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# Asset Ownership by Women in Urban and Rural South West Nigeria

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**Abstract:** In improving the welfare of women asset ownership plays a key role. Therefore this paper examined asset ownership by women in urban and rural South West (SW) Nigeria. Secondary data from Demographic and Health Survey 2013 was used. Data on 1551 rural and 4323 urban women in SW Nigeria was used. Information on their socio-economic characteristics and assets (physical and natural) was obtained. Data analysis was done using descriptive statistics, multiple correspondence analysis and probit regression. In rural and urban South West the mean age was 30 years. The mean household size in rural and urban SW was 6 and 5 persons respectively. Mobile telephone has a proportionally far higher weight (0.043, 0.050) and radio too (0.037, 0.042) than the remaining assets in rural and urban SW. From the probit regression nine variables were found to be statistically significant at various levels in both rural and urban South West. The significant variables in rural SW were age (25-34) (-0.30), age 35-49 (0.51), employed in agric and allied sector (0.17), incomplete secondary school education (-0.14), complete secondary school education (-0.16), higher education (0.84), being a female household head (0.17), marital status-married (0.63). In the urban SW the variables that are significant are age-35-49 (-0.32), skilled and unskilled employment (0.13), employed in agric. and allied sector (-0.50), employed in the services sector (0.10), incomplete secondary education (0.24), complete secondary education (0.28), household sized 6-10 persons (-0.12), >10 persons household size (-0.23). Conceited efforts should therefore be put in place by women agencies to enact policies that will help women to own more assets.

**Keywords:** Asset Ownership, Rural, Urban, South West, Women

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## 1. Introduction

Assets may be intangible in form of social capital, skills and knowledge or tangible in form of equipment, farmland, livestock and dwellings [1]. Assets could also be productive/non-productive assets. Productive assets such as human capital (time, skills), natural (land, livestock, water, and forest), financial capital and fixed capital are those that are used as inputs in the production process. On the other hand, non-productive assets yield income through transfers or capital gains when assets are liquidated. [2] stated that the two categories of assets offer a source of income and a store of wealth. Assets helps to generate livelihoods and buffer the effect of common disasters of diseases, flooding and drought that affect many African countries [3]. Assets can also be distinguished based on ownership and can be solely held by persons and collectively held without access restrictions.

[4] revealed that the poor in Nigeria, majority of whom are

women and rural based, are usually confronted with lack of assets. Women in the rural areas tend to have less assets than women in the urban areas because they lack access to amenities like electricity, good road network and effective communication through mobile phones. Access and ownership of productive assets have positive impact on the welfare of women and their household [5, 6]. According to [7] the ownership of assets can provide important sources of income for women and facilitate access to credit, enabling investments into education and other productive assets. Assets strengthen women's ability to cope with and respond to economic shock as a store of wealth [8]. There has been a great focus on asset ownership at household level, this disallow analysis in asset ownership between men and women. Important development outcomes including household food security and human capital formation have been positively influenced by women's asset holdings [9]. Hence, facilitating women in gaining more access to productive assets would

help them to improve their well-being and that of their household. In this paper asset ownership among women in rural and urban South West Nigeria was examined. Factors influencing the ownership of assets in rural and urban South West was also determined. This paper is in line with the Sustainable Development goals (SDGs) which is to promote gender equity (Goal 5) and ending poverty in all forms (Goal 1). This would enable government and non-government organizations come up with policies to help women in the accumulation of assets.

## 2. Methodology

The study area for this research is South West Nigeria. This is one of the geopolitical zones in Nigeria. It comprises of six states namely Lagos, Ogun, Oyo, Osun, Ondo and Ekiti. The major language in this zone is Yoruba with many local dialects even within each state. There are majorly two distinct seasons in Nigeria; the dry season (November - February) and the rainy season (March - November) [10]. Secondary data from [11] was used for this study. The sample for Demographic and Health Survey 2013 was a stratified sample. From the sampling frame the sample was selected independently in three stages and each state was separated into urban and rural areas. Four thousand three hundred and twenty three (4323) women in urban and One thousand five hundred and fifty one (1551) women in rural SW were interviewed. The total data of 4323 and 1551 women in rural and urban South West were used for analysis.

The analytical techniques used for this study are descriptive statistics, Multiple Correspondence Analysis (MCA) and Probit regression.



Source: <https://www.researchgate.net>  
**Figure 1.** Map showing the states in South West..

### Multiple Correspondence Analysis (MCA)

MCA was used to assess the asset ownership by generating the asset indices for women. MCA is similar to principal components analysis or factor analysis. According to [12] the only difference is that MCA is suitable for categorical variables. Thus, MCA is suitable for this study as most variables are categorical. In simple terms,  $aj$  represents the weight of class  $j$  and  $Rij$  the classification of woman  $i$  to class  $j$ ,

then the asset index score of a woman  $i$  is:

$$MCA_i = \sum_{j=1}^j ajRij \tag{1}$$

This index can then be normalized between 0 and 1 to allow for inter temporal and cross region comparisons by the following formula

$$\text{normalised\_MCA}_i = \frac{MCA_i - \min(MCA)}{\max(MCA) - \min(MCA)} \tag{2}$$

The assets to be considered include Physical and Natural [11].

### Probit regression

The explanatory variables used in this model were selected from literature. These include women’s socio-economic characteristics and household characteristics. The relationship between the probability of owning assets or not,  $P_i$ , and its determinants,  $x_i$ , is given as:

$$P_i = \beta x_i + \mu_i \text{ where } P_i = 1 \text{ for } x_i \geq z \tag{3}$$

$i=1,2,\dots,n$ .

$P_i$ : asset index cutoff (1 =asset index above mean, 0=asset index below mean).

$x_1=15-24$  years (yes =1, 0 otherwise),  $x_2= 25-34$  years (yes =1, 0 otherwise),  $x_3= 35-49$  years (yes =1, 0 otherwise),  $x_4=$  unemployed (yes =1, 0 otherwise),  $x_5 =$  unskilled manual employment type (yes =1, 0 otherwise),  $x_6 =$  skilled manual employment type (yes =1, 0 otherwise),  $x_7 =$  agriculture employment type (yes =1, 0 otherwise),  $x_8=$  services employment type (yes =1, 0 otherwise),  $x_9 =$  No formal education (yes =1, 0 otherwise),  $x_{10} =$  incomplete primary education (yes =1, 0 otherwise),

$x_{11}=$  primary education (yes =1, 0 otherwise),  $x_{12}=$  incomplete secondary education (yes =1, 0 otherwise),  $x_{13} =$  complete secondary education (yes =1, 0 otherwise),  $x_{14}=$  tertiary education (yes =1, 0 otherwise),  $x_{15}=$  sex of household head (male=1, 0 otherwise),  $x_{16}=$  sex of household head (female=1, 0 otherwise),  $x_{17}=$  single (yes =1, 0 otherwise),  $x_{18}=$  married (yes =1, 0 otherwise)

## 3. Results and Discussion

### Socio-Economic Characteristics of Women in South West

In Table 1, 35.7% of women are within 35-49 years closely followed by women within 25-34 years (34.6%) in rural SW, while in the urban area 33.6% of women are within 15-24 years and between 25-34 years. There are older women in rural area compared to the urban area. This could be because younger women in the urban areas attend colleges and universities and are involved in white collar jobs. The mean age of women is 30 years in the study areas. Twenty four percent of women in rural South West have incomplete secondary education while a higher percentage has complete secondary (35.8%) in the urban area. In SW, women in the urban areas are more educated. Women in rural SW have a mean household size of 6 with mean household size of 5 for women in urban SW. Women in urban areas have small

household size because they may have white collar jobs and may not have enough time to take care of many children. On the other hand, in rural areas women can afford to have medium to large household size since their households need

farm labour and they can also carry their children to the farm to work. Women in urban and rural SW are married (64.8% and 62.7%). Women in the South West are mostly employed in the service sector (47.1% and 61.3%)

*Table 1. Socio economic Characteristics of women.*

Variable	Rural		Urban	
	Frequency	Percentage	Frequency	Percentage
Age				
15-24	536	34.6	1454	33.6
25-34	461	29.7	1441	33.3
35-49	544	35.7	1428	33.0
Mean	30		30	
Educational attainment				
No education	334	21.5	161	3.7
Incomplete primary school education	86	5.5	107	2.5
Complete primary school education	317	20.4	582	13.5
Incomplete secondary school education	375	24.2	990	22.9
Complete secondary school education	331	21.3	1549	35.8
Tertiary education	108	7.0	934	21.6
Household size				
1-5	879	56.7	2839	56.7
6-10	582	37.5	1394	37.5
>10	90	5.8	90	5.8
Mean	6		5	
Marital status				
Single	578	37.3	1523	35.2
Married	973	62.7	2800	64.8
Occupation type				
Unemployed	397	25.6	1202	27.8
Skilled and unskilled	122	7.9	401	9.3
Agric and allied	302	19.5	72	1.7
Services	730	47.1	2648	61.3

Source: Author's computation 2013 DHS data

#### Profile of asset ownership

In Table 2, Majority (81.5% and 94.8%) of women in South West own mobile telephone. It is the most owned asset in the study area. Seventy and eighty percent of women in urban and rural SW had radio ownership, 84.2% of women in urban south west owned television making it to be the second most owned asset, urban women can assess information through this unlike women in the rural women where only 4.3% own television. Hence, television ownership has implications for their wellbeing and that of their household. Most of the women in the rural SW do not own assets such as generating set, refrigerator, electric iron, fan. More women in urban SW owned productive assets like generating set and refrigerator; ownership of these assets could improve their welfare and help their businesses. The ownership of productive assets by women in the study area could boost peace of mind and high mental development, good health thus making life comfortable.

Also as revealed in table 2, 7.7%, 36.6%, 24.8%, owned car/truck, motorcycle/scooter and bicycle, respectively in rural SW while in urban SW more women own car/truck which is the most preferred means of transportation in this group. The ownership of these assets are low probably because of the high cost of purchase or poor road network. Fast and timely delivery of rural products especially the perishable products are made possible through good

transportation thereby improving profitability and income of women.

In Table 3 women do not own land in rural and urban SW, 82.9% and 86.0% while 83.4% and 89.7% do not own house. In Africa culture women are not allowed to own land. Land ownership is of utmost importance as it can be of great importance to women especially during difficult times [13].

*Table 2. Distribution of Asset ownership in rural and urban South West.*

Assets	Rural		Urban	
	Freq.	%	Freq.	Percent
Radio	1082	69.7	3472	80.3
Television	749	4.3	3639	84.2
Bicycle	67	24.8	116	2.7
Motorcycle/scooter	567	36.6	973	22.5
Mobile telephone	1264	81.5	4099	94.8
Watch	924	59.6	3582	82.9
Fan	647	41.7	647	41.7
Electric iron	477	30.8	477	30.8
Animal drawn cart	2	0.1	10	0.2
Boat with a motor	14	0.9	2	0.1
Generating set	390	25.2	1843	42.6
Canoe	96	6.2	7	0.2
Computer	31	2.0	437	10.1
Air conditioner	5	0.3	208	4.8
Cable Television	59	3.8	748	17.3
Car/ truck	119	7.67	824	19.1
Refrigerator	186	11.99	1722	39.8

Source: Author's computation 2013 DHS data

**Table 3.** Land and House Ownership.

Land Ownership	Rural		Urban	
	Freq.	%	Freq.	%
Does not own	1286	82.9	3716	86.0
Own Alone	68	4.4	168	3.9
Own Jointly	163	10.5	387	9.0
Alone and Jointly	34	2.2	52	1.2
House Ownership				
Does not own	1293	83.4	3876	89.7
Own Alone	42	2.7	88	2.0
Own Jointly	181	11.7	318	7.4
Alone and Jointly	35	2.26	41	1.0

Source: Author's computation 2013 DHS data

#### *Asset Ownership Using MCA*

The asset ownership by women was assessed using Multiple Correspondence analysis. Table 4 show the weights assigned to each asset. Mobile telephone has a proportionally far higher weight (0.043, 0.050) and radio (0.037, 0.042) than the remaining, indicative of the fact that the prevalence of mobile phone and radio ownership is very high in rural and urban SW. Mobile telephone has a proportionally far higher weight (0.36) than house indicative of the fact that the prevalence of house ownership is very low. Also comparing the weight of mobile phone with land, computer, air condition shows that the ownership of these assets is low. Animal drawn cart, canoe, boat with motor have very low weight, this could be because they are specific to a place (for example riverine areas).

The total MCA value for the assets each woman owned was generated and the total asset index was determined. The mean of this index is 0.75 and 0.78 in rural and urban south west respectively. Therefore any woman that has a value below the mean is asset deprived. 43.52% and 42.82% has a value below the mean and thus do not have enough assets while 56.48% and 57.18% have enough assets. These women have assets generally but the assets they own are not productive and not enough to better their lives.

**Table 4.** Distribution of Asset Index by women in rural and urban SW.

Category	Rural	Urban
	Asset index	Asset index
Radio	0.037	0.042
Televisiono	0.025	0.044
Bicycle	0.002	0.001
Motorcycle	0.019	0.012
Land	0.009	0.007
House	0.009	0.005
Mobile telephone	0.043	0.050
Watch	0.031	0.044
Fan	0.022	0.046
Generating set	0.013	0.030
Canoe	0.003	0.000
Electric Iron	0.016	0.039
Computer	0.001	0.005
Air condition	0.000	0.003
Cable TV	0.002	0.009
Boat with motor	0.000	0.010
Car/Truck	0.004	0.032
Refrigerator	0.006	0.030

Source: Author's computation 2013 DHS data

#### Determinants of Asset Ownership in Rural and Urban South West

The determinants of asset ownership by women in rural and urban south west was examined using Probit model. The result showed that the chi-square value of 92.35 and 171.02 in rural and urban SW is statistically significant ( $P < 0.01$ ) which implies that the model has a good fit. The intercept of 0.6279 and 0.1480 are significant ( $P < 0.05$ ). Out of the twenty three variables hypothesized as determinants of asset ownership by women; only eight were found to be statistically significant at various levels in both rural and urban south west. The significant variables in rural SW were age (25-34) (-0.30), age 35-49 (0.51), employed in agric and allied sector (0.17), incomplete secondary school education (-0.14), complete secondary school education (-0.16), higher education (0.84), female household head (0.17), marital status-married (0.63). In the urban the variables that are significant are age-35-49 (-0.32), skilled and unskilled employment (0.13), employed in agric. and allied sector (-0.50), employed in the services sector (0.10), incomplete secondary education (0.24), complete secondary education (0.28), household sized 6-10 (-0.12), >10 household size (-0.23).

In line with a priori expectation, all the significant variables had the expected signs that depict the effect they had on asset ownership. The significant variables in urban south west were age 35-49 (-0.32), employed in skilled and unskilled (0.13), agric. and allied sector (-0.50), service sector (0.10), educational attainment incomplete secondary (0.24), complete secondary education (0.28), household size 6-10 (-0.11), greater 10 (-0.23).

In urban south west the age of women (35-49) was negatively related to asset ownership and statistically significant at 1% which implies that as the age of women increases; the tendency for them to own more assets reduces.

The coefficients of women in skilled and unskilled was positive and significant at 10%. Women involved in this type of employment have higher probability of owning more assets compared to their counterparts who are unemployed.

The coefficient of women in agric. and allied sector is negative and significant at 5%. Women involved with this type of employment have a lower probability of owning assets compared to women who are unemployed.

The educational attainment of women (incomplete secondary, complete secondary) is positive and significant at 5% and 1% respectively, implying that completion of secondary school education is important for women in urban south west in owning assets.

The coefficient of household size (6-10 persons and > 10 persons) was negative and significant at 1% and 10% respectively. This implies that women in medium/large households have a lower probability of owning assets as compared to women with small household size. In urban areas women are involved with jobs that are time demanding and thus they have less time for their families. Thus this may form their decision on having small households.

In rural South west the coefficients for women aged 35-49 years was positively related to asset ownership and statistically significant at 1%. This shows that as the age of

women increases their asset ownership increases. In rural areas as women get older they have more bargaining power and social capital [14]. This could help in asset accumulation.

Agriculture and allied employment type was positively significant at 10%. This means that the asset ownership increased with increase in the number of women engaged in agriculture and allied when compared to women that are unemployed. Agriculture is a major sector that people in the rural areas are involved with. Women in this sector have

discovered ways to thrive in this sector and this also aid their asset ownership.

The educational attainment of incomplete secondary and complete secondary school are negative while higher education was positive. In rural South West women need to have a higher education to own more assets. Women who are married have a positive coefficient and it was significant at 10%. Women who are married tend to own more assets compared to women who are single.

**Table 5.** Factors influencing asset ownership in rural and urban South West.

Predictor variables	Rural		Urban	
	Coefficients	standard error	coefficients	standard error
Individual level factors				
Age (b: 15-24 years) 25-34 years	-0.3002**	0.1062	0.0043	0.0639
35-49 years	0.5102***	0.1133	-0.3176***	0.0707
Employment (b: unemployed) Skilled and Unskilled	-0.1540	0.1457	0.1341*	0.0806
Agric. and allied	0.1656*	0.1275	-0.5008**	0.1669
Services	0.1212	0.1086	0.1001*	0.0570
Educational attainment (b: No formal education) Incomplete primary	-0.1803	0.1681	-0.1361	0.1586
Complete primary	-0.0170	0.1021	0.1568	0.1130
Incomplete secondary	-0.1378*	0.1067	0.2408**	0.1109
Complete secondary	-0.1634*	0.1072	0.2849***	0.1068
Higher	0.8379***	0.1554	-0.1696	0.1099
Sex of household head (b: Male) Female	0.1667*	0.1245	-0.0271	0.0697
Size of household (b: 1-5) 6-10	-0.0432	0.0735	-0.1145***	0.0450
>10	-0.1899	0.1496	-0.2301*	0.1424
Marital status (b: single) Married	0.0352*	0.0676	0.0343	0.0407
Constant	0.6279	0.1955	0.1480	0.1449
Log likelihood	-1015.8341		-2866.2071	
Chi square	92.35		171.02	
Probability	0.0000		0.0000	

\*\*\*P<0.01 significant at 1%, \*\*P<0.05 significant at 5%, \*P<0.1 significant at 1%

Source: Author's computation, 2013 DHS data b: base category

Physical and natural assets are the asset dimension considered in this study. Asset ownership is a means to reduce hunger and acute poverty which is the first SDG goal. [15] suggests considering asset ownership as a means to facilitating gender equality perspectives addressed by the third SDG. [16] opined that the ownership of physical assets can cause a decline in the probability of being monetarily poor. Assets are useful for smoothing consumption especially in developing countries where the poor often experience income volatility [17]. Therefore assets are likely to capture more closely the permanent part of consumption for households or individuals [18]. Thus a lack of assets could be considered to be a good substitute for chronic poverty [19].

In theory, analyzing the ownership of assets is an important way to explore inequality issues among household members. [20] stated that women's bargaining power within the household may be related to their possession of assets. In African countries, most surveys revealed that the possession of durable goods is not assigned individually but often credited to the whole family.

## 4. Conclusion

It is evidenced from this paper that women in rural south west do not own enough assets needed for their improved welfare compared to their urban counterparts. Based on the

outcome of the study, asset ownership especially productive assets among rural women should be encouraged by government and non-governmental organisations. Women that own assets could be better than others in the provision of basic needs and through investments in future generations such as health care, education, and training, while those lacking assets are prone to poverty, shocks and disasters.

Government should also put in place policies to encourage women not only to have access to these assets but to own them and in implementing these policies the men should be carried along. Educational facilities should be provided in rural south west and girls should be encouraged to go to school because education was one of the key factors affecting asset ownership in urban SW.

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