INTERNATIONAL JOUNAL OF: AGRICULTURAL RESEARCH AND BIOTECHNOLOGY

TIMBOU-AFRICA ACADEMIC PUBLICATIONS
INTERNATIONAL JOURNAL, MAY, 2021 EDITIONS
VOL. 5 NO. 1 ISSN: 3438-2901

FACTORS AFFECTING WOMEN'S CONTRIBUTION TO HOUSEHOLD INCOME IN URBAN AREAS: THE CASE OF BAYELSA STATE

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ABSTRACT

No doubt that women make some contributions to the household income. Even though literatures abound, there is very little to show what factors make it possible or impossible for urban women to contribute to the household income, especially in situations where women are unhindered from taking up any occupation to earn income. As such, this paper empirically

Introduction

The Organisation for Economic Co-operation and Development, OECD (2013) defined household income to be all receipts, whether monetary or in-kind (goods and services), that are received by the household or by individual members of the household at annual or more frequent intervals, but excludes windfall gains and other such irregular and typically one-time receipts. In the light of this, Fuwa (2000); Rogan (2012) and Boudet, et al. (2018) further explained that household income can therefore come from a male main or sole income provider, from a female main income provider or from joint contributors. However, since the nature of every existing human society determines how its people collaborate to sustain their social and economic lives (Aliyu, 2013), the vast majority of economic

activities that take place within the households would result from a variety of decisions about labour force participa tion, education, expenditures, savings, asset accumulation, investments, marriage and fertility (Kakwani & Son, 2006). Over time, it has become ubiquitously clear that men are taken as breadwinners for the home, while women provide the needed support, all in a bid to make the home run smoothly. Nonetheless, many factors determine the amount of money each of the gender can or earns and also the amount of money each contributes to the household. Econometric analyses by Kompa and Witkowska (2018) revealed that the main determinants of wages in Poland are: gender, age or job seniority, level of education, size of firm and occupation in all analysed years, with parameter estimates of general models confirming that women earn less than men and an increase of age or job seniority causes an increase of wages in all models.

Nearly six million young women and men enter the labour market each year but only 10% are able to secure a job in the

examined the factors that significantly affect the amount of money urban women contribute to the household income in Bayelsa State. Structured questionaaires were deployed in a modified multistage random sampling procedure to collect primary data from 160 households across the 8 local government areas in the State, which was analyzed using the OLS regression. Results indicate that total income of the woman and the amount of money contributed to the household by the man have significant positive relationships, while the primary occupation of the man had a significant negative relationship with the amount of money the woman contributes to the household income. This study recommends that for women to increase the amount of money they contribute to the houshold income, men should increase the amount of money they contribute and should become more self-employed/ entrepreneurial, rather than seek for paid employment.

Keywords: *Affecting, Contribution, Household, Income, Urban Areas, Bayelsa State.*

formal sector, and just one third of these are women (Okonjo-Iweala & Sanusi, 2012). Following on this, Kakwani and Son (2006) noted that there is now an increasing focus on models of bargaining relationships within households, with the main idea behind these models being that relative bargaining power of men and women ultimately affects the distribution of consumption, not only between men and women, but also between adults and children and between boys and girls. Anyanwu (2010) noted that in most countries, women constitute half of the population, as such, any development process that ignores the life-chances of half the population cannot address the problem of poverty and the crisis of sustainability. Women's share in the formal and informal labour market has gained much importance at national and international levels, thus, becoming the main agenda of national and international organizations for the last three decades (Awan, Faridi, & Abbas, 2015). Moreover, when spouses do not operate joint household financial management practices, women bargaining power, which could be a result of economic or social factors, becomes an important determinant (Oyediran & Odusola, 2004) of household finances. Even though according to Kakwani and Son (2006), most economic analysis assumes that a household is a single decision making unit in which all individuals are assumed to have the same preferences.

The National Bureau of Statistics (NBS) (2019) reported that, in 2017, Nigeria population was estimated to be 199 million people, of which, men and women constituted 50.8% and 49.2% of this population respectively, with a sex ratio of 102 men per 100 women. This implies that the difference in population between men and women is just 1.6% in favour of the men. They also reported that on average, the percentage of women employed from 2010 to 2015 in the Civil Service of the different States in Nigeria was 38.16% for women and 61.84% for men, while in the Federal Ministries, Departments and Agencies (MDAs), women constituted 34.67%, 35.08% and 32.79% for 2015, 2016 and 2017 respectively. The foregoing implies that while, the population difference between men and women is just a mere 1.6%, the difference in employment figures based on gender is highly tilted in favour of the men, irrespective of the population distribution. Could this be why Kakwani and Son (2006) noted that households treat male children differently

from female children with regard to allocation of resources? Or maybe perhaps, This according to Van Truong, Giao and Thuy Ly (2020), is suggestive that even though women have made great contributions to socio-economic development, their contribution has not been recognized in a commensurate way with their role in the economy, social relations and family life. These call for concerns, making it important to empirically determine the factors that are responsible for this lopsided employment that favours the men greatly. Most especially in states like Bayelsa, where women are not restricted by any means, as such, are as active as the men in cultural, economic, political, religious, security, social and societal participation. Hence, making it imperative to study the factors affecting the contribution of women to household income in the urban areas of Bayelsa State. Findings from this study will help bring to the fore, the factors that significantly affect the share of women incomes in urban areas, with a view to proferring implementable recommendations that will enhance women's income, thus, increaseing household income.

The principal objective of this paper is to empirically determine the factors that significantly affect women's contribution to household income in urban areas of Bayelsa State, Nigeria.

Methodology

The study area

The study was conducted in Bayelsa State of Nigeria. Being one of the nine (9) Niger Delta states, Bayelsa is also one of the six (6) federating states in the South-South geopolitical zone. It is located on sedimentary alluvium soil, along several tributaries within the lower delta plain of the River Niger, bearing rivers like Nun, Ekoli, Brass, Koluama and so on (Niger Delta Budget Monitoring Group (NDEBUMONG), N.D.) and occupying a land area of 9,415.8 KM^2 on latitude 4°45' north and longitude 6°05' east (Community and Social Development Project (CSDP), N.D.). It shares boundaries with Rivers State in the East and Northeast, Delta State in the West and Southwest and the Gulf of Guinea in the South (Nigerian Investment Promotion Commission (NIPC), N.D.). Although, the state has the features of an equitorial climate in the southernmost part, it is mostly a tropical rainforest, having freshwater

swamp and mangrove forests, with rain falling every month of the year, with average monthly temperature that ranges from 25-31°C and an all-year-round high relative humidity (NDEBUMONG, N.D.). Bayelsa State, with capital in Yenagoa, has a population of 1,704,515 people, constituted by 51.3% males and 48.7% females, with a population density of 158 persons per squared kilometre and 48.7% females distributed unevenly in eight (8) local government areas (LGA) of Brass, Ekeremor, Kolokuma/Opokuma, Nembe, Ogbia, Sagbama, Southern Ijaw and Yenagoa (NIPC, N.D.). Economic activities in the state include fishing, farming, lumbering, civil service, oil and gas exploration activities, exploration of forest resources, boat carving and building, Palm wine tapping, local gin distillation, weaving and trading (Come to Nigeria, N.D.). Investment opportunities that exist in the state include agribusiness, light manufacturing, healthcare, tourism, energy, mining and transportation (NIPC, N.D.).

Data Collection

Primary data collected by the use of structured questionnaires was used for this study. The data collection instrument (questionnaires) were tested for validity using the content (face) validity method to ensure that questions in the questionnaire measure exactly what they were intended to measure and not something else, while the internal consistency measures method was used to test for reliability to make sure that the results obtained by using the instrument is consistent. The sampling frame consists of all households in the urban areas of each of the 8 LGAs of Bayelsa State. Data was collected from ten (10) households each, in two (2) urban areas of each of the eight (8) LGAs in Bayelsa State using a modified multistage random sampling procedure, thus, giving a total sample size of 160 households as respondents. That is to say, 2 towns were first randomly selected from each of the 8 LGAs in Bayelsa State, making 16 towns in all and then 10 households were randomly selected from each of the 16 towns, giving a total of 20 respondents from each LGA and a total of 160 respondents in all.

Data analysis

Inferential statistics, in the form of the ordinary least squares (OLS) regression was used to determine the efffect of certain variables on the amount of money women contribute to the general household income.

OLS was used to analyze the relationship between the depenedent and independent variables because of its obvious advantages as outlined by Verbeek (2017) that: it is a simple and convenient tool to establish an empirical relationship between one variable and a set of other variables; it estimates the "best linear predictor" in a given sample, where the estimated linear combination of regressors provides the closest approximation to the actual outcome; it works reasonably well even if the model is not perfectly specified; and it can provide a quick benchmark for more advanced methods.

The dependent variable is the amount of money women contribute to the household income, denoted by WOM_{AMT_CTB} (Naira, ₦), while the independent variables are: age of the woman, WOM_{AGE} (years), marriage experience, DUR_{MAR} (years), size of the household, FAM_{SIZ}, woman's level of education, WOM_{LVL_EDU} (No formal education: 0, Primary education: 1, Secondary education: 2, Tertiary education: 3), woman's primary occupation, WOM_{PRI_OCC} (Unemployed: 0, Work for non-governmental organizations/private companies/other people: 1, Work for government or its agencies: 2, Self-employed/Entrepreneur: 3), woman's work experience, $WOM_{PRI\_OCC\_DUR}$ (years), woman's total income, WOM_INC_{TOT} (₦), man's primary occupation, MAN_{PRI_OCC} (Unemployed: 0, Work for non-governmental organizations/private companies/other people: 1, Work for government or its agencies: 2, Self-employed/Entrepreneur: 3), man's total income, MAN_INC_{TOT} (₦), and amount of money the man contributes to the household, MAN_{AMT_CTB} (₦).

The functional form of the OLS equation can be given as:

$$Y = f(X) \quad (1)$$

Where: Y: the dependent variable

f: The functional operator

X: The independent variables

The functional form above can be linearized into:

$$Y = \alpha + \beta X + \varepsilon \quad (2)$$

Eqn 2 can, thus be expanded into the explicit form to contain all the independent variables and be expressed as:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \cdots \beta_n X_n + \varepsilon \quad (3)$$

Where: α: Intercept on the Y-axis (a constant)

$\beta_1, \beta_2, \ldots \beta_n$: The coefficients of the independent variables.
ε: The stochastic error term

Substituting the dependent and independent variables for Y and X respectively, eqn (3) becomes:

$$WOM_{AMT\_CTB} = \alpha + \beta_1 WOM_{AGE} + \beta_2 DUR_{MAR} + \beta_3 FAM_{SIZ} + \beta_4 WOM_{LVL\_EDU} + \beta_5 WOM_{PRI\_OCC} + \beta_6 WOM_{PRI\_OCC\_DUR} + \beta_7 WOM\_INC_{TOT} + \beta_8 MAN_{PRI\_OCC} + \beta_9 MAN\_INC_{TOT} + \beta_{10} MAN_{AMT\_CTB} + \varepsilon \quad (4)$$

Results and Discussions

With an R^2 of 0.378, the estimated model has a lean fit, indicating that only 37.8% of the changes in the dependable variable (amount of money women contribute to the household) were accounted for by the independent variables. The probability (Prob > F) of 0.000, however suggests that all the independent variables were jointly significant in causing changes in the dependent variables. Independent variables that were individually significant are total income of the woman (WOM_INC_{TOT}), primary occupation of the man (MAN_{PRI_OCC}) and the amount of money contributed by the man (MAN_{AMT_CTB}).

Table 1: Determination of factors affecting the amount of money women contribute to the household income in Urban Bayelsa State (Regression analysis)

Variables	Coefficient	Standard Error	t-statistic	p>|t|
Constant	-56229.771	270010.292	-0.208	0.835
$\boldsymbol{WOM_{AGE}}$	4190.692	5719.899	0.733	0.465
$\boldsymbol{DUR_{MAR}}$	-8892.746	6219.433	-1.430	0.155
$\boldsymbol{FAM_{SIZ}}$	11694.209	11088.579	1.055	0.293
$\boldsymbol{WOM_{EDU}}$	16416.093	55268.030	0.297	0.767
$\boldsymbol{WOM_{PRI\_OCC}}$	55336.817	36215.225	1.528	0.129
$\boldsymbol{WOM_{PRI\_OCC\_DUR}}$	9736.352	5291.113	1.840	0.068
$\boldsymbol{WOM\_INC_{TOT}}$	0.139	0.023	5.981	0.000*
$\boldsymbol{MAN_{PRI\_OCC}}$	-79301.188	34760.940	-2.281	0.024*

MAN_INC_{TOT}	-0.010	0.022	-0.446	0.657
MAN_{AMT_CTB}	0.189	0.066	2.869	0.005*
R^2		0.378		
Adjusted R^2		0.336		
F-statistic (10, 149)		9.038		
Prob > F		0.000		
Source: Authors' computation from field data				
Note: * significance at |p|<0.05				

The multiple regression model estimated from the results in table 1 is estimated as Eqn. (5):

$$AMT\_CTB_W = -56229.771\ (0.835) + 4190.692WOM_{AGE}\ (0.465) - 8892.746DUR_{MAR}\ (0.155) + 11694.209FAM_{SIZ}\ (0.293) + 16416.093WOM_{EDU}\ (0.767) + 55336.817WOM_{PRI\_OCC}\ (0.129) + 9736.352WOM_{PRI\_OCC\_DUR}\ (0.068) + 0.139\ WOM\_INC_{TOT}\ (0.000^{*}) - 79301.188\ MAN_{PRI\_OCC}\ (0.024^{*}) - 0.010\ MAN\_INC_{TOT}\ (0.657) + 0.189\ MAN_{AMT\_CTB}\ (0.005^{*}) + \varepsilon \quad (5)$$

Total income of the woman (WOM_INC_{TOT})

From table 6.3, total annual income of the woman with a coefficient of 0.139 and a probability value (p>|t|) of 0.000 indicates a very highly significant positive relationship with the amount of money the woman contributes to the household purse. This implies that, as the total income of the woman increases by one unit, the amount of money the woman contributes to the household purse increases by 0.139 units, *ceteris paribus*. As the woman's total income increases by ₦1.00, the amount of money the woman contributes to the household purse increases by ₦0.14 (40K) and if her total income reduces by ₦1.00, the amount of money she contributes to the household decreases by ₦0.14 (40K).

Primary occupation of the man (MAN_{PRI_OCC})

The primary occupation of the man, with a coefficient of -79301.188 and a probability (p>|t|) value of 0.024 suggests a significant inverse relationship with the amount of money the woman contributes to the household purse. That is to say that, as the primary occupation of the man increases by one unit, the woman reduces her contributions to the

household purse by ₦79,301.19, *ceteris paribus*. In essence, if the man moves from being unemployed to working for another individual, private organization or company, the woman reduces her contribution to the household income by ₦79,301.19. If the man moves on from that job to working for the Government, the woman further reduces her contributions to the household purse by ₦79,301.19 and if the man leaves that employment to start working for himself, the woman reduces her contributions to the household pursed by a further ₦79,301.19. This indicates that for every time the man gets a better job, the woman reduces her contributions to the household income by ₦79,301.19.

Amount of money contributed by the man (MAN_{AMT_CTB})

There is a significant positive relationship between the amount of money the man contributes and the amount of money the woman contributes, as indicated by the positive coefficient (0.189) and a probability (P>|t|) value of 0.005. This means that as the amount of money contributed by the man increases by one unit, the amount of money contributed by the woman increases by 0.189 unit, *ceteris paribus*. In essence, if the man increases his contribution to the household income by ₦1.00, the woman increases the amount of money she contributes to the household purse in the urban areas of Bayelsa State by ₦0.19 (19K).

Summary, Conclusion and Recommendations

The study was carried out in Bayelsa State to determine the factors that affect women's contribution to household income in urban areas. Primary data was collected via the use of structured questionnaires from 160 households in a modified multistage sampling procedure. 10 households were each sampled in 2 towns, in each of the 8 Local Government Areas (LGAs) of Bayelsa State, making a total of 10 respondents from 16 towns across the 8 LGAs, hence, a total of 160 respondents. Data was analyzed using OLS regression, with amount of money women contribute to the household income being the dependent variable, while the independent variables are: age of the woman, marriage experience, size of the household, woman's level of education, woman's primary occupation, woman's work experience, woman's total income, man's primary occupation, man's total income

and amount of money the man contributes to the household. With significance taken at the |p|<0.05 level, the regressed model with an R^2 of 0.378 and P>F of 0.000 indicates that, although the model was lean, the variables considered adequately accounted for 37.8 percent of the factors that affect the amount of money women contribute to the household income. However, three (3) variables were significant, with total income of the woman (WOM_INC_{TOT}) and the amount of money contributed to the household by the man (MAN_{AMT_CTB}) having significant positive relationships, while the primary occupation of the man (MAN_{PRI_OCC}) had a significant negative relationship with the amount of money the woman contributes to the household income.

Ceteris paribus, the findings from this study implies that, as the amount of money the woman earns and the amount of money the man contributes to the household income increases, the amount of money the woman contributes to the household also increases and vice versa. Conversely, as the man forfeits paid employment from either other people/private organizations or government and its agencies to become more entrepreneurial/self-employed, the amount of money the woman contribute to the household income increases and vice versa.

To improve the woman's contribution to the household income, the following should be done:

i. Men should increase the amount of money they contribute to the household income. This will be a motivation for women to contribute more money to match the proportion being contributed by the man and as such, increase the overall household income.

ii. Men should be looking towards being self-employed/being entrepreneurial rather than seek employment from private firms/organizations/other people and government.

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