

Consumer Expenditure Behaviour in India: A Case of Rural and Urban Consumer

Dr. Heena Upadhyay, Rajni Pathania

*Department of Business Economics Faculty of Commerce
The M.S. University of Baroda, Vadodara Gujarat India*

ABSTRACT: *The present study is composed to investigate the Consumer Expenditure Behaviour in India. The data used in this study were collected from the period of 1987 to 2002. The regression analysis technique is used to identify the relationship between household income and household consumption expenditure in India. The model for the study was estimated using the ordinary least square (OLS) technique. Compound Average growth Rates (CAGRs) were estimated by fitting an exponential function. Finding of research reveal that during 1987-2002 in both rural and urban Indian household percentage share of food expenditure has decreased, on the other hand non food expenditure has increased in both rural and urban India. The compound growth rate of food expenditure was observed higher in the urban India rather than rural. The compound rate of growth of non food expenditure showed higher in rural India than urban India. The regression result showed that there was positive relation between Household income and consumption expenditure in rural part of India.*

Keywords: *Consumer Expenditure, Ordinary least square, Compound Average growth Rate, Exponential function*

I. INTRODUCTION

The ultimate objective of all production is consumption for the satisfaction of varied needs of man. A free market economy provides freedom to the consumers to buy and consume goods of their choice. Buying preferences of the consumers send signals to the producers to produce various commodities in required quantities. Producers, therefore, produces only those commodities which are desired by the consumers. Consumer behaviour is related to likes and dislikes and expectations of the consumers. Consumer behaviour has changed in recent years owing to enhanced awareness, information technology and more importantly governmental intervention through legislations. Thus, the manufacturers are more cautious in dealing with consumers of their respective products. Consumer Buyer Behaviour refers to the buying behaviour of final consumers - individuals and households who buy goods and services for personal consumption. All of these final consumers combined makeup the consumer market. The consumer market in this case is Rural India. The major portion of Indian population resides in rural India. According to the Indian recent census report, there are 638,365 villages in India and about 74% of Indian population lives in these villages. The main occupation of the Indian rural population is agriculture and related occupations. The scenario is changing, as the economic development in the urban area is much faster due to industrialization such as IT, automobile, and the like. The rural-urban migration exists in India as the rural population seeks to make use of the opportunities in the urban environment for job, work, education, marriage and personal reasons. As per the census report, 39 million people migrated in rural- urban patterns of which 54% were female. As a result of this migration the literacy rate among rural India is 65% (Source: Indian Census Report)

The rural consumers in India account for about 73 percent of the total consumers. In recent years, the lifestyle of a large number of rural consumers in India has changed dramatically and the process of change is on. The buying behaviour of the rural consumers is influenced by several factors such as socio-economic conditions, cultural environment, literacy level, occupation, geographical location, efforts on the part of sellers, exposure to media etc. The consumer movement in India till now has been confined to the middle class citizens in urban areas. It has yet to spread among the masses in rural areas.

The word 'food' refers to the chemical substances taken into the body in order to keep the body in a healthy and active condition. The body requires food for growth, repair and replacement of its worn-out tissues. Hence, food has to provide the required raw material, energy and other regulating substances, like vitamins and minerals, for the smooth functioning of the body, besides meeting the calorific requirements like carbohydrates, proteins, fats, etc., India is the world's second largest producer of food next to China and has the potential of being biggest industry with food and agricultural sector contributing 26 per cent to Indian GDP. It has the capacity of producing over 600 million tons of food products every year; it is likely to be doubled in next ten

years. Food accounts for the largest share of consumer spending. Food and food products account for about 53 per cent of the value of final private consumption. This share is significantly higher than in developed economies, where food and food products account for about 20 per cent of consumer spending. In India, majority of food consumption is still at home. Nevertheless, out-of-home food consumption is increasing due to increase in urbanization, breaking up of the traditional joint family system, desire for quality, time which translates into an increased need for convenience, increasing number of working women, rise in per capita income, changing lifestyles and increasing level of affluence in the middle income group had brought about changes in food habits.

II. REVIEW OF LITERATURE

Balaji (1985) studied fish consumption behaviour of 526 consumers in Vishakhapatnam city. The study revealed that 77 per cent of respondents consumed fish for dinner and 22 per cent for lunch. About 30 percent of the respondents did not consume fish on festival days, as those days were considered auspicious, while the rest had no notations and consumed fish, irrespective of festivals.

Jorin (1987) examined changes in spending power and buying habits of Swiss consumers since the beginning of the 20th century and in the more recent past. Current trends include greater emphasis on health and safety of foodstuffs and less attention to price, increased demand for low calorie light products and increased demand for organically grown foods. For young people, more concern with enjoyment and less for health, with more meals eaten from home and generally an increased demand for convenience foods.

Rogers (1988) have focused on the socioeconomic aspect of the urban and rural populations and the expenditure pattern of the two populations. The income and expenditure pattern in terms of transportation, food, apparel, automobile and housing were compared with rural and urban population. The urban counterparts had the higher level of expenditures on food, housing and apparel where as the rural population average income was spent on transportation, health care, tobacco and other personal insurance. Therefore there are differences in the way that urban and rural consumers allocate their expenditures budgets as regard to socio-economic changes.

Puri and Sangera (1989) conducted a survey to know the consumption pattern of processed products in Chandigarh. Jam was found to be most popular irrespective of income. Orange squash consumption was maximum in high and middle-income families. Pineapple juice consumption increased with a rise in the income.

Srinivasan (2000) revealed that, consumer with higher educational level was found to consume more processed products. The quantities of processed fruit and vegetable products were consumed more in high income group. The tolerance limit of price increase identified was less than 5 per cent, any price change above this limit, would result in discontinuance of the use of the processed product. Consumers preferred processed products because of convenience of ready-to-eat form.

Home (2002) has observed the rural consumers patronage behaviour in Finland, which is done by finding out the relations between consumers and grocery stores in the countryside. The study identifies the most relevant store choice factors of an ideal grocery store and the most important features which best describe the rural store. The objective of the study was to find new consumer buying behaviour information that can help to improve the competitive capabilities of rural grocery stores. The study identifies the most relevant store choice factors of an ideal grocery store such as friendliness of sales people, findings of goods easily; cleanliness and neatness of the store and reliable shop keeper and the most important features which best describe the rural store. This study also identified the factors that have an impact on the store choice of rural consumers and to identify the three different homogeneous buyer groups: supermarket customers, rural store loyalists and price conscious consumers on the basis of consumers shopping orientation. The consumers in each group have different criteria to evaluate grocery stores.

Nandagopal and Chinnaiyan (2003) conducted a study on brand preference of soft drinks in rural Tamil Nadu, using Garrets ranking technique, to rank factors influencing the soft drinks preferred by rural consumer. They found that, the product quality was ranked as first, followed by retail price. Good quality and availability were the main factors, which influenced the rural consumers of a particular brand of a product.

Nagaraja (2004) opined that, buying behaviour is very much influenced by experience of their own and of neighbour consumers and his family. Above all, the quality of the product and its easy availability were the primary and the vital determinants of his buying behaviour. Consumers were influenced by touch and feel aspect of any promotional activity.

III. OBJECTIVE OF STUDY

1. To examine the rural and urban consumer expenditure behaviour on food and non-food in India during 1987-2002.
2. To examine the relationship between rural consumption expenditure and rural household income in India during 1987 to 2002.

HYPOTHESIS

H₀. There is no significant difference between urban and rural consumer expenditure behaviour in India.

H₁. There is no significant relationship between rural household consumption expenditure and rural household income.

DATA COLLECTION

The basic material for the present analysis, viz., time series of estimated per capita consumer expenditure on items and the corresponding total consumer expenditure separately for rural and urban households have been taken from the published reports of NSS 43-58th round. This analysis thus covers the period from July 1987(NSS 43th round) to December 2002 (NSS 58th round). The nine groups of items for which expenditure pattern is analysed are : (i) cereals and cereal substitutes, (ii) milk and milk products, (iii) edible oils, (iv) meat, fish and egg, (v) sugar etc., (vi) other food items (i.e. spices, salt, beverages, prepared food etc.), (vii) clothing, (viii) fuel and light, and finally (ix) other non-food items (which include items like medicine, personal care, education, transport, recreation, rents and taxes etc.).

IV. METHODOLOGY

Compound annual growth Rates (CAGRs) were estimated by fitting an exponential function of the following form:

$$Y_t = \beta_0 + \beta_1 e^{ut} \quad \dots\dots (1)$$

Where Y_t is the dependent variable, β_0 and β_1 are the unknown parameters, and U_t is the disturbance term. Equation (1) could be written in the logarithmic form as follows:

$$\text{Log } Y_t = \log \beta_0 + t \log \beta_1 + U_t \quad \dots\dots (2)$$

Above equation was estimated by applying Ordinary Least Square method and Compound rate of growth (*grc*) was obtained by taking antilog of the estimated regression Coefficient, subtracting 1 from it and multiplying the difference by 100, as follows:

$$\text{grc} = (\text{anti log } b_1 - 1) 100 \quad \dots\dots (3)$$

Where b_1 is an estimate for β_1 . The significance of growth rates was tested by applying *t*-test, given as follows.

$$t = b_1 / s(b_1) \sim t(n-2) \text{ d f} \quad \dots\dots (4)$$

Where b_1 is the regression estimate and $s(b_1)$ is the respective standard error.

V. REGRESSION RESULTS

Rural and Urban consumption Expenditure Behaviour

Table 1 % Share of Rural Food Expenditure and Non Food Expenditure in Total Expenditure

Year	Total expenditure	Food	%share in total Expenditure	Non food	%share in total expenditure
July1987 to June 1988	15810	10082	63.76	5728	36.23
July1993 to June 94	28140	17780	63.18	10360	36.81
July1999 to June 2000	48616	28880	59.40	19736	40.59
July2001to June 2002	49490	27857	56.28	21634	43.71
July2002 to June 2003	49827	27635	55.46	22192	44.53

Source: National Sample Survey Organisation

Above table show the percentage share of food items expenditure in total consumption expenditure. The share of food and non food in total consumption expenditure was 63.76 and 36.23 in rural India during 1987-88. The continued decline in the share of food in total expenditure seen over the years while the non food expenditure continued increased during the study period.

Table 2 % Share of Urban Food Expenditure and Non Food Expenditure In Total Expenditure

Year	Total expenditure	Food	%share in total Expenditure	Non food	%share in total expenditure
July1987 to June 1988	24992	13973	55.90	11018	44.08
July1993 to June 94	45800	25030	54.65	20770	45.34
July1999 to June 2000	85492	41084	48.05	44408	51.94
July2001to June 2002	91457	40057	43.79	57401	56.20
July2002 to Dec2002.	93279	40231	43.12	53048	56.87

Source: National Sample Survey Organisation

A glance above table, which mirrors the percentage share of food and non food expenditure in total consumption expenditure in urban India. It highlights fluctuations of varying magnitude throughout the period of study. Commencing from the level of food expenditure 55.90 percent in the year 1987-88, it slipped to 43.12 percent during the period 2001-2002. Further, the table depicts that the percentage share of non food expenditure was always increased over the period. In the year July 2002 to December 2002, it touched a highest of 56.87.

The above table 1 and 2 shows that there has been a decline in the proportion of expenditure on food items in last three decades in both urban and rural areas. The proportion of expenditure on non-food items has increased from 24% to 37.7%. However, the expenditure on food remained higher in rural areas as compared to urban areas. Between 1987 and 2002, the share of food in total consumer expenditure has fallen in rural areas and urban areas.

Table 3 Compound Growth Rate of Expenditure on Food and Non – Food Items (1987-2002)

YEARS	RURAL		URBAN	
	Food Item (%)	Non Food Item (%)	Food Item (%)	Non Food item (%)
1987-2002	14.02	12.4	15.6	10.9

Source: Researchers own calculation

The compound rate of growth of rural and urban Households' non food expenditure had been respectively 14.02 and 10.9 percent. This table indicate that the rate of growth of urban households' food expenditure had been greater than rate of growth of rural households' food expenditure, due to huge rural migration towards urban areas. The examination of the consumption expenditures for Indian urban and rural households indicates that the rural households' consumption expenditures have a smoother behaviour than the urban households' consumption expenditures.

Table 4 Rural household Income and Consumption Expenditure (1987-2002)

Year	Household Income(Lakh)	Consumption Expenditure (Lakh)	Yearly Change in Income (%)	Yearly Change in Consumer Expenditure (%)
1987-1988	17300	15810	-	-
1993-1994	17670	28140	+2.13	77.9
1999-2002	17000	48616	-3.94	72.76

Source: www.Indiastat.com

This table indicate the fluctuations of income and consumption expenditures in rural consumer. Figure shows that the fluctuations of total consumption expenditure decline to -5.14% in the period 1999-2002 in the same year household income also decrease to around -3.9%. But in 1993-94 rural household's income and consumption expenditure both had increased 2.13 and 77.9 percent respectively.

Rural Household Income and Consumption Expenditure Relation

Regression Equation

$$Ce = a + b_1X_1$$

a = intercept

Ce = Rural Consumer Expenditure (Food+ Non Food items)

X₁ = Rural Household Income

$$Ce = 51.72 + 0.28(\text{income})$$

(P-value=0.0201, t-value= 5.204036)

$$R^2=0.724$$

The result of the estimation of regression summarized in the above equation shows that there is positive and significant relationship between consumption expenditure and Household Income in Rural India. The R-square which is the coefficient of determination, shows the percentage of variation in the dependent variable that was accounted for by variation in the explanatory variables. It measures the explanatory power of the model. It is usually between zeros to one. The R-square reports that the independent variable can explain about 72.4 percent of total variation in consumption expenditure and the remaining 28% left unaccounted for by the model is attributed to the error term.

Table -5Per-capita private final consumption expenditure at 1993-94 prices (Rs)							
	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
Cereals	900.86	908.87	907.48	966.27	855.43	898.0	894.34
Pulses	134.61	139.94	122.59	138.34	124.59	136.85	116.95
Sugar &	226.29	211.57	215.95	254.57	228.81	251.62	268.79
Oil & Oilseeds	260.43	239.79	252.08	288.20	211.65	337.09	268.20
Fruits & Veg. s	702.24	743.25	742.94	729.53	783.95	837.35	861.69
Potato & tuber	69.69	67.47	70.40	83.67	66.56	78.46	75.97
Milk & milk product	22.94	37.33	87.82	21.78	51.48	68.94	52.62
Meat, egg & fish	243.96	257.14	263.46	275.57	273.45	285.82	291.91

Source: National Sample Survey Organisation

Table-5 indicates that expenditure on cereals and pulses have remained essentially unaltered, expenditure on sugar and oil fluctuates. There is a considerable increase in the consumption expenditure on vegetables and fruits and milk and milk products. This is an encouraging trend suggesting that the people are aware of the need for dietary diversification in order to meet the nutritional needs and are making efforts to diversify their dietary intake. It is important to improve access to the vegetables, fruits, dairy products at affordable cost throughout the year in urban and rural areas in all states, because this trend towards dietary diversification is the first step towards sustainable food based intervention for prevention of macro and micronutrient deficiencies.

VI. CONCLUSION

This study highlighted the consumer expenditure behavior on Food and Non Food items in India during 1987- 2002. The main objectives of this study were to examine the rural and urban consumer expenditure behaviour on food and non-food and to examine the relationship between rural consumption expenditure and rural household income in India during 1987-88 to 1999-2000. Experimental evidences indicate that during 1987-2002 in both rural and urban Indian household % share of food expenditure has decreased, on the other hand non food expenditure has increased in both rural and urban India. The compound growth rate of food expenditure was observed higher in the urban India rather than rural. The compound rate of growth of non food expenditure showed higher in rural India than urban India. The regression result showed that there was positive relation between Household income and consumption expenditure in rural part of India.

REFERENCES

- [1]. Balaji, U., 1985, "Fish consumption: A case of fish consumption behaviour in Vishakhapatnam", *International Journal of Marketing*, Vol.14, No. 2, pp.15-18.
- [2]. Home N (2002). "Rural consumers' patronage behaviour in Finland", *International Review of Retail, Distribution and Consumer Research*, pp.149-164.
- [3]. Jorin, R., 1987, Consumer behaviour is changing and offering new opportunities. *Berater- Information*, Vol.26 No.9, pp. 8-14.
- [4]. Nagaraja, B., 2004, "Consumer behaviour in rural areas: A micro level study on consumer behaviour in Kavi mandal", *International Journal of Marketing*, Vol.34, pp.30-36.
- [5]. Nandagopal, R., and Chinnaiyan, P., 2003, "Brand preference of soft drinks in rural Tamilnadu", *International Journal of Marketing*, Vol. 33, No. 1, pp. 14-17.
- [6]. Puri, R., and Sanghera, J., 1989, "Nutritive value and consumption pattern of some processed foods", *International Journal of Marketing*, Vol.46, No. 6, pp. 24-27.
- [7]. Rogers M.J 1988. "Expenditures of rural and urban consumers", *Monthly Labour Review*, Vo.41.
- [8]. Srinivasan, N. and Elangovan, D., 2000, "Consumer perception towards processed fruits and vegetable products", *International Journal of Marketing*, Vol.30, pp. 22-25.