

INCOME DETERMINANTS AMONG RURAL WOMEN IN NIGERIA: EVIDENCE FROM NIGER STATE

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ABSTRACT

Women being the backbone of many households do involve in many source of incomes with the rural women always having few opportunities. Majority of rural women are always opened to few opportunities mainly agriculture and trade. It is to this end that the objective of the study is to investigate the determinants of income in rural areas of Niger State. The study uses a cross sectional data source and obtained data from 357 rural women leaving in the suburb areas of Minna metropolis and applied a multiple regression analysis. The study focuses on the nature of rural women income and found educational level of women and women who are entrepreneurs to be positively associated with income, while women who engaged in wage work have no any associated with their income. The study therefore recommends entrepreneurship scheme acquisition in rural areas of the state as well as SME loans to boost the rural women income.

Keywords: Income, Women, Education, Rural, Minna

1.0 Introduction

Over the time, the nature of rural women income diversification has been narrow when compared to opportunities in urban areas, not only in terms of occupational professionalism, but also in terms of market size. This made many rural women to be subjected to certain occupation within their environments. It has often been argued that, women are always deprived and been discriminated against, with limited access to resources (World Bank, 1991; UN, 2009). Evidence from most developing countries especially in the rural areas has shown that, female headed households have different socioeconomic and demographic characteristics when compared to their male counter parts (Oginni, Ahonsi & Ukwuije, 2013; Dassanayake, Luckert & Mohapatra, 2015). This is because rural women are mostly faced with problems of poverty and economic insecurity, which made a quite number of them to sell all or some of their assets (Djurfeldt, Djurfeldt & Lodin, 2013; Thomas & Gaspart, 2014). Their situations a time worsen couple with the responsibility of their children, while seeking employment becomes inevitable despite the unavailable income earning opportunities. These compel them to engage in informal sector, with low occupational positions compared to men. Looking at the African and some less developed countries scenario, where extended family practice is common and kinship networks waxed stronger, women relatively always experience low entitlements such as their restricted access to land ownership,

inaccessibility to credit facilities and other means of production (see Guirkinge & Platteau, 2015; Tufuor, Niehof, Sato & Horst, 2015; Hallward-Driemeier & Gajigo, 2015). In addition, they have limited access to basic education resulting in low literacy levels, which serve as barriers in terms of becoming business - women due to inaccessibility to capital (Mutavi Kokonya, Muliro, Obondo, Wariua & Ocharo, 2013).

According to Demographic and Health Surveys of 1990 to 1994 statistics, the rates of female household heads were 9.9% with 14.3% of total population living in female-headed households in **Nigeria; while according to World Bank in 2008, the female household heads was reported to be at 19.3% (World Bank, 2014).** The South Africa experience shows that 62% of the female headed households in South Africa were poor (Sekhampu, 2012), while 70% of younger widows are more likely to be faced with socio-economic problems (**Sekhampu, 2012**). Also, report by Nazoktabar and Aliabadi (2011) in Iran shows that 96% of the female-headed households have low education; 50% of these female have low jobs; 34% have semi-important jobs; 16% do not have a job; 64% have low income and 24% do not have income. While 80% of these families have middle and low social-economic status.

Unfortunately, in our present society, the female headed households are often confronted with some problems and

dangers; some of them are heading children alone and sometimes with difficulty, economic problems, depression and disappointment (Appleton, 1996). It is therefore pertinent to investigate the determinants of their income, especially looking at different sources of income. It is obvious that previous researches (Fuwa, 2000; Quisumbing Haddad, & Peña, 2001; Assefa, 2003; Chant, 2003; **Khalid and Akhtar, 2011**; Sekhampu, 2012) emphasized on the poverty aspect of the household heads, but their studies failed to look at the impact of different sources of income to rural women income, because these differences widen the poverty gap among rural women in many societies. This study therefore aims at investigating the determinants of women income in rural areas of Niger State, Nigeria. Women are always constrained in terms of income sources either by their husbands or family. This challenges are coupled with their level of education, which affects their ability to diversify some sources of income strategy. This study is divided into five sections, aside this introduction, section two discusses the relevant literature, section three is the methodology, section four analyses the data, and section consist of conclusion and recommendation.

2.1 Theoretical Framework

Information on decision making process, resource allocation, income earning mechanism and gender division of labour can best be explained by using Becker

household economic theory. The theory was propounded in 1965 by Becker and was a widely applied model of resources and labour time distribution within a household. The model entails that decision within a household are made jointly (mostly based on the needs of the family) and that the household head maximizes a single set of objectives for all its members (Ellis, 1988).

In the light of the study, inequalities in resources distribution are always generated by both the economic and social factors (Alderman, Chiappori, Haddad, Hoddinott & Kanbur, 1995). The female headed households are less in population as compared to the male headed households, the presence of gender inequality in our society limits the participation of women in socio economic activities especially in the African countries, and this encourages the inequality in resource distribution. The productivity of a female headed household depends on the pattern of family size, as well as the level of education of both the head and the children within households. The model therefore explains how female headed households can increase their sources of income in order to solve most of their socio economic problems they face in their various societies despite the inequality in resource allocation.

2.2 Literature Review

Several studies (Quisumbing *et al.*, 2001; Khalid & Akhtar, 2011; Sekhampu, 2012; etc) have explained the issues surrounding

the women heads, ranging from income, employment status, education etc. Early studies compared female heads with male heads, for example study by Fuwa (2000) found self-reported female headed households not to be well over-represented among the poor when compared to male heads in Panama, as female headed households are rather better-off on average income than self-reported male headed households. In contrary, Quisumbing *et al.* (2001) used a panel of 10 developing countries and found female headed households are worse off given the level of poverty, especially from one-fifth to one-half of the observation covered; though women were overrepresented among the poor. Likewise, Conley and Ryvicker (2004) study of United State indicates that female heads suffer from lower net worth than their male counterparts as the effect remains after controlling for age, marital status, number of children, labor market characteristics, income, education, and race.

More so, Khalid and Akhtar (2011) found that employed women residing in local environments have a higher probability of being poor, as the probability of female headed households to be living below the poverty line is seen to increase with the number of dependents by 3.9% especially after their service year. In furtherance, **Hossain and Huda (2007) discovered that most rural women suffer from poverty, economic insecurity, lack of assets, lack of employment, income earning**

opportunity, and political powerlessness. Later study by Sekhampu (2012) found a significant relationship between poverty and large family size with household head, such that the larger the family sizes the more likely the household head become poorer. Contrarily, Assefa (2003) looked into female headed households and poverty in Ethiopia, and findings show that there is no clear relationship between the poverty status and large family size if marital statuses of the female head are considered, as the majority of the female heads are widowers or divorced. **Gangopadhyay and Wadhwa (2003) discovered that the poverty of a household does not depend on the gender of the household head, rather on the level of education of the household heads.** Mutavi *et al.* (2013) used *sample of 80 women heads, and their finding revealed that low level of education among the women compounded their vulnerability to poverty and increased the risk of the female household heads not being able to educate their own children.* For women, education can provide the stepping stone out of poverty by providing access to formal sector employment and enhancing productivity in the informal sector. Walle (2011) used a case study of Mali, and found that greater illiteracy and lower educational attainments generally place stronger limitations on women access to employment and government services.

However, women also face pronounced health risks as a result of lack of sufficient

resources to stabilize their households. Though a Zimbabwe study by Horrel and Krishnan (2006) suggest that women are not unusually income poor but they do lack assets, particularly those assets needed for agricultural production. This constrains their ability to diversify both in terms of the types of crops grown and taking advantage of any local labour market options. But they don't disproportionately lack income or education. The study suggests that with more resources and support from extension services they can improve their position. This can in form of comprehensive training programme as suggested by Chant (2003). Income is one of the major problems faced by women, as such, Angel *et al.* (2007) used a time series data for the period of 1992 to 2000, and they applied an Ordinary Least Square (OLS) regression to examine the economic consequences of women. Their findings revealed that widows experienced significant and substantial losses in income and net worth. As minority of women are less able to accumulate assets during their working years. Appleton (1996) examined women headed household welfare in Uganda, using a cross-sectional data with a sample of 2729 households from the 1992 integrated household survey (IHS), argued that women-headed households are not poorer when assessed by consumption or income. Nor do they appear consistently disadvantaged on social indicators. The real issue is that some subgroups of women-headed households do have lower economic welfare.

3.0 Methodology

This section consists of data source and estimation procedure.

3.1 Data

This study uses a cross-sectional data set by obtaining information on 357 rural women who are household heads in suburb areas of Minna. The data were purposively collected on women due to their low level of engagement in economic activities; and also the life expectancy of women is greater than that of men. Evidence from National Bureau of Statistics (2015) shows women in Niger state have the highest life expectancy of 56 years when compared to other states. The suburb areas of Minna were chosen because Minna is the state capital of the state as it has the common features of both literate and illiterate females headed household.

This study analyses the determinants of income diversification of women living in rural areas. The study employed variables as seen in the previous studies (**Gangopadhyay & Wadhian, 2003; Khalid & Aktar, 2011; Malesu-Kasala, 2007; Sekhampu, 2012**) such as income proxy by daily expenditure as dependent variables, while the independent variables include age measured in years attained; **family size measured based on number of heads dependants; educational level have one as literate and zero otherwise; source of income taking the value of one for agricultural income, two for wage income, three for enterprise. This study**

therefore uses OLS to analyse the determinants of income (as seen in the studies of Angel *et al.*, 2007; Peterman,

2011). The theoretical model for OLS is specified below:

$$Y_i = \beta_1 + \beta_2 X_i + \epsilon_i \dots \dots \dots 1$$

Where, Y_i is the dependent variable; β_s denotes the vector of estimable parameters;

X_i indicates vector of explanatory variables; and

$$In_i = \beta_1 + \beta_2 Ag_i + \beta_3 Fz_i + \beta_4 Ed_i + \beta_5 Ac_i + \beta_6 Wg_i + \beta_7 Ep_i + \epsilon_i \dots \dots \dots 2$$

Where In is income, Ag refers to women age, Fz represent family size, Ed stands for women level of education, while Ac , Wg and Ep stands for agricultural, wage and enterprises source of income respectively. The study categorizes the model base on main sources of income to rural women, by estimating the model three times in order to determine each relationship and joint influence.

the size of family, majority of the respondents have a large family size with 266 respondents constituting more than four in a family. Large family size is one of the common characteristics of rural people be it male or female household head. Similarly, the highest number of women sampled has obtained a primary certificate, while 104 respondents had secondary certificates, with 118 respondents not having qualification. The mean is 1.03 and the deviation value is 1.06, indicating some of the women with qualifications having the opportunity to be working in area offices such as schools, dispensary etc. The source of income common to rural areas is agriculture, wage and enterprises. The descriptive result shows majority of women in rural area are engaged in agricultural farming with 182 respondents being a full time farmer, while 104 and 71 respondents are into wages and enterprise respectively; the mean value is 1.69 and standard deviation of 0.78.

4.0 Results

The result in Table 1 shows the descriptive statistics for 357 respondents. The result indicates 192 respondents do spend below 400, while 165 do spend above 400 with an average value 440.56 and standard deviation of 167.83. This shows that majority of women living in rural areas are leaving below \$1.25, given the international poverty threshold. For age categorization, 36 to 45 have the highest observation with 151 respondents, with average age of 44.99 and standard difference of 10.74. Looking

Table 1: Descriptive Statistics

Variable	Frequency	Mean	Standard Deviation
Income			
400	192	440.56	167.83
401	165		
Age			
18 – 35	72	44.99	10.74
36 – 45	151		
45 & Above	134		
Family size			
4	91	5.17	0.98
5	266		
Education			
<i>None</i>	118	1.03	1.06
<i>Primary Certificate</i>	135		
<i>Secondary Certificate</i>	104		
Sources of income			
<i>Agricultural</i>	182	1.69	0.78
<i>Wage</i>	104		
<i>Enterprise</i>	71		
N	357		

Source: Field Survey 2016

From the result indicated in Table 2, the age is positive and significantly associated with income in the three models. That is an increase in rural women age does increase their income by 2.23 for women with agriculture as their source of income, 2.53 for women that receive wage, and 2.36 for those women that engage in enterprise. By

implication, women may likely need additional income to spend on necessity items such as medication and children education especially for those with large families. The coefficient for family size is not significant in the three models, suggesting no any significant association, this therefore not in line with findings of

Sekhampu (2012). Education is positive and significant in the three models with wage income women having the highest contribution given the coefficient value to be 57.66. This shows that the more additional qualification leads to increase in income, because educated women do have the opportunity to serve in rural offices as clerical staffs which increase their income. Thus, this finding supports the assertion of

Walle (2011). But when it comes to sources of income, agricultural and wage source of income has negative relationship with income, while women with enterprise source have positive relationship with income. This suggests that enterprising women do have the opportunity to indulge in various trades which can easily generate more income.

Table 2: Estimation result for income

	Income 1	Income 2	Income 3
Age	2.23*** (0.80)	2.53*** (0.81)	2.36*** (0.79)
Family size	-9.99 (8.58)	-13.69 (8.62)	-10.66 (8.46)
Education	33.37*** (10.46)	57.66*** (9.04)	44.31*** (8.28)
Sources of income			
<i>Agricultural</i>	-67.24*** (21.88)		
<i>Wage</i>		-18.13 (20.60)	
<i>Enterprise</i>			86.87*** (21.51)
R^2	0.15	0.13	0.16

Notes: Robust standard errors are in parentheses, P values: significance ***1%.

5.1 Conclusion and Recommendation

Based on the findings, the study therefore concludes that age and education of rural women has positive relationship with income. Also, rural women who engage in enterprise source of income is positively associated with income. Although, agriculture and wage income have negative relationship because virtually all women engage in agriculture, while only few women have access to wage income. The recommendation of this study is that women should be encouraged to be entrepreneurs, to be self-employed even if they have other means of earning in order to diversify their means of earnings for the purpose of overcoming the problem of poverty. Also government can assist by providing assistance to women in form of entrepreneurship developmental scheme with SME loans support in order to establish or expand their small and medium scale businesses.

REFERENCES

- Alderman, H., Chiappori, P. A., Haddad, L., Hodinott, J., & Kanbur, R. (1995). Unitary Versus Collective Models of the Household: Is it Time to Shift the Burden of Proof?. *The World Bank Research Observer*, 10(1), 1–9
- Angel, J. L., Jime'Nez, M. A., & Angel, R. J. (2007). The Economic Consequences of Widowhood for Older Minority Women. *The Gerontological Society of America*, 47(2), 224–234
- Appleton, S. (1996). Women-Headed Households and Household Welfare: An Empirical Deconstruction for Uganda. *World Development Journal*, 24(12), 1811–1827
- Assefa, M. (2003). Female-Headed Households and Poverty in Urban Ethiopia. In Kassahun D. & Assefa, M. (2005), *Issues in Urban Poverty*, Addis Ababa: Forum for Social Studies.
- Chant, S. (2003). Female Household Headship and the Feminisation of Poverty: Facts, Fictions and Forward Strategies. *London School of Economics, Gender Institute, New Working Paper Series*.
- Conley, D., & Ryvicker, M. (2004). The price of female headship: Gender, inheritance, and wealth accumulation in the United States. *Journal of Income Distribution*, 13(3/4), 41.
- Dassanayake, W., Luckert, M.K. & Mohapatra, S. (2015). Heterogeneity of household structures and income: Evidence from Zimbabwe and South Africa. *Journal of Policy Modeling*, 37, 668–692.
- Djurfeldt, A. A., Djurfeldt, G. R., & Lodin, J. B. (2013). Geography of Gender Gaps: Regional Patterns of Income and Farm–Nonfarm Interaction Among Male- and Female-Headed Households in Eight African Countries. *World Development*, 48, 32–47.
- Ellis, F. (1998). Household Strategies and Rural Livelihood Diversification. *Journal of Development Studies*, 35, 1–38.

- Fuwa, N. (2000). The poverty and heterogeneity among female-headed households revisited: the case of Panama. *World Development*, 28(8), 1515-1542.
- Gangopadhyay, S., & Wadhwa, W. (2003). Are Indian Female-Headed Households more Vulnerable to Poverty? *India Development Foundation*.
- Guirking, C., & Platteau, J. P. (2015). Transformation of the family farm under rising land pressure: A theoretical essay. *Journal of Comparative Economics*, 43, 112-137.
- Hallward-Driemeier, M., & Gajigo, O. (2015). Strengthening Economic Rights and Women's Occupational Choice: The Impact of Reforming Ethiopia's Family Law. *World Development*, 70, 260-273.
- Horrel, S & Krishnan, P. (2007). Poverty and Productivity in Female-Headed Households in Zimbabwe. *The Journal of Development Studies*. 43(8) 1351-1380
- Hossain, N., & Huda, S. (2007). Problems Of The Women Headed Households. *The Brac-Icddr,B Joint Research Project*.
- Khalid, U., & Akhtar, S. (2011). Poverty Dynamics of Female-Headed Households in Pakistan: Evidence From Pih 2000-01 and Pslm 2004-05. *Pakistan Institute of Development*. PIDE Working Paper 2011:80
- Malesu-Kasaka, M. P. (2007). Assessment of Female Headed Households Coping Strategies in Caring for Orphans in Ngombe Compound.
- Mutavi, T., Kokonya, D., Muliro, M., Obondo, A., Wariua, P., & Ocharo, R. (2013). The Magnitude of Poverty among Female Headed Households in Yathui and Central Division, Machakos District, Kenya. *International Journal of Business And Social Science*.
- National Bureau of Statistics. (2015). *Nigeria Formal Education Sector. Summarry report 2010-2012*.
- Nazoktabar, H., & Aliabadi, A. N. (2011). Analysis Of The Female-Headed Households' Situation A Case Study Of Female-Headed Households In Iran. *2011 International Conference On Social Science And Humanity*.
- Oginni, A., Ahonsi, B., & Ukwuije, F. (2013). Are female-headed households typically poorer than male-headed households in Nigeria? *The Journal of Socio-Economics*, 45, 132-137.
- Quisumbing, A. R., Haddad, L., & Peña, C. (2001). Are women overrepresented among the poor? An analysis of poverty in 10 developing countries. *Journal of Development Economics*, 66(1), 225-269.
- Sekhampu, T. J. (2012). Socio-Economic Determinants Of Poverty Amongst Female-Headed Households In A South African Township. *International Journal Of Social Sciences And Humanity Studies*.

- Thomas, A. C. & Gaspart, F. R. (2014). Does Poverty Trap Rural Malagasy Households? *World Development*, 67, 490–505.
- Tufuor, T., Niehof, A., Sato, C., & Horst, H. (2015). Extending the moral economy beyond households: Gendered livelihood strategies of single migrant women in Accra, Ghana. *Women's Studies International Forum*, 50, 20–29.
- Walle, D. V. (2011). Lasting Welfare Effects Of Widowhood In A Poor Country. *Policy Research Working Paper 5734*.
- United Nation. (2009). *Women's Control over Economic Resources and Access to Financial Resources, including Microfinance*. New York: Department of Economic and Social Affairs.
- World Bank (1991). State Of The Worlds Children's Report. *Social Development Department Of Social Development. Canada*.
- World Bank (2014). Where have all the Poor Gone?. *Cambodia Poverty assessment. Washington D. C.*