DETERMINANTS OF SAVING AND INVESTMENT PATTERN OF RURAL HOUSEHOLDS IN DELTA NORTH AGRICULTURAL ZONE, DELTA STATE, NIGERIA

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ABSTRACT

This study examined the determinants of saving and investment pattern of rural households in Delta North, Agricultural Zone, Delta State, Nigeria. It specifically sought to identify the socioeconomic variables of the rural households, types, methods and motives for saving and investment among rural households, the type of investment made, investment pattern and determinants of saving and investment. Multi stage sampling technique was used to select 80 households that were used for the study. Data for the study were collected using structured questionnaire and analysed using descriptive statistics as well as inferential statistic such as multiple regression analysis.

Results of the findings revealed that volume of savings were positively and significantly affected by education (765.8916) (182.4147), household size (382.4119) (1260.365) and income (0.073376) (0.013765) of the respondents at 5% level of probability. The result also showed that age (-439.2618) (181.2449) was negative and significant determinants of saving and investment. Further investigations revealed that literacy level 59(78%) and household sizes (mean of 10) were high. Saving and investment were not gender specific and respondents in the study area were relatively young (mean age of 43 years). It is recommended that skill acquisition centres should be developed, introduced and encouraged. This will help to improve skills and encourage rural savings and investments.

Keywords: saving, investment, rural dwellers, income, household, isusu and enterprise
Yusuf (2000) observed that greater percentage of the total population of Nigerians lives within the rural environment. He further observed that a greater percentage of them are involved in rural economic activities, mostly agriculture. Rural economy deals with the rural economic activities that yield income to the rural investors. It focuses on optimal harnessing of rural resources for enhancement of the living conditions of the rural dwellers. Thus it deals with agriculture, other and rural life as factors in nation building. Rural economy, to a reasonable extent, sustains both the urban and national economy; hence the two major economic products come from the rural areas of Nigeria (oil and agricultural products).

Kaine (2013) reported that rural economy spins around agriculture with great investment potentials in oil palm production and processing, cassava processing, rubber production and processing, maize processing, micro and macro livestock production, processing and marketing among others. He further added that economic growth and development policies bereft of agricultural development with integrated rural development will certainly collapse.

Agriculture is a significant component of economic growth and development of any nation. The present food balance situation and diversification of the country’s foreign exchange earnings is addressed by this sector. It heightens the earning of income, saving, and capital accumulation needed for investment (Kaine, 2013; Alabi, 2003). This sector is the foundation of food availability, largest employer of labour, the only sector that provides the basic necessities of life and bedrock to overall socioeconomic growth and development (Kaine, 2015; Imoudu, 2005). NBS, (2007) reported that the agricultural sector is not just the most important non-oil economic activity in Nigeria but it is the single largest employer of labour forces (70%). This sector therefore is often seen as important for the reduction of poverty (Agenor et al., 2004, Ike, 2012).

In the rural areas, savings and investment has been neglected, due to low standard of living and low level of income. People live to fend for their daily bread alone without thinking of what happens when they are faced with unforeseen circumstances. Their income is mainly for transactionary motive, leaving nothing for speculative and precautionary motive. Due to this,
rural savings and investment has been insignificant in stimulating economic growth and development. It is against this background that this study was carried out to identify the socioeconomic variables of the rural households, types, methods and motives for saving and investment among rural households, the type of investment made, investment pattern and determinants of saving and investment.

MATERIALS AND METHODS
The study was conducted in Delta North Agricultural Zone, Delta State, Nigeria. It has a total population of one million two hundred and thirty six thousand, eight hundred forty (1,236,840) people comprising of six hundred and fourteen thousand, five hundred and thirty four (614,534) males and six hundred and twenty thousand, three hundred six (622,306) females (NPC, 2006). Total projected population figure in the study area at a growth rate of 3.2% in the year 2017 was one million, seven hundred and forty nine and two (1,749,002) people comprising of eight hundred and sixty nine thousand and sixty (869,006) males and eight hundred and seventy nine thousand, nine hundred and ninety six (879,976) females. The study area is purely agrarian setting with large forest reserves. Delta North Agricultural Zone is comprised of nine Local Government Areas out the twenty five Local Government Areas in the state. The sampling technique used for this study was the multi-stage random sampling technique. A total of eighty respondents were randomly selected for the study. First was the selection of communities. Five Local Government Areas were randomly selected for the study. They include Aniocha North, Ika North East, Ndokwa East, Ndokwa West and Oshimili North Local Government Areas. The second involved the selection of communities. From the five Local Government Areas two communities, each were selected. The third stage involved the selection of respondents. Eight respondents each were selected from the selected communities using a well-structured questionnaire given a total of eighty respondents that were used for the study. Data for this study were generated using primary data. Data collected were coded and analysed using quantitative and qualitative techniques. Multiple regression model was used to estimate the determinants of savings and investment patterns of the respondents. The multiple regression model is a dependable analytical tool in determining savings and investment habit. (Mitchell and Agenmonmen, 1984).
Model Specification
The regression model was implicitly specified as: \[ Y = F(X_1, X_2, X_3, X_4, X_5, X_6, e) \]
\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + e \]
\[ \ln Y = \ln a + b_1\ln X_1 + b_2\ln X_2 + b_3\ln X_3 + b_4\ln X_4 + b_5\ln X_5 + b_6\ln X_6 \]
Where \( Y \) = volume of savings/investment
\( X_1 \) = individuals income,
\( X_2 \) = income from other sources,
\( X_3 \) = Gender (Dummy),
\( X_4 \) = Level of education (No of years spent in formal education),
\( X_5 \) = occupation
\( X_6 \) = household size
\( e \) = Stochastic error term

RESULTS AND DISCUSSION

Socio-economic characteristics of the respondents: The socio-economic variables of interest that were considered in this study include: age, gender, marital status, level of education, household size, income level and occupation. These variables were considered important as they affect decision making.

Age of Respondents: The result of the age of the respondents as indicated in Table 1 showed that the mean age of respondents was forty-three (43) years. This indicates that respondents were relatively young. The mean age of 43 years observed in this study negates the report of United Nation which asserted that “as a result of oil early seventies, ebullient young men and women immigrated to the urban area in search of greener pasture thus, leaving the aged and weak with all activities of the rural areas”. Mean age of 43 years also showed that the respondents belong to economically active age and have the ability to earn some income (Kaine, 2016). This implies that respondents were relatively young therefore propensity to save and invest was likely to be low as greater percentage of their disposable income was likely to be spent on recreation, leisure and entertainment.

Gender of Respondents: The sex distribution indicated that majority of the respondents – forty four (58%) were males while the remaining thirty two (42%) were female. This implied that saving and investment pattern of respondents was not gender specific.

Marital Status of Respondents: A further investigation of the marital status of the respondents revealed that forty six (61%) of the respondents were married, twenty three (30%) were single and seven (9%) were widows.
Level of Education Attained:
The level of education attained by respondents as indicated that literacy level of respondents was high. The study also revealed that seventeen (22%) of the respondents had no formal education while fifty nine (78%) had one form of education or the other.

Household Size of Respondents:
The mean household size was ten (10) indicating a large household size. Studies by Kaine, et al. (2015), Obeta (2006), Loayza and Shanker (2000) observed that larger family size has negative effect on household saving. Household size can have an influence on food, clothing and shelter. This means that respondents may found it difficult to save and invest. It also implies that respondents would have the need for external financing outside personal savings to cater for the household needs and other economic activities. It also implies that propensity to consume is likely to be high as greater percentage of disposable income will be spent on feeding, clothing, health, education, other basic and essential needs. This implies that saving will be low and consequently investment will be low too.

Income Level: A detailed analysis of the income level of the respondents as indicated a mean income of two hundred and fifty one thousand, eight hundred and ninety four naira, seven hundred thirty seven kobo (₦251,894.737). This revealed that respondents in the study area were low income earners operating in low income level. Therefore propensity to save and invest will be limited by disposable income. This is in conformity with a priori expectations.

Occupation: The study of occupation of the respondents revealed that majority (forty one) (54%) were farmers, fourteen (18%) were traders, twelve (16%) were artisans while nine (12%) were either public or civil servants.

Table 1: Socio-Economic Characteristics of Respondents n = 76

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>12</td>
<td>15.79</td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>35</td>
<td>46.67</td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td>17</td>
<td>22.37</td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>8</td>
<td>10.53</td>
<td></td>
</tr>
<tr>
<td>&gt;65</td>
<td>4</td>
<td>5.26</td>
<td>43</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>44</td>
<td>57.89</td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
<td>----</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>32</td>
<td>42.11</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>23</td>
<td>30.26</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>46</td>
<td>60.53</td>
</tr>
<tr>
<td></td>
<td>Widow</td>
<td>7</td>
<td>9.21</td>
</tr>
<tr>
<td>Educational Level</td>
<td>No formal education</td>
<td>17</td>
<td>22.37</td>
</tr>
<tr>
<td></td>
<td>Primary school</td>
<td>39</td>
<td>51.32</td>
</tr>
<tr>
<td></td>
<td>Secondary school</td>
<td>11</td>
<td>14.47</td>
</tr>
<tr>
<td></td>
<td>Post-secondary education</td>
<td>9</td>
<td>11.84</td>
</tr>
<tr>
<td>Household Size</td>
<td>&lt; 4</td>
<td>19</td>
<td>25.00</td>
</tr>
<tr>
<td></td>
<td>5-10</td>
<td>49</td>
<td>64.47</td>
</tr>
<tr>
<td></td>
<td>&gt; 10</td>
<td>8</td>
<td>10.53</td>
</tr>
<tr>
<td>Level of Income</td>
<td>₦100,000 – 200,000</td>
<td>23</td>
<td>30.26</td>
</tr>
<tr>
<td></td>
<td>₦201,000 – 300,000</td>
<td>44</td>
<td>60.53</td>
</tr>
<tr>
<td></td>
<td>&gt; ₦300,000</td>
<td>9</td>
<td>11.84</td>
</tr>
<tr>
<td>Occupation</td>
<td>Farming</td>
<td>41</td>
<td>53.95</td>
</tr>
<tr>
<td></td>
<td>Trading</td>
<td>14</td>
<td>18.42</td>
</tr>
<tr>
<td></td>
<td>Public/Civil Servant</td>
<td>9</td>
<td>11.84</td>
</tr>
<tr>
<td></td>
<td>Artisan</td>
<td>12</td>
<td>15.79</td>
</tr>
</tbody>
</table>

**Source:** Field survey data 2016

Table 2 showed the different types of savings and investment made by the respondents. Eleven (15%), of the respondents made savings through co-operative society, thirty one (41%) saved by stored produce, sixteen (21%) using thrift society while six (8%) and twelve (16%) of the respondents were involved in saving with financial institution and *isusu* (an informal financial institution) respectively. Further investigation on the type of
investment made showed that thirty seven (49%) of the respondents invested in agriculture, nineteen (25%) were involved in petty trading, eight (11%) were involved in small and medium scale enterprise and twelve (16%) were into real estates. Saving in the rural areas were characterised by co-operative society, isusu, thrift society while investment were seen as hectares of farm lands, trade items, and small and medium scale businesses (such as broom making, local soap production among others).

Table 2: Distribution of Respondents according to type of saving and investment n=76

<table>
<thead>
<tr>
<th>Type of savings</th>
<th>Freq</th>
<th>Percentage</th>
<th>Type of investment</th>
<th>Freq</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-operative</td>
<td>11</td>
<td>14.47</td>
<td>Agriculture</td>
<td>37</td>
<td>49.33</td>
</tr>
<tr>
<td>Stored produce</td>
<td>31</td>
<td>40.79</td>
<td>Petty trading</td>
<td>19</td>
<td>25.00</td>
</tr>
<tr>
<td>Thrift society</td>
<td>16</td>
<td>21.05</td>
<td>Small and medium scale enterprise</td>
<td>8</td>
<td>10.53</td>
</tr>
<tr>
<td>Financial institution</td>
<td>6</td>
<td>7.89</td>
<td>Real estates and land speculator</td>
<td>12</td>
<td>15.79</td>
</tr>
<tr>
<td>Isusu</td>
<td>12</td>
<td>15.79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: field survey data 2016

Table 3 showed the motive for saving and investing among respondents. The analysis showed that forty eight (63%) saved for domestic purposes, twenty nine (38%) saved for investment purposes, fifteen (20%) saved for future use, eighteen (24%) saved to have easy access to loans while eighteen (24%) saved for the purpose of investing in agriculture. The result further showed that, thirty six (47%) invested for family purposes, twenty eight (37%) invested for future use and fifteen (20%) invested to diversify income generation. Directly, saving could be used for investment. Indirectly, saving indicates repayment ability, also increase credit rating and as collateral in a poor weather condition and credit market.
Table 3: Distribution of respondents according to the motives of savings and investing  
(n=76)

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Savings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For domestic purposes (health, education,</td>
<td>48</td>
<td>63.16</td>
</tr>
<tr>
<td>maintenance of property etc)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For investment</td>
<td>29</td>
<td>38.16</td>
</tr>
<tr>
<td>For future use</td>
<td>15</td>
<td>19.74</td>
</tr>
<tr>
<td>For easy access to loans</td>
<td>18</td>
<td>23.68</td>
</tr>
<tr>
<td>To improve agriculture</td>
<td>18</td>
<td>23.68</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td><strong>Investment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For family use</td>
<td>36</td>
<td>47.37</td>
</tr>
<tr>
<td>For future purpose</td>
<td>28</td>
<td>36.84</td>
</tr>
<tr>
<td>Income diversification</td>
<td>15</td>
<td>19.74</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

*Multiple responses

**Source:** Field Survey Data, 2016

Table 4: Estimation of the Determinants of Savings and Investments

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>T-statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-439.2618</td>
<td>181.2449</td>
<td>-3.832376</td>
<td>0.0021</td>
</tr>
<tr>
<td>Income</td>
<td>0.073376</td>
<td>0.013765</td>
<td>3.701275</td>
<td>0.0001</td>
</tr>
<tr>
<td>Household size</td>
<td>282.4119</td>
<td>1260.365</td>
<td>0.219631</td>
<td>0.7354</td>
</tr>
<tr>
<td>Education</td>
<td>765.8916</td>
<td>182.4147</td>
<td>2.569963</td>
<td>0.0005</td>
</tr>
<tr>
<td>Occupation</td>
<td>114.5416</td>
<td>315.8863</td>
<td>0.246340</td>
<td>0.0819</td>
</tr>
</tbody>
</table>

R-Squared (R²)       0.63204
Adjusted R-squared   0.616812
F-Statistic          27.08963
Durbin Watson        1.884010

**Source:** field survey data 2016

The estimation of the determinants of savings and investments as indicated in Table 4 showed that the regression
coefficients were all in conformity with *apriori* expectations. Most of the variables had positive signs, thus, showing conformity with economic theory.

The values of the estimated coefficients in the model showed that the predictors positively determined savings in study area, especially education (765.8916) (182.4147). This however connotes no surprise as literacy level of respondents was high. The T value of income (3.701275), education (2.569963) and household size (0.219631) showed that the variables were individually statistically significant as their calculated values were higher than their theoretical/table values at 5% level of significance. Augmenting this was their respective P values (0.0001), (0.0005) and (0.7354). Hence, income, education and household size were critical determinants of savings and investments in the study area. Thus, there is need for these variables to be accorded attention in the policy stance of the government. Age (- 439.2618) (181.24449) on the other hand was negatively but significant determinant of the volume of saving and investment made in the study area. The negative sign obtained in this study is in consonance with the age of the respondents (relatively young with a mean age of 43 years). This implied that the propensity to save and invest among the younger ones is relatively low. It could be ascertained that they may prefer to spend their income for leisure, immediate needs (such as consumption, education, maintenance of property among others) than for speculative and precautionary measures. The adjusted r-squared [of 0.616812 showed that about sixty two percent (62%) of the systematic variations were predicted after taking adjustment in the degree of freedom for the model. The values of R-squared and R-squared adjusted adjudged the model as one with a good fit.

The f-statistic of 27.08963 and its corresponding p value of 0.00022 confirmed that the overall model was statistically significant at 5%. This implies that the predictors collectively had effects on the response variable.

The Durbin Watson statistic of 1.9 showed that error terms were independently distributed. Thus, indicated the absence of autocorrelation in the model. The result showed that the model had fairly predictive power. This implied that socio economic characteristics were significant determinants of savings and investments in the study area.
CONCLUSION

The study analysed the determinants of saving and investment pattern of rural households in Delta North Local Agricultural Zone, Delta State, Nigeria. The result established that respondents were relatively young and low income earners. It also showed that income, education and household size were positively and statistically significant determinants of saving and investment (as portrayed by their respective coefficient and standard errors).

RECOMMENDATION

Following the result of the study, a number of policy implications arose and appropriate recommendations were made:

1. There is the need for these variables to be given more attention by the government.
2. The informal saving institution like the Isusu society, co-operative societies among others should be strengthened and encouraged. To achieve this, the Isusu should be made to register with the state ministry of commerce and industry to enable them benefit from government programmes.

REFERENCES


