

ANALYSINIG INCOME DETERMINANTS AMONG WOMEN IN RURAL COMMUNITIES OF KOGI STATE, NIGERIA

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ABSTRACT

This study analyzed income determinants among women in rural communities of Kogi State, Nigeria. The specific objectives were to: describe the socioeconomic characteristics of women in rural areas; examine the determinants of rural women's income in the study area; identify problems faced by women participating in income generating activities. Primary data were used and collected using structured questionnaire. Data collected were analyzed using descriptive statistics and Ordinary Least Square (OLS) regression model. Description of the socioeconomic characteristics revealed a mean age of 39 years. Majority (63.3%) of the women were married with a mean household size of 6 members. Also, most (40.4%) of the respondents were primarily traders and 65% were members of association with a mean monthly income of 25,376 NGN. Estimates of the OLS multiple regression model on factors that influence the income of rural women in the study area revealed an R^2 value and F-ratio of 68% and 80.117 respectively. Out of the six independent variables included in the model, four had significant influence on the monthly income of rural women. Education, experience and farm income were positively signed and significant at 1% level, while household size inversely determined rural women income at 1% level of significance. The major problems faced by rural women participating in income generating activities include: inadequate capital (87.5%), inadequate infrastructure (83.8%), household upkeep/responsibilities (79.6%), inadequate market (78.3%), inadequate storage and processing facilities (73.3%), and inadequate labour supply (68.3%). Conclusively, income among rural women is determined by some socioeconomic characteristics and economic activities. The study therefore recommends that attention should be given to family planning and birth control as household size negatively determined the amount of income earned. Men should share household responsibilities traditionally considered to be women's work to help perfect attitudes towards masculine and feminine work.

Keyword: Income, Determinants, Women, Rural, Communities

1.0

INTRODUCTION

Rural women in developing countries are heavily burdened by their double role as paid or unpaid workers and family care providers. The latter restricts their time and mobility to engage in productive work and limits their time for schooling, training and economic activities. The limited access to productive resources, lower educational levels, and social norms about appropriate work for women tend to confine them to lower paid, lower status work where opportunities for skills training and advancement are reduced, thus perpetuating their lower status (Fontana, 2009).

Perceptions of how income diversification affects the rural economy have dramatically changed over time (Escobal 2001). In developed countries, many studies have found that the share of rural non-farm employment (RNFE) in rural areas is high and ranges from 40-50 percent of the total income (Berdegue, *et al.*, 2001). These findings have promoted a wave of policy interventions among countries dealing with structural problems in rural poverty and unemployment. Berdegué *et al.* (2000) state that by the 1990s, the percentage of total household income derived from nonagricultural employment (NAE) ranged from 38% in El Salvador and Honduras, to 42% in Nicaragua and even up to 68% in Haiti. Moreover, the income derived from these activities has also increased and continues to have a positive trend.

Poverty is mainly a rural phenomena but with large regional disparities. Rural poverty is more prevalent, deeper, and more severe than urban poverty (Perdiz-Vincente and Rubio, 2010). Rural poverty is further pronounced in unlimited employed and income generating opportunities due to the absence of commercial and industrial facilities or lack of the necessary resources to establish them. In Nigeria, most of the government policies and strategies have been designed with the objective of reducing poverty. One of those strategies is focused in the development of the rural and agricultural sector and the generation of nonagricultural opportunities in the rural areas (Castro, 2005). This strategy is particularly important since it acknowledges the elevated degree of diversification in the rural

areas, which was not traditionally regarded as important. The creation of micro and small enterprises is envisioned as a way to create non-farm employment opportunities for the poor in the rural areas (Gennrich, 2002), although this approach may diminish the significance of temporary or permanent wage employment (European Commission, 2000). In either case, it is expected that the reactivation of a local economy generates activities which are expected to absorb the rural labor surplus and thereby slow down migration to the urban areas (Lanjouw and Lanjouw, 2001).

It is generally accepted that higher income, and specifically mother's income, leads to increased food expenditures and better livelihood. The important gaps in data availability and analytical work in many key areas like income determinants among rural women handicap policy makers' efforts to address these crucial issues adequately when designing poverty alleviation and growth strategies. Based on the above background, this study seeks to assess the income determinants among women in rural communities of Kogi State, Nigeria. The specific objectives of the study include:

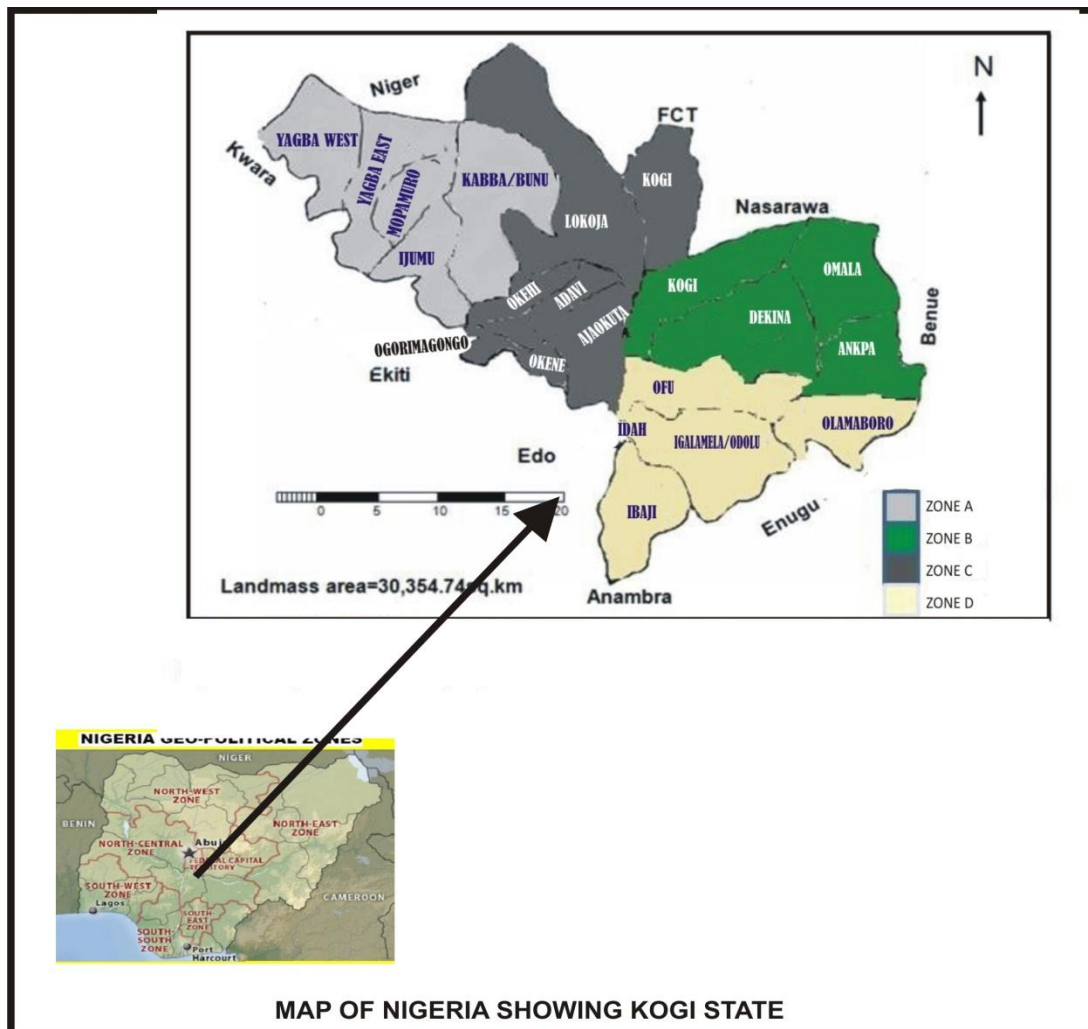
- i. describe the socioeconomic characteristics of women in rural areas;
- ii. identify the determinants of rural women's income in the study area;
- iii. identify problems faced by women participating in income generating activities.

2.0 METHODOLOGY

2.1 The Study Area

The study was conducted in Kogi State, Nigeria. Kogi State was created on 27th August, 1991 out of Kwara and Benue States. The State is located in the central region of Nigeria. The headquarters of the State is Lokoja, which is situated at the Confluence of rivers Niger and Benue making the State to be popularly known as the Confluence State. Kogi State has three senatorial districts

(Western, Central and Eastern senatorial districts) with each district inhabited by one of the three major tribes in the state: the Eastern senatorial district is inhabited by the Igala speaking population; the Central senatorial district by Ebira people; while the Western senatorial district is inhabited by the Yoruba people. Minor tribes found in the State include: Bassa-Nge, Bassa-Komu, Nupe, Kupa, Kankanda, Ogori-Mangogo, Idoma, Eggan, and Gwari. The State consists of 21 Local Government Areas. The State is located between latitude $6^{\circ}30'N$ and $8^{\circ}5'N$ and longitude $5^{\circ}51'E$ and $8^{\circ}00'E$ with a total land area of 29,833 Sq. km and an estimated population of 4,473,500 (National Population Commission, 2016).



2.2 Sampling procedure

The population of the study comprised of women in rural households of Kogi State. Purposive sampling was used to select respondents for the study. It is purposive because, only the rural women were studied. A sample size of 240 women was selected using a three staged sampling technique. In stage one, one (1) extension block was randomly selected from each of the agricultural zones (A, B, C, and D) as delineated by Kogi ADP, making a total of four extension blocks. In stage two, three (3) extension cells were randomly selected from each block, making a total of 12 extension cells. In stage three, twenty (20) rural households (focus on women or house wives) were randomly selected from each cell. A total of 240 women in rural communities were used for the study.

2.3 Data collection

Structured questionnaire and personal interview schedule was used to collect the primary data. The questionnaire was administered to 240 women in the state using eight trained research assistants from the four agricultural zones of Kogi ADP. The instrument was designed in line with the stated research objectives

2.4 Data analysis

Data collected for this study were analyzed using descriptive statistics such as frequency count, percentages, mean, and mode and Ordinary Least Square (OLS) regression model.

Socioeconomic characteristics of the women (objective 1) and problems faced by women participating in income generating activities (objective 3) were achieved using descriptive statistics such as frequency count, percentages and ranking. While objective 2 was achieved using Ordinary Least Square (OLS) regression model.

2.5 Model specification

Ordinary Least Square (OLS) Regression Model

Ordinary Least Square (OLS) multiple regression analysis was used to determine factors that affect women income. The OLS model adopted in this study is as specified below:

$$Y_i = f(X_{is})$$

Where Y = dependent variables (respondent's income in Naira per month),

X_{is} are the independent variables and they include:

X_1 = Age (years)

X_2 = household size (Number)

X_3 = Education (Yrs)

X_4 = Experience in IGA (years)

X_5 = Farm Income (₦)

X_6 = Remittance (₦)

e= error term

The relationship between the endogenous and each of the exogenous variables was examined using four functional forms: linear, semi-log, Exponential and Double-log

3.0 RESULTS AND DISCUSSION.

3.1 Socioeconomic Characteristics of Women in Rural Communities

The socioeconomic characteristics of women in rural communities of the study area are presented in Table 1. Socioeconomic variables described in this study include: age, marital status, household size, primary occupation, educational status, cooperative/association membership, and household monthly income.

3.1.1 Age (years)

Results in Table 1 show a mean age of 39 years, which is an indication that the rural women were in their economically productive age. In terms of income, it is expected that women within their economically active age should have higher income level. This finding agrees with Jacqueline *et al.* (2014) and Bashir *et al.*, (2013) who reported an age range of 30 – 40 years among women in Benue and Borno States respectively.

3.1.2 Marital Status

Table 1 further indicated that majority (63.3%) of the rural women were married. Marital status determines an individual's decision to demonstrate a mark of social responsibility and also indicate a ready source of available labor input. Expectedly, married women are more productive and tend to have higher income than the unmarried. This finding agrees with Oyibo, *et al.* (2019) who reported that, about 70% of rural women involved in income generating activities are married.

Table 1: Distribution of Respondents According to Socioeconomic Characteristics

Socioeconomic Variables	Frequency	Percentage	Mean/Mode
A. Age (years)			
≤20	18	7.5	39.11years
21 – 30	71	29.6	
31 – 40	59	24.6	
41 – 50	63	26.3	
≥ 50	29	12.1	
Total	240	100	
B. Marital Status			
Single	45	18.8	Married
Married	152	63.3	
Divorced	05	2.1	
Widowed	38	15.8	
Total	240	100	
C. Household Size (members)			
1 – 5	95	39.6	6 members
6 – 10	108	45.0	
16 – 20	31	12.9	
≥ 20	06	2.5	

Total	240	100	
D. Primary occupation			
Farming	63	26.3	Trading
Civil service	41	17.1	
Trading	97	40.4	
Food Processing	39	16.3	
Total	240	100.0	
E. Educational Status			
No formal education	55	22.9	Primary
Primary education	132	55.0	education
Secondary education	35	14.6	
Tertiary education	18	7.6	
Total	240	100	
F. Cooperative/Association Membership			
Member	158	65.8	Member
Non-member	82	34.2	
Total	240	100	
G. Monthly Income (Naira)			
Below 50,000	101	42.1	
50,000 – 100,000	84	35.0	25,376
101,000 – 150,000	45	18.8	
Above 150,000	10	4.1	
Total	240	100	

Source: Field Survey, 2022

3.1.3 Household Size

The mean household size of 6 members obtained in this study is almost the same as the national average of 7 members per household which was reported by National Population Commission, NPC in 2012. This finding implies that most rural communities in the State had household members which could be available as family labour for farming and other activities. This finding agrees with Ferri and Shittu (2014), when they reported that 91% of rural households had household size greater than five

3.1.4 Primary Occupation

Table 1 also shows trading and farming as major occupation among the women. Women productive activities could serves as extra source of income and help rural households to have

steady income especially during the off farming season. Ibitoye, *et al.* (2015) reported civil service and trading as the major secondary occupation among rural farm households.

3.1.5 Educational Status

The result shows that 77.1% of the rural women could read and write, while 22.9% could not. However, most (55%) of the women had only primary education. Education increases households' decision to engage in various income sources. This finding agrees with Onuche, *et al.* (2014) when they reported an average schooling years of 7.2 in rural areas of Kogi State and classified the State as one of the educationally less developed states in Nigeria.

3.1.6 Cooperative/Association Membership

The result in Table 1 indicates that 65.8% of the respondents were members of a cooperative society or an association, while 34.2% did not belong to any association. Farmers' association enables them to solve their agricultural problems among other things (Kehinde, *et al.* 2009). Membership of associations has been found to enhance the interaction and cross-fertilization of ideas among people (Bamire, *et al.* 2002). Women who are not members of associations are expected to have lower probabilities of access to credit source and its multiplier effect on income.

3.1.7 Monthly Income

Result in Table 1 shows a mean monthly income of ₦25, 376 among the women. It is expected that income will improve the probability of households being food secure and also the likelihood of higher income through expansion and/or diversification. This finding corroborates Babatunde *et al.*, (2007). Mikloda (2006) associated low income with poverty. According to Amalu (2005), over 90% of Nigeria's food supply comes from the agricultural population who are smallholder farmers.

3.2 Factors that Influence the Income of Rural Women

Estimates of the Ordinary Least Square (OLS) multiple regression model on factors that influence the income of rural women in the study area is presented in Table 2

Table 2 Estimates of OLS Semi-log Functional Form on Factors that Determine Rural Women Monthly Income

Variables	Coefficient	Std. Error	t-value	Sig.
Constant	35592.566	34954.894	1.018	.310
Age (years)	-13041.721	10583.477	-1.232	.219
Household size	-23025.183	2922.766	-7.878	.000***
Education	53516.055	5380.462	9.946	.000***
Experience	16882.011	2756.620	6.125	.000***
Farm Income	4172.426	1116.134	3.738	.000***
Remittance	933.717	731.949	1.276	.203
R ²	0.683			
F-value	80.117			.000***

Source: Computed from Field Survey, 2022

*** = Coeff. Sig. @ 1%

From the OLS estimates, the semi-log functional form was chosen as the lead equation based on the number of significant variables, the R² value, the F-ratio and *a priori* expectation. The output of the semi-log model showed an R² value of 0.683 which implies that 68% of the change in total monthly income of rural women in the study area was explained by the independent variables. F value of 80.117 which was significant at 1% indicates the significance of the entire model. However, it should be noted that since R² is 68%, there are some other factors which determine the amount of income women gain in a month. These can be for example, initial amount of capital invested, season of the month or year, and many others which were out of the scope of the present study; they accounted for the remaining 32%. Out of the six independent variables included in the model, four had significant influence on the monthly income of rural women. Education,

experience and farm income were positively signed and significant at 1% level, while household size inversely determined rural women income at 1% level of significance.

Years of formal education significantly influenced the amount of income women gain in a month. The positive sign is an indication that an increase in the number of years spent schooling will increase the income of rural women in the State. Women who are educated (with many years of schooling) have the capability of getting more income in a month than their counterparts with few years of schooling. Through formal schooling, women acquire knowledge and skills which are vital for success in income generating activities. Formal schooling also enhances exposure to a number of issues, for instance, in business management and practical skills. Further with education, one becomes competent in a number of areas such as use of English Language which is necessary to communicate with the multi-tribal population especially in urban areas where most markets are located.

Years of experience in the income generating activity was positively related to the monthly income of rural women in the State. This means that most experienced women know various strategies and skill/practices to employ for optimum income or profit. This translates to the fact that limited experience may result into low production and income. This finding is in agreement with Ahmed *et al.*, (2015) who reported that the coefficient of experience was found positive as expected and significant at 5% level. Oluyole *et al.*, (2009) also reiterated that an experienced farmer is likely to have higher productivity and hence be able to provide more food for his/her household members.

The coefficient of farm income was positively signed and significant at 1%. This direct relationship suggests that an increase in income from agricultural related activities will increase total monthly income earned by the rural women. Women who are involved in agricultural

activities have more food to feed the family. Indicatively, excess could be sold as source of additional revenue. This agrees with Veenhuizen (2007) who reported that, agriculture contributes to food security. Hence, self-production of food reduces the monthly household expenditures on food, leaving more cash available for other basic household needs such as health, housing, education, and clothing.

The coefficient of household size was negatively signed and significantly influenced the income of rural women in the study area. By implication, if a woman has many children or large household members, she is likely to gain less income in a month and vice versa, if she has few children or small household members. The larger the household size the more mouths to feed and the less income gained and vice versa, the smaller the household size. In most African setting, women provide basic household needs, even when they are not regarded as the household head. Their income is used to provide some of the basic household requirements (education, clothing and housing among others) for these household members. If a woman has many household members, especially children, she will have to use a lot of money to sustain their well-being. Thus, the money she reinvests in her enterprise will be negligible. Consequently, she cannot expect to gain a large amount of income in a month like her counterpart who does not have a lot of commitments with her income and reinvests it in her enterprise.

Age of the respondent returned a negative sign, however, not a significant determinant of the amount of income obtained in a month by rural women. This factor illustrate whether a woman is still in the economically active age or otherwise. From the result, the older the woman, the less she gains in a month in her income generating activity. This is so because aged women have lower tendency to devote most of their time to businesses or their income generating activities. Consequently, this will reduce their ability to gain more income in a month. In most cases, aged

women are only part-time operators (especially with enterprises that require energy and other strenuous activities), or they have to employ other persons in their income generating activity.

3.3 Problems Facing Women Participating in Income-Generating Activities

According to this survey, women participating in income-generating activities are faced with a number of problems. These problems have frustrated women's efforts and sometimes have even forced them to abandon their enterprises.

Table 3: Problems Faced by Rural Women Participating in Income Generating Activities

Problems	*Frequency	Percentage
Inadequate capital	210	87.5
Inadequate infrastructure	201	83.8
Household responsibilities	191	79.6
Inadequate market	188	78.3
Inadequate storage and processing facilities	176	73.3
Inadequate/unavailability of labor	164	68.3
Inadequate access to electricity and other amenities	101	42.1
Poor pricing of produce/items	90	37.5
Low profit	61	25.4
Environmental issues	34	14.2

Source: Field Survey, 2022

*= multiple responses

A major problem identified was inadequate capital. Most of the incomes generating activities carried out by women were small scale enterprises; yet, most of them would have desired to expand them. They often had a problem of acquiring initial or starting capital. It is important to note that most of them borrow their starting capital from relatives, husbands or from their merry-go-round groups/associations. The money they acquire through these sources is often too

inadequate to establish large income-generating activities which can yield high economic returns. Most of the participants suggested that they could partially solve this problem if they were able to borrow loans from recognized financial institutions. Apparently, most of the financial institutions have not been able to give them loans as they desire; the laid down procedures to be followed in acquiring loans are often too complicated for the more often less educated women to comprehend.

Inadequate social infrastructure (such as good roads, health facilities, electricity, etc.) was another problem faced by the women. Neglect of rural infrastructure affects the profitability of agricultural production and non-farm diversification IFAD (2011). In same assertion, Gordon 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.

Household responsibilities or upkeep was also a major problem faced by women participating in income generating activities. Women who had young children felt that they had a problem of balancing house work, children upbringing and income generating activities. Most of them had to distribute their time in such a manner that only a little time was left for their income-generating activities. For example, they stayed in the house throughout the morning when the older children were in school and only went to their respective income-generating activities in the afternoons when the older children returned from school. Alternatively, some women had resorted to carrying their young children on their backs as they carried out their income-generating activities. Peculiarly, some women even spread beddings for their children in the premises where they carried out their income-generating activities. Not to mention that these children are exposed to a lot of dangers.

Inadequate storage and processing facilities was also one of the problems faced by women participating in income generating activities in the study area. This problem makes it difficult for

value addition to be carried on especially, agricultural produce. This may be associated with the fact that most agricultural produce are perishable and have shorter shelf-life and invariably reduce farm income and indirectly have effect on off-farm income. This is in agreement with Alara (2016) who reported that there is need for safe and efficient storage system to ensure continuous supply of agricultural commodities in the market. Storage and processing are critical in ensuring that the commodities produced at a particular period are available for consumption whenever and wherever they are required.

Another problem identified by the respondents was inadequate labour supply. Inadequate labour supply can reduce the productivity of women farmers which in turn have reducing effect on on-farm income and indirectly affect off-farm income. This is in line with the findings of Oni (2013) who reported that availability of labour affects the use of farmland in the traditional farming system. Since agriculture in Nigeria is virtually un-mechanized, human labour becomes vital in all production systems, accounting for about (90%) of all farm operations. Under semi-mechanized systems, including animal traction use, human labour use is as high as (70%) of all operations NISER (2001). Although farming is largely labour-intensive, farmers, generally often experience seasonal labour shortages. The supply of labour is affected by unending migration of able-bodied youths from the rural to urban areas creating labour shortages especially at peak periods when labour is required for land preparations, weeding and harvesting. Hired labour shortages have driven up the cost of labour making such labour unprofitable to the average smallholder.

Marketing was also one of the identified problems. Some of the women participating in income generating activities often fall prey to the middlemen who bought their items at very cheap prices and then sold them expensively to other consumers of retailers. This problem is worsened by the fact that women do not know the right channels to follow in order to export their items.

There is also insufficient market for both agricultural input and output. This is in line with Ojeka *et al.*, (2016) who reported that the market for agricultural input and output has been weak, undeveloped and atomistic. Access to foreign markets is affected by commodity productivity and price competitiveness. Also, non-remunerative prices for agricultural commodities, worsened by cycles of surplus and low farm production, cause unsteady farm income, poverty and food insecurity among Nigerian farmers, creating an unstable environment of cyclical low and high food prices. Tied to the above is the lack of reliable and sustainable market information system to aid output in order to ensure competitive prices for producers and agribusiness operators.

4.0 CONCLUSION AND RECOMMENDATION

4.1 Conclusion

The findings revealed a mean age of 39 years, majority (63.3%) of the women were married with a mean household size of 6 members. Most (40.4%) of the rural women were primarily traders and 65% were members of an association. A mean monthly income of 25,376 NGN was also obtained among the respondents. It was established that the women diversified into off farm income generating activities along farming activities. The monthly income obtained by women in rural communities in the study area was determined by education, experience, farm income, and household size and other economic activities.

4.2 Recommendations

Based on the findings of this study, the following recommendations were made:

- i. Education has been noted to be a variable which determines women's income in a month. With this in mind, women's education and training should be strengthened and expanded.
- ii. Household size negatively determined the amount of income earned in a month by the rural women. Keen attention should be given to family planning and birth control.
- iii. Functional literacy programmes with strong training component of technical, management, and leadership skills among others should be encouraged for women by both the State government and relevant NGO's and Community Based Organizations (CBOs).

REFERENCES

- Ahmed, F., Siwar, C. and Idris, N. A. H. (2011).** Contribution of Rural Women to Family Income Through Participation in Microcredit: An Empirical Analysis. *American Journal of Applied Sciences* 8 (3): 238-245. Available at: <http://thescipub.com/PDF/ajassp.2011.238.245.pdf>.
- Amalu, U.C, (2005).** Poverty alleviation and agriculture in sub-saharan Africa: The Nigerian experience. *Journal of food, Agriculture and Environment*, 3(2):230-236.
- Babatunde, R.O, Omotesho, O.A. and Sholotan, O.S. (2007):** Socio-Economic characteristics and food security status of farming households in Kwara State, North-Central Nigeria. *Pakistan journal of nutrition*, 6(1), 49-58.
- Bashir, A.B, Dominic, A.A and Yakaka, B.M (2013).** Women in Commercialized Subsistence Economies: Profit and Factors Influencing Participation in Small-scale Cereal Processing and Marketing in Maiduguri, Borno state, Nigeria. *Greener Journal of Business and Management Studies* ISSN: 2276-7827 Vol. 3 (5), pp. 194-200
- Bashir, A.B, Dominic, A.A and Yakaka, B.M (2013).** Women in Commercialized Subsistence Economies: Profit and Factors Influencing Participation in Small-scale Cereal Processing and Marketing in Maiduguri, Borno state, Nigeria. *Greener Journal of Business and Management Studies* ISSN: 2276-7827 Vol. 3 (5), pp. 194-200
- Berdegue, J.,Ramirez, E., & Reardon, T. (2001).** Rural nonfarm employment and incomes in Chile. *World Development*, 411-425.
- Castro, J. J. (2005).** Bolivia Productiva y la ENDAR. *Pro Campo* 1(94): 16-18.
- Escobal, J. (2001).** The determinants of nonfarm income diversification in rural Peru. *World Development*, 29(3), 497-508.
- Ferri, H. and Shittu, A. M. (2014).** Determinants of income diversification amongst rural farm households in Southwest Nigeria. *Economics and Finance Review*, 1(5):31-43.
- Fontana, M. (2009).** Gender dimensions of rural and agricultural employment: differentiated pathways out of poverty. Paper presented at the FAO-IFAD-ILO workshop on “Gaps, trends and current research in gender dimensions of agricultural and rural employment: differentiated pathways out of poverty”, 31
- Gennrich, N. (2002).** The impact of microenterprises on poverty reduction in rural areas: The case of El Quiché (Guatemala). Deutsche Tropentag, Germany.
- Ibitoye, S.J., Shaibu, M.U. and Omole, B. (2015)** Analysis of Resource Use Efficiency in Tomato (*Solanum lycopersicum*) Production in Kogi State, *Asian Journal of Agricultural Extension, Economics & Sociology* 6(4): 220-229

- Jacqueline A.C, Ikechi K.A, Wuese I. (2014).** Economic assessment of rural women participation in processing and marketing of soyabean in Tarka LGA of Benue State, Nigeria. *Current Agriculture Research Journal* Vol. 2(1), 43-50
- Lanjouw, J., P. Lanjouw (2001).** "The rural non-farm sector: issues and evidence from developing countries." *Agricultural Economics* 26: 1-23.
- Lanjouw, P. and Feder, G. (2000).** Rural Non-farm Activities and Rural Development from Experience Toward Strategy. Draft paper, Washington D.C., World Bank Development Economics Research Group.
- Mikloda, P.I. (2006)** *The Effect of Agricultural Credit Guarantee Scheme on Household Income and Consumption in Adamawa state, Nigeria.* A PhD thesis, University of Maiduguri, Nigeria. Pp 151
- NISER, (2001).** "NISER Annual Survey of crop Production Conditions in Nigeria". A Publication of NISER Annual Monitoring Research Project.
- Ojeka, G. O., Effiong, C. E. and Eko, E. O. (2016).** Constraints to Agricultural Development in Nigeria. *International Journal of Development and Economic Sustainability.* Vol.4, No.2, pp.1-15
- Ojeka, G. O., Effiong, C. E. and Eko, E. O. (2016).** Constraints to Agricultural Development in Nigeria. *International Journal of Development and Economic Sustainability.* Vol.4, No.2, pp.1-15.
- Oluyole, K.A., Oni, O.A., Omonona, B.T. and Adenegan, K.Q. (2009).** Food Security among Cocoa Farming Households of Ondo State, Nigeria. *ARNP Journal of Agriculture and Biological Science.* 4(5):7-14.
- Oni, T. O. (2013).** Challenges and Prospects of Agriculture in Nigeria: The way Forward. *Journal of Economics and Sustainable Development.* ISSN 2222-1700 (paper) ISSN 2222-2855 (online). Vol.4, No. 16.
- Onuche,U., Opaluwa, H.I. and Edoka, M.H. (2014)** Ill- Health and Agricultural Production: Evidence from Kogi State of Nigeria. *African Journal of Food, Agriculture Nutrition and Development.* 14 (1): 8488-8503
- Oyibo, F. O., Ajibade Y. E, Haruna O. E. and Omieza, M. Z. (2019).** Comparative analysis of income of palm oil processors using modern and traditional methods in Ankpa Local Government Area, Kogi State, Nigeria. *International journal of applied research* 5(12) 233 -238
- Perdiz-Vincente, J. and Rubio, S. M., (2010).** World's Growth and Inequalities. *Estudios de economia aplicada*, 28(2), pp. 1-14 .