

# Determinants of Consumer Behaviour towards Organic Vegetables

ISSN 2321 – 371X  
Commerce Spectrum 7(2) 28-34  
© The Authors 2019  
Reprints and Permissions  
sreeragam2017@gmail.com  
www.commercespectrum.com

**Divya Vijayan<sup>1</sup>**

Research Scholar, Dept. of Rural Marketing Management, CCBM, KAU.

**Dr. K.N. Ushadevi**

Professor and Head, Dept. of Rural Marketing Management, CCB&M, KAU.

**Krishna R.**

Assistant Professor, Dept. of Commerce, Christ College (Autonomous), Irinjalakuda, Thrissur.

## Abstract

*People nowadays are more aware of the necessity of consuming organic vegetables intake and have become increasingly aware of the use of highly toxic chemicals in vegetable cultivation causing health hazards to human beings and the negative impact it has on the environment. The purpose of this study was to analyze the determinants of consumer purchase behavior towards organic vegetables. The study was conducted in the central zone of Kerala. A sample of 60 consumers was selected and data were collected using structured questionnaires. Results of the study revealed that price, chemical and pesticide free vegetables, eco-friendliness, health concern and availability are the most important factors influencing the purchase behavior. Study also proved that education and age are key determinants for consumer preference towards organic vegetables.*

## Keywords

Organic farming, organic vegetables, eco-friendly, purchase behaviour, consumer preference.

## I. Introduction

The term consumer behaviour can be defined as the behaviour that consumers display in purchasing, using, evaluating and disposing of products and services that they expect will satisfy their needs. Vegetables constitute a major portion of food consumption and changes have undergone in the nature, type and quality of vegetables consumed. Nowadays vegetables are used not only as food, but to provide necessary nutrients and to prevent nutritious related diseases and to improve physical and mental wellbeing of consumers.

In the context of changing behaviour of consumers towards vegetables, study on determinants of consumer behaviour towards organic vegetables is very important. Consumer decision making is dynamic in nature. It involves pre purchase, purchase and post purchase decisions and also after use satisfaction. Positive attitudes

from frequent use lead to recurring purchase. Similarly, economic factors also influence the decision process. In conventional economics it was believed that price is the most important factor. Empirical evidence identifies price as only one of the determinants. Empirical studies further indicate that there are many non-economic factors with significant influence over purchase decisions. The study aimed to identify the determinants of consumer behavior towards organic vegetables.

## II. Methodology

The study was confined to three districts viz, Thrissur, Palakkad and Ernakulum representing central Kerala. These districts were selected based on the prominence of vegetable cultivation in these areas. Twenty consumers from each of these districts were selected through simple random sampling. Thus, the total sample of consumers confined to 60. Primary data was collected through a pre-tested structured interview schedule. Statistical tools like chi-square, index and ordered probit model were applied to find out the determinants of consumer behavior towards organic vegetables.

---

<sup>1</sup> Corresponding author:

**Divya Vijayan**

Research Scholar, Dept. of Rural Marketing Management, CCBM, Kerala Agricultural University.  
Email: divuvijucb@gmail.com, 8547890403.

### III. Analysis and Discussion.

In this section, an attempt has been made to identify the determinants of consumer behaviour towards organic vegetables. Various factors have been identified, which may influence the buying behaviour of consumers towards organic vegetables. These are mainly demographic factors, economic factors and quality related factors, environmental factors, personal factors, availability factors etc.

#### III (A). Socio-economic profile of consumers

Socio economic status is the measure of economic and social prospects of the individuals. It indicates the social position of an individual with respect to education, income and occupation. In order to examine the socio-economic characteristics of the respondents, seven indicators, viz., gender, age, education, occupation, family type and monthly family income are considered (Table 1).

**Table 1:** Demographic details of consumer respondents

Sl. No.	Demographic factors	No: of Respondents	Percentage
1	<b>Age (in years)</b>		
	Less than 30	4	6.67
	30-40	10	16.67
	40-50	13	21.67
	50-60	18	30
	Above 60	15	25
	Total	60	100
2	<b>Education</b>		
	SSLC	14	23.3
	Plus two	25	41.67
	Graduation	19	31.67
	Post graduation	2	3.3
	Total	60	100
3	<b>Occupation</b>		
	Agriculture	10	16.67
	Private	28	46.67
	Government	18	30
	Student	4	6.67
	Total	60	100
4	<b>Income (in Rs.)</b>		
	Less than 20000	10	16.67
	20000-30000	43	71.67
	30000-40000	6	10)
	above 40000	1	1.67
	Total respondents	60	100

Source: Primary data.

#### III (B). Relationship of demographic factors of consumer and consumer attitude

The study assessed the attitude of consumers towards organic vegetables based on the data collected on a 5-point scale. The composite index

score obtained was 68.63 which showed a favorable attitude. To examine whether the demographic factors determine the attitude of consumers, a chi-square test was applied and results were given in table (2).

**Table: 2** Relationship of demographic factors of consumer and consumer attitude

Demographic Factors	Degree of freedom	Chi-square test statistic
Age	4	2.356 <sup>NS</sup>
Education	3	0.210 <sup>NS</sup>
Occupation	3	0.807 <sup>NS</sup>
Income	3	4.688 <sup>NS</sup>

Source: Primary data. NS – Not significant.

None of the demographic factors are determinants

of the buying attitude of consumers regarding organic vegetables.

### III (C). Influence of demographic factors on consumer satisfaction towards organic vegetables

The overall satisfaction index of consumers obtained was 67.78 which reveals that they are satisfied with the organic vegetables. For the

calculation of index certain variables were selected and based on that a composite index was formulated. To identify the influence of demographic variables on consumer satisfaction, a chi-square test was applied and result is given below.

**Table 3:** Influence of demographic factors on consumer satisfaction

Demographic factors	Degree of freedom	Chi-square test statistic
Age	4	4.340 <sup>NS</sup>
Education	3	12.134 <sup>**</sup>
Occupation	3	6.995 <sup>NS</sup>
Income	3	5.788 <sup>NS</sup>

Source: Primary data. NS – Not significant.

From table (3) it could be noticed that among the demographic characteristics level of education had an impact on the satisfaction level of consumers towards organic vegetables. Age, occupation and income were not considered as determining factors for the level of satisfactory consumers.

### III (D). Influence of demographic factors on consumer

Table 4 depicts whether the consumers prefer organic vegetables for their consumption or not.

**Table 4:** Number of respondents who prefer organic vegetables

Prefer	Thrissur	Palakkad	Ernakulum	Total
Yes	12 (60)	14 (70)	11 (55)	37 (61.67)
No	8 (40)	6 (30)	9 (45)	23 (38.33)
Total	20 (100)	20 (100)	20 (100)	60 (100)

Source: Primary data

Note: Figures in Parenthesis represents percentage to total

Table (4) shows that the majority of the respondents (61.67 percent) preferred organic vegetables. Ordered probit model which is an econometric tool

that is used to find out the independent variables which are influencing the dependent variables.

**Table 5:** Ordered Probit estimates for determinants of consumer preference

Variables	Estimate	S.E.	Wald	df	Sig.
<b>Age</b>	-0.1384	0.048827	8.03467	1	0.004589
<b>Educational qualification</b>			4.621448	3	0.20171
Below high school	4.155516	2.535507	2.686089	1	0.101228
Up to 12 <sup>th</sup> standard	3.408167	2.102279	2.628215	1	0.10498
Graduation	4.608502	2.198633	4.393535	1	0.036075
<b>Occupation</b>			2.702088	3	0.439873
Agriculturist	-21.0947	28417.51	5.51E-07	1	0.999408
Private employee	-20.1181	28417.51	5.01E-07	1	0.999435
Government employee	-22.4203	28417.51	6.22E-07	1	0.999371
<b>Income</b>			0.082149	1	0.774406
Constant	25.32288	28417.51	7.94E-07	1	0.999289
-2 Log likelihood	60.50748				
Cox & Snell R Square	0.275944				
Chi-square	19.37321*				
<b>Sig.</b>	0.012986				

Table 5 reveals that demographic factors show an overall significance statistic in the ordered probit estimate which means the variables under demographic factors are determining the preference of consumers towards organic vegetables. Among the demographic factors age and educational qualification are the two determinants for the consumer preference towards organic vegetables. Age is negatively related with the preference level of consumers. In the case of education it is

positively related. From this we can infer that highly educated respondents were preferred to purchase organic vegetables. Income and occupation are not considered as the determinant for preference towards organic vegetables. In order to identify factors which influence the attitude of consumers towards organic vegetables, index method was employed.

**Table 6:** Economical factors influencing the Purchase of organic vegetables

Sl.No	Items	Thrissur		Palakkad		Ernakulum		Total		
		Score	Index	Score	Index	Score	Index	Score	Index	
1.	Price	40	100	40	100	40	100	120	100	VI
2.	Economic status	0	0	3	7.5	9	22.5	12	10	NI
3.	Value for money	30	75	13	32.5	13	32.5	56	46.67	I
	<b>Composite index</b>	<b>70</b>	<b>58.33</b>	<b>56</b>	<b>46.67</b>	<b>62</b>	<b>51.67</b>	<b>188</b>	<b>52.22</b>	<b>I</b>

**Table 7:** Quality factors influencing the purchase of organic vegetables

Sl. No	Items	Thrissur		Palakkad		Ernakulum		Total		
		Score	Index	Score	Index	Score	Index	Score	Index	
1.	High nutrient value	26	65	16	40	14	35	56	46.67	I
2.	More calories	17	42.5	17	42.5	32	80	66	55	I
3.	Chemical & pesticide free	40	100	40	100	40	100	120	100	VI
4.	Hygienic	25	62.5	15	37.5	24	60	64	53.33	I
5.	Taste	13	32.5	18	45	22	55	53	44.17	I
6.	Freshness	19	47.5	23	57.5	20	50	62	51.67	I
	<b>Composite index</b>	<b>140</b>	<b>58.33</b>	<b>129</b>	<b>53.75</b>	<b>152</b>	<b>63.33</b>	<b>421</b>	<b>58.47</b>	<b>(I)</b>

**Table 8:** Environmental factors influencing the purchase of organic vegetables

Sl. No	Items	Thrissur		Palakkad		Ernakulum		Total		
		Score	Index	Score	Index	Score	Index	Score	Index	
1.	Eco-friendly vegetables	32	80	30	75	31	77.5	93	77.50	VI
2.	Environmental concern	20	50	13	32.5	15	37.5	48	40	I
	<b>Composite index</b>	<b>52</b>	<b>65</b>	<b>43</b>	<b>53.75</b>	<b>46</b>	<b>57.5</b>	<b>141</b>	<b>58.75</b>	<b>I</b>

**Table 9:** Personal Factors influencing the purchase of organic vegetables

Sl.No	Items	Thrissur		Palakkad		Ernakulum		Total		
		Score	Index	Score	Index	Score	Index	Score	Index	
1.	Awareness about organic vegetables	32	80	26	65	24	60	82	68.33	I
2.	Influence of family	24	60	21	52.5	22	55	67	55.83	I
3.	Health concern	32	80	28	70	33	82.5	93	77.50	VI
	<b>Composite Index</b>	<b>88</b>	<b>73.33</b>	<b>75</b>	<b>62.50</b>	<b>79</b>	<b>65.8</b>	<b>242</b>	<b>67.22</b>	<b>I</b>

**Table 10:** Availability Factors influencing the purchase of organic vegetables

Sl. No	Items	Thrissur		Palakkad		Ernakulum		Total		
		Score	Index	Score	Index	Score	Index	Score	Index	
1.	Availability of vegetables	40	100	38	95	35	87.5	113	94.17	VI
2.	Availability of information	29	72.5	12	30	14	35	55	45.83	I
3.	Regular supply	20	50	19	47.5	17	42.5	24	20	NI
4.	Distance to the market	38	95	31	77.5	33	82.5	102	85	I
	<b>Composite index</b>	<b>127</b>	<b>79.38</b>	<b>100</b>	<b>62.50</b>	<b>99</b>	<b>61.88</b>	<b>294</b>	<b>61.25</b>	<b>1</b>

The study found that among the economic factors price is the most important determinant followed by value for money. Health aspect is a very important factor which creates an interest in consumers to buy organic vegetables. In the present era, almost all people are capable of buying vegetables but pure and quality vegetables are not available or their availability is becoming rare.

Chemical and pesticide free factor is considered as the most important determinant among the quality factors. Other factors like nutrient value, calorie level, hygienic taste and freshness are

important determinants for consumers' choice towards organic vegetables. Personal factors like awareness about organic vegetables, influence of family and health concern are also important for the consumers. Availability of vegetables and distance to markets are also important. The vegetables are purchased daily by consumers. So, availability is an important factor. Economic status and regular supply are not an important determinant for consumers.

**Table 11:** Composite Index of determinants of consumer attitude towards organic vegetables (Factor wise)

Composite index of factors	Thrissur		Palakkad		Ernakulum		Total (n=60)		Importance
	Score	Index	Score	Index	Score	Index	Score	Index	
Economic Factors	70	58.33	56	46.67	62	51.67	188	52.2	(I)
Quality Factors	140	58.33	129	53.75	152	63.33	421	58.47	(I)
Environmental Factors	52	65	43	53.75	46	57.5	141	58.75	(I)
Personal Factors	88	73.33	75	62.50	79	65.83	242	67.22	(I)
Availability Factors	107	65	81	52	82	55.56	270	60	(I)

The composite index of various factors shows that out of the listed factors determining consumer attitude towards organic vegetables, the personal factors and availability factors is most important. Economic factors have the least score, so have lesser influence in determining consumer attitude to purchase organic vegetables.

#### IV. Findings, Conclusions and Suggestions.

Various factors influence consumer behavior towards organic vegetables like economical factors, quality factors, environmental, personal and availability factors. However, the influence level of different variables under each factor is different. The most important factors that determine consumer attitude are price, chemical and pesticide free, eco-friendly vegetables, health aspect, and availability of vegetables and distance to the market. Attitude is not determined by any of the demographic factors but the satisfaction of organic vegetables determined

by education of the individuals. Further age and education also found as an important determinant for consumer preference towards organic vegetables. Consumers are very much attracted towards consumption of organic vegetables therefore efforts must be taken by farmers and traders to adopt an affordable pricing strategy.

#### References

- Ahmad, s.2010.Organic Food: A Study on Demographic Characteristics and Factors Influencing Purchase Intentions among Consumers in Klang Valley, Malaysia. *Int. j. businessmanag.* Vol.5.(3)
- Boccaletti, S. & Nardella, M. 2000, Consumer's willing to pay for pesticide-free fruit and vegetables in Italy. *International Food and Agribusiness Management Review*, (3), pp. 297-310.

- Botonaki, A., Polymeros, K., Tsakiridou, E. & Mattas, K. 2006. The role of food quality certification on consumers' food choices adequate marketing strategy for the effective promotion of certified food products. *British Food j.* 108 (2), pp. 77-90.
- Canavari, M., Nocella, G. & Scarpa, R. 2005. Stated willingness-to pay for organic fruit and pesticide ban-an evaluation using both web-based and face-to face interviewing. *Journal of Food Products Marketing*, 11(3), pp. 107-134