

Consumer Behaviour of Urban and Rural Families towards Vegetables in Kozhikode District - A Comparative Analysis

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Paper Received on March 08, 2021, Accepted on April 12, 2021 and Published Online on April 19, 2021

ABSTRACT

Kerala being one of major consumer states in India, it is depending on neighbouring states like Tamil Nadu and Karnataka to meet the vegetable requirements of its population. In the case of fruits and vegetables market with easy perishable products, a marketer should know what type of instruments he should apply in order to convince the consumer to buy the products in the right time, before their natural deterioration. Though the gap between Indian rural and urban consumer is decreasing, there is considerable difference between them in terms of geographic, demographic and psychographic aspects which is resulting in distinction in their consumer behaviour. For these reasons it is the need of the hour to identify and compare their consumer behaviour. The following study was conducted to analyze the consumer behaviour of vegetable consumers in Kozhikode district of Kerala during a period of 2017-2018. The comparison of urban and rural population of district with reference to their consumer behaviour in vegetable purchase and consumption was also done. Most of the consumer respondents exhibited favourable consumer behaviour in both urban and rural constituencies but exhibited variation in behaviour with respect to attitude and preferences. Urban consumers were quality or brand conscious, whereas rural consumers were price sensitive. A significant difference was also observed in behaviour of urban and rural vegetarians' consumers in vegetable purchase.

Key words : Consumer behaviour; Consumer attitude; Consumer preferences; Decision making; Consumer intentions;

India is the second largest producer of vegetable with 2.8 per cent of total cropped area and a production of 1.5 million tonnes. But Indian consumers are consuming less than the WHO recommended quantity 400g (5 servings with an average size of 80g) per day (National Horticultural Board, 2015). The state of Kerala also reported the same trend. Fruits and vegetables consumption is closely associated with increased risk of serious and chronic diseases. It had been reported that inadequate uptake of fruits and vegetables resulted in 31 per cent of heart diseases, 11 per cent of stroke and 5-12 per cent of cancers in human population (Yeates et al., 2015). Recently, there is an increase in the share of vegetables in consumer's food expenditure. This trend was attributed partly due to the fact that the consumer had become more sensitive to health related issues and partly due to the influence of

factors including rise in income and availability of variety of vegetables (Goksel et al., 2009). But average vegetable dietary requirements are not satisfied by more than half of the Indian population. In this context, the in depth study of consumer behaviour towards vegetables is necessitous. Monthly income of family, credit facility, price, education, condition of store, appearance of produce, organic produce, service facility offered by shop and type of market were the factors that significantly affect purchase behaviour of vegetable consumers (Chikkamath et al., 2010).

This study was conducted with an objective to determine and compare the consumer behaviour of respondents towards vegetables among rural and urban inhabitants of Kozhikode district in Kerala. Consumer behaviour is operationalized as the sum total of consumer's attitude, preferences, intentions, and

decisions in market place when purchasing and consuming vegetables. *Sinha (2003)* revealed from his study on Indian market that it was significant for store managers to understand consumer's behaviour in order to develop marketing strategies. The consumers buying behaviour has been influenced by social, economic, cultural, and psychological factors (*Gahaifi and Svetlik, 2011*). The changing demographic profile of consumers and consequently evolving consumer needs should be taken in to account in formulating policies related to retailing vegetables.

Consumer behaviour = Consumer attitude + Consumer preferences + Consumer decision making + Consumer intensions

Consumer attitude is the positive and negative feelings, beliefs towards purchase of vegetables. Consumer attitude can be divided into 3 stages *i.e* affect (consumer feel about the product), behaviour (consumer experimenting with product) and cognition (consumer belief in product). A positive attitude towards the product had reduced the length of decision making process in purchase of the product. In the case of rural consumers, they had no trust in branded and packaged food products as they believe that those products are toxicities with chemicals so not good for health (*Shafiwu et. al.2018*).

Consumer preferences refer to different attributes like price, availability, quality etc preferred by consumers during purchase of vegetables. The consumers perceived pesticide free nature of vegetables as an important attribute in purchase of vegetables and were ready to pay a premium of average 15 per cent above the regular price to purchase pesticide-free fruits and vegetables (*Boccaletti et al., 2000*). With the rising per-capita income in developing countries, there had been surge in the consumer preferences for food attributes such as safety, freshness, appearance, and texture. Despite of the diminishing preference differences between urban and rural customers, they differed in consumption as well as shopping pattern in many ways.

Consumer decision making is operationally defined as a choice between two or more alternative actions involved in purchase of vegetables. The decisions of the consumer pertaining to purchase of fruits and vegetables are taken in the store and there is no prior decision making. Some of the decisions were based on cognitive aspects including the best price or the best alternative, while others were based on their emotional

elements such as the product which is liked best (*Nicolae and Corina, 2015*).

Intentions to buy from an outlet are operationally defined as store choice behaviour of consumers' *i.e* intentions of a consumer to purchase vegetable from an outlet. The convenience and merchandise are the primary reasons behind choosing a store. High income category of consumers prefer to purchase vegetables from stores with good hygienic conditions but low and medium income category of consumers prefer traditional stores which they believe could provide fresh vegetables at low price (*Maruyama and Trung, 2007*).

METHODOLOGY

The study was conducted in the Kozhikode district of Kerala. A total of 120 household respondents 60 each from rural and urban constituencies were selected using simple random sampling and surveyed. The 48 respondents out of 60 were of mixed category and 12 were of vegetarian category. Consumer behaviour was operationalized as sum total of consumer's attitude, preferences, intensions, and decisions in market place when purchasing vegetables. Consumer behaviour was assessed using an arbitrary scale developed for the study. The scale consists of 32 statements having 4 components *viz.*, consumer attitude, consumer preferences, consumer decision making and consumer intentions with 8 statements each. The components are measured on a five point continuum of strongly agree, agree, undecided, disagree and strongly disagree with scores 4, 3, 2, 1, and 0 respectively and later grouped into 3 categories by determining mean and standard deviation of scores. The consumer behaviour score of a respondent was obtained by summing up of the scores of four components and were classified as highly favourable, moderately favourable and less favourable by computing mean and standard deviation. The comparative analysis of consumer behaviour was done by performing student's t-test.

RESULTS AND DISCUSSION

A perusal of results from Table 1 showed that 80.83 per cent of respondents possessed moderately favourable attitude towards vegetables, followed by 12.5 per cent of respondents displayed highly favourable attitude and 6.67 per cent showed less favourable attitude regarding vegetable consumption. The result obtained was mainly because, most of the respondents agreed upon on the

nutritional status, taste, dietary fiber supplementation, and easy availability of vegetables but perishability and price was a limiting factor which restricted them to have highly favourable attitude towards vegetables.

Table 1. Distribution of respondents based on consumer attitude

Category	Urban n=60		Rural n=60		Total N=120	
	No.	%	No.	%	No.	%
Less favourable(<21)	0	0	8	13.33	8	6.67
Moderately favourable (21-27)	48	80.00	49	81.67	97	80.83
Highly favourable (>27)	12	20.00	3	5.00	15	12.50

Mean=24, SD=3, Expected score range= 0-32

Data score range=18-29

This effect of price factor had increased the proportion of rural population in the less favourable attitude category, where urban consumers were not found. The rural consumers were having a negative attitude towards sealed vegetables as they believed that they are not fresh and could cause health problems. Majority of respondents revealed that appealing nature and freshness of produce also inculcated a positive attitude towards vegetables. They also revealed that positive attitude regarding vegetables has decreased decision making period in vegetable purchase.

Table 2. Distribution of respondents based on consumer preference

Category	Urban n=60		Rural n=60		Total N=120	
	No.	%	No.	%	No.	%
Low (<20)	20	33.33	6	10.00	26	21.66
Medium(20-24)	39	65.00	39	65.00	78	65.00
High(>24)	1	1.67	15	25.00	16	13.33

Mean=22, SD=2, Expected score range=0-32

Data score range=16-28

A critical appraisal of Table 2 showed that majority (65%) were having medium preferences of vegetable attributes in purchase and consumption of vegetables, followed by 21.66 per cent of respondents displayed low preferences and 13.33 per cent of them displayed high preferences for vegetable attributes. The reasons for most of the respondents in medium category was that, it was less practical for consumers to demand on vegetable attributes like freshness, low pesticide residue, shelf life which compelled them to remain in 'medium' category and 'low' category rather than in 'high'

category. The distribution of urban consumers followed the same pattern but rural consumers slightly deviated. This was due to their consideration of large number of factors including accessibility, better value for money, eco-friendliness, lower residue *etc.* with regard to vegetable consumption.

Table 3. Distribution of respondents based on decision making

Category	Urban n=60		Rural n=60		Total N=120	
	No.	%	No.	%	No.	%
Less favourable (<15)	13	21.67	5	8.34	18	15.00
Moderately favourable (15-23)	45	75.00	38	63.33	83	69.17
Highly favourable (>23)	2	3.33	17	28.33	19	15.83

Mean=19, SD=4, Expected score range=0-32

Data score range=9-28

A critical analysis of data illustrated in Table 3 indicated that most (69.17%) of the respondents displayed moderately favourable decision making capacity in purchase of vegetables. This was attributed to routine nature of vegetable purchase to meet the nutritional requirement and decisions were taken mostly in store prior to purchase. Hence majority of respondents would go for purchase of vegetables despite of not having highly favourable decision making ability.

The distribution of urban population showed similar trend. The percentage of rural respondents who possessed highly favourable decision making was comparatively more (28.33%). This was due to fact that, consumer decision was mainly based on cognitive aspects like best price and emotional aspects such as product which is liked best by them. The low purchasing power of rural consumers, had made them more price conscious which was the prime reason behind their rational and collective decision making.

A critical analysis of distribution of respondents based on store choice behaviour in the Table 4 had showed that 77.50 per cent of total respondents belonged to medium category, followed by 11.67 per cent in low category and 10.83 in high category of consumer intention as perceived in the study. The rural and urban consumers followed more or less same distribution pattern. Majority of the urban and rural respondents agreed to the fact that their store selection for vegetable purchase was mainly based on proximity and acquaintance with shopkeeper.

Table 4. Distribution of respondents based on intentions to buy from an outlet

Category	Urban n=60		Rural n=60		Total N=120	
	No.	%	No.	%	No.	%
Low (<18)	11	18.33	3	5.00	14	11.67
Medium (18-24)	43	71.66	50	83.33	93	77.50
High (>24)	6	10.00	7	11.67	13	10.83

Mean=21, SD=3, Expected score range=0-32

Data score range=9-31

It was interestingly found that consumer intention varied accordingly with age of consumers. The proximity was major concern of old aged people but shopping was a recreational activity for youth and they preferred shops which offered more ambience and entertainment.

Table 5. Distribution of respondents based on consumer behaviour

Category	Urban n=60		Rural n=60		Total N=120	
	No.	%	No.	%	No.	%
Less favourable (<15)	11	18.83	4	6.67	15	12.50
Moderately favourable (15-23)	46	76.67	47	78.33	93	77.50
Highly favourable (>23)	3	5.00	9	15.00	12	10

Mean=19, SD=4, Expected score range=0-32

Data score range=9-28

A detailed analysis of Table 5 revealed that most of the respondents (77.50%) exhibited moderately favourable consumer behaviour towards vegetables, 12.50 per cent of respondents displayed less favourable and 10 per cent of respondents displayed highly favourable consumer behaviour with regard to vegetable purchase and consumption. This is a reflection of the increased health concerns, purchasing power, educational qualifications and occupation status of urban and rural consumers.

The same trend was seen in distribution of urban consumers. The rural consumers exhibited relatively highly favourable consumer behaviour than urban consumers in vegetable consumption. This was attributed to their relative dominance over urban consumers in consumer preferences for vegetable attributes and decision making ability as evident from Table 2 and Table 3. Since these two were among the components of consumer behaviours assumed in the study, their dominance could produce an observable and remarkable effect in consumer behaviour.

Comparative analysis of consumer behaviour among rural and urban consumers : Student's t-test for comparing consumer behaviour of rural and urban consumer is given in the table below.

Table 6. Comparison of consumer behaviour between rural and urban consumers

Category	Urban (60)	Rural (60)
Mean	84.63	87.88
Variance	74.47	70.48
t-test (observed value)		2.09
t- test (critical value)		1.98
Alpha (level of significance)		0.05

It was inferred from the Table 6 that there existed a significant difference between the consumer behaviour of urban and rural consumers and mean values of two samples proved that rural consumers had shown relatively more consumer behaviour towards vegetables. The typical rural consumer characteristics including low per capita income, education level, low purchasing power and culture bound nature had forced them for demanding better value for money spent on produce. This had improved their consumer decision making ability during purchase of vegetables which in turn resulted in better consumer behaviour.

Comparative analysis of consumer behaviour between urban vegetarian and rural vegetarian consumers : The results of student's t-test for comparison of consumer behaviour of urban vegetarian and rural vegetarian consumers are displayed in Table 7.

Table 7. Comparison of consumer behaviour between urban vegetarian and rural vegetarian consumers

Category	Urban (12)	Rural (12)
Mean	72.00	94.00
Variance	36.54	98.00
t-test (observed value)		6.57
t- test (critical value)		2.07
Alpha (level of significance)		0.05

A critical analysis of Table 7 proved that the consumer behaviour of urban vegetarian and rural vegetarian differed significantly. The mean values indicated that rural vegetarian showed better consumer behaviour than urban vegetarians. The vegetarians in rural sample occasionally consumed vegetables produced in their own homesteads apart from purchasing them but urban vegetarians completely depended on retail or wholesale outlets which could be the reason for observed pattern.

CONCLUSION

The retrospective analysis of the study ascertained that a few of the total respondents possessed highly favourable behaviour in purchase and consumption of vegetables.. This is a matter of serious concern as vegetables are indispensable diet for prevention of wide range of diseases from vitamin deficiencies to deadly ones such as cardiac diseases in human. There was a significant difference between the consumer behaviour of rural and urban consumers. The prime reasons could

be the socio-economic and cultural differences in urban area and rural area. Apart from freshness of produce, the price was the major concern for rural consumers but ambience was the priority of urban respondents.

In this scenario, a team must explore factors affecting consumer behaviour and develop strategies for improving consumer behaviour of both rural consumers and urban consumers. All these findings also demand a need for creating awareness in society regarding the use of safe food and promotion of organic vegetables.

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