



ASSESSMENT OF AGRICULTURAL LIVELIHOOD DIVERSIFICATION FOR SELF-CARE AMONG FEMALE YOUTH FARMERS IN KADUNA SOUTH LOCAL GOVERNMENT AREA, KADUNA STATE, NIGERIA

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ABSTRACT

The study examined the agricultural livelihood diversification strategies for self-care among female youth farmers in Kaduna South Local Government area of Kaduna State. The specific objectives were to: examine the extent of female youth diversification strategies in agricultural livelihood activities in the study area; examine the extent of use of livelihood income on female youths' self-care, and determine the factors influencing categories of livelihood diversified among the female youths in the study area. A multi-staged sampling procedure was used in selecting 131 respondents and primary data were collected with the aid of structured questionnaire. Descriptive statistics and Tobit regression model were used for data analysis. The results showed that 44.0% of female youth were engaged in processing and value addition activities while 21.2% of them were engaged in production activities and about (48.0%) of them were engaged in more than one livelihood activities. The findings further revealed that livelihood diversification strategies were influenced by level of education (2.550), agricultural experience (0.001) and number of livelihood activities (0.626) among others. Thus, the study recommends that government and private organization should provide financial support and entrepreneurial training to female youth to boost their capacity to diversify to more and better livelihood activities, thereby keeping them away from youth restiveness

Key Word: female youth, diversification strategies, agricultural livelihood, self-care.

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INTRODUCTION

The survival and development of any individual or household depends basically on the level of their well-being. This is predicated on the fact that basic needs such as food, clothes, education, and health and so on are affordable and available at a price that fall within the income scope of the individual household. However, if the income source is reduce drastically, it will automatically have an instant multiplier effect on access to basic services. Hence, household who are experiencing dwindling income sources are likely to diversify as a response to express

distress-push or demand-pull circumstance. This is done in an attempt to avoid risk and uncertainty situation during the economic slack or shock period (Etuke *et al.*, 2018). Income diversification can be described as an increase in the number of sources of income or the balance among the different sources of income (Ibrahim and Rahman, 2009; Awoniyi and Salman, 2013; Doss 2018). Thus, a household with two sources of income could be considered more diversified than a household with just one source, and a household with two income sources, each contributing an amount to the total, would be considered more diversified than a household with a single source (Ayantoye *et al.*, 2017).

Livelihood diversification is the process by which family members are engaged in various economic activities and social system support capabilities in order to improve and enhance their standards of living (Doss, 2018). Income generating activities such as agricultural small scale enterprises, trading and others have the capacity to achieve the goal of increasing income for the family.

The state of agriculture in Nigeria is a growing concern about its inability to satisfy the social and economic needs of the people, especially when population increase is at the fast length and this had culminated into a serious problem of low productivity. In this scenario, individuals or household members are compelled to engage or diversity into several economic activities to enhance income and reduce poverty (Doss, 2018). Aside increased income to improve livelihood, the other driving forces of diversification include; the desire to meet immediate family demand, reduce income risks in the face of economic crises where the family income will be affected and to complement strategies between different activities in order to finance investment in the face of credit failures (Brief, 2021; Ahmed, 2021). On-farm livelihood diversification includes production (crops and livestock, poultry, fishery) processing, value addition and marketing of agricultural produce and products.

Majority of women have historically been associated with agricultural activities for income purposes and have diversified their livelihood activities to encompass a range of other productive areas such as processing, marketing and value addition of farm produce. Many female youth pursue livelihood diversification strategies through microenterprises and this has become increasingly recognized in Nigeria such as Kaduna State. Kaduna State has demonstrated this through the introduction of Commercial Agricultural Development Project (CADP) for youth, launched in 2017, with the sole aim of generating employment opportunities for the youth to enhance their income and that of their household (KCADP, 2017).

The need to engage the female youth in economic activities is necessitated by their vulnerability nature. They desire special attention from the society at all circumstances. This is to reduce their vulnerability to social and economic stress thus, placing hush responsibilities on household to ensure that they are well taken care of and protected (Awoniyi and Salman, 2013). Young female engaged in livelihood income generating activities as a means to either fight their vulnerability or as a social safety net to avoid falling into poverty. Therefore there is no doubt that livelihood diversification is not only a strategy for poverty alleviation but a mean through which female youth can take care of some of their needs. By doing so, it orient or initiate the girls in taking responsibility beyond taking care of themselves alone, but also caring for the siblings and poor parents (Ahmed, 2021). According to Doss (2018) empowering and engaging female youth in agricultural activities as a relevant source of income is very important and a panacea to youth unemployment.

Therefore, the empowerment of female youth in diverse livelihood income generating activities is a vital factor in the development of Nigeria. This is to demonstrate how livelihood diversification activities are of increasing importance for women empowerment through additional income earning (Hovorka *et al.*, 2019; Gabriel, *et al.*, 2020), and greater physical energy (FAO, 2020). However, despite their contribution in the economy, women in general and their younger counterpart in particular often face more restricted access to resources, training, finances and social norms and laws limit their involvement in profitable work which hinder their active participation in agricultural ventures (Enete, 2018; ILO, 2020). Therefore, the broad objective of the study is to examine agricultural livelihood diversification activities for self-care among female youth, while the specific objectives of the study were to:

- i. examine the extent of female youth diversification in agricultural livelihood activities in the study area;
- ii. examine the use of agricultural livelihood income on women youths' self-care provision;
- iii. determine the factors influencing categories of agricultural livelihood diversified among female youths.

METHODOLOGY Study Area

The study was conducted in Kaduna state. The State lies in Northwest Nigeria located between latitude 9⁰ and 12⁰ N and longitude 6⁰ and 9¹ E of Greenwich meridian. The state has a total land mass of about 48,473.2km² and consist of Guinea and Sudan Savanna agro-ecological zone. It lies in low land area characterized with rocks of different types particularly in the southern part. The state has an annual rainfall between 600 to 1200mm that is distributed between April and October yearly and characterized by regular and short dry-spell. The mean annual temperature range between 17⁰ and 32⁰ and had a population of about 8900,526 million (Gabriel and Ahmed, 2020) and a projected population as at 2021 of about 9,730,050. The climatic condition favours the production of different crops such as maize sorghum millet ginger yam and varieties of vegetable crops. Animals of different species and breeds such as Cattle, Sheep, Goats and poultry birds are reared. The state has 23 local government areas, among is the Kaduna South Local Government Area located in the Kaduna Central senatorial district.

Sampling Procedure and Sampled Size

A multi-staged sampling procedure was used to select 131 respondents. In the first stage Kaduna South Local Government Area was purposely selected because it has the highest number of youth participant groups in the Kaduna State commercial agricultural development project (CADP) implemented in 2017. This project trained and empowered women and youth in agriculture livelihood ventures. In the second stage 27 registered female youth groups were identified and 13 of them were purposively selected based on different agricultural ventures out of which 4 official members were purposively and 6 ordinary members were randomly selected from each group giving a total of 10 female youth from each group were selected and this gave a total sample size of 131 female youth including 1 youth extension agent who is also engaged in agricultural venture. The lists of the registered female youth were obtained from the ADP's office. A structured questionnaire instrument was used to collect responses

Method of Data Analysis

Data were analyzed using percentage, mean, ranking and Tobit regression model. The Tobit model employed is expressed as;

$$Y_i^* = X_i\beta + \epsilon_i \dots\dots\dots i$$

Where:

ϵ_i is normally distributed with zero mean and constant variance

Y_i^* is the agricultural livelihood diversification activities index obtained by dividing the number of agriculture livelihood sources employed by the respondent. It include livelihood activities in agriculture production, processing, value addition in marketing of produce or products from agric. The value of the livelihood diversification index ranges between zero and one. The explanatory variables used in the regression analysis were measured as;

X1 = Age (in years)

X2 = Number of livelihood activities engaged (number)

X3 = Marital Status (Married = 1, Otherwise = 0)

X4 = Years of formal education (in years)

X5 = Income of respondents (Naira)

X6 = Primary occupation (Farming = 1, Non-Farming = 0)

X7 = Access to credit facility (No = 1, Yes = 0)

β = Regression parameters or coefficient ϵ_i =

Error Term

RESULTS AND DISCUSSION Table 1: Distribution of the Respondents According to the Agricultural Livelihood Activities Diversified

Livelihood Activities Diversified	Freq.	%	Activities Category %
Production Crop			
farming	2	1.5	
Poultry Production	13	9.9	21.2
Livestock rearing	3	2.3	
Livestock fattening	32	24.4	
Processing and value addition Farm			
produce processing	17	13.0	
Catering /eatery services	19	14.5	44.0
Frying of eatables	35	26.7	
Local drinks/fruit juice	33	25.2	
Marketing			
Poultry chicken/feed marketing	15	11.5	
Egg marketing	18	13.7	
Food vending	18	13.7	34.8
Brokers/marketing agent	13	9.9	
Farm Labour/wages	12	9.2	
Other Petty trading	6	4.6	

Multiple response allowed

Source: Field survey 2023

Agricultural Livelihood Activities Diversified

Table 1 of the study indicates that 44.0% of female youth diversified their livelihood activities into processing and value addition category out of which many (26.7%) of them were engaged in frying of eatables. Also, 34.8% of them diversified into marketing category such as egg marketing (13.7%) and foodstuff vending (13.7%) respectively. Only 21.2% of the female youth diversified into agricultural production out of which 24.4% were engaged in livestock fattening. This implies that the female youth are desirous to engage in various descent income generating activities such as agriculture in order to take care of themselves and even assist the family. It also means that as they diversify to other livelihood activities, income generation would be strengthened and sustained, as also expressed by Doss (2018). This results agree with findings of Salihu *et al.* (2017) who discovered that about 37% of the young rural women were engaged in the production and marketing of local drinks as a strategy for livelihood diversification in Selected Local Government Areas of Kaduna State, Nigeria.

Table 2: Distribution of the Respondents According to the Number of Livelihood Activities Diversified

Number of Activities Diversified	Freq.	%
1	48	36.6
2	63	48.1
3 and above	20	15.3
Total	131	100.0

Source: Field survey, 2023

Number of Agricultural Livelihood Activities Diversified

Table 2 of the study indicates that majority (48%) of female youth were engaged in 2 livelihood activities and 15.3% of them were engaged in up to 3 livelihood activities while about 36.6% of the youth were engaged in 1 livelihood activity to generate income. Engaging in different livelihood activities does not only increase the amount of income from different ventures, but a strategy for sustaining the flow of income and an insurance strategy against failure of any income generating activity. This results is in consonance with the findings of Awoniyi and Salman (2013), Etnuke *et al.* (2018) who revealed that more than half of households were in engaged in more than one agricultural related and non-farm income activities in the South West Zone as well as in Anambra and Cross River State Nigeria. Similarly, Mohammed (2018), Ajani and Igbokwe (2013) and Nyiatagher (2019) reported that women staff of Kaduna State University diversified into many livelihood income activities in Kaduna State and so also in Benue, Cross River States of Nigeria and Sub-Saharan Africa respectively

Self-care Responsibilities Provided by Female Youth

The results on self-care responsibilities provided by the female youth is presented in Table 3. The results revealed that recharge credit card is ranked 1st (62.6%) among the self-care item provided by the female youth. This stress the importance of communication flow and assessing

information by staying connected through use of airtime and data and assessing online information. By these needs, respondents allocate resources to meet the communication need. This was followed by provision of cream, tooth paste, soap and jewelry ranked 2nd (51.9) and provision of make ups ranked 3rd (46.6%) respectively. These items are very crucial in bringing the beautiful nature of females in general, therefore female youth are keen and passionate to allocate substantial amount of resources to satisfy these needs. The least self-care responsibilities provided by the female youth were other items and ranked 13th (2.3) respectively. This goes to explain the level of responsibilities being shouldered by the female youth in trying to provide proper care for themselves and their sibling when they generated income, indicating self-struggle and independence. Thus, aiding the development of a good mindset of motherhood responsibility on how to take care and manage the household needs. This is a clear expression of how empowerment programmes would significantly impact on the lives of female in general (Ndamu, 2017; Ajani and Igbokwe, 2013; Nyiatagher, 2019).

Table 3: Distribution of the Respondents According to the Type of Self-care Responsibilities Provided

	Self-care ProvisionFreq.	%	Ranking
Recharge credit card	82	62.6	1 st
Cream, toothpaste, soap and perfumes	68	51.9	2 nd
Makeup	61	46.6	3 rd
Under wears	47	35.9	4 th
Transportation	36	27.5	5 th
Cellphone	23	17.6	6 th
Food	20	15.2	7 th
Books	12	9.2	8 th
Siblings school fees	12	9.2	8 th
Shelter	8	6.1	10 th
Clothing	6	4.6	11 th
Self school fees	6	4.6	12 th
Others	3	2.3	13 th

Multiple responses allowed

Source: Field survey 2023

Factors Influencing Female Youth Agricultural Livelihood Diversification

The maximum likelihood estimates (MLE) of the Tobit regression results of the factors influencing female youth agricultural livelihood diversification is presented in Table 4. The log likelihood function (-1041.0629) shows that the estimated model and the set of explanatory

variable fit the data better. The result also revealed a sigma (σ) value of 0.379, with a p-value of 0.000 which is statistically significant at 1% level indicating that the model is also a good fit to the data. Three out of the seven explanatory variables related to the women youth included in the model were statistically significant at different levels ($P < 0.01$, $P < 0.05$ and $P < 0.10$).

Table 4: Tobit Regression Estimates of Socio-Economic Factors Influencing Female Youth Diversification in Agricultural Livelihood Activities

Variables	Coefficient	Std. Error	P > t	95% Confidence Interval	
				Lower Bound	Upper bound
Age	1.780	0.643	2.767*	.519	3.040
Marital Status	-0.768	0.575	-1.336*	-1.895	0.359
Level of Education	0.983	0.422	2.330**	0.156	1.810
Farm business size	-9.71476	12.4062	0.783	-234	0.112
Amount of income generated	-1.016	0.387	-2.625*	-1.775	-0.257
Experience	-46.143	13.72	3.363***	0.181	0.7522
Number of livelihood	0.301	0.481	0.626**	-0.642	1.244
Intercept	-0.217	0.239	-0.909	-0.456	0.022
Observations	131				
Log likelihood	-1041.0629				
LR Chi-square	92.830				
Prob>chi ²	0.0000				
Pseudo R ²	0.0832				

Note:*= 1%, **= 5% and *= 10% levels of probability**

The results shows level of education (0.983), number of livelihood activities engaged (0.301) and livelihood experience (-46.143) were significant at 1% and 5% level. Level of education and number of livelihood activities were positively significant to livelihood diversification at 5% based on probability. This means that as female youth acquire more education by one unit, it will increase or expand their livelihood activities by a corresponding unit. This implies that as female youth acquire more or advance in education there is likelihood that they can easily become knowledgeable on how to convert the business opportunity to diversify into ventures that seem to be more lucrative and promising. Similarly, any increase in number of livelihood

by a unit will lead to increase in livelihood activities correspondingly. By so doing, the female youth stand a chance to increase their livelihood resources-base and investments and potentially more income will be generated. However, livelihood experience (-46.143) has an inverse relationship but significant at 1% level, meaning that any increase in experience by one unit will result to a corresponding decrease in livelihood activities diversified. Perhaps, it could mean that when women youth experienced unfavourable livelihood or business environment such as economic upheaval and social problems such as insecurity among others, these will undoubtedly affect livelihood strategies. Particularly when the period is prolong, frustration may set in. The spirit of enterprising will become dampened, and the efforts to cope may be ruined. However, the result is at variance with findings of Omeje, *et al.* (2022) who reported that experience in fish farming had significant influence in the economics of smoked farmed catfish among farmers in Kainji Lake Basin. While age (1.780) was positive and not very significant (10%). This results support the finding of Ayantoye, *et al.* (2017) who reported that age of rural women household members influenced their level of livelihood diversification in Kwara State, Nigeria. Income was negative but significant at 10%, implying that a unit increase in income will result to a corresponding decrease in diversified livelihood. This might be because when the consumption pattern of the youth is not properly managed he/she will not be able to invest or diversify to other activities. However, the result is not in consonance with the findings of Etuke *et al.* (2018) who reported that income was significant to the livelihood diversification among rural household in Akamkpa LGA of Cross River state.

CONCLUSION AND RECOMMENDATIONS

The findings clearly demonstrates that a lot of female youth were found to have diversified into many agricultural ventures particularly in the areas of processing and value addition, and marketing, and are using the proceeds to take care of themselves and helping their siblings. Therefore, the study recommends that the agencies of government such as National Directorate of Employment (NDE), Small and Medium Enterprise Development Agency (SMEDAN) and NGOs charged with the mandate to promote small and medium scale enterprises (SMSE) should provide support in the form of vigorous and regular training on agribusiness, entrepreneurial skills and provide soft credit to encourage them to diversify sustainably into more livelihoods activities and make them more efficient in the ventures. This will help tremendously in the fight against unemployment and keeping them away from youth restiveness and to discourage early marriage

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