Distribution Pattern of Income Household Survey in Federal Housing Estate, Ado-Ekiti, Ekiti

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Abstract: This paper examines the distribution pattern of household income in Federal housing estate at Ado Ekiti Nigeria. Proportional allocation method under stratified sampling techniques was used for allocation of sample into four stratum. There are four types of household namely 1 person household 2 person household 3-5 person household 5 above person household the number of residents for each level of income are more in 3-5 person household than the rest types of household Generally, number of residents under self-employed and private establishment are more in all types of Generally, number of residents under self-employed and private establishment are more in all types of household.

Keywords: Income, Household, Proportional Allocation, Stratified Sampling, Entrepreneur

I. INTRODUCTION

Sample survey is the selection of data from population in order to make inference from selected data on entire population. There is need to select sample since it may be difficult to gather entire population. There are several sampling techniques for selecting samples from population which include simple random sampling, systematic sampling, stratified random sampling, cluster sampling etc.

Household is basic residential unit where rearing of children, economic, shelter, consumption and production are organized. Household survey is the collection and analysis of data of specific characteristic of interest of all households in a particular geographical area. Field researchers interview or investigate and obtain facts from the sample households of a study area. Questionnaires, observation and record of discussion are method used for collection of data. Characteristics of interest such as status of household member, place of residence, household income, household amenities are examples that can be found on household survey on income.

Household income is the total income of every member of a particular household such as wages, salaries, dividend income, interest income, welfare payment, rental income etc. Household income is used by banks to determine amount of money to lend a customer and also used to determine overall standard of living of a nation.

Black low and Ray, (2000) compare income and expenditure inequalities over two period of time1975-76 and 1993-94 using Australian unit record data and found that between the two inequality movements over the period there is inconsistencies and also differences in the nature of income and consumption disparities.


Zaidi and Klass (2001) focus on income for the study on poverty and inequality in developed countries where consumption-based poverty and inequality trend in nine member countries of the European union were presented.

Cingi, H, (1994) study changes in household services related expenditures patterns in the Netherlands in the year 1979, 1989 and 1998 and found that demand dominating changes increase share of expenditures on housing and. decrease shares of expenditures on food and clothing.

Cain, Rana and et al and (2010) study the evolution of inequality during 1983-2004 using household-level consumption expenditure data. It was found that inequality levels were relatively stable during 1983-93 but increased during 1993-2004 with various measures of inequality

1.1 Aim and Objectives:- The aim of this research work is to know the distribution of income and expenditure within household in Federal Housing Estate Ado- Ekiti, Ekiti State, Nigeria The objectives are:

i to show at a glance the average amount of household income 
ii to determine the total average household income 
iii to determine the influx of income to the household.

II. MATERIAL AND METHOD

Proportional allocation under stratified random sampling (procedure of drawing independent samples using random number after grouping the whole unit of the population into homogeneous distinct stratum.) was used for the allocation of samples into stratum. 500 questionnaire were administered but 495 were returned. All household were divided into four non-overlapping group (stratum) which are 1 person household (85),2 person household (90), 3-5 person household (240) and 5aboveperson household (80).
2.1 Mean and Variance

\[ S_h^2 = \frac{\sum Y_h^2 - n_h (\bar{Y}_h)^2}{n_h - 1} \]  
Sampling Variance

\[ W_h = \frac{n_h}{N} \]  
Stratum Weight

\[ \bar{Y}_h = \frac{\sum Y_i}{n_h} \]  
Stratum Mean(Average)

\[ V(Y_{st}) = \frac{1}{n} \sum W_h S^2_h - \frac{1}{N} \sum W_h S^2_h \]

2.3 Method of Data Collection

Questionnaire is the method of data collection employed in obtaining the data used in this study. Questionnaire is a form that contains series of questions under subject matter. There are open ended and close ended types of questionnaire and form is divided into three parts namely Personal data, Instruction and Subject matter.

III. DATA ANALYSIS

From 495 questionnaire, 54 samples were taken and allocated to all the four stratum using proportional allocation

<table>
<thead>
<tr>
<th>Household</th>
<th>Nh</th>
<th>nh</th>
<th>W_h</th>
<th>(\bar{Y}_h)</th>
<th>(W_h\bar{Y}_h)</th>
<th>(S^2_h)</th>
<th>(W_hS^2_h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 person household</td>
<td>85</td>
<td>9</td>
<td>0.1717</td>
<td>9642.857</td>
<td>1655.679</td>
<td>21016483.5</td>
<td>3608530.217</td>
</tr>
<tr>
<td>2 person household</td>
<td>90</td>
<td>10</td>
<td>0.1818</td>
<td>11818.18</td>
<td>2148.545</td>
<td>31363636.4</td>
<td>5701909.098</td>
</tr>
<tr>
<td>3-5 person household</td>
<td>240</td>
<td>26</td>
<td>0.4849</td>
<td>19750</td>
<td>9576.775</td>
<td>203881579</td>
<td>98862177.66</td>
</tr>
<tr>
<td>5+ person household</td>
<td>80</td>
<td>9</td>
<td>0.1616</td>
<td>25555.56</td>
<td>4129.779</td>
<td>196527778</td>
<td>31758888.92</td>
</tr>
<tr>
<td>Total</td>
<td>495</td>
<td>54</td>
<td></td>
<td>17616.25</td>
<td>17616.25</td>
<td></td>
<td>139931505.9</td>
</tr>
</tbody>
</table>

Table 2: Showing the result of the Households Income

<table>
<thead>
<tr>
<th>Level of income</th>
<th>1 person</th>
<th>2 persons</th>
<th>3-5 persons</th>
<th>5 above persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>15000</td>
<td>20</td>
<td>50</td>
<td>225</td>
<td>200</td>
</tr>
<tr>
<td>30000</td>
<td>10</td>
<td>85</td>
<td>208</td>
<td>192</td>
</tr>
<tr>
<td>50000</td>
<td>30</td>
<td>102</td>
<td>200</td>
<td>163</td>
</tr>
<tr>
<td>100000</td>
<td>100</td>
<td>50</td>
<td>295</td>
<td>55</td>
</tr>
</tbody>
</table>

3.1 Graphical Representation

Figure 1: Showing chart representing type of households and level of income
Table 4: Types of Households and Influx of Income

<table>
<thead>
<tr>
<th>Influx of income</th>
<th>1 person</th>
<th>2 persons</th>
<th>3-5 persons</th>
<th>5 above persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Employee</td>
<td>20</td>
<td>125</td>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td>Private Employee</td>
<td>50</td>
<td>100</td>
<td>125</td>
<td>225</td>
</tr>
<tr>
<td>Self Employed</td>
<td>40</td>
<td>95</td>
<td>100</td>
<td>260</td>
</tr>
</tbody>
</table>

IV. DISCUSSION OF RESULT

From the analysis, it is observed that the average and total income of the household residents per month are $17,510.78 and $866,783.61 respectively. Figure 1 which is the chart representing type of households and level of income shows that more residents received $100,000 and above in the category of 1 person household; $50,000 in the category of 2 person household; $100,000 and above in the category of 3-5 person household and $15,000 in the category of 5 person household.

Also, shows in each category where the number of residents are few that received income; $30,000 for 1 person household, $15,000 and $100,000 for 2 person household, $50,000 for 3-5 person household and $100,000 for 5 and above person household.

Figure 2 which is the chart representing type of households and influx of income to the households shows that there are more residents are under private establishment for 1 person household, for both 2 persons household and 3-5 persons household more residents are under government establishment, for 5 and above persons household more residents are under self-employed establishment. Also, the number of residents under government establishment are less than that of both private and government establishment, for 5 persons household the number of residents under government establishment are less than that of both private and self-employed establishment.

4.1 Conclusion

From the above result, it is concluded that 3-5 persons households have more residents that received $100,000 above than the rest household types, the number of residents for each level of income are more in 3-5 person household than the rest types of household. Also, the number of residents under level of income $15,000-$50,000 for 1 person household is lesser than those in other types of household. Generally, number of residents under self-employed and private establishment is more in all types of household. Finally, most household residents have additional income apart from influx of income from government and private establishment which made them become entrepreneur.

REFERENCES

(canadianPg 33-36)