

Decomposition of Changes in Cereals Demand into its Components in Semi-Arid Tropical India

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The purpose of this study is to decompose the observed changes in quantity demanded of cereals into its components- due to changes in income, price consumer taste and preferences and residual including other omitted variables. This will enable us to understand the relative importance of these components and evolve policies to modify the direction of changes in the demand for cereals. The main ingredients for this purpose are demand elasticities for cereals with respect to income, price and taste. These demand elasticities are estimated for each of ten Semi-Arid Tropical (SAT) states and all India using pooled time series of cross-sections data published by the National Sample Survey organization for the period 1972-1994. The empirical results show wide variation in demand elasticities across states, income groups and rural/urban sectors. The consumer taste and preferences captured through time trend variable is significant and negative for most of the individual states, as well as, all India. The negative effect of taste change has more than offset the positive effects of income and other variables in the model. This explains partly the decline in cereal demand over time despite rise in per capita income and fall in relative prices of cereals. The magnitudes of the effects are smaller in urban areas than rural with taste change becoming positive in some cases. Coarse cereals exhibit negative demand responses with respect to income, own-price and taste variables. Interestingly, in few cases - Andhra Pradesh, Karnataka, Madhya Pradesh and Maharashtra - consumer tastes seem to have changed in favour of -coarse cereal consumption. However, the positive taste effect is nullified by negative income effect with the net result of decline in cereal demand. The tests of nested hypotheses also confirm the need for inclusion of taste, income group dummies and their interaction variables in the model.

Introduction

Studies on family budgets have a long history¹. Ever since the pioneering works of Engel, Pigou and Schultz on the quantification of consumer behaviour, there have been a number of attempts to make this area of research a scientific discipline. Valuable contributions also came from Allen and Bowley, Wold and Jureen and Paris and Houthakker to this area. The need for collection of consumer expenditure data and quantification of the implied demand parameters cannot be over emphasized. In planned economies, knowledge about likely future demand for goods and services can help in

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¹ See Brown Deaton (1972) for an excellent survey of studies of household expenditure and Bhattacharya (1975) for Indian studies. Radhkrishna and Murty (1997) have reviewed the works on complete demand systems.