

Income Elasticities of Demand for major consumption items.

Case study of Kashmir University Teachers

Samira Khan

Department of Economics, University of Kashmir, India

Abstract- Kashmir University teachers belong to upper sedentary and rich class is not a fact as the consumption behavior shown by them is similar to middle class society. The sample under examination differ in size of the family, age, designation, property ownership and other characteristics; in general we expect the household with above given different characteristics to have different expenditure plans but the analysis shows same expenditure by every income bracket which confirms Duessenbary's relative income hypothesis. While analyzing the income pattern of Kashmir university teachers we find that all observations do not lie on the straight line because in addition to the income other variables also affect consumption pattern. Direct taxes have more immediate effect on Consumption and Kashmir university teachers being healthy payer of taxes thereby their consumption pattern also shows a different behavior.

Index Terms- consumption, disposable income, Duessenbary's relative income hypothesis, income elasticity of demand, consumer durables

I. INTRODUCTION

No body denies the importance of consumers in the economy or ignores the momentous results that may flow from their decisions.

The most appealing feature of economic research into consumer behavior is the close relationship between theoretical specification and appropriate estimation technique. There are two major approaches to the estimation of income elasticity, as they are usually derived from budget surveys, used by national and international agencies for the purpose of commodity projection. This is most apparent when empirical analysis and testing takes place at micro level.

Attempts to discover consumer habits and preferences now depend not only on intuitive theories but also on objective research. Psychologists and economists make survey, often by a sampling process, to learn how, when, and if possible, why consumer at various incomes levels and in various places spend their money. Economists accumulate and interpret statistical information about consumer's habits in the past and their intentions to buy or not to buy various classifications of goods in future. Most certainly, any theory of consumer behavior must recognize the importance of social forces to shape consumer behavior.

The idea that consumers are the supreme arbiters of what is produced under a system of free enterprises has a long and central place in the history of economic thought. It has to be sharply distinguished from the teleological version, that the consumer should be sovereign, which has an even older origin in Adam Smith without whose dictum "Consumption is the true end and purpose of all production" no book on the political economy of consumers would be complete.

The traditional relationship between the amount of family income and the pattern of family expenditure was discovered in 1857 by the German Civil Servant Ernst Engel, in the examination of an extensive collection of family budgets .It is known as Engel's Law. In present context Engel's great contribution is the clarification and elaboration of the concept of the income elasticity of demand, which a frame work within which numerical measurement of consumer behavior could be affected. Prior to 1936 economists would believe that interest determines the level of consumption.

According to *Keynes* consumption spending and saving are explained by the level of income; the relationships between spending, saving and the level of income are shown by the consumption function and the saving function. In the elementary Keynesian model, the rise in real income of households will lead households to increase the amount of goods purchased and vice-versa. To consider how consumption expenditures are related to disposable income we may begin by posing that consumption expenditures, vary directly with disposable income. Second we can quantify i.e. saying how much consumption increases with a specific increase in disposable income. Keynes did this in his "fundamental psychological Law" which states that "men are disposed, as a rule and on the average, to increase their consumption as their income increases but not as much as the increase in their income". Four general theories currently exist on the determinants of total consumer spending: the absolute income hypothesis, the relative income hypothesis; the permanent income hypothesis and life cycle income hypothesis. Each hypothesis postulates a relationship between consumption and income though the concepts underlying these terms may vary substantially.

II. OBJECTIVES:

The present investigation has been carried out to study the Income Elasticities of academia. The investigation is taken with the following objectives:-

1. To know the consumption preferences of academia.
2. To study whether the consumption preferences of university teachers are different from accepted consumption hypothesis.
3. To study the asset preference in university teachers.

III. LITERATURE REVIEW

Realizing the importance of consumer in the economic aspect many scholars and researchers from various disciplines ranging from commerce, management etc intervene in the study of consumer behavior. Among a few studies directly or indirectly dealing with the similar prospective have been under taken by *Stone – Geary; Cable and Godge 1994; E.M.Ojala 1952; Lewis Scheppar; A.S.Oswald; Paris Quirino 1970; Muelbaures and Deapon 1980; Richard Blundell 1954* have done comprehensive work in this field. In a study *The impact of food price on consumption*, feb 2010 a systematic review of research on price elasticity of demand for food, by Tatiana Andreyeva, Michael W. Long and Kelly D. Brownell lights the proposals to improve diets by shifting food prices, results portray percentage wise increase in price and its impact on consumption.

Ethiopian development research institute (EDRI) in a research note 90, *FOOD DEMAND ELASTICITIES IN ETHIOPIA 2011*, By Kibrom Tafere, Alemayehu Seyoum Taffesse, S Tamiru, Nigussie Tafera and Zelekawork Paulos ; investigates how households have adjusted their demand for various food and non food items to change in price and income. The results suggest that ETHIOPIAN households display significant responses to change in price and income. In both rural and urban areas consumption increases of teff, animal products, and non food items exceeds the proportional income increase. The price elasticity of demand for cereals are roughly same throughout the country.

The present study will be an improvement over the existing knowledge. This analysis is carried out with the objectives to capture behavioral parameters of University teachers a white collar group and measuring Income Elasticities of academia and shall study the consumption preferences.

- I. It is believed that consumption preference in case of high income brackets are oriented to consumer durables than necessities.
- II. University teachers though falling in high income brackets have not high disposable income, however their consumption preference need to be investigated, whether they are oriented to durables or basic consumer items.

IV. RESEARCH METHODOLOGY

Methodology of the present study proceeds along the following lines

1. Statement of the problem
2. Specification of econometric model
3. Obtaining the data

4. estimating the Engel Elasticities and behavioral parameters of econometric model
5. Testing hypothesis.

The present study uses linear regression economic model.

$$X = a + bY + U$$

Where X is consumption, Y is income, a is autonomous consumption/ intercept and b is the slope coefficient or marginal propensity to consume. U is known as the disturbance or error term in a random variable (stochastic variable) that has well defined probabilistic properties. The term U may well represent all those factors that affect consumption but are not taken into account explicitly.

To estimate the Income Elasticities and the behavioral parameters of the econometric model the primary data required is collected by questionnaires.

The data for the study is outcome of a series of questionnaires collected from a random sample of the Kashmir University Teachers. The series consisted of the 110 waves of questionnaires taken from Kashmir University teachers. The data under investigation is fragmented into 5 income brackets The size of the first bracket is 7. Teachers falling under second bracket is equal to 26, in the third bracket we have 29 teachers while in the 4th there are 18 teachers, in the last group i.e is the highest income bracket the number of respondents is 9.

V. RESEARCH FINDINGS AND INTERPRETATION

To analyze the consumption expenditure of Kashmir University Teachers in general we first estimate the income Elasticities of various items separately e.g. food, non-food consumer durables etc. This could be done in;

- a) The consumption –income relationship has to be analyzed with the help of Engel Functions
- b) An income distribution has to be compared with Consumption distribution.

The important economic determinants usually considered are income, price, level of assets held. Prices are kept constant and only income is allowed to vary among household. Our main objective is to compare the consumption income behavior of Teachers within Kashmir University. For this we derive Income Elasticities by fitting various types of functional forms.

With a view to assess, the impact of higher income on standard of living, we use suitable econometric and statistical techniques

An attempt has been made in this regard

- (I) To assess the differences in consumption pattern of University teachers.
- (II) To work out the distribution of consumption expenditure. The proposed analysis will proceed as, first; the consumption pattern of Kashmir University Teachers will be examined. This will be followed by the analysis of the composition of the consumption expenditure taking into account, the consumer durable etc. as part of consumption. Side by side we analyze the income data and take into consideration the total disposable income. Viewing the complex of ceaseless

change to which the human affairs are subject; the economist could claim the end of human development is the increase in income, giving "Income". A definition broad enough to include those elements of well being that can be measured in terms of money. In the present area of research the income of Kashmir University Teachers includes their own salaries, earning of their spouse, income of their parents, income from primary or tertiary sector. All when added gives as a gross figure from which direct and indirect taxes are deducted to get the disposable income.

It needs to be mentioned here that there is slight difference in consumption level of Kashmir University Teachers although there is a attributable difference in income levels.

The mean values for expenditure on individual components has been given in increasing order according to income levels in below mentioned table 1.

Salaries are very much age related; thus age factor of a teacher become major factor determining his appropriate salary Non-academic out side earnings are obtained by a small proportion of teachers. Kashmir University teachers all form a same income group have never about same life style will manifest a wide range of difference in their choice and decision behavior.

NSS data do not give figures of income by categories but only total consumption expenditure .All these consumption expenditures figures exclude saving, and as savings are likely to go up.

Table: 1 Mean Values and APC

Status according to Income Level	Mean value of income	Mean value of expenditure on food items	Average Propensity to consume
1 st Bracket	5.24	4.6	0.87
2 nd Bracket	5.80	4.8	0.82
3 rd Bracket	5.9	5.01	0.84
4 th Bracket	5.2	4.05	0.79
High Income Bracket	5.01	3.02	0.6

Table: 2 Value of Income Elasticities of Demand for major consumption items.

Income Brackets	Income elasticity of expenditure on food items	Income elasticity of expenditure on non- food items	Income elasticity of expenditure on consumer durables.	Standard deviation	Standard error	Value of T T- test	Coefficient of determination R ²
1 st Bracket	0.5	0.46	0.68	0.15	0.06	-2.5	0.80
2 nd Bracket	0.4	0.5	0.7	0.15	0.19	-2.36	0.67
3 rd Bracket	0.37	0.3	0.8	0.09	0.01	1.00	0.54
4 th Bracket	0.2	0.38	0.87	0.15	0.09	1.11	0.62
High Income Bracket	0.018	0.2	0.9	0.11	0.037	2.43	0.63

At 1% ‘level of significance’ at 5% ‘level of significance’, that is under confidence limit 99% and 95% the above data is relevant. Among various forms the double log form is best fit on each item

of expenditure .In each case we test for the statistical significance of the elasticity coefficients at 5% level and 1% level.

VI. CONCLUSION

The study of Income elasticity and consumption parameters of Kashmir University Teachers is of inestimable importance for the help in understanding an estimating Engel elasticities and consumption parameters .The present study of academia has yielded an interesting and fascinating information regarding the preference of academia for food items, non-food items and consumer durables. The prosperity of academia is attributed to higher and better education as well as the better quality evocations.

Empirical application express that consumption expenditure is function of income as well other variables. Saving rate does not depend upon income but on the relative position of income scale. Major part of the effort in the research has been on consumption and consumption expenditure on particular commodities which direct to determine the regression of consumption on income. The study shows strong tendency among teachers to emulate other colleagues and at the same time strive constantly for higher standard of living. *Pigouian* Real Balance Effect is absent because there is negligible impact of wealth on consumption shown by Kashmir university teachers.

It is believed that consumption preference in case of high

income groups are oriented to consumer durables than necessities, though University Teacher belong to the middle class, still the preference for consumer durable, is very high. Their consumption preference when investigated shows their orientation to durables not to basic consumer items. An important factor of consumer economics that direct access shows immediate effect on consumption, mainly when taxation is progressive in nature. Since whole University teacher staff are tax payers therefore, their consumption is also effected by tax system.

REFERENCES

- [1] Ando,A & Modigliant (1963), The life cycle hypothesis Volume No.53 An American Economic review.
- [2] Blundell Richard (1954) , Consumer behaviour theory and empirical evidence a Survey.
- [3] Deaton and Muellbaures, 1980 Cambridge University Press,Economics and Consumer Behaviour.
- [4] Feguson Goulds (1988), Micro Economic theory, Princeton University press.
- [5] Friedman Milton (1956), Consumer Behaviour ,Oxford & IBH, publishing.
- [6] F.Knox (1969) , Consumers and Economy ,By George G.Harrap& Co.Ltd
- [7] Intriligator D.M.(1978), Econometric models techniques and applications Prentice Hall, Inc.
- [8] John .D.Hey (1979), Statistics in Economics Martin Robert son.

- [9] Kelejian , Introduction to Econometrics.
- [10] Kothari C.S.(1985), Research methodology, Whishwa Parakashan
- [11] Koutsoyiannis.A (1973), Theory of Econometrics, Palgrave publishers Ltd
- [12] Marquez Jaine, Economic theory and Econometrics.
- [13] Meghnad Dessi (1976),Applied Economics,Tata McGREW- HILL Publishing company.
- [14] Ojala E.M.(1952), Agriculture Economic progress, Oxford University Press.
- [15] Oswald A.S.(Vol II), Survey in Economics.
- [16] Quirino Paris(1970), An appraisal of income Elasticities for total food consumption in developing countries.
- [17] Richard Hevin (1991), Statistics for management studies, Pre
- [18] The Royal Economic society(1973), Surveys of applied economics.Volume II Macmillan Press Ltd
- [19] Royal economic society (1966) ,Surveys of economic theory,Volume III Macmillan Press Ltd
- [20] American journal of public health, VOL 100 NO 2.
- [21] Journalof International food policy research institute IFPRI

AUTHORS

First Author – Samira Khan, PhD. Scholar PG Department of Economics. University of Kashmir, India