in off-farm enterprises. The sign of the variable is in tandem with *a priori* expectation. The implication is that being a farmer (farming as primary occupation) will reduce entrepreneurship decision for off-farm enterprise. Women who are primarily involved in farming activity devote their time to this farming activity, hence less likely to engage in non -farm enterprise activities. Osondu *et al.* (2016) noted that primary occupation being negative should be attributed to the high return to labour in farming compared to what off-farm enterprises offer. The coefficient of farm income was positive and significant at 10% level. As expected, this implies that increase in the women's income increases the probability of their decision to participate in off-farm enterprise, probably because from the increase in farm income, they can save some money to use and start up off-farm business. As opposed to *a priori* expectation,

the coefficient of access to credit was negative and significant at 1% level. This suggests that increase in the women farmers' access to credit would bring about a decline in probability to engage in off-farm enterprise. The sign of the variable is at variance with normal expectation. It implies that women farmers' decision of taking entrepreneurship in off-farm enterprise decreases with access to credit. The result is not in agreement with by Barret *et al.* (2001), who reported that households with access to credit facilities would more likely diversify outside agriculture to reduce risk. The result revealed that women farmers in the study area might have spent most of their sourced credit on consumption and investment in farm related activities, rather than off-farm enterprises. The coefficient of farming experience is negative and significant at 1%. This implies that increase in farming experience would lead to a decrease in probability to engage in off-farm enterprise. The validity of this result lies in the fact that as they are gaining in experience and becoming efficient and effective in the farming business, it will lead to decrease in their decision to participate in off-farm enterprises. Membership of cooperative society was positive and significant at 10%, indicating that being a member of cooperative society increases the probability for entrepreneurship decision in off-farm enterprise among the women farmers. The sign identity of this variable conforms to *a priori* expectation. This is in tandem with Obinna and Onu (2017). This presupposes that membership of cooperative society aids in receiving and evaluating information for business improvement and productivity. Household size coefficient was positive and significant at 5%. This positive contribution implies as the household size increases, the decision of the women farmers to embark on off-farm enterprise also increases. This suggests large household size increases the probability of women's decision to embark on off-farm enterprises to be able to carter for overwhelming family responsibilities that goes with large households.

Constraints militating against the involvement of rural women farmers in off-farm enterprises are shown in Table 4.

Table 4: Women Farmers' constraints militating against engagement in off-farm enterprises

Problem	*Frequency	Percentage (%)
Insufficient funds	76	95
Lack of credit access	51	63
Identification of the enterprise	41	51
Lack of basic amenities	36	47
Land acquisition issues	32	40

*Source: Field survey, 2018 *Multiple responses recorded*

Table 4 shows that the major problems constraining women decision from embarking on off-farm enterprises are insufficient funds, lack of credit access, identifying the off-farm business, land acquisition and lack of basic amenities to embark on as identified by 95%, 63%, 51%, 40% and 47% of the women respectively.

Conclusion

Based on the empirical findings, the study concluded that determinants of rural women decision to participate in off-farm enterprises in the study area were negatively influenced by age, primary occupation, access to credit, farming experience and farm size, and positively influenced by education level cooperative membership and household size. Results therefore call for the need to encourage women farmers to form and or join co-operative societies to be better positioned to receive credit, learn and evaluate how to engage in off-farm enterprise successfully for the enhancement of their well-being. Increase the knowledge and skill level of the rural women farmers through sustainable adult education programme, training, and workshops. This will enhance their receptivity to innovations that will increase their output and earning capacity.

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