Effects of Livelihood Diversification on Cassava Farmers Household Food Consumption in Kogi State, Nigeria

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ABSTRACT

The study analyzed the effects of livelihood diversification on cassava farmers household food consumption in Kogi State, Nigeria. The objectives include, to identify livelihood activities engaged in, to describe their food consumption pattern, to analyze the effect of livelihood diversification. Primary data was collected with the aid of a well-structured questionnaire from 120 cassava farmers in the study area. Descriptive statistics and ordinary least square regression was employed to analyze the data. The result shows that 60% of the farmers were male, mostly married, with mean age of 49years, the livelihood activities engaged in were mostly processing of farm produce, petty trading and animal rearing, generating an annual income of ₦1,331,075, ₦541,083 and ₦459,083 respectively from the livelihoods. The result on food consumption pattern show that eating monotonous food, eating smaller size of food and skipping meals were the common. While the result on common food classes consumed shows that carbohydrate (yam, cassava, maize, rice), protein (beans and soybeans), fruits and vegetables (spinach and ugu) were the common. The OLS regression result shows that level of education, income from farm, income from livelihood activities and number of livelihood activities engaged in positively significantly affects food consumption at 1%, 5%, 5%, and 10% respectively. While the major constraints faced by farmers in diversifying livelihoods were inadequate capital, high cost of renting business premises and poor access to market. The study recommends increase access to loan facilities to the farmers, building of public business premises to be offered at reduced cost to enable them earn more income that will translate to increase in consumption of protein and vitamin rich food stuffs to combat hunger and increase well-being.

Key Words: Cassava farmers, Livelihood activities and Food consumption.

INTRODUCTION

The agricultural sector is the largest employer of the work force in Nigeria, with over 25 million individuals engaging in agricultural related activities (Nigeria Bureau of Statistiics NBS, 2024). The contribution of agriculture to the nation Gross Domestic Product (GDP) is approximately 24% (Food and Agriculture Organization FAO, 2024) the sector plays a key role in achieving many of the Sustainable Development Goals (SDGs), from accessing nutritious and healthy food to reduction in poverty.

Nigeria stands as the highest producer of cassava in the world with about 60 million metric tons produced per annum (FAO, 2022). This production is mainly carried out by small scale farmers in the country who constitute the majority, according to Marco & Chuma (2015) an estimated 30 million farmers are involved in cultivation of cassava and about 95 % of these farmers each cultivate less than 2 ha while those with more than 5 ha are about 5 %. Thus, cassava is grown in almost all states in Nigeria, although it thrives best in the southern and north central states where farmers produce it primarily for the traditional food market and local consumption

(Onyediako and Adiele, 2022). Generally, small scale farmers earn little income from their produce due to local sale and consumption.

Diversification of income sources is one of the characteristics of small scale farmers in Nigeria as a whole. Rural people in African and Nigeria in particular have diversified their economic activities to encompass a range of productive areas that include farm and non-farm income generating activities (Idowu, 2014). Diversification refers to the pattern of individual's voluntary exchange of assets and their allocation of assets across various activities (on and off-farm) so as to achieve an optimal balance between expected returns and risk exposure conditional on the problem they face (John *et al.,* 2020).

Livelihood diversification refers to the ways by which households raise income and reduce environmental risks, it embraces both on and off-farm activities. These activities are carried out to create extra revenue to enhance agricultural activities (John *et al.,* 2020). According to Chinalurum *et al.,* 2024, decisions on diversification can be seen as a coping strategy rather than alternative income opportunities. The share of income from non-agricultural sources gives leverage to the dwindling income from agriculture and considerably improves the livelihood of the rural dwellers (Mahama and Nkegbe 2021). In most developing countries, the importance of non-agricultural activities is increasing and it is estimated to account for 30-50% of rural incomes (Gautam and Anderson, 2016; John *et al.,* 2020) which farmers utilize to improve their living standards and feeding habit.

Considering that food is a fundamental human right, the pattern and how it should be consumed is a thing of fundamental interest to every nation (FAO, 2018). Although the number of times and quantum of food consumed by individual may not necessary affect the nutrition status of that individual, but could assist in giving information about the capability of the person financially. Most of our small scale farmers, cassava farmers in Kogi State inclusive are faced not only with low dietary intake but also the variety of food available to them or the amount they have at hand to purchase the variety of food stuff required.

The United Nation Sustainable Development Goals (SDGs) 2030 targets no poverty, zero hunger and good health and well-being as the first three (3) goals respectively to be meet by the year 2030. Using the SDGs as a base, this study intends to look at the livelihood diversification and household food consumption of cassava farmers in Kogi State Nigeria through the following objective

Aim and Objectives of the Research

The aim of the research is to determining the effect of livelihood diversification on household food consumption of cassava farmers in Kogi State, Nigeria

The objectives are;

   i.   describe the socio economics characteristics of the farmers in the area of study

   ii.   identify the livelihood diversification activities engaged by the farmers.

   iii. examine the food consumption pattern of the farmers

   iv.   determine the effect of livelihood diversification activities on food consumption

   v.   identify the most consumed food classes by the respondents, and

   vi.   identify constraints faced by cassava farmers in diversifying their livelihood.

METHODOLOGY

Description of study Area

The study area is Kogi State located in North-Central Nigeria. It is located between latitude 7°40'N and Longitude 6°27'E, covering a land mass of 29,833 km² with a projected population of 4,750,115 persons in the year 2024 with 1.9% population growth rate. The climate consists of both wet and dry seasons each lasting for nearly six months. The raining season starts in April and end in October while the dry season commences in November

and stops in March. Temperatures range from 23.19℃ to 34.69℃, with the total annual rainfall of about 1100mm 1300mm. Agriculture remains the principal occupation of the people. The commonly grown crops are: cassava, millet, maize.

Sampling Procedure and Sample size

A multistage sampling procedure was used for the study, first stage was the selection of two local Government area (LGAs) of the State which are known for cassava production (Adavi and Okene LGAs), second stage was the random selection of two communities from each Local government area and the third stage is the random selection of respondents based on preponderance of cassava farmers from the selected communities. Thus, a total of 120 respondents were selected for the study.

Table1: Sampling procedure and Sample size

LGAs	Communities	Sample Size
Adavi	Osara	37
	Kuroko	29
Okene	Idogi	31
	Idozumi	23
Total	4	120

Source: Field Survey, 2023

Method of data collection

Primary data were used for this study, the data were collected with the aid of a well-structured questionnaire which was administered using the kobocollect tool application to elicit information from the respondents. Information elicited include socio economics characteristics, livelihood activities engage in, types of food consume and the pattern as well as their income.

Method of Data Analysis

Data from this study were analyzed by the use of both descriptive and inferential statistics. Descriptive statistics used includes means table, charts, and Likert rating scale. The inferential statistics employed was the ordinary least square regression (OLS) model.

Analytical Tools

Objectives i,ii,iii, v and vi was achieve by the use of descriptive statistics (where percentages and likert scale rating were used) , while objective iv was achieve by the use of OLS to determine the effect of livelihood diversification on food consumption.

Model specification

OLS regression

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \varepsilon$$

where:

Y……………… Amount spend on food items monthly (₦)(proxy as food consumption)

X_1……………age

X_2……………sex

X_3……………education

X_4……………Household size

X_5……………income from farm

X_6……………No of livelihood activities diversified into

X_7……………Access to credit

X_8…………...income from livelihood activities

X_9…………marital status

X_{10}……………farm size

X_{11}……………farming experience

β_0 ………………Constant

β_1 to β_{11} …………Coefficients of the dependent variables

ε…………………Error term

RESULTS AND DISCUSSION

Discussion

Socio-economic Characteristics of the Respondents

The result on table 2 shows that more than half of the respondents are male (60%) and (40%) were women. Implying that, though cassava farming is a male dominated venture but some women are also actively involved. Age distribution shows that majority (81.7%) of the cassava farmers were within the age range of 31 – 50 with a mean age of 49. This suggests that majority of the cassava farmers were in their productive age and have energy to engage in other livelihood activities.

This is expected to have positive impact on rural livelihood diversification. The result revealed that most (60.0%) of the cassava farmers were married, this implies that most of the cassava farmers were married. The implication of this result is that the respondents were responsible and mature adults who were likely to show more commitment to their work and wisely use available resources for different livelihood activities in which they are involved.

Furthermore**,** Table 2 reveals that more than half of the cassava farmers (57.5%) had a household size of four to seven persons with mean household size five persons. This depicts a fairly large family size in the study area. The fairly large household size among the cassava farmers in the study area has implications for their livelihood strategies and decision-making processes. This is similar to the study Firafis *et al.,* (2025) who reported that household size and structure in a rural community in southwestern Nigeria was 5.

The result on level of education reveals that most (64.2%) had formal education (secondary, primary and tertiary). This is expected to enhance their level of knowledge and skills that could be useful in their agricultural practices as well as livelihood diversification.

Access to credit facilities is an important factor for agricultural development and livelihood improvement. The result revealed that 60% of the farmers had access to credit facilities in the study area. This could have positive implications for their ability to invest in and expand their agricultural activities. This corroborates with Chinalurum *et al.*, (2024) who reported that access to credit is an important factor in improving the productivity and income of farmers in Nigeria.

The result in Table 2 further revealed that majority 81.6% of cassava farmers in the study Area were members of cooperatives. This is expected to improve their livelihood diversification strategies as they will be able to have access to production inputs and credit. The result also revealed that majority (76%) of the cassava farmers in the study area had access to extension service this is expected to influence livelihood diversification strategies adopted by rural households. This finding agrees with the work of Etuk *et al.,* (2018) who reported in their study that access extension services provide rural farmers access to knowledge and information needed to increase agricultural productivity through sustains production. It also helps to improve quality of life and livelihoods among rural farmers.

Livelihood diversification of respondent

The result in Table 3 revealed that 68.3% of the cassava farmers diversify their livelihood. This suggests that majority of the cassava farmers in the study area relied on other sources of income outside of farming. This agree with the study of Firafis *et al.* (2025) who observed that more than half of the rural household diversify their livelihood.

The result in Table 3 further revealed that (26.4%) of the farmers were into processing of farm product, this is followed by 24.6% who are into Petty trading then 15.3% were into animal rearing. the activities engannged in by the farmers include transportation, marketing of agricultural products, crating and tailoring. This implies that processing of farm product and petty trading were the major livelihood activities diversified in by the cassava farmers in the study area to improve their income as well as food consumption Processing of farm products, such as cassava, indicates a shift towards value addition. Farmers may be involved in activities like cassava flour production, starch extraction, or other processing methods. This diversification strategy not only adds value to their agricultural produce but also contributes to income generation and employment opportunities within the community. It aligns with the promotion of agro-processing as a means of enhancing the economic viability of farming households.

In addition, animal rearing diversification signifies a broader livelihood portfolio. Farmers may be involved in activities such as poultry farming, small-scale livestock rearing and fattening or other animal-related enterprises. This diversification approach not only provides an alternative source of income but also enhances household resilience by creating diverse assets. (Firafis *et al.* 2025)

Income from livelihood

The mean income realized from livelihood diversification activities in Naira per annum is presented in Table 4. The result revealed that the processing of farm product in the study area realized mean annual income of ₦1,331,075. This is followed by petty trading with ₦541,083 and then animal rearing with mean annual income of ₦459,083.3. This implies that the cassava farmers realized additional income from their livelihood diversification activities which will improve their food consumption.

Pattern of household food consumption

The results in Table 5 presented the food consumption pattern of household in the study area. It revealed that concern about not having food to eat (2.5), eating monotonous food (2.4), eating smaller size of food (2.4) and skipping some meals in a day (2.3) were the food consumption pattern that ranked high among cassava farmers in the study area. This implies that although most of the farmers had addition income from their livelihood activities but the unfavourable economic environment coupled with high inflation rate did not allow for the envisaged impact of the additional income be felt.

The result also shows that concern about not having enough food to eat (rated 2.5) indicates a level of food insecurity within the household. Economic hardships, such as limited income or high food prices, can lead to insufficient access to diverse and nutritious foods. This concern reflects the vulnerability of cassava farmers to external factors affecting their ability to secure an adequate food supply. Also, the pattern of eating monotonous food (rated 2.4) suggests a limitation in dietary diversity. Economic constraints may restrict the ability of cassava farmers to afford a variety of foods, leading to a reliance on a narrow range of staples, possibly dominated by cassava-based products. Monotonous diets can contribute to nutritional deficiencies, impacting overall health and well-being.

The reported practice of eating smaller-sized portions of food (rated 2.4) is indicative of coping mechanisms employed by households facing economic challenges. This behavior may be driven by a need to stretch limited resources or manage food scarcity. Consuming smaller portions may become a strategy to make the available food last longer, but it comes at the expense of adequate calorie intake and nutritional well-being. The observed pattern of skipping some meals in a day (rated 2.3) reflects adaptive responses to economic constraints. Skipping meals may be a result of prioritizing food resources or dealing with intermittent food shortages. This practice, while a coping mechanism, poses risks to nutritional adequacy and overall health, as individuals may not meet their daily energy and nutrient requirements.

Types of food classes mostly consumed by households

The results presented in Table 6 shows the types of food classes mostly consumed by household in the study area. Regarding carbohydrate food; all the listed food items (maize, yam, rice, sweet potato, guinea corn, and cassava) were highly consumed in the study area as the mean were above the 2.0 bench mark. The high consumption rate of carbohydrate-rich foods signifies the high prevalence of these foods, its affordability and availability as well as its role as major components of arable cropping systems. These staples align with the findings of FAO (2020) and reflect the economic considerations influencing food choices. The affordability of these staples makes them accessible to a wide range of households, contributing to their dominance in the diet. Shehu *et al*. (2019) opined that cassava is widely known as a food security crop and about 80 % of Nigerians consume cassava products, at least once a day.

In terms protein food consumed; bean (2.6) and soybean (2.6) were the major sources of protein in the study area which are mostly cultivated and therefore contributing to its availability and affordability. Other protein sources like cheese, fish, and milk which is highly prized in the market were underutilized.

Table 6 also revealed that Spinach/ugu and okro were the major fruit and vegetable consumed by respondent in the study area while palm oil was the major sources of oil in the study area. The high consumption of spinach/ugu and okro as fruits and vegetables (with mean scores above 2.0) indicates a focus on incorporating these nutrient-rich foods into the diet. Spinach/ugu and okro are likely locally grown and are valued for their nutritional content. The prevalence of palm oil as a major source of oil in the study area (with a mean score above 2.0) aligns with common cooking practices in many Nigerian households. Palm oil is a staple cooking ingredient, providing flavor and richness to various dishes. Its local availability and affordability contribute to its widespread use in cooking. The preference for palm oil may also be influenced by cultural and culinary traditions of the study area.

Determinant of the effect of livelihood diversification activities on food consumption

The result of the regression analysis result presented in Table 7, reveals that the coefficient of determination (R^2) value was 0.7549 implying that about 75% variation in the food consumption of the cassava farmers was explained by the independent variables included in the model. The level of education (5%), farm income (1%), number of livelihood activities (10%), income from livelihood activities (5%), access to credit **(1%)**, farm size (1%) and farming experience (1%) were found to be positive and statistically significant implying that a unit increase in these variables will increase the amount spent on food items which will translate to increase in food consumption. while age (5%) was negatively significant implying that with increase in age, money spent on food items may decrease as well as the food consumption as elderly people tend to eat less because they are usually less active in terms of activities that could easily breakdown food when consumed.

The positive and statistically significant coefficient for education in the context of food consumption patterns among cassava farmers suggests that an increase in the level of education positively influences their food consumption. This result can be attributed to the fact that higher education levels often lead to improved awareness of nutritional requirements, dietary diversity, and the importance of balanced nutrition. Educated farmers are more likely to make informed food choices, incorporating a variety of food items that contribute to a well-rounded and nutritious diet. The positive significant relationship of farm income, number of livelihood activities engaged in as well as income derived from the livelihood with food consumption attest to the fact that with more income available to the farmers, there is better opportunity of investing more resources to purchase better and nutritive food items by the farmers as well as increasing their consumption pattern. Akerele et al., 2017, observed that some vitamin deficiency were prominent among low income earners.

Access to credit having positive and significant relationship with amount spent on food, implied that accessing credit empowers farmers to invest in their agricultural enterprises, adopt modern farming practices, and diversify their means of living. This also collaborates the findings of Iorlamen et al., (2025) that observed that increase in credit accessibility, increases financial resources at their disposal and encourage diversification. This enable purchase a variety of foods, including those rich in essential nutrients.

The positive and statistically significant coefficient for farm size suggests that a larger farm size is associated with an increase in the food consumption of cassava farmers. As larger farm size provides cassava farmers with the potential for increased agricultural productivity and income. With higher income levels, farmers can allocate more resources to meet their dietary needs and those of their households.

The statistically significant coefficient for farming experience underscores the pivotal role of experience in influencing food consumption patterns among cassava farmers. Farming experience serves as a proxy for practical knowledge, skill development, and familiarity with the intricacies of agricultural production. Experienced farmers are likely to have honed their agricultural practices, leading to increased efficiency and productivity. As a result, they may have a more stable and diverse income stream, allowing them to afford a wider range of food items. Additionally, experienced farmers are better equipped to navigate challenges and uncertainties in agriculture, contributing to a more resilient and food-secure household.

The negative and statistically significant coefficient for age in relation to the food consumption pattern of cassava farmers suggests that there is an inverse relationship between age and food consumption. In other words, as the age of cassava farmers increases, their food consumption tends to decrease because, older farmers may experience physical limitations that could affect their ability to engage in labour-intensive farming activities.

Constraints associated with livelihood diversification

The results in Table 8 present the constraints associated with livelihood diversification in the study area. It revealed that lack of capital to start a business (3.0), high cost of renting business premises (2.9), poor access to market (2.8), unstable electricity (2.4) and difficulty in accessing loan (2.4) were the major constraints associated with livelihood diversification

The constraint of lacking sufficient capital to initiate a business (rated 3.0) underscores a fundamental challenge faced by individuals attempting to diversify their livelihoods. Starting a new venture often requires a certain level of financial investment, covering expenses such as inventory, equipment, and operational costs. The inability to access adequate capital can act as a barrier, limiting the range of livelihood options available to individuals. Also, the high cost associated with renting business premises (rated 2.9) represents a significant obstacle for those seeking to diversify their livelihoods. Rental expenses can strain the financial resources of individuals venturing into new businesses, particularly in urban areas where commercial property prices may be elevated.

The constraint of poor access to markets (rated 2.4) highlights the importance of robust market linkages for the success of diversified livelihoods. Limited access to markets can hinder individuals from effectively selling their products or services, thereby impeding the economic viability of their endeavors. Furthermore, the challenge of unstable electricity (rated 2.4) underscores the significance of reliable energy sources for various livelihood

activities. Inconsistent power supply can disrupt business operations, particularly in sectors dependent on electrical equipment and technology. Efforts to enhance electricity infrastructure and promote alternative energy solutions can contribute to creating a more conducive environment for livelihood diversification. The difficulty in accessing loans (rated 2.4) represents a financial barrier that hampers individuals seeking to diversify their livelihoods through entrepreneurship. Accessible and affordable credit facilities are vital for supporting the initial investment and operational needs of new businesses. Strategies such as improving financial literacy, expanding microfinance opportunities, and streamlining loan application processes can address this constraint and empower individuals in their pursuit of diversified livelihoods.

RESULTS

Table 2: Distribution of respondent according to socioeconomic characteristics

Variable	Frequency	Percentage	Mean
Sex Male	72	60.0	
Female	48	40.0	
Age			
31 – 40	39	32.5	
41 – 50	35	29.2	49
51 – 60	24	20.0	
61 and above	22	18.3	
Marital status			
Single	2	1.7	
Married	72	60.0	
Divorce	22	18.3	
Widowed	15	12.5	
Separate	9	7.5	
Household size			
<=3	23	19.2	
4 – 7	69	57.5	5
8 -12	28	23.3	
Level of education			
Primary	24	20.0	
Secondary	42	35.0	6
Tertiary	11	9.2	

Non-formal	43	35.8	
Cooperative membership			
Yes	98	81.6	
No	22	18.4	
Access to credit			
Yes		60.0	
No	72	40.0	
Extension contact	48		
Yes	92	76.0	
No	28	24.0	

Sources: Field survey, 2023

Table 3: Distribution of respondents based on livelihood diversification and livelihood diversification activities

Variable	Frequency	Percentage
Livelihood diversification		
Yes	82	68.3
No	38	31.7
Total	120	100
Livelihood activities		
Processing of farm product	38	26.4
Petty trading	35	24.3
Crafting	9	6.25
Tailoring	10	6.9
Storing/marketing of agricultural commodity	10	6.9
Animal rearing	22	15.3
Transportation business (motorcycle/ tricycle riding	20	13.8
Total	144*	

Source: Field Survey, 2023.

*multiple response

Table 4: Mean annual income from livelihood diversification activities

Variable	Mean income (Naira)
Processing of farm product	1, 331,075
Petty trading	541,083
Crafting	100,000
Tailoring	156,000
Storing/marketing of agricultural commodity	374, 400
Animal rearing	459,083.3
Transportation business (motorcycle/ tricycle riding	236,416.7

Source: Field survey, 2023

Table 5: Pattern of your household food consumption

	Often (%)	Sometime (%)	Rarely (%)	WS	WM
Eating more than 3 times a day	14(11.7)	46(38.3)	60(50.0)	194	1.6
Eating 3 square meal a day with fruits and disserts in between meals	13(10.8)	74(61.7)	33(27.5)	220	1.8
Eating food you did not like	6(5.0)	50(41.7)	64(53.3)	182	1.5
Eating monotonous food	49(40.8)	68(56.7)	3(2.5)	284	2.4*
Eating smaller size of food	50(42.02)	62(51.3)	8(6.7)	282	2.4*
Skipping some meals in a day	60(50.0)	35(29.2)	25(20.8)	275	2.3*
Concern about not having food to eat	72(60.0)	40(33.3)	8(6.7)	304	2.5*
Going to bed hungry	13(10.8)	74(61.7)	33(27.5)	220	1.8
Not eating throughout the day	6(5.0)	50(41.7)	64(53.3)	182	1.5

Sources: Field survey, 2023

Table 6: Types of food classes mostly consumed by your household

Indicators	Often (%)	Sometime (%)	Rarely (%)	WS	WM
Carbohydrate/starch					
Yam/cocoayam	93(77.5)	26(21.7)	1(0.83)	332	2.8*
Maize	113(94.2)	7(5.8)	0(0.0)	353	2.9*

Sweet potatoes	49(40.8)	68(56.7)	3(2.5)	284	2.4*
Guinea corn/millet	50(42.02)	62(51.3)	8(6.7)	282	2.4*
Cassava	60(50.0)	35(29.2)	25(20.8)	275	2.3*
Rice	72(60.0)	40(33.3)	8(6.7)	304	2.5*
Protein					
Beans	78(65.0)	38(32.7)	4(3.3)	314	2.6*
Soybeans	66(55.0)	54(45)	0(0.0)	306	2.6*
Cheese	14(11.7)	46(38.3)	60(50.0)	194	1.6
Fish	14(11.7)	46(38.3)	60(50.0)	194	1.6
Meat	6(5.0)	50(41.7)	64(53.3)	182	1.5
Milk	0(0.0)	0(0.0)	120(100.0)	120	1.0
Fruits and vegetables					
Spinach/ugu	62(51.7)	50(41.7)	8(6.7)	294	2.5*
Lattice/cabbage	6(5.0)	50(41.7)	64(53.3)	182	1.5
Cucumber	14(11.7)	46(38.3)	60(50.0)	194	1.6
Okra	66(55.0)	54(45)	0(0.0)	306	2.6*
Oranges	14(11.7)	46(38.3)	60(50.0)	194	1.6
Banana	0(0.0)	0(0.0)	120(100.0)	120	1.0
Watermelon	0(0.0)	0(0.0)	120(100.0)	120	1.0
Fat/oil					
Palm oil	113(94.2)	7(5.8)	0(0.0)	353	2.9*
groundnut oil	14(11.7)	46(38.3)	60(50.0)	194	1.6
Magrin/butter	14(11.7)	46(38.3)	60(50.0)	194	1.6

Source: field survey, 2023

Table 7: Effect of livelihood diversification activities on food consumption

Variables	Coefficient	Standard error	t-values
Age	-.0317	.0128	-2.47**
Sex	.4385	1.030	0.43

Household size	.0471	.3757	0.13
Level of education	.0948	.0120	7.87***
Income from farm	1.0548	.3876	2.18**
No of livelihood activities	1.0310	.5652	1.83*
Income from livelihood activities	.0527	.0241	2.18**
Access to credit	2.2037	.5270	4.18***
Marital status	-3.6391	4.9254	-0.74
Farm size	1.0325	.2594	3.9***
Farming experience	7.3953	2.6955	2.74***
Constant	-26.8548	11.0924	-2.42**
R-squared	0.7549		
Adj R-squared	0.6942		
Prob > F	0.0000		

Source: Field survey, 2023

* means significant at 1%, ** means significant at 5% and *** means significant at 10%

Table 8: Constraints associated with livelihood diversification

Variables	VS	S	NS	WS	WM	R
Lack of capital to start a business	116(97.5)	3(2.5)	1(0.0)	355	3.0	S
High cost of renting business premises	105(87.5)	15(12.5)	0(0.0)	345	2.9	S
Poor access to market	97(80.8)	21(17.5)	2(1.8)	335	2.8	S
Unstable electricity	56(47.1)	61(51.3)	3(1.7)	293	2.4	S
Multiple taxation	38(31.67)	75(62.5)	7(5.8)	271	2.3	S
Difficulty in accessing loan	57(47.5)	50(41.7)	13(10.8)	284	2.4	S
Low patronage	48(40.0)	44(36.7)	28(23.3)	260	2.2	S

Source: Field survey, 2023

Note VS= Very severe, S=Severe, NS= Not severe, WS=weighted sun, WM=weighted mean and R=Remark

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