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.

Bögenhold and Fachinger, (2000) based their empirical analysis on the West German Income and Expenditure Survey (IES) of 1973, 1978, 1983, 1988 and 1993 with the results showed that there is weak relationship between income and expenditure .

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 1983-93but increased during 1993-2004withvarious 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

$$S_h^2 = \frac{\sum Y_{hi}^2 - n_h(\bar{Y}_h)^2}{n_h - 1}$$ Sampling Variance

$$W_h = \frac{N_h}{N}$$ Stratum Weight

$$\bar{y}_h = \frac{\sum \bar{y}_i}{n_h}$$ Stratum Mean(Average)

2.2 Proportional allocation

The mean and variance of proportional allocation are given below

Mean: $\bar{y}_{st} = \sum_{h=1}^{l} W_h \bar{y}_h$

Total: $\hat{Y}_{st} = N \sum_{h=1}^{l} W_h \bar{y}_h$

Variance : $V(Y_{st}) = \frac{1}{n}\sum_n^L W_h S_h^2 - \frac{1}{N}\sum_n^L W_h S_h^2$

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

Table1: Proportional Allocation of the Household Income

Household	N_h	n_h	W_h	$\bar{y}_h$	$W_h \bar{y}_h$	S_h^2	$W_h S_h^2$
1 person household	85	9	0.1717	9642.857	1655.679	21016483.5	3608530.217
2 person household	90	10	0.1818	11818.18	2148.545	31363636.4	5701909.098
3-5 person household	240	26	0.4849	19750	9576.775	203881579	98862177.66
5+ person household	80	9	0.1616	25555.56	4129.779	196527778	31758888.92
Total	495	54			17616.25		139931505.9

Table 2: Showing the result of the Households Income

Average income of the household	17510.78
Total average income of the household	8667836.10
Variance of the household income	2308634.27
Standard Error of the household income	1519.42

Table 3: Types of Households and Level of Income

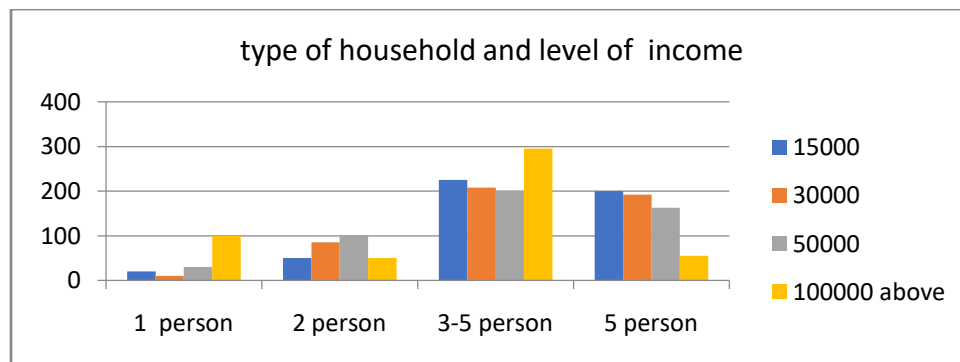| Level of income	1 person	2 persons	3-5 persons	5 above persons
15000	20	50	225	200
30000	10	85	208	192
50000	30	102	200	163
100000	100	50	295	55

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

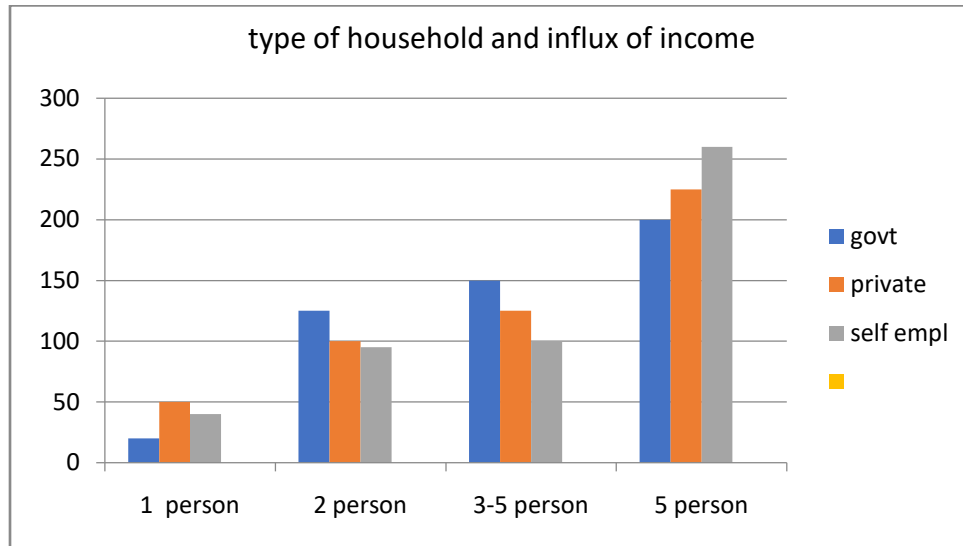| Influx of income	1 person	2 persons	3-5 persons	5 above persons
Government Employee	20	125	150	200
Private Employee	50	100	125	225
Self Employed	40	95	100	260

Figure 2: Showing chart representing type of households and influx of income to the households

IV. DISCUSSION OF RESULT

From the analysis, It is observed that the average and total income of the household residents per month are #17510.78 and #8667836.10 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, #15000 and #100,000 for 2 person household, ; #50,000 for 3-5 person household and #100,000 for 5 and above person household.

Figure 2which 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 self-employed establishment for 1 person household, for 2 person household the number of residents under self-employed establishment are less than that of both private and government establishment, for 3-5 persons household the

number of residents under self-employed 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 that3-5 persons households have more residents that received #100000 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

[1] **Blacklow and Ray, (2000):** Income and Expenditure inequalities Australian unit record data, 1975-76 to 1993-94. *American journal of socio-economic Bacbrush ray Vol. 33 Pg 108*

[2] **Bögenhold and Fachinger, (2000)**: Social network analysis and sociology of economic, *American journal of economics and sociology, wiley Blackwell, vol. 72 Pg 293-318, April.*

[3] **Cain, Rana, Rhoda and Tandon, (2010):** Household-level consumption expenditure, the evolution of inequality during 1983-2004. Springer;Austrian institute for economic research; *Austrian journal of economic association vol(42), Pg 383-404,May.*

[4] **Cingi, H., (1994):**_Sampling theory_, Hacettepe University press canadianPg 33-36

[5] **Zaidi and Klass,(2001):**_Poverty and Inequality focus on income during Entrepreneurship and Innovation Management_, Inderscience enterprises Ltd, 1980s Pg. 99