

The Interplay Between Livelihood Diversification, Gender Roles, and Food Security by Rural Women Farmers in Osun State Nigeria

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Citation: O. C Olaniyan, O. S Akintobi and O. B Oyesola (2024). The Interplay Between Livelihood Diversification, Gender Roles, and Food Security by Rural Women Farmers in Osun State Nigeria *Acta Botanica Plantae*. **24** to **28**.

<https://doi.org/10.51470/ABP.2024.03.03.24>

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Received 10 September 2024 | Revised 15 October 2024 | Accepted 13 November 2024 | Available Online 4 December 2024

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ABSTRACT

This study investigated the interplay between livelihood diversification, gender roles and food security among rural women farmers in Osun state, Nigeria. A multi-stage sampling procedure was used to select 129 respondents for this study. Data were collected through an interview schedule and analyzed using inferential statistics (PPMC and linear regression). Results revealed that most women in the study area were informally educated, within productive age, and married with a relatively large family size, which necessitated livelihood diversification to ensure food security. The women diversified their livelihood with crop farming and trading as primary activities, although lack of access to agricultural inputs and credit facilities were key limiting factors to their efforts. Livelihood diversification significantly influenced food security among rural women. Therefore, the government and agricultural development agencies should train women in the study area to seize opportunities for livelihood diversification and facilitate access to agricultural inputs and credits.

Keywords: Food security, rural women, livelihood diversification

Introduction

A common view shared by several empirical studies is that most people in Africa reside in rural areas, where agriculture is a major source of livelihood [14]. However, in recent times, majority of rural households no longer rely solely on agriculture to sustain their livelihood. The challenges of emerging times have compelled households to seek additional means of sustenance to meet pressing demands both at home and beyond. For instance, in Nigeria, notably, 82% of rural households diversify their income sources, with as much as 69% of the total rural household income derived from non-farm activities [4].

According to [18] Livelihood is a means of obtaining life's basics such as food. It encompasses actions required to survive a particular time, as well as the ability to attain the aforementioned demands by working alone or as a community employing both human and material resources. According to [3], livelihoods are a variety of activities people engage in to generate income for a living. Sustainable livelihoods retain their structure, capacities, and assets both now and in the future without causing harm to the natural resource base. Livelihood assets, or means of production available to rural populations, are crucial to the sustainability of livelihoods [16].

Rural households in their struggle to survive and develop a better and sustained standard of living, build a diversified portfolio of activities and social support capacities through a process known as livelihood diversification [7]. Livelihood diversification as defined by [7] is the process by which rural households construct a diverse portfolio of activities and social support capabilities in their struggle for survival and improvement in their standards and means of earning a living. Diversifying one's source of income can help one manage risks,

deal with shock, or locate a substitute for agricultural production. These communities' inhabitants have come up with alternate economic pursuits as a result of the concomitant rise in poverty. These livelihoods which are activities aimed at earning an income, which could be in the form of hired employment, or self-employment, are all aimed at reducing the level of poverty of rural households and the providing for better living.

Women, especially those in the rural areas are becoming economically diverse, shouldering more than one economically viable activity such as farming, trading, pottery, weaving, and tailoring, to improve earnings and provide a more robust livelihood for their households, while also contributing to the rural economy in regions where they exist. The apparent goal of these activities is to mitigate the seasonality of primary agricultural production and establish a steady flow of income to support life's challenges. The majority of rural economies have become more diversified, which has reduced policy concerns associated with persistently low farm income and increased the average income of women farmers. It has also opened up new prospects for non-farm employment. [12] inferred that most of the research conducted within this threshold provided insights into the determinants of rural women's participation in starting and running non-farm enterprises, as well as their contribution to rural household income and quality of life.

Nearly all rural women in low-income families in Nigeria participate in home-based activities such as family farming and non-farm businesses [8], in a bid to reduce the pressure on income from a single source which is inadequate to meet their needs and that of their families. This makes adopting livelihood activities to increase revenue extremely advantageous to their family welfare [10].

It is reasonable to conclude that livelihood diversification activities are the only way impoverished households in developing nations like Nigeria can improve their level of living. The process of sustainability is highly dependent on rural livelihoods' tolerance to the numerous obstacles faced by rural women [18].

Based on the above, this study analyzed the interplay between livelihood diversification, gender roles, and food security among rural women farmers in Osun State, Nigeria to determine the levels and limitations of livelihood diversification among rural women in Osun State, Nigeria.

Methodology

The study was carried out in Osun State, located in the south-west geopolitical zone of Nigeria. It is bound in the north, east, south and west by Kwara, Ekiti/Ondo, Ogun and Oyo States, respectively. Osun State has 30 Local Government Areas. The people of the state are warm, hospitable and highly enterprising [17].

A multistage sampling procedure was used to select respondents. In the first stage, the local government areas (LGAs) were stratified into rural and urban areas. At the second stage, nineteen (19) LGAs were purposely selected because they are mostly rural. At the third stage, three (3) LGAs (Ede South, Atakumosa West and Egbedore) were randomly selected from the nineteen (19) LGAs. At the fourth stage, seven (7) villages were randomly selected from the three (3) LGAs. Finally, in the fifth stage, twenty percent (20%) of rural women were selected using proportionate sampling techniques from the households to give 129 respondents. Descriptive statistics was used to determine the socioeconomic characteristics while Pearson Product Moment Correlation and linear regression were used to test the hypotheses.

Results and Discussion

Socio-economic characteristics of respondents

Results in table 1 show that most of the respondents (35.7%) are within 51 to 60 years of age. The women in the study area are fairly old but still in their productive age which means they can be productive if systems are put in place.

The results further reveal 72.9% of the respondents are married. This describes a value shared by the rural community around the family. Having a family could mean more responsibilities in terms of provision of family needs which will necessitate diversification of livelihood and revenue opportunities in order to ensure security of food for the household members.

The household size data show that most of the respondents (51.9%) have a fairly large house household size of 5 to 7 members. This is descriptive of the number of mouths these rural women have to feed per day. This means they have higher responsibilities in ensuring food security for their large households and could possibly diversify their livelihood to ensure all members of the family are cared for. This result corroborates that of [1] that rural women with fairly large household sizes are motivated to engage in economic activities to support their large households.

Most of the respondents (48.8%) had monthly incomes between N100,000 and N150,000, which is a decent income for an average rural worker.

This could be due to livelihood diversification in a bid to ensure a food secure household. This is consistent with the results of [2] who also reported relatively high monthly income among rural households. The data on levels of education show that most of the respondents had no formal education (48.8%) Lack of formal education could imply lack of access to diverse livelihood sources as formal education has been proven to unlock opportunities and understanding of revenue generating pathways.

The primary occupation of most of the respondents were farming (72.1%) and trading (27.1%). The rural women are predominantly farmers, who need to diversify their livelihood due to the seasonality of most agricultural produce in order to provide for their households during off seasons. This corroborates with [5] who opined that most of the rural population in south-west Nigeria were farmers.

Table 1: Socio-economic characteristics of respondents

Variables	Frequency	Percentage
Age		
31-40	25	19.4
41-50	42	32.6
51-60	46	35.7
>61	16	12.4
Marital Status		
Married	94	72.9
Unmarried	35	27.1
Household Size		
2-5	50	38.8
5-7	67	51.9
>7	12	9.3
Monthly Income		
50,000-100,000	39	30.2
100,001-150,000	63	48.8
>150,000	27	20.9
Levels of Education		
Non-formal		48.8
Primary		35.7
Secondary		14.7
Tertiary		0.8
Occupation		
Farming		72.1
Trading		27.1
Civil Servant		0.8

Source: Field survey, 2024

Level of involvement in livelihood diversification

Table 2 reveals that the major activities the households diversified into were crop farming (\bar{x} = 2.55), trading (\bar{x} = 1.85), palm oil processing (\bar{x} = 1.75), and garri processing (\bar{x} = 1.67). This implies that the rural women were highly involved in crop farming, trading, palm oil processing and garri processing. From the result, active participation in these livelihood activities by these rural women could be the sources of stable income.

The result also reveals that respondents also diversified into grinding (\bar{x} = 1.15), hawking (\bar{x} = 1.09), hairdressing (\bar{x} = 1.08), shoe making, and fashion designing (\bar{x} = 1.02), though their level of involvement in these activities was low. This suggests that the limited and unstable income generated from these livelihood activities could be linked to the low level of involvement.

This implies that respondents engaged in farming and non-farming activities.

Table 2: Level of involvement of respondents in livelihood diversification

Diversified livelihood rank activities	Not involved F (%)	Occasionally involved F (%)	Fully involved F (%)	Mean
Crop farming	17 (13.2)	24 (18.6)	88 (68.2)	2.55
Trading	72 (55.8)	5 (3.9)	52 (40.3)	1.85
Palm-oil processing	65 (50.4)	31 (24.0)	33 (25.6)	1.75
Garri processing	62 (48.1)	47 (36.4)	20 (15.5)	1.67
Grinding	119 (92.2)	1 (0.8)	9 (7.0)	1.15
Hawking	123 (95.3)	1 (0.8)	5 (3.9)	1.09
Hairdressing	119 (92.2)	10 (7.8)	0.0	1.08
Shoemaking/repairs	128 (99.2)	0.0	1 (0.8)	1.02
Fashion designing	126 (97.7)	3 (2.3)	0.0	1.02
Grand Mean				1.46

Source: Field survey, 2024

Severity of limitation to livelihood diversification

The results in Table 3 show that more respondents (57.4%) experienced severe limitations to livelihood diversification. This indicates that the limitations faced by rural women in diversifying their livelihood are averagely high. This result corroborates the findings of [13] who also observed severe constraints in livelihood diversification among rural households. This could be due to the low level of formal education among rural women which implies that they have to compete with other women to access the limited non-skilled job roles available in the community.

Table 3: Severity of limitations to livelihood diversification

Limitation Severity	Frequency	Percentage	Mean	SD	Minimum	Maximum
Not Severe	55	42.6	17.5	3.7	6.0	23.0
Severe	74	57.4				

Source: Field survey, 2024

Limitations to livelihood diversification

The result of the analysis for limitations to livelihood diversification on Table 4 reveals that the major limitations were poor transportation system ($\bar{x}=1.96$), lack of capital ($\bar{x}=1.95$), lack of basic infrastructures ($\bar{x}=1.95$), high cost of labour ($\bar{x}=1.94$) and lack of credit facilities ($\bar{x}=1.91$). This means rural women in Osun state had limited access to good roads that should assist them in transporting their inputs and products. This enhances the additional cost of transportation and increases post-harvest losses. The result also reveals that rural women lack enough capital and access to credit facilities to add up additional livelihood activities with the high cost of labour.

Other limitations to livelihood diversification were lack of access to agricultural input ($\bar{x}=1.75$), lack of access to modernized farming techniques ($\bar{x}=1.75$), lack of access to information on different livelihood activities ($\bar{x}=1.74$), and lack of access to land ($\bar{x}=1.14$). The results show that majority of the respondents had access to land and markets for their products.

Table 4: Limitations to livelihood diversification

Limitation	High F (%)	Moderate F (%)	Low F (%)	Not a limitation F (%)	Mean	Rank
Lack of access to agricultural inputs	23 (17.8)	74 (57.4)	2 (1.6)	30 (23.3)	1.75	6 th
Lack of credit facilities	92 (71.3)	25 (19.4)	2 (1.6)	10 (7.8)	1.91	5 th
Lack of access to modernized farming techniques	9 (7.0)	81 (62.8)	9 (7.0)	30 (23.3)	1.75	6 th
Lack of basic infrastructure	3 (2.3)	119 (92.2)	2 (1.6)	5 (3.9)	1.95	2 nd
Lack of access to information on different livelihood activities	14 (10.9)	41 (31.8)	42 (32.6)	32 (24.8)	1.74	8 th
Lack of access to land	2 (1.6)	3 (2.3)	14 (10.9)	110 (85.3)	1.14	10 th
High cost of labour	6 (4.7)	88 (68.2)	28 (21.7)	7 (5.4)	1.94	4 th
Lack of capital	91 (70.5)	27 (20.9)	7 (5.4)	4 (3.1)	1.95	2 nd
Poor market access	6 (4.7)	54 (41.9)	33 (25.6)	36 (27.9)	1.70	9 th
Grand Mean					1.78	

Source: Field survey, 2024

Relationship between respondents' level of livelihood diversification and rural women economic security

The result in Table 5 reveals a significant relationship between livelihood diversification ($r=0.363$, $p=0.003$) and the economic security of rural women. This implies that involvement in livelihood diversification had a positive effect on the economic security of rural women. This also indicates that having more than one livelihood activity will make rural women economically secure.

This shows that the ability to support oneself is directly correlated with the degree of livelihood diversity, as has been demonstrated repeatedly in the literature on livelihood studies [11]. This claim that a rural household's ability to make a living in the informal economy of developing nations is supported by [9]. A person's degree of livelihood diversification raises productivity, which raises earnings and lowers the amount of poverty for the individual and their families [6].

Table 5: Correlation between respondents' level of livelihood diversification and economic security

Variable	r-value	p-value	Decision
Level of livelihood diversification/economic security	0.363	0.003	Significant

Source: Field survey, 2024

Relationship between limitation to livelihood diversification and economic security

The result of the analysis in Table 6 shows that there was no significant relationship between limitation to livelihood diversification ($r = 0.008$, $p = 0.949$) and economic security. This implies that the limitation to livelihood diversification does not influence the economic security of rural women. Furthermore, it implies that the limitations faced by rural women do not prevent them from diversifying their livelihood activities nor do they influence their economic security because diversification contributes to economic security.

Table 6: Relationship between limitation to livelihood diversification and economic security

Variable	r-value	p-value	Decision
Limitation to livelihood diversification/economic security	0.008	0.949	Not Significant

Source: Field survey, 2024

Conclusion and Recommendation

From this study, it is concluded that the majority of the women are informally educated, in their productive age, married, and have a fairly large family size which necessitates livelihood diversification to enable food security. They are fully involved in livelihood diversification with crop farming and trading their key livelihood activities. Lack of access to agricultural input and credit facilities are the key limiting factors to livelihood diversification however they are not deterred as they still diversify their livelihood. The result show a positive significant relationship between livelihood diversification and food security. The research concluded food security for rural women is a function of their livelihood diversification. It is recommended that the women be trained on livelihood diversification opportunities and economic support systems be provided for the women.

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