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A Gender Analysis of Livelihood Patterns

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POVERTY AND INCOME DIVERSIFICATION AMONG HOUSEHOLDS IN RURAL NIGERIA: A Gender Analysis of Livelihood Patterns

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Abstract

The number of poor people in Nigeria and in many developing economies across the globe has continued to be on the increase within the past two or three decades. This is attributable to the economic and socio-political instability experienced in these countries. The situation is further aggravated by the declining and irregular income, low rate of capital accumulation and declining agricultural output due to the rapidly changing climatic conditions. Meanwhile, it has been established that in many rural areas, agriculture alone does not provide sufficient livelihood opportunities hence diversification into non-farm activities is seen as a form of self-insurance. This is because diversification offers people options for coping with crisis. The resultant effect of this is that rural households diversify their income sources by combining two or more jobs (multiple job holding) to enhance consumption smoothing and acquire other basic needs. The result presented here relied on data collected from a random sample of 420 households selected from six states (one state from each of the six geopolitical zones) of the country. Analysis of data revealed that most of the respondents were young, married with fairly large household size. Educational analysis of respondents indicated that a sizeable number had no formal education with only about one-third educated up to tertiary level. However, respondents' distribution by poverty status showed that there were more female-headed households in the study area than male-headed households with over half of those surveyed living on less than one dollar a day. Meanwhile, the result of the tobit regression model employed to ascertain the determinants of livelihood diversification showed that the coefficients of gender, household size, poverty status and access to credit facility were positive. This indicates that any increase in the value of the coefficients of these variables have higher likelihood of influencing the estimated livelihood diversification index positively. Further, the coefficients of years of formal education, income, marital status, primary occupation and location were negative. Thus, an increase in the value of any of the variables will negatively influence the estimated livelihood diversification index. In general, male-headed, small-sized, non-poor households with formal education and better income and access to credit facility were not all that engaged in multiple jobs like female-headed, uneducated, large-sized, poor households and those not having access to credit facility.

Key words: Gender, Income diversification, Multiple job holding, Rural Nigeria, Well-being

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Background to the Study/Statement of the Problem

The changing socioeconomic, political, environmental and climatic atmosphere in Nigeria and other developing countries across the globe has continued to aggravate the living conditions of most households especially those living in the rural areas. The accompanying increase in poverty levels has led residents of these economies to devise a number of strategies to cushion the negative effects of these changes. Meanwhile, there has been an increased recognition among researchers especially in the past one or two decades that Africans diversify their livelihood strategies, including on-farm (crop, livestock, fisheries) and off-farm activities or market and non- market activities, to mitigate risks inherent in unpredictable agroclimatic and politico-economic circumstances (Ellis, 1998; 2000, Bryceson, 2002). The academic trend has been followed by policy shifts in that poverty reduction and sustainable development must be formulated by well recognising how and why African farmers pursue diversified livelihoods. Diversification has been analysed as a rational response by households to lack of opportunities for specialisation, and was initially considered not the most desirable option. However, recent studies indicate that rather than promoting specialisation within existing portfolios, upgrading them to augmenting income could be more realistic and relevant for poverty reduction (Ellis and Freeman, 2005; Freeman and Ellis, 2005). Burgeoning literature on livelihood diversification across the developing world has pointed to the increasing role of non-farm incomes in poverty reduction (Bryceson, 1996).

Therefore exploiting these off-farm opportunities could offer a pathway out of poverty for the rural poor (Barrett, *et al.* 2001a). Since many rural households derive livelihoods from some form of non-farm activity, increasing the profitability and range of such activities would improve their livelihoods security and living conditions (Mwabu and Thorbecke, 2001; Awoyemi, 2004). But expansion of these opportunities is related to the asset status and barriers to entry resulting from inadequate or differential access to markets (Ellis, 2000). The rural economy is not based solely on agriculture but rather on a diverse array of activities and enterprises. Much recent thinking on this subject is based on the concept of 'livelihood diversification as a survival strategy of rural households in developing countries' (Ellis, 1999). Farming remains important but rural people are looking for diverse opportunities to increase and stabilise their incomes. Individuals in developing countries often rely on various sources of monetary incomes. Leibbrand, Woolard and Woolard (2000) provide empirical evidence that this is the case in South Africa. Moreover, Glick (1999) documents that, in the case of Guinea, monetary earnings are often supplemented through extensive engagement in home production. The situation is likely to be similar in other countries of sub-Saharan Africa and in other developing countries as well. This suggests that studies of labour market participation and labour supply in developing countries should start from the presumption that multiple job holding is the norm rather than the exception. Except for the work of Glick (1999) and Joliffe (2004) this is, however, not the state of the art in the economics literature. Hence, the main aim of the present paper is to examine the extent of multiple-job-holding in the African context, and to examine which factors drive individuals into multiple job holding.

In sub-Saharan Africa reliance on agriculture tends to diminish continuously as income level rises, i.e. the more diverse the income portfolio the better-off is the rural household. Elsewhere, a common pattern is for the very poor and the comparatively well off to have the most diverse livelihoods, while the middle ranges of income display less diversity (Ellis, 1999). It is widely agreed that a capability to diversify is beneficial for households at or below the poverty line. Having alternatives for income generation can make the difference between minimally viable livelihoods and destitution. However, diversification does not have an equalising effect on rural incomes overall. Better-off families are typically able to diversify in more favourable labour markets than poor rural families. The tendency for rural households to engage in multiple occupations is often remarked, but few attempts have been made to link this behaviour in a systematic way to rural poverty reduction policies. In the past it has often been assumed that farm output growth would create plentiful non-farm income earning opportunities in the rural economy via linkage effects. However, this assumption is no longer tenable; for many poor rural families, farming on its own is unable to provide a sufficient means of survival, and the yield gains of new technology display signs of leveling off, particularly in those regions where they were most dramatic in the past.

Gender on the other hand, is an integral and inseparable part of rural livelihoods. Men and women have different assets, access to resources, and opportunities. Women rarely own land, may have lower education due to discriminatory access as children, and their access to productive resources as well as decision-making tend to occur through the mediation of men. Women typically confront a narrower range of labour markets than men, and lower wage rates. In general, therefore, diversification is more of an option for rural men than for women. In this sense, diversification can improve household livelihood security while at the same time trapping women in customary roles (Ellis, 1999). It is possible for diversification to improve the independent income-generating capabilities of women and in so doing, also improve the care and nutritional status of children since a high proportion of cash income in the hands of women tends to be spent on family welfare. A diverse portfolio of activities contributes to the sustainability of a rural livelihood because it improves its long-run resilience in the face of adverse trends or sudden shocks. In this respect, individual and family livelihoods display similarities to larger social and economic groupings up to the level of the economy at large. In general, increased diversity promotes greater flexibility because it allows more possibilities for substitution between opportunities that are in decline and those that are expanding.

Nigeria, with a population of over 140 million, is Africa's most populous country and the continent's fourth largest economy (NPC, 2006). The economy is still basically agrarian, even if since the advent of petroleum in the mid-1970s the relative share of agriculture, livestock, forestry and fishing which was 65.6 per cent in 1960/61 (with the agriculture subsector accounting for 56.6 per cent) has declined with the agricultural subsector accounting for only 32 per cent per annum in the 1990s. But the sector still constitutes the source of employment and livelihood for about three-quarters of the population. It is also the dominant activity in terms of linkages with the rest of the economy. The pattern of diversification and changing income levels indicates that agriculture is not a path out of poverty in many areas. In a case study of a cocoa production area in Nigeria, for example, household Rural Non-Farm Income (RNFI) rose on average from 33% in the mid-80s to 57% in 1997, with the poorest households showing the strongest move towards RNFI over the period (Mustapha, 1999). Livelihood strategies are therefore likely to be influenced by relative income levels and in particular the number of options that become available to different income classes (Ellis, 1999).

This paper therefore seeks to provide an in-depth understanding of the different activities that rural households in Nigeria engage in to generate incomes and examine how these factors affect their poverty status. It is envisaged the results of the study will contribute in the design of antipoverty initiatives in the rural Nigeria where the majority of the population remain poor.

Conceptual Framework /Literature Review

Income diversification refers to several distinct concepts; the patterns of diversification vary depending on the definition used. Here, the paper briefly describes some of the determinants of diversification and review studies on income diversification. Rising income, lower domestic marketing costs, and international trade liberalization all create new opportunities for rural households, thus contributing to more diverse sources of income in rural areas. But this does not imply income diversity at the household level; in fact, it could lead to household-level specialization. To understand the economic rationale for an individual household to have multiple income generating activities, there is the need to look at household-level factors. One definition of income diversification, perhaps closest to the original meaning of the word, refers to an increase in the number of sources of income or the balance among the different sources. Thus, a household with two sources of income would be more diversified than a household with just one source, and a household with two income sources, each contributing half of the total, would be more diversified than a household with two sources, one that accounts for 90 percent of the total (Joshi et al. 2002; Ersado, 2003).

A second definition of diversification concerns the switch from subsistence food production to the commercial agriculture. For example, Delgado and Siamwalla (1997) argue that ''farm diversification' as an objective in African smallholder agriculture should refer primarily to the part of farm household output undertaken specifically for cash generation''. A less ambiguous term for this type of diversification is agricultural commercialization. It does not necessarily involve an increase in the number or balance of income sources. For example, a farmer may move from producing various grains, tubers, and vegetables for own consumption to specializing in one or a few cash crops. Third, income diversification is often used to describe expansion in the importance of non-farm income. Non-farm income includes both off-farm wage labour and non-farm self-employment (Reardon, 1997; Escobal, 2001). Diversification into non-farm activities usually implies more diversity in income sources, but this is not always the case. For example, if a household increases the share of income from non-farm sources from 30 percent to 75 percent, this represents diversification into non-farm activities but not income diversification in terms of the number and balance of income sources. The share of income coming from non-farm activities often correlates with total income, both across households and across countries. This definition of income diversification is linked to the concept of structural transformation at the national level, defined as the long-term decline in the percentage contribution of agriculture sector to gross domestic product (GDP) and employment in growing economies.

Finally, income diversification can be defined as the process of switching from low value crop production to higher-value crops, livestock, and non-farm activities. "High value crops" are often defined in terms of the value per unit of weight, but it is probably more useful to define them as crops that generate high economic returns per unit of labour or land. This definition focuses on diversification as a source of income growth and a potential means for poverty reduction. Again, diversification from staple crop production into high-value activities often implies greater diversity in crops and income sources, but this is not always the case. For example, if a mixed grain-and-poultry farmer decides to specialize in poultry production, this would represent diversification into a high-value activity, but not diversification in the sense of multiple activities. Thus, many analyses of income diversification conceive of diversification in terms of strategies employed to earn cash income in addition to primary production activities from a variety of sources. It is often argued that this is a strategy primarily intended to offset risk (Dercon and Krishnan, 1996). These analyses tend to be rooted in economics and quantitative analysis, focusing on the relative importance of the different sources of income of poor households.

However, the definition used by the United Kingdom's Department of Foreign and International Development (DFID) incorporates these sentiments. 'A livelihood comprises the capabilities, assets (including both material and social resources), and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base' (Chambers and Conway, 1992). Livelihood diversification therefore refers to attempts by individuals and households to find new ways to raise incomes and reduce environmental risk, which differ sharply by the degree of freedom of choice (to diversify or not), and the reversibility of the outcome. Livelihood diversification includes both on- and off-farm activities which are undertaken to generate income additional to that from the main household agricultural activities, via the production of other agricultural and non-agricultural goods and services, the sale of waged labour, or self-employment in small firms, and other strategies undertaken to spread risk (Carter 1997; Stark and Levhari, 1982).

Moreover, it must be noted that many livelihood diversification strategies are frequently gender specific. The literature confirms that women may undertake a similarly wide range of diversification activities as men (Chen, 1989), but in many contexts, men are able to avail themselves of diversification opportunities that are not open to women due to cultural constraints. For example, Kabeer (1990) noted that women's strategies in Bangladesh are limited by the practice of female seclusion (purdah) which operates at a practical and an ideological level. Personal accumulation and consumption are sanctioned for men to fulfil their part of the patriarchal bargain: women try to renegotiate this to protect themselves against the break-up of the household. There is also strong evidence that the involvement in, and therefore reaping of benefits from, non-farm employment is skewed in favour of men, and against women. First, in Africa many women are engaged in the lowest levels of micro enterprise: household-based income generating activities. There are no substantial barriers to entry into this type of activity in terms of skills and capital, but they yield very low incomes (not to diminish their importance in supplementing the household budget). They are, on the whole, "survival" activities (Haan, 1989).

Further, while reliable statistics on the different levels of involvement of women and men in rural non-farm employment are hard to find, those that exist point to women not participating equally. Haggblade et al (1989) showed that in rural areas of Mali the participation rate of women in non-farm employment is 16 percent as opposed to 84 percent for men, an indication that men do have more opportunities to pursue this type of diversification. Meanwhile, in some instances, women may also employ coping strategies that are not easily available to men (Koch Laier et. al, 1996). Prostitution is one income diversification strategy that has been employed by women in urban centres of Mali to increase their independence from male migrants (Vaa et al, 1989), and is cited as an advantage held by female heads of household over men (Jiggins, 1986). While some authors may regard this as a form of exploitation to be resorted to only in extreme circumstances, it can, as above, be regarded as one opportunity for sustaining livelihoods. From the foregoing, it is evident that households in rural areas employ different strategies as means of meeting domestic obligations and ensuring households security in terms of incomes and other necessities.

Research Methodology

Study Area

The study is conducted in Nigeria. Nigeria has 36 states plus the Federal Capital Territory, Abuja. The country has 774 Local Government Areas (LGAs) with a total population of over 140 million people. The country is also divided into six geopolitical zones and the zones are South-west, South-east, South-south, North-west, North-east and North-central. The country has a total land area of about 923,768 sq km. Nigeria is one-third larger than Texas and the most populous country in Africa. It is situated on the Gulf of Guinea in West Africa. Its neighbours are Benin, Niger, Cameroon, and Chad. The lower course of the Niger River flows south through the western part of the country into the Gulf of Guinea. Swamps and mangrove forests border the southern coast; inland are hardwood forests. Languages spoken in Nigeria include English (official), Hausa, Yoruba, Ibo, Fulani, and more than 250 other ethnic groups. The diversity in languages spoken in Nigeria is a reflection of how diverse the population is in terms of culture and the kind of activities they engage in.

Types of Data and Sampling Techniques

Data were collected through well structured questionnaire administered on a sample of 420 household heads in the six geopolitical zones of the country using a multistage random sampling technique. In the first stage, one state was randomly selected from each of the geopolitical zones. The six states are - Ekiti in the South-west, Akwa-Ibom in the South-south, Enugu in the South-east, Katsina in the North-west, Bauchi in the North-east, and Niger in the North-central. The second stage was the selection of two LGAs each from the states selected. A total of 12 local government areas were therefore covered in the survey. The third stage involves selection of one town from each of the LGAs while the fourth stage involves a random selection of household heads based on probability proportional to size. Information collected includes socioeconomic characteristics of respondents - age, gender, marital status, household size, years of formal education, primary occupation, income, activities engaged in by residents of the study area, different livelihood available, social and infrastructural facilities accessible to the respondents, amount spent to access these amenities, consumption and expenditure on food and non-food items, different indicators of poverty and general well-being e.t.c.

Table 1: Questionnaire administration by zones, states and LGAs

State	Local Government	Questionnaire Administered	Number Retrieved
South-west			
Ekiti	Ekiti South West & Ikole LGAs	90	80
South-south			
Akwa-Ibom	Eket and Oron LGAs	80	65
South-east			
Enugu	Awgu & Enugu North LGAs	85	70
North-west			
Katsina	Funtua & Dutsinma LGAs	80	70
North-east			
Bauchi	Katagum & Ningi LGAs	75	65
North-central			
Niger	Shashaga & Suleija LGAs	90	70
Total		**500**	**420**

Source: Survey Data; 2008

Analytical Techniques

In analyzing the data obtained for the study, a number of analytical methods were employed and these include; descriptive statistics, FGT poverty index and the Tobit regression model.

Descriptive Statistics: - Descriptive statistics (such as means, tables, frequencies, percentages) were used to analyze, summarize and describe the socioeconomic characteristics of the respondents.

Freer, Greer and Thorbecke (FGT) Poverty Index: - FGT poverty index was employed to ascertain the poverty status of the respondents and this was then used to disaggregate them into poor and non-poor categories. It has become customary to use the so-called P_α measures in analyzing poverty. The measures relates to different dimensions of the incidence of poverty P_0, P_1 and P_2 were used for head count (incidence), depth and severity of poverty respectively. The three measures were based on a single formula but each index puts different weights on the degree to which a household or individual falls below the poverty line. The mathematical formulation of poverty measurements as derived from Foster, Greer and Thorbecke (1984) is estimated as:

$$P\alpha = \frac{1}{N} \sum_{i=1}^{q} \left(\frac{Z_1 - Y_1}{Z_1} \right)^{\alpha}$$

Where,

P_α = the weighted poverty index for the ith sub-group

α = Foster-Greer-Thorbecke (FGT) index and takes on the values of 0, 1 and 2 for incidence, depth and severity of poverty measures respectively.

Z_1 = the poverty line for ith sub-group

q = the number of individuals below the poverty line

N = the total number of individuals in the reference population

Y_{ij} = the per capita expenditure of household j in the sub-group i

$Z_1 - Y_{ij}$ = poverty gap of the ith household

$\frac{Z_1-Y_{ij}}{Z_1}$ = poverty gap ratio

The quantity in bracket is the proportionate shortfall of expenditure/income below the poverty line.

$\frac{q}{n}$ = the proportion of the population that falls below the poverty line

This is called the head count or incidence of poverty

If α =0, then FGT measures the incidence of poverty

If α = 1, then FGT measures the depth of poverty

If α =2, then FGT measures the severity of poverty

Estimation of poverty based on the FGT index was then used to disaggregate households into poor and non-poor categories.

Tobit Regression Model: - Tobit model was however employed to ascertain the determinants of livelihood diversification among households in the study area. The Tobit model (Greene, 2003) employed was of the form;

$$Y_i^* = X_i \beta + \varepsilon_i$$

Where ε_i is normally distributed with zero mean and constant variance.

Where, Y^* is the livelihood diversification index obtained by dividing the number of livelihood sources employed by all the livelihood sources available in the study area. Thus, the value of the livelihood diversification index ranges between zero and one. Thus, the explanatory variables used in the regression analysis were and measured as;

X_1	=	Age (in years)
X_2	=	Gender (Female = 1, Male = 0)
X_3	=	Marital status (Married = 1, Single, Divorced or Widowed = 0)
X_4	=	Household size
X_5	=	Years of formal education
X_6	=	Poverty status (Poor = 1, Non-poor = 0)
X_7	=	Income of respondents (Naira)
X_8	=	Primary occupation (Farming = 1, Non-farming = 0)
X_9	=	Access to credit facility (No = 1, Yes = 0)
X_{10}	=	Location/Distance to local or state headquarters (Km)
β	=	Regression parameters or coefficient
ε_i	=	Error term.

Presentation of Results and Discussion

Age of Respondents

Respondents' distribution by age as depicted in Table 2 shows that average age of the respondents is 45 years. Meanwhile, over 70 percent of the respondents are young and still in their active working years. In other words, only a few of those surveyed are either too young or too hold to engage in one activity or the other in the study area. The distribution generally revealed the participation of mostly youth in livelihood activities in the study area.

Table 2: Age Distribution of Respondents

Age	Frequency	Percentage
<30	28	6.7
31-40	190	45.2
41-50	102	24.3
51-60	63	15.0
61 and above	37	8.8
Total	**420**	**100.0**

Source: Survey Data; 2008

Gender of Respondents

As shown in Table 3, there are more male-headed households in rural Nigeria than female-headed households. While about 55.5 percent are males only about 44.5 percent are females. Thus, majority of the respondents are males engaging in different livelihood activities in the study area.

Table 3: Distribution of Respondents by Gender

Gender	Frequency	Percentage
Male	233	55.5
Female	187	44.5
Total	**420**	**100.0**

Source: Survey Data; 2008

Marital Status of Respondents

An assessment of the result of the analysis in Table 4 indicates that over half of those surveyed (58.3 percent) are married. About 20 percent of them are single while the rest are either divorced or widowed. The distribution generally shows that there are more married respondents than their single, divorced or widowed counterparts.

Table 4: Distribution of Respondents by Marital Status

Marital Status	Frequency	Percentage
Single	82	19.5
Married	245	58.3
Divorced	40	9.6
Widowed	53	12.6
Total	**420**	**100.0**

Source: Survey Data; 2008

Educational Level of Respondents

Educational distribution of respondents as revealed in Table 5 indicates that over one-quarter (29.5 percent) of those surveyed have no formal education. This is closely followed by those with primary education (21.4 percent). Those with secondary education constitute about 9.3 percent while those with tertiary education constitute about 35.3 percent of those surveyed. The distribution reveals that a sizeable number of all the respondents are not education and this could possibly affect the poverty status of the respondents.

Table 5: Distribution of Respondents by Educational Level

Educational Level	Frequency	Percentage
No formal education	124	29.5
Primary education	90	21.4
Secondary education	58	13.8
NCE/OND	39	9.3
HND/BSC	62	14.8
MSc/PhD	47	11.2
Total	**420**	**100.0**

Source: Survey Data; 2008

Household Size of Respondents

The distribution of respondents by household size is shown in Table 6. From the table, it is clear that over one-third (40 percent) of those surveyed have 4-6 members. Those with about 7-12 members constitute 32.8 percent. From the analysis, household size in the study area is fairly large with an average of 7 members and this is expected to have a multiplier effect on the poverty status of the respondents. This is because large household size is usually associated with increased poverty because of reduced income per capita and a general reduction in the level of well-being.

Table 6: Distribution of Respondents by Household Size

Household Size	Frequency	Percentage
1-3	86	20.5
4-6	167	39.8
7-9	101	24.0
10-12	37	8.8
$\geq$ 13	29	6.9
Total	**420**	**100.0**

Source: Survey Data; 2008

Primary Occupation of Respondents

The result of the analysis on primary occupation depicted in Table 7 shows that about 37.4 percent of those surveyed are fully engaged in agriculture. In other words, farming is their main occupation. This is closely followed by those engaged as artisans (29.5 percent). Those engaged in trading, civil service and private salaried job are 13.1, 9.3 and 10.7 percents respectively. The distribution generally reveals the relative importance of farming as the main occupation and largest employer of labour in Nigeria.

Table 7: Distribution of Respondents by Primary Occupation

Primary Occupation	Frequency	Percentage
Farming	157	37.4
Trading	55	13.1
Civil service	39	9.3
Private salaried job	45	10.7
Artisans	124	29.5
Total	**420**	**100.0**

Source: Survey Data; 2008

Gender Dimension in Respondents' Livelihood Sources

A gender disaggregation of respondents' livelihood sources (Table 8) show that 56.4 percent of male-headed households are engaged in all the livelihood activities considered while about 43.6 percent of the female-headed households are engaged in these activities. A further analysis of the data reveals that female-headed households are more diversified (combining two or more livelihood activities) than their male-headed counterparts. The high level of diversification by female-headed households is attributable to their high vulnerability status and because women are generally more susceptible and prone to shocks and poverty – due largely to poor access and lack of control over productive resources and income (Ellis, 1999).

Table 8: Distribution of Respondents' Livelihood Sources by Gender

Livelihood Source	Frequency	Number (Male)	Percentage (Male)	Number (Female)	Percentage (Female)
Farming	157	96	40.5	61	33.3
Trading	55	27	11.4	28	15.3
Civil service	39	20	8.4	19	10.4
Private salaried job	45	23	9.7	22	12.0
Artisans	124				
↓↓	↓				
Pottery	6	4	1.7	2	1.1
Smoking	20	6	2.5	14	7.7
Carpentry	10	7	3.0	3	1.6
Shoe making	8	5	2.1	3	1.6
Bricklaying	11	10	4.2	1	0.5
Hair	15	6	2.5	9	5.0
barbing/platting	13	13	5.5	0	0
Vulcanizing	6	4	1.7	2	1.1
Basketry/weaving	18	7	3.0	11	6.0
Tailoring	10	4	1.7	6	3.3
Laundry	7	5	2.1	2	1.1
Driving		**237**		**183**	**100.0**
Total					

Source: Author's Computation from Survey Data; 2008

Income Level of Respondents

The distribution of respondents by income level is shown in Table 9 and it is clear that over half (55.4 percent) of those surveyed earn less than N10, 000 as income. Those earning between N10, 001 and N20, 000 constitute about 35.0 percent while only about 8.6 percent earn above N20, 000. The distribution generally indicates that the income level of respondents is very low considering the average household size of 7. Thus income per capita (a measure of the level of wellbeing) is also very low going by the US one dollar a day as the minimum for subsistence for households in developing countries.

Table 9: Distribution of Respondents by Income Level

Income Level (Naira)	Frequency	Percentage
≤ 5,000	93	22.1
5,001-10,000	144	34.3
10,001-15,000	89	21.2
15,001-20,000	58	13.8
≥ 20,001	36	8.6
Total	**420**	**100.0**

Source: Survey Data; 2008

Gender Dimension in Respondents' Income Level

The distribution of respondents' income level by gender (Table 10) shows that female-headed households are poorer than male-headed households. For instance in the low income category (N5, 000 - N15, 000), while about 79.4 percent of the respondents are females, about 76.1 percent of them are males. However, among those earning between N15, 001 and above there are more male-headed households (23.9 percent) than their female-headed (20.6 percent) counterparts. This distribution generally reveals that women in the study area are low income earners when compared with their men counterparts.

Table 10: Income Distribution of Respondents by Gender

Income Level	Frequency	Number (Male)	Percentage (Male)	Number (Female)	Percentage (Female)	Percentage (Total)
≤ 5,000	93	50	22.1	43	22.2	22.1
5,001-10,000	144	80	35.4	64	33.0	34.3
10,001-15,000	89	42	18.6	47	24.2	21.2
15,001-20,000	58	37	16.4	21	10.8	13.8
≥ 20,001	36	17	7.5	19	9.8	8.6
Total	**420**	**226**	**100.0**	**194**	**100.0**	**100.0**

Source: Author's Computation from Survey Data; 2008

Poverty Status of Respondents

The distribution of respondents by disaggregation using the FGT poverty index (Table 11) showed that about three-quarter (76.3 percent) are poor relying on less than one US dollar a day, an indication that most of them are poor. This distribution is further alluded to by the income level of the respondents in which case over 55.4 percent of them earn below N10, 000 per month. Again, respondents' poverty status distribution by gender shows that there are more female-headed households living below the poverty line drawn for the study area than male-headed counterpart. Thus female-headed households in rural Nigeria are poorer than male-headed households. This is attributable partly to their poor/lack of access and control over productive resources.

Table 11: Poverty Status' Distribution of Respondents by Poverty Status

Gender	Frequency		Percentage		Percentage
		Poor		Non-poor	
Male	233	105	45.1	128	54.9
Female	187	125	66.8	62	33.2
Total	**420**	**230**		**190**	

Source: Author's Computation from Survey Data; 2008

Determinants of Livelihood Diversification among Households in Rural Nigeria

A tobit model employed to examine the determinants of livelihood diversification among households (depicted in Table 11) in the study area shows that the coefficients of gender, household size, poverty status and access to credit facility are positive. This means that female-headed, large-sized, poor households and those lacking access to credit facility have higher likelihood of being more diversified in their livelihood activities than male-headed, small-sized, non-poor households and those having access to credit facility. Also, while the coefficient of gender is significant at 1 percent ($p<0.001$), those of household size and poverty status are significant at 5 percent ($p<0.05$). The coefficient of access to credit is not significant at all. However, the coefficients of educational status, primary occupation, income and location of respondents are negative and significant at 1 percent ($p<0.01$), 10 percent ($p<0.10$), 5 percent ($p<0.05$) and 10 percent ($p<0.10$) respectively. In other words, household heads with formal education, married, engaged in farming as primary occupation and those living far away from headquarters of state or local government are less diversified than those with no formal education, single/divorced/widowed, non-farming households and those living very close to the state or local government headquarters. The implication of this is that respondents with formal education (especially those educated up to tertiary level) are engaged in better and well-paid salaried jobs than those with no formal education hence they have lower likelihood of combining two or more jobs (multiple job holding). This is because education enhances the potential of respondents and makes them grab available opportunities with little or no stress. In the same vein, respondents with access to credit facility, small-sized and those living far away from the headquarters have lower likelihood of diversifying their livelihood sources. For instance, it has been established in several studies in developing countries (Mwabu and Thorbecke, 2001; Mwabu, 2002; Oluwatayo, 2007) that small-sized households are less prone to poverty than large-sized households because the income per capita (a measure of wellbeing status) of the former is usually larger than that of the latter. Also, respondents living not too far from the state or local government headquarters are in some instances attracted by opportunities in the city centres because they are likely to be better informed. From the results presented here, it is very clear that factors encouraging respondents to be more diversified have higher likelihood of aggravating their living conditions while those factors discouraging diversification enhances specialisation and these have higher likelihood of improving the living conditions of the respondents. For example, improvement in the educational status of respondents will in no small measure bring about specialisation because of enhanced income and welfare situations.

Table 11: Tobit Regression Result of the Determinants of Livelihood Diversification

Variable	Coefficient
Age (X_1)	0.0569 (0.0421)
Gender (X_2)	1.1207*** (0.3200)
Marital status (X_3)	2.0021 0.9420
Household size (X_4)	0.5003** (0.1810)
Years of formal education (X_5)	0.1558*** (0.0214)
Poverty status (X_6)	3.0209** (1.1296)
Income of respondent (X_7)	1.1051** (0.4308)
Primary occupation (X_8)	0.6024* (0.3067)
Access to credit facility (X_9)	0.0055 (0.0106)
Location (X_{10})	1.2506* (0.6009)
Constant	0.5105 (0.2733)

**Coefficients significant at 10 percent* ***Coefficients significant at 5 percent*
****Coefficients significant at 1 percent* *Log-likelihood = - 58.2300910*
Prob. > chi2 = 0.0000621 *Figures in parenthesis are standard errors*

Source: Author's Computation from Survey Data; 2008

Reasons Adduced by Respondents for Engaging in Multiple Jobs

Analysis of the reasons adduced by respondents for engaging in multiple jobs as shown in Table 12 indicates that declining income, rising poverty levels and lack of accessible social protection mechanisms (either in the form of credit facilities or insurance schemes are very fundamental in the responses of those surveyed. The respective percentages of these respondents indicating these are 43.1 percent, 24.5 percent, and 17.1 percent. Other reasons adduced include family pressures (6.9 percent), rising prices of consumables (4.1 percent) and others (4.3 percent). In general, it is clear from the analysis that declining income from main income source is the major reason for engaging in multiple jobs in the study area.

Table 12: Distribution of Respondents by Reasons Adduced for Engaging in Multiple Jobs

Reason	Frequency	Percentage
Rising poverty	103	24.5
Family pressures	29	6.9
Declining income	181	43.1
Lack of social protection	72	17.1
Rising prices of consumables	17	4.1
Inadequate access to credit facility	8	1.9
Poor asset base	7	1.7
Inadequate infrastructures	3	0.7
Total	**420**	**100.0**

Source: Survey Data: 2008

Summary, Conclusion and Recommendations

Summary of Major Findings

The study investigated poverty and income diversification among households in rural Nigeria from a gender perspective. Analysis of data revealed that most of the respondents were young, married with a fairly large household size. Educational analysis of respondents indicated that a sizeable number had no formal education with only about one-third educated up to tertiary level. However, distribution of respondents by poverty status showed that there were more poor female-headed households in the study area than poor male-headed households with over half of those surveyed living on less than one dollar a day. Meanwhile, the result of the tobit regression model on ascertaining the determinants of livelihood diversification showed that the coefficients of gender, household size, poverty status and access to credit facility were positive. This indicates that any increase in the value of the coefficients of these variables have higher likelihood of influencing the estimated livelihood diversification index positively. Further, the coefficients of years of formal education, income, marital status, primary occupation and location were negative. Thus, an increase in the value of any of the aforementioned variables will negatively influence the estimated livelihood diversification index. In general, male-headed, non-poor households with formal education, small-sized households with better income and access to credit facility were not all that engaged in multiple jobs like female-headed, uneducated, large-sized, poor households and those not having access to credit facility.

Conclusion and Recommendations

Going by the findings of the study, it was revealed that most households in rural Nigeria engage in multiple jobs (diversify) as panacea to augmenting their main income source. Again, poverty in Nigeria is high having estimated that more than half of those surveyed were poor and live on less than one dollar a day. More so, the prominent role of agriculture has equally been brought to the fore as the largest employer of labour in the country hence the need for more commitment on the part of government and the private sector to improve on the status quo in terms of creating an enabling environment for investment. From the foregoing it is recommended that;

1. Government should intensify its efforts at enhancing human capital development through education (especially of the girl-child – being the most disadvantaged) having established from the study that respondents with formal education were not as poor as those with no formal education.
2. Campaign and sensitisation of rural households on family planning and child spacing techniques should also be made a priority so as to curtail excessive population growth. Going by the findings of the study, large-sized households were associated with low per-capita income hence their reduced standard of living.
3. Effort should also be geared towards providing social protection services in the form of welfare schemes that could assist rural households in enhancing their standard of living and government can do this by encouraging rural households to form cooperative societies. Cooperative has been established as a veritable tool to reducing or at least alleviating poverty among rural households.

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