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An Estimation Of Engel Curves For Different Income Households

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Abstract : Consumption is one of the most important economic behaviour of human beings. It is the ultimate goal of all economic activities. The standard of living of the people of a country depends upon the levels and patterns of consumption. Among the states of India, Kerala is well known across the world for achieving developed world levels of social development. Another unique feature of Kerala is that it is a consumer state producing very little in terms of consumer goods. For a detailed understanding of the consumption pattern of Kerala, a sample survey was carried out. The present study is an attempt to compare the food consumption expenditure of the households in different income groups, i.e., BPL and APL income groups.
Keywords: Consumption Pattern, economic variables, households, rural, urban, income groups

Introduction

Consumption is the ultimate goal of all economic activities. The living standard of the people of a country obviously depends upon the levels and patterns of consumption and more consumption indicates higher living standards. Therefore, it is one of the main targets of all the developing countries like us, to raise the consumption demands in all sections of the society which will also help to achieve the satisfactory rate of economic growth of the nations.

Consumption, in economic theory ,means the final use of goods and services to satisfy human wants , needs and desires. People belonging to different classes of income have different structures of consumption .Rich people spend more for each class of items in absolute terms , but they spend low percentage of income for food and basic needs and poor people spend higher percentage of income on food and other basic needs.

A nineteenth century German statistician Ernest Engel (1821-1896) made an empirical study of family budgets to draw conclusions about the pattern of consumption expenditure, that is, expenditure on different goods and services by the households at different levels of income. The conclusions he arrived at are still believed to be generally valid. The estimation of Engel curves and Engel elasticities has occupied the central position in all family budget studies since the work of Engel (1857).

According to Engel's studies, as the income of a family increases, the proportion of its income spent on necessities such as food falls and that spent on luxuries (consisting of industrial goods and services) increases. In other words, the poor families spend relatively large proportion of their income on necessities, whereas rich families spend a relatively a large part of their income on luxuries. This change in the pattern of consumption expenditure (that is, decline in the proportion of income spent on food and other necessities and increase in the proportion of income spent on luxuries) with the rise in income of the families has been called Engel's law. The curve showing the relationship between the levels of income and quantity purchased of particular commodities has therefore been called Engel curve.

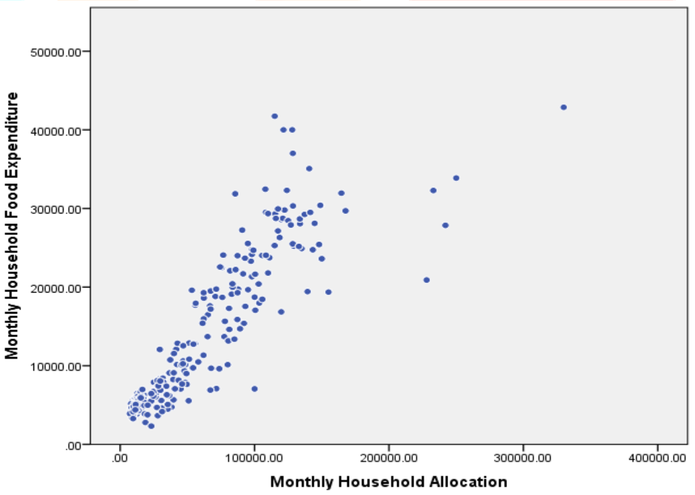
For this study the households are divided into two income groups or economic category, namely, APL and BPL. From each ward 30 households each belonging to APL and BPL category is randomly selected.The sample size is 360. It is based on the proportion of households in the urban and rural areas of these three regions. Data is collected based on sample selection. The sample is selected from the houselist provided by the corporation, municipal and gramapanchayat offices of the selected regions. A list on BPL and APL families belonging to the selected regions is also collected. The minimum sample size is of APL and BPL households is 30 each. Data is collected from face to face survey using prepared format. The household respondents for the survey are head of the household and spouse.

Estimation

The main objectives, here in the present study are (1) to examine different functional form of Engel curves and find out the best model which fits the data from the household and; (2) to compare the consumption patterns of the households in different income groups, i.e., BPL and APL income groups.

The data from all 360 households and; the households in BPL and APL groups were examined using scatterplots as given below:

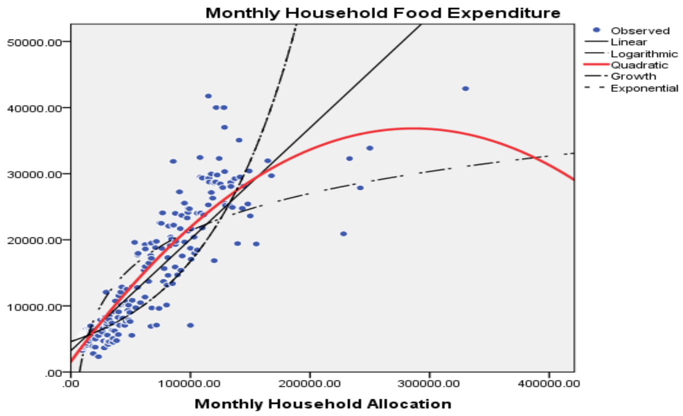
Figure 1.1: Scatterplot of both BPL and APL



Source Primary data

The scatter plot at the aggregate level gives an initial impression that most of the households cluster at the lowest level of income and expenditure. It is mainly because the presence of BPL group households. Scatter plot of the BPL group alone shows more scatter of the households but at lower levels of income and expenditure, compared to the scatter plot of the APL group. But the shape of the Engel curve would be clear only after finding out the most appropriate functional form for it and by estimating their parameters.

Figure 1.2: Engel Curve for monthly household food expenditure for APL and BPL Households



Source Primary data

In all the three curve fitting attempts, Quadratic functional form found to be the best fitting one based on the value of R^2. The quadratic form has R^2 value equal to .865 at the aggregate level and .777 at the APL group level. The R^2 value is relatively low at the BPL group level, it is only .311.

Conclusion

In all the three quadratic form models, the second term has a negative value, though a very small value, which indicates that as income (Monthly Household Allocation) increases, the household level expenditure on food items comes down after a particular level of income, though the specific level of income widely differ among the BPL and APL groups, as we expect. In short, we may conclude that Engel law stands valid among the sample households for the present study.

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