Factors affecting buying behaviour of tea in Nilgiris district of Tamil Nadu

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ABSTRACT

Buying behaviour describes any purchase that a consumer makes, through it was not planned in advance. This paper is an attempt to find out the factors that affect consumer-buying behaviour in Nilgiris district of Tamil Nadu. The impact of various variables like quality, aroma, flavour, taste, colour of end product, brand image, value added tea, retailers influence, influenced by others, reasonable price, timely availability, attractive packing, effective advertisement, celebrity endorsement and gift/promotion/strategies on consumer buying behaviour, have been analyzed. The study is based on the primary data collected from both urban and rural consumers in Nilgiris district with the help of structured questionnaire. Data analysis has been done using SPSS software. The statistical analysis method employed in this study was Factor analysis. After the analysis, it was found that, buying behaviour was substantially different in urban and rural consumers.

KEY WORDS : Buying behaviour, Consumer, Factor analysis

How to cite this paper : Prakash, K.C. and Paramasivam, P. (2013). Factors affecting buying behavior of tea in Nilgiris district of Tamil Nadu. *Internat. J. Com. & Bus. Manage*, **6**(2) : 199-205.

Tea is one of the most popular and widely consumed hot beverages worldwide. More than 30 countries grow tea. From official conferences to railway station, tea *(chai)* remains the favourite hot beverage among Indians. This sector is critical to Indian economy. India's tea consumption raised by two per cent to 837 million kg in 2011 on the back a large population, which consumes almost 81 per cent of the total output, the Tea Board has said. The per capita consumption in the country, however, is still lower compared to other countries. While, the average per head consumption is more than 2 kg in Ireland and the UK, around 1kg in Sri Lanka and Pakistan, and it is only 837 grams in India.

Despite per head consumption being one of the lowest in the world, the total consumption in India, due to its population size, is the largest and almost 81 per cent of the total production is consumed within the country. The domestic consumption accounts for 22 per cent of the global consumption. This distinct position is in sharp contrast with other producing countries, particularly Kenya and Sri Lanka, which hardly have any strong domestic demand and export 90-95 per cent of their production, the report said.

Bhatt (1985) explained that consumer is an individual who consumes goods, whether manufactured by business unit or created by nature such as air, water etc. and utilities offered by the government, business organizations like hospitals, religious, educational and other voluntary organization etc. According to the Consumer Protection Act 1986, a consumer is one who buys only goods or hires or avails any service for a consideration and the amount might have been paid or promised to be paid or partly paid or promised to pay under a deferred payment system

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(Anonymous, 1986). According to Kotler (2005), consumers included all the individuals and households who buy or acquire goods and services for personal consumption. Prakash (2010) explains that consumer is one who buys or acquires product or sevice for his own consumption.

Mehta (1974) defined buying behaviour as the search of alternatives, evaluation of alternatives, choice decision and pot purchase feelings and reactions. According to Markin (1982) buying behaviour meant human activities in the consumption role. The acts of individuals and organizations directly involved in obtaining and using goods and services included the decision making process. This includes problem recognition, search for alternatives, evaluation and assessment of options, decision to by, postpone, or search further and post decision evaluation. According to Gupta and Singh (1989) consumer behaviour is referred to selection of specific brand of a product out of the available brands in the market by considering their various attributes such as size, texture, material, taste, hardness, price, name and distribution. According to Iyer (1990) consumer's behaviour is referred to selection of specific brand of a product, out of the available brands in the market by considering their various attributes, price, name and distribution. Sutherland (1993) described newer measures to evaluate the impact of the advertisements in the consumers' buying behaviour. The measures are broadly classified into two categories *viz.,* (i) Brand-focused measures which include brand awareness, brand image and brand attitude/purchase intention; and (ii) Ad-focused measures which include ad recall/recognition, correct branding and message take-out. Naik (1994) defined buying behaviour as the influence of numerous uncontrollable components such as product, price, promotion and distribution.

Objective of the study :

Several researches of buying behaviour had been conducted in developed countries and developing countries. In those researches, marketing researchers have mainly focused on identifying the general factors that increase buying behaviour. In India, consumption of tea is a common affair, but we do not have sufficient research on this phenomenon. Main objective of this paper was to find out the factors responsible for buying behaviour in urban and rural consumers in Nilgiris district of Tamil Nadu.

METHODOLOGY

From Tea Board and previous researches of buying behaviour, researchers found out 15 attributes which have significant influence on buying behaviour of tea. Factor analysis was based on principal component analysis conducted on those 15 variables. At first, some general information regarding consumers was asked in questionnaire like name, age, income etc. The next part of the questionnaire was designed on Likert Scale (Strongly agree = 3, Agree = 2, Disagree =1) where consumers are asked to put tick mark on 15 attributes. Questionnaire was used to collect the primary source of information from urban as well as rural consumers. Statistical tool SPSS, were used in order to classify the factors responsible for purchasing behaviour in these two groups of consumers. In this study, the variables, which had factor loadings more than 0.5 were selected and those with less than 0.5, were deleted.

Sampling unit were both urban and rural areas. Data were collected from the customers who regularly purchased tea for consumption. Sample size was 100 where 50 were from urban and 50 were from rural consumers. Sampling area were Ooty, Coonoor and Kotagiri areas of Nilgiris district. Sampling technique was Convenience Sampling. Researchers tried to find out customers who have shown interest in survey and respondents were asked questions after completion of their purchase. There are some limitations of this paper. It is focused on the buying behaviour on particular area only.

ANALYSIS AND DISCUSSION

The results obtained from the present investigation are summarized below :

Age of the respondents :

Age is one of the factors in making any choice especially in case of foodstuffs. The age of the sample respondents were analyzed and the results are presented in Table 1.

Among the urban respondents, the majority of the respondents (38 %) were the age group of 31-40 years, while the majority of rural (34 %) was in the age group of less than 30 years. Invariably in both urban and rural majority of the respondents were either young or of middle age.

Educational status of the respondents :

Education status is an important socio economic factor

Table 1 : Age of the respondents		Urban		Rural	
Sr. No.	Age (in years)	Number	Per cent	Number	Per cent
1.	Up to 30 years	13	26.00	17	34.00
2.	31-40 years	19	38.00	14	28.00
3.	41-50 years	12	24.00	16	32.00
4.	Above 50 years	6	12.00	3	6.00
Total		50	100.00	50	100.00

that influences the consumer in the purchasing behavior of the products. The educational status were classified and presented in Table 2.

It could be observed from Table 2 that in the urban areas majority of the respondents completed their graduation. In case of rural, it could be lesser than urban population. The level of population with primary and illiterates constituted about 50 per cent in rural areas.

Annual family income of the respondents :

The financial status of the family has a definite influence on their lifestyle and in turn their food preferences. Hence, the annual income of the respondents families was taken into consideration in analyzing the results of the present survey. The data on the annual family income of the respondents were analyzed and the results are furnished in Table 3.

The results Table 3 show that most of the families in urban area (54 %) were in the income category of above one lakh. Among the rural respondents, 42 per cent were in the annual income category of 0.50 to 1.00 lakh. The difference in the income categories among the urban and rural areas could be mainly due to the type of occupation of the family members.

Average monthly expenditure on tea :

The average monthly expenditure on tea in both urban and rural households is presented in Table 4.

The results presented in Table 4 show that in urban area 48 per cent of the respondents spent about 201-400 rupees per month. Among the rural respondents, 70 per cent they spent less than 200 rupees per month.

Frequency of tea consumption :

Tea and coffee were substitutes since consumption of one affects the frequency of consumption of the other one. Hence, the per day consumption frequency of tea and coffee of the sample respondents was enquired and the results are presented in Table 5.

The results presented in Table 5 express that a good number of respondents both rural and urban had consumed tea twice and thrice per day. But coffee was consumed twice a day by only 8.00 per cent in urban respondents and 6.00 per cent of the rural respondents.

Frequency of buying tea :

The frequency of purchasing tea by the sample respondents was analyzed and the results are given in Table 6.

Table 2 : Educational status of the respondents

Sr. No.	Education	Urban		Rural	
		Number	Per cent	Number	Per cent
1.	Illiterate	0	0.00	8	16.00
2.	Primary	7	14.00	17	34.00
3.	Secondary	14	28.00	11	22.00
4.	Higher Secondary	16	32.00	9	18.00
5.	Collegiate	13	26.00	5	10.00
Total		50	100.00	50	100.00

Table 3 : Annual family income of the respondents

Sr. No.	Annual Income (Rs.)	Urban		Rural	
		Number	Per cent	Number	Per cent
1.	Upto 50000	6	12.00	17	34.00
2.	50000 to1 lakh	17	34.00	21	42.00
3.	Above 1 lakh	27	54.00	12	24.00
Total		50	100.00	50	100.00

Table 4 : Average monthly expenditure on tea

Sr. No.	Monthly expenditure on tea	Urban		Rural	
		Number	Per cent	Number	Per cent
1.	<200	13	26.00	35	70.00
2.	201-400	24	48.00	12	24.00
3.	>400	13	26.00	3	6.00
	Total	50	100.00	50	100.00

It could be concluded from Table 6 that majority of the urban consumers purchased once in a month (36.00) fallowed by fortnightly (28.00). In contrast, about 34.00 per cent of the rural consumers purchased tea once in a week while, 26.00 per cent of them purchased fortnightly. Hence, it was concluded that the rural and urban consumers frequency of buying tea was different. The rural respondents bought tea more frequently, which might be because of the small quantities of purchase influenced by the wage type income of the respondents. The occupation status of the urban respondents might be a reason for them to buy less frequently.

Factor analysis for tea :

To continue towards the main analysis, factor analysis has been performed to identify the key dimensions affecting purchase of tea provided at these two groups of population. The respondents ratings are subject to principal component analysis to improve the reliability of the data.

Table 5 : Frequency of tea consumption

Sr. No.	Frequency (Per day)	Tea		Coffee	
		Urban	Rural	Urban	Rural
1.	Occasionally	7 (14.00)	4 (8.00)	27 (54.00)	31 (62.00)
2.	One time	11 (22.00)	7 (14.00)	17 (34.00)	15 (30.00)
3.	Two times	13 (26.00)	10 (22.00)	4 (8.00)	3 (6.00)
4.	Three times	9 (18.00)	14 (28.00)	2 (16.00)	1 (2.00)
5.	Four times	7 (14.00)	9 (18.00)	0 (0.00)	0 (0.00)
6.	Five times	3 (6.00)	4 (8.00)	0 (0.00)	0 (0.00)
7.	More than five times	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Total		50	100.00	50	100.00

Table 6 : Frequency of buying tea

Sr. No.	Frequency	Urban		Rural	
		Number	Per cent	Number	Per cent
1.	Weekly once	5	10.0	17	34.00
2.	Fortnightly	14	28.00	13	26.00
3.	Once in a month	18	36.00	11	22.00
4.	Once in two months	9	18.00	8	16.00
5.	When required	4	8.00	1	2.00
Total		50	100.00	50	100.00

Table 7 : Total variance explained

Components	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of variance	Cumulative (%)	Total	% of variance	Cumulative (%)
1.	2.267	15.116	15.116	2.267	15.116	15.116
2.	2.118	14.120	29.236	2.118	14.120	29.236
3.	1.602	10.679	39.915	1.602	10.679	39.915
4.	1.530	10.201	50.115	1.530	10.201	50.115
5.	1.391	9.272	59.388	1.391	9.272	59.388
6.	1.195	7.964	67.352	1.195	7.964	67.352
7.	1.059	7.061	74.413	1.059	7.061	74.413
8.	0.930	6.199	80.612			
9.	0.683	4.557	85.169			
10.	0.654	4.363	89.532			
11.	0.462	3.082	92.614			
12.	0.446	2.975	95.589			
13.	0.351	2.343	97.932			
14.	0.310	2.068	100.000			
15.	2.087E-16	1.391E-15	100.000			

Extraction method: Principal component analysis.

From Table 7, fifteen items are reduced to seven orthogonal factor dimensions, which explained 74.413 per cent of the overall variance indicating that the variance of original values is well captured by these seven factors for urban consumers.

From Table 7, Factor 1 accounted for a variance of 2.267, which was 22.67 per cent of the total variance. Factor 2 accounted for a variance of 2.118, which was 21.18 per cent of the total variance. Factor 3 accounted for a variance of 1.602, which was 16.02 per cent of the total variance and factor 4 accounted for a variance of 1.530, which was 15.30 per cent of the total variance. Factor 5 accounted for a variance of 1.391, which was 13.91 per cent of the total variance. Simlarly factor 6 accounted for a variance of 1.195, which was 11.95 per cent of the total variance. Factor 7 accounted for a variance of 1.059, which was 10.59 per cent of the total variance. It can be interpreted that 15 variables were now reduced to seven components or factors contributing 74.413 per cent of the total variance.

Table 8 : Component matrix

Items	Components						
	1	2	3	4	5	6	7
Quality	-0.215	-0.580	-0.111	0.193	-0.134	0.156	0.252
Aroma	-0.290	0.031	0.207	-0.287	0.671	0.126	0.335
Flavour	-0.323	-0.649	-0.098	0.000	-0.371	0.337	0.270
Taste	-0.056	-0.592	0.007	0.524	0.265	0.032	-0.282
Colour of end product	-0.040	0.147	-0.524	0.018	-0.122	-0.657	0.000
Brand image	-0.048	0.627	-0.012	0.262	-0.205	0.406	-0.094
Value added tea	-0.374	-0.120	0.706	-0.028	0.260	-0.007	-0.118
Retailers influence	-0.219	0.468	0.445	0.291	0.021	-0.249	-0.047
Influenced by others	0.167	0.108	0.382	0.318	-0.264	-0.060	-0.048
Reasonable price	0.923	-0.154	0.222	-0.132	-0.011	0.068	0.036
Timely availability	-0.010	0.674	-0.111	-0.168	-0.050	0.420	0.026
Attractive packing	-0.010	0.113	0.392	-0.079	-0.262	-0.390	0.627
Effective advertisement	0.282	0.197	-0.326	0.312	0.647	-0.096	0.090
Celebrity endorsement	0.923	-0.154	0.222	-0.132	-0.011	0.068	0.036
Gift/Promotion/Strategies	0.158	0.123	-0.221	0.349	0.169	0.177	0.547

Extraction method: Principal component analysis.
a. 7 components extracted.

Table 9 : Total variance explained

Components	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% of variance	Cumulative (%)	Total	% of variance	Cumulative (%)
1.	2.037	13.577	13.577	2.037	13.577	13.577
2.	1.858	12.387	25.964	1.858	12.387	25.964
3.	1.688	11.256	37.220	1.688	11.256	37.220
4.	1.328	8.851	46.071	1.328	8.851	46.071
5.	1.298	8.655	54.726	1.298	8.655	54.726
6.	1.109	7.391	62.117	1.109	7.391	62.117
7.	0.964	6.425	68.542			
8.	0.806	5.373	73.915			
9.	0.794	5.296	79.211			
10.	0.692	4.611	83.822			
11.	0.635	4.236	88.058			
12.	0.575	3.831	91.889			
13.	0.504	3.359	95.248			
14.	0.379	2.529	97.777			
15.	0.333	2.223	100.000			

From Table 8, it is clear that three components, *viz.,* retailer's influence, influenced by others and gift/promotion/strategies are the three attributes, which were deleted in the case of urban people who consumed tea. The attributes such as quality, aroma, flavour, taste, colour of end product, brand image, value added tea, reasonable price, timely availability, attractive packing, effective advertisement and celebrity endorsement were retained in urban consumer.

From Table 9, fifteen items were reduced to six orthogonal factor dimensions, which explained 62.117 per cent of the overall variance indicating that the variance of original values is well captured by these six factors for rural consumers.

From Table 9, factor 1 accounted for a variance of 2.037, which was 20.37 per cent of the total variance and factor 2 accounted for a variance of 1.858, which was 18.58 per cent of the total variance. Factor 3 accounted for a variance of 1.688, which was 16.88 per cent of the total variance similarly factor 4 accounted for a variance of 1.328, which was 13.28 per cent of the total variance. Factor 5 accounted for a variance of 1.298, which was 12.98 per cent of the total variance. Factor 6 accounted for a variance of 1.109, which was 11.09 per cent of the total variance. It can be interpreted that 15 variables were now reduced to six components or factors contributing 62.117 per cent of the total variance.

From Table 10, it is clear that four components, *viz.,* brand image, value added tea, effective advertisement and gift/promotion/strategies are the four attributes, which were deleted in the case of rural people who consumed tea. The attributes such as quality, aroma, flavour, taste, colour of end product, retailers influence, influenced by others, reasonable price, timely availability, attractive packing and celebrity endorsement were retained in rural consumer.

Conclusion :

Majority of the respondents in the rural (74 %) and urban (66 %) were more than 30 years of age. In urban, all respondents were educated and in rural 16.00 per cent of the respondents were illiterate. Most of the families in urban (54 %) were in the income category of above one lakh and rural (42 %) areas could be fall under the category of 50000 to 1.00 lakh. Average expenditure on tea in urban (48 %) spent Rs. 200-400 per month. In rural average expenditure on tea (70 %) was less than Rs. 200 per month. A good number of respondents of both rural and urban areas had consumed tea twice per day. Majority of the urban consumers made their purchase once in month (36 %) while 28 per cent purchased fortnightly. In contrast, about 34.00 per cent of the rural consumers purchased tea on weekly, 26.00 per cent of them purchased fortnightly.

The urban people who consumed tea went by the quality, aroma, flavour and taste rather than the influence by retailers influence, influenced by others and gift/promotion/strategies. This could be because; people in the urban areas were well educated from those in the rural and were well aware of the tastes and quality parameters. The people in the rural areas who consumed tea went for lose tea dust rather than the branded ones. This could be one of the main reasons for low factor loading in the case of brand image, value added tea, effective advertisement and gift/promotion/strategies.

Table 10 : Component matrix						
Attributes	Components					
	1	2	3	4	5	6
Quality	-0.269	0.061	-0.363	0.597	0.133	0.463
Aroma	0.627	0.367	-0.249	-0.007	0.166	-0.097
Flavour	0.381	0.659	0.296	0.137	0.072	-0.088
Taste	0.134	0.594	0.350	0.056	0.233	0.034
Colour of end product	0.190	-0.198	-0.570	0.390	-0.377	0.080
Brand image	-0.067	0.499	-0.054	-0.300	-0.173	0.002
Value added tea	-0.383	0.205	0.250	0.482	0.246	-0.206
Retailers influence	0.094	0.087	0.181	-0.420	0.329	0.691
Influenced by others	0.572	-0.244	-0.030	-0.172	-0.340	0.241
Reasonable price	-0.328	0.287	0.629	0.002	-0.389	0.002
Timely availability	0.283	-0.008	0.550	0.130	0.304	-0.031
Attractive packing	0.551	0.059	-0.200	-0.227	0.221	-0.329
Effective advertisement	-0.368	0.207	-0.470	-0.205	0.299	-0.260
Celebrity endorsement	0.582	-0.146	0.269	0.477	-0.198	-0.026
Gift/Promotion/Strategies	0.155	0.621	-0.101	0.210	0.132	0.338

Extraction Method: Principal Component Analysis.
a. 6 components extracted.

Recommendations :

– The processors/manufacturers of tea brand must give more importance to the quality, aroma, flavour of the beverage, since these four attributes obtained greater factor loadings in both the rural and urban areas.

– The price of the tea powder obtained highest relative importance in both urban and rural consumers. Hence, the manufacturers of different tea brands should keep its prices as competitive as possible.

– There must be development of "Tea bars" like "coffee day" to encourage out-of-home consumption. They must provide a wide selection at affordable prices for the consumers.

– Awareness about the health benefits associated with the consumption of green tea and value added tea must be educated to the people.

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