

# Analysis of women participation in non-agricultural income-generating activities in rural communities of Zone B, Kogi State, Nigeria

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**Abstract.** The study analysed women participation in non-agricultural income-generating activities in rural communities of agricultural Zone B of Kogi State. Specifically, the study described the socio-economic characteristic of the respondents and identified the respondents' non-agricultural income generating activities. The extent at which the non-agricultural income generating activities were perceived to be common among women was examined and also factors affecting rural women participation in non-agricultural income generating activities in the study area were identified. One hundred and twenty respondents were randomly selected from the five agricultural blocks in the zone. A well-structured questionnaire coupled with interview schedule was used for data collection. The study employed a multi-staged random sampling technique. The data obtained was analysed using descriptive statistics and mean score from Likert type of scale. Results of the descriptive analysis revealed a mean age of 43 years for the respondents. Most (85.0%) of the women were married and a mean household size of 7 members was recorded. Results on type of non-agricultural income-generating activities engaged by women showed that hair dressing (63.3%), dress making (57.5%), petty trading (56.67%) and soap making (55.83%) were the major non-agricultural income-generating activities engaged in by the respondents. Major problems faced by the respondents were inadequate capital (2.28), inadequate training centres (2.19), mandatory payment of trainers (2.09) and proximity of learning or training centres (2.08). Thus, promoting non-agricultural activities may be taken as a good strategy for supplementing farmers' income and sustaining equitable rural growth.

**Keywords:** Income, non-agricultural, participation, rural communities, women.

## INTRODUCTION

Non-agricultural income-generating activities can be defined as small scale projects that create income source for women promoting the principal right of self-determination and the objectives of integration, reputation and re-integration (FAO, 2011). Agricultural and non-agricultural activities could go hand in hand. Thus, income-generated from non-agricultural activities can be invested on agricultural production, processing and marketing of agricultural commodities among rural dwellers. World Bank (2014) stated that women are responsible for about 50 per cent of the world's food

production and in some sub-Saharan Africa countries (including Nigeria). Women provide between 60 and 80 per cent of the food for household consumption (FAO, 2015). Apart from their significant roles in homes and farm settings, they also play diverse roles in non-agricultural activities to increase their income which helps greatly in their family upkeep. Since women's primary concern is usually the welfare of their families, spending money generated on personal items only after the family needs are met (Oladeji *et al.*, 2006). Rural women in developing countries employed themselves in various

income-generating activities (IGAs) for earning money (Ahmed *et al.*, 2011) through small loans as microcredit from various loan providers and to improves their economic condition (Sultana and Hasan, 2010). Sima (2015) revealed that diversification of rural activities in the rural area contributes to the creation of new alternative or additional income sources for the rural population as the main possibility to increase the occupation of available time in the rural areas. Sultana and Hasan (2010), found that increased income contribute significantly to the revenue of rural women through asset ownership of both productive (cattle, goat, poultry) as well as non-productive (jewellery, TV/radio, small vehicle). Women participate in the activities which they feel will bring increased income to supplement whatever is available or brought in by their spouses. Since the involvement of women in both agricultural and non-agricultural activities is prominent in the study area, there is a need to analyse the extent of their participation in both ventures, ascertain the extent and the types of non-agricultural activities they combine with agricultural activities. Therefore, analysing women participation in non-agricultural income-generating activities in rural communities of agro-ecological Zone B of Kogi State, Nigeria is paramount.

**METHODOLOGY**

The study was conducted in zone B agro-ecological zone of Kogi State, North-Central Nigeria. It is bounded on the North by River Niger on the West by Anambra and Enugu States on the South and Benue State on the East. The eastern senatorial zone consists of two Agro-ecological Zones. Zone D consists of Idah, Ofu, Ibaji, Igalamela/Odolu Local Government Areas, while Zone B consists of Ankpa, Omala, Dekina, Egume and Bassa Local Government areas. The people are mostly Igalas and Bassas with farming, trading and fishing as their major occupations. Mixed farming is a widespread practice among farmers. The major arable crops grown in the area are cassava, yams, maize, sorghum, millet, pigeon peas, bambara nuts, groundnuts and beans. The common perennial crops are oil palm, cashew, citrus and kola. The people also engaged in non-agricultural income-generating ventures like dress making, hair dressing, shoe making, civil service, knitting, money lending, interior and exterior decoration, phone charging, bead making, herbal business, soap making etc.

The population comprises all women in rural households of zone B of Agro-ecological zone in Kogi State. A multi-stage sampling procedure was employed using primary data. Firstly, five (5) extension blocks were randomly selected from the agro-ecological zone (B) as delineated by Kogi Agricultural Development Project (ADP). Secondly, two (2) extension cells were randomly selected from each block, making a total of 10 extension cells. Thirdly, twelve (12) women were purposively selected from rural households from each extension cell,

because most women in the study area combined farming with non-agricultural activities. They made a total sample size of 120 respondents. A well-structured questionnaire coupled with personal interview was used to elicit information from the respondents. Data were analysed using both descriptive statistics and mean score.

**Likert scale specification**

Three (3) Likert type of scale was adopted in this study. It was adopted following the methodology adopted by Adeniran (2019). It was used to measure the extent to which the non-agricultural income-generating activities are perceived to be shared among women. According to Melder and Carmines (1981), Likert Scales are described as the set of items which composed of approximately an equal number of favourable statements concerning is specified as follows:

Opinion	Point
Very common	3
Common	2
Not common	1

The means response to each item was calculated using the following formula:

$$X = \frac{\sum F(A_i)}{N}$$

Where:

X = means response  
 Σ = Summation

F = Number of respondents choosing a particular scale point  
 A<sub>i</sub> = Numerical value of the scale point  
 N = Total number of the respondents to the item.

The numerical value of scale point (response modes) and their respective unit are as follow:

Not common = 1 point with real unit of 0.5 – 1.49  
 Common = 2 point with real unit of 1.50 – 2.49  
 Very common = 3 point with real unit of 2.50 – 3.49

Decision Rule: The mean score of 2.0 and above was considered common while any mean score lesser than 2.0 was considered not common.

**RESULTS AND DISCUSSION**

**Socio-economic characteristics of respondents**

Table 1 shows the results of the socio-economic

**Table 1.** Distribution of respondents according to socio-economic characteristics.

<b>Socioeconomic variables</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Mean/Mode</b>
<b>Age</b>			
21-40	49	40.8	43 years
41-60	67	55.8	
61-80	4	3.3	
Total	120	100	
<b>Marital Status</b>			
Single	9	7.5	Married
Married	102	85.0	
Divorced	3	2.5	
Widow	6	5.0	
Total	120	100	
<b>Household Size</b>			
1-10	97	80.8	7 persons
11-20	23	19.2	
Total	120	100	
<b>Level of Education</b>			
No formal education	19	15.8	Secondary education
Primary education	35	29.2	
Secondary education	45	37.5	
Tertiary education	21	17.5	
Total	120	100	
<b>Farming Occupation</b>			
			Yes
Yes	69	57.5	
No	51	42.5	
Total	120	100	
<b>Years Spent in Farming Occupation</b>			
1-10	24	34.8	11 years
11-20	29	42.0	
21 and above	16	23.2	
Total	69	100	
<b>Non-Agricultural Venture</b>			
Yes	99	82.5	Yes
No	21	17.5	
Total	120	100	
<b>Years spent in non-agricultural venture</b>			
1-10	47	47.5	10 years
11-20	33	33.3	
21 and above	19	19.2	
Total	99	100	
<b>Access to Credit</b>			
Yes	25	20.8	No
No	95	79.2	

Table 1. Contd.

Total	120	100	
Cooperative Society			
Yes	86	71.7	Yes
No	34	28.3	
Total	120	100	
Agricultural annual income			
Less than 200,000	99	82.5	₦130,833.33k
200,000-400,000	16	13.3	
Above 400,000	5	4.2	
Total	120	100	
Non-agricultural annual income			
Less than 200,000	86	71.7	₦147,500.00k
200,000-400,000	23	19.1	
Above 400,000	11	9.2	
Total	120	100	

Source: Field Survey (2019).

characteristics of respondents. The majority (85.0%) of the respondents were married while others were single, widowed and divorced. This implies that there were more married individuals involved in non- agricultural income generating activities than others. It could be because of the need to support their husbands in sustaining their families. This collaborate the findings of Onyebu (2015) who reported that majority (81.1%) of the respondents were married and (18.8%) were single. The results also showed that the majority (80.8%) of the respondents had household size ranged from 1-10 persons others had above ten persons per household with a mean of 7 persons/household. It implies that their large family size can enhance their productivity in terms of family labour. However, with large family size, women may need to couple farming with non-agricultural income-generating activities to sustain and meet family members' needs in the households. Olawuyi and Rahji (2012) reported similar findings that the households with more than six members in the family were mostly engaged in non-agricultural income-generating activities. The results showed that 37.5% of the respondents attained secondary school education, 29.2% dropped-out at primary school, 17.5% had tertiary education while 15.8% were illiterate. It implies that their level of education should influence their decision making in engaging in various non- agricultural income-generating activities. Onuche *et al.* (2014) findings are consistent with these. Results give indication that most rural women (57.5%) engaged in farming. It implies that there are a fair number of women that are also engaged in non-agricultural income-generating activities or both. Adepoju and Obayelu (2013) findings similarly to the results of this

study showed that very few of the respondents obtained income from only one source as households engage in a combination of farm and off-farm activities.

The results showed that 42.0% of the respondents' had the farming experience of 11 to 20 years, 34.8% had 1 to 5 years while 23.2% had 21 years and above. The average years of farming experience among respondents were 11 years. Farming experience is an important factor which determines both the productivity and the production level in farming. The high level of farming experience recorded among farmers in the area could have a multiplier effect on their productivity. In a sense, small holder farmers with more years of experience will achieve higher economic efficiency levels than farmers with lesser years of experience. This was Nwachukwu *et al.* (2007)'s position in their study among crop farmers in Imo State, Nigeria. Results also showed that majority (82.5%) of the respondents engaged in non- agricultural activities. The implication is that most women boost their income level with other activities to improve their standard of living. The results agree with Ellis (2000) findings in their study which reported that diverse income sources create more income and distribute income more evenly. The results also showed that 47.5% of the respondents' had spent 1 to 10 years in the non-agricultural venture, 33.3% had spent 11 to 20 years while 19.2% had 21 years and above experience in non-agricultural income generating activities. The average years spent in non-agricultural venture among respondents was ten years.

The results also showed that only 20.8% of the respondents had access to credit while 79.2% did not have access to credit. It implies that raising capital to

**Table 2.** Distribution according to non-agricultural income generating activities.

Non-agricultural income generating activities	Frequency (*)	Percentage
Artisan	11	9.17
Hair dressing	76	63.3
Petty trading	68	56.67
Civil service	19	15.8
Knitting	21	17.5
Money lending/thrift	18	15.0
Interior and exterior decoration	29	24.17
Bead making	36	30.0
Baking and catering service	41	34.17
Restaurant business	48	40.0
Phone charging and recharge card business	17	14.17
Herbal business	8	6.67
Computer business centre	26	21.67
Soap making	67	55.83

Source: Field Survey (2019). (\*) = Multiple responses

start a farm or non-farm activities can be a daunting task in rural areas, where personal savings serve as the most important source for starting up a non-farm business, in contrast, non-farm sources provide extra income to expand farm production (IFAD, 2001). The results showed that majority of the respondents (71.7%) of them were members of cooperative society or association affiliates, while 28.3% did not belong to any association. Membership of associations has been found to enhance the interaction and cross-fertilisation of ideas among people (Bamire *et al.*, 2002). Results also showed that majority (82.5%) of the respondents earned less than ₦200,000 annual farm income, 13.3% earned between ₦200,000 to ₦400,000 while 4.2% earned above ₦400,000. The mean annual farm income was ₦130,833.33k. Yakubu *et al.* (2014) reported that 56.30% of households' income comes from farming activities with monthly off-farm income of between ₦11,000 and ₦20,000 (49.63%) and 42.96% cultivating less than one hectare. The results showed that 71.7% of the respondents earned less than ₦200,000 annual non-farm income, 19.1% earned between ₦200,000 and ₦400,000 while 9.2% earned above ₦400,000. The mean annual non-farm income was ₦147,500. It implies that the more the respondents diversify their livelihoods, the more they can increase their income. This diversified income may be attributed to income from younger people in the family. They seek non-farm employment in the rural communities or in nearby or distant cities where jobs such as trading, building construction, quarrying, motorcycle and tri-cycle transportation provide immediate employment. The results concur with Raufu *et al.* (2012)'s findings which found that respondents got income from the non-agricultural livelihood activities of different types which earns them reasonable income.

### Non-agricultural income-generating activities by the respondents

Results in Table 2 shows that hair dressing (63.3%), dress making (57.5%), petty trading (56.67%) and soap making (55.83%) were the major non-agricultural income-generating activities involved by women in the study area. Most participants probably engage in their income-generating activities, because they do not need lots of initial capital to establish them. In most cases, the participants would like to minimise costs to achieve maximum profits. According to women traders, the profit they make depend on the seasons of the year (harvesting, weeding, and ploughing) and the time of the month (month end or mid-month). The study results and that of Shittu *et al.* (2006) conform to each other "that individuals trained for off-farming activities, such as traders, artisans (tailors, hairdressers, mechanics etc) tend to participate more in off-farm activities and contribute more to their household income than average individuals that have taken farming as their main occupation."The participation of women in income-generating activities is of vital interest to women throughout the developing world. Women participate in those activities that they feel will bring increased income and supplement whatever is available or brought in by their spouses.

In some cases, however, according to Wambura *et al.* (2009), some women are the family's bread winners. Women contribute to agricultural production, especially food production, more than has been generally recognized. Participation in off-farm work was necessary, to provide insurance against agricultural production risks. In the same assertion, Verter and Bečvářová (2014) argue that owing to the meagre income from agricultural

**Table 3.** Distribution according to the extent at which the non-agricultural income-generating activities were perceived to be common among the respondents.

Non-agricultural income generating activities	Very common	Common	Not common	Mean score
Artisan	10 (8.3)	37 (30.8)	73 (60.8)	1.48
Hair dressing	37 (30.8)	67 (55.8)	16 (13.3)	2.18
Tailoring/Dressing making	68 (56.7)	42 (35.0)	10 (8.3)	2.48
Petty trading	54 (45.0)	50 (41.7)	16 (13.3)	2.32
Civil service	23 (19.2)	53 (44.2)	44 (36.7)	1.83
Knitting	20 (16.7)	49 (40.8)	51 (42.5)	1.74
Money lending/thrift	28 (23.3)	55 (45.8)	37 (30.8)	1.93
Interior and exterior decoration	28 (23.3)	31 (25.8)	61 (50.8)	1.73
Bead making	32 (26.7)	40 (33.3)	48 (40.0)	1.87
Baking and catering service	45 (37.5)	38 (31.7)	37 (30.8)	2.07
Restaurant business	30 (25.0)	54 (45.0)	36 (30.0)	1.95
Phone charging and recharge card business	42 (35.0)	38 (31.7)	40 (33.3)	2.02
Herbal business	32 (26.7)	47 (39.2)	41 (34.2)	1.93
Computer business centre	26 (21.7)	43 (35.8)	51 (42.5)	1.79
Soap making	46 (38.3)	57 (47.5)	17 (14.2)	2.24

Source: Field Survey, 2019. Figures in parenthesis are in percentages.

activities; some smallholder farmers are “pushed” to diversify into non-farm activities to complement their low earnings from farming activities

#### Extent at which non-agricultural income-generating activities were perceived to be common among the respondents

Results in Table 3, shows the extent at which the non-agricultural income-generating activities were perceived to be common among the respondents. The results show that most of the respondents agreed that tailoring/dress making was a common off-farm income-generating activities in the study area with a mean score of 2.48. It implies that among the list of off-farm income generating activities involved in the study area tailoring/dress making was common. Women participate in those activities which they feel will bring increased income, which they could use to supplement whatever is available or brought in by their spouses. Petty trading also had a mean score of 2.32 and was perceived to be a common form of off-farm income-generating activities involved by the respondents. By implication, petty trading is among the common non-agricultural income generating activities engaged in by women in the study area. It implies that respondents engaged in various activities so as to ensure household food security. These findings conform to the FAO (1992), which reported that significant roles played by women with unpaid labour are aimed at maintaining the household welfare.

Soap making with a mean score of 2.24 was also rated by the respondents as one of the common non-agricultural income-generating activities in the study area.

According to Ovwigho (2014), off-farm activities are supplementary or complementary activities that farmers engage in either off-season or on-season to support themselves, which include activities such as casual labor, soap making, transportation business, traditional dancing, bead making, hair dressing, petty trading etc. The results also show that hair dressing with a mean score of 2.18 was a common non-agricultural income-generating activities in the study area. This corroborates with Olanipekun and Kuponiyi (2010) findings, who asserted that vast majority of rural families in Nigeria were practising farmers who cannot meet their needs, therefore, they diversity into non-farm income-generating activities as a coping strategy. Baking and catering services with a mean score of 2.07 while phone charging and recharge card business with mean score of 2.02 were rated by the respondents as common non-agricultural income-generating activities. Micevska and Rahut (2008) reported that the rural poor engage in non-farm activities, both as a complement to their farm activities and as a substitute for their farming incomes.

#### Constraints faced by respondents in non-agricultural income-generating activities

The constraints faced by the respondents are shown in Table 4. Inadequate training centres with a mean score of 2.19 were rated by the respondents as a severe constraints affecting women participation in non-agricultural income-generating activities. Inadequate rural infrastructure (such as modern training centres) affects the profitability of agricultural production and non-farm diversification IFAD (2011). In same assertion, Gordon

**Table 4.** Distribution according to the constraints faced by respondents in non-agricultural income-generating activities.

Constraints	VS	S	NS	SM	MS
Inadequate access to credit	25	37	58	273	2.28 <sup>S</sup>
Inadequate training centres	18	61	41	263	2.19 <sup>S</sup>
Restriction from spouse	65	34	21	196	1.63 <sup>NS</sup>
Gender prejudice	54	41	25	211	1.76 <sup>NS</sup>
Proximity of learning or training centres	29	53	38	249	2.08 <sup>S</sup>
Attitude of the trainers	41	49	30	229	1.91 <sup>NS</sup>
Religion and cultural restrictions	67	38	15	188	1.57 <sup>NS</sup>
Mandatory payment of trainers	34	41	45	251	2.09 <sup>S</sup>

Source: Field survey (2019). Legend: VS = very serious, S = Serious, NS = not serious, SM = sum of mean, MS = mean score

and Craig (2001) reported that there is a consensus in the literatures that infrastructure plays a central role to promote non-farm as well as farm activities. The results also show that respondents agreed that mandatory payment of trainers with a mean score of 2.09 was a serious constraints affecting women participation in non-agricultural income-generating activities in the study area.

Majority of the trainers' demands payment before training the individual in any skills of their choice. Due to the rural populace poverty status, a good number of them were unable to pay the mandatory payment fees. The proximity of learning or training centres with a mean score of 2.08 was rated by the respondents as a severe constraint affecting the respondents. Women tend to keep business close home to minimize conflict between their many roles as wage earners, mothers and home makers. For example, a cross-regional study of women in the informal sector in Zimbabwe found that about 64% of women run their business close to their home (UNICEF, 2006).

## CONCLUSION

This study analyzed women participation in non-agricultural income-generating activities in rural communities of Agro-ecological Zone B of Kogi State, Nigeria. The study established that rural women were in their economically productive age. They were involved in tailoring/dress making, petty trading, soap making and hair dressing and other non-agricultural income-generating activities. The extent of participation in non-agricultural income-generating activities was limited by inadequate capital, inadequate training centres, mandatory payment of trainers and proximity of learning or training centres. Therefore, promoting non-agricultural employment may be a good strategy for supplementing farmers' income and sustaining equitable rural growth.

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