



## A STUDY ON FACTORS INFLUENCING CONSUMERS' BUYING DECISION OF ORGANIC FOOD PRODUCTS

**D. Suryachandra Rao\***    **Dr. K. Chiranjeevi\*\***    **Dasari Pandurangarao\*\*\***

*\*Registrar, Krishna University, Andra Pradesh.*

*\*\*Head, MBA Programme, SVKP & Dr.K.S.Raju Arts & Science College, Andra Pradesh.*

*\*\*\*Assistant Professor, Department of Management and Marketing, College of Business and Economics, Asmara University, East Africa.*

### **Abstract**

*The market for organically produced food has expanded considerably in recent years. India has experienced phenomenal growth in production of organic foods in the recent decade and primarily focusing on the export markets. However, Indian domestic markets for organic products particularly in cities are witnessing significant growth in the recent years. The exploratory factor analysis indicates that value, quality, environmental concern, brand and product attributes are the factors influencing consumers' buying decision of organic food products. The results show that there is significant difference between socio-economic characteristics of consumers and factors influencing consumers' buying decision of organic food products. The regression analysis reveals that environmental concern, brand, quality, value and product attributes have positive and significant impact on average buying value per visit of consumers. In order to improve consumers' buying decision of organic food products, the marketers can therefore understand, identify and design marketing mix strategies to appeal to the preferences of the market segments for organic food products at suitable price levels and also consider environmental and quality aspects and product attributes in order to attract more consumers.*

**Key Words:** *Buying Decision, Consumers, Organic Food Products.*

### **1. Introduction**

In recent times, the environment has emerged as an important issue for societies, governments in addition to business organisations. Its significance originates from rising environmental degradation such as solid wastes, ozone depletion, global warming and air pollution. It is observed that different activities of business organisations like sourcing, manufacturing, logistics, and marketing have a negative impact on the environment and also considered to be the source of most of the environmental problems (Eltayeb, et.al., 2010). All through time, people's health, both on the individual and the community level have been affected through environmental problems (Khwaja, 2008).

Environmental awareness, increasing interest of consumers in organic products and the willingness to pay for organic features lead to corporate interest in organic marketing, initiating major changes and innovations (Ken and Andrew, 2005). The increase of the environmental consciousness has had a thoughtful effect on consumer behaviour, with the organic product market expanding at a remarkable rate (Bhaskaran, et.al, 2006).

The market for organically produced food has expanded considerably in recent years. India has experienced phenomenal growth in production of organic foods in the recent decade and primarily focusing on the export markets. Organic agricultural export market is one of the major drivers of organic agriculture in India. The growth of organic agriculture is seen as part of the emerging marketing trends where consumers demand to know what benefits a food could deliver before making a buying decision, but, the demand for organic food is still buoyant (Geen and Firth 2006). However, Indian domestic markets for organic products particularly in cities are witnessing significant growth in the recent years.

Organic food products possess some credence characteristics not directly observable by consumers but which play an important role when buying. Then, whether consumers decide to buy organic foods will depend on many factors, including consumers' attitudes toward these unobservable organic foods characteristics. With this background, the present research is attempted to study the factors influencing consumers' buying decision of organic food products.

### **2. Methodology**

The twin cities of Hyderabad and Secundrabad have been selected purposively for the present study. The data have been collected from 500 consumers of organic food products by adopting random sampling technique through pre-tested structured questionnaire. In order to examine the socio-economic characteristics of consumers of organic food products, the frequency and percentage analysis have been carried out. In order to identify the factors influencing consumers' buying decision of organic food products, the exploratory factor analysis has been employed. In order to study the difference between socio-economic characteristics of consumers and factors influencing consumers' buying decision of organic food products, the ANOVA (Analysis of Variance) test has been applied. In order to examine the impact of factors influencing the consumers' buying decision of organic food products on average buying value per visit, the multiple linear regression has been employed.

### 3. Results and Discussion

#### 3.1. Socio-Economic Characteristics of Consumers of Organic Food Products

The socio-economic characteristics of consumers of organic food products were analyzed and the results are presented in Table-1. The results show that about 62.40 per cent of consumers of organic food products are males, while, the rest of 37.60 per cent of consumers of organic food products are females. It is observed that about 32.40 per cent of consumers of organic food products belong to the age group of 26 – 30 years followed by 31 – 35 years (30.00 per cent), 21 – 25 years (21.20 per cent), 36 – 40 years (6.80 per cent), 15 – 20 years (5.60 per cent), 41 – 45 years (2.80 per cent), 46 – 50 years (0.80 per cent) and above 50 years (0.40 per cent).

The results indicate that about 42.20 per cent of consumers of organic food products are educated up to post graduation followed by graduation (29.80 per cent), professional (9.60 per cent) higher secondary (7.60 per cent), upto secondary (5.60 per cent) and diploma (5.20 per cent). It is clear that about 38.00 per cent of consumers of organic food products are working in private sector followed by Government service (32.60 per cent), business (12.20 per cent), MNCs (10.20 per cent), others (4.20 per cent) and retired (2.80 per cent).

**Table 1: Socio-Economic Characteristics of Consumers of Organic Food Products**

Particulars	Frequency	Percentage
<b>Gender</b>		
Male	312	62.40
Female	188	37.60
<b>Age Group</b>		
15 – 20 years	28	5.60
21 – 25 years	106	21.20
26 – 30 years	162	32.40
31 – 35 years	150	30.00
36 – 40 years	34	6.80
41 – 45 years	14	2.80
46 – 50 years	4	0.80
Above 50 years	2	0.40
<b>Educational Qualification</b>		
Upto Secondary	28	5.60
Higher Secondary	38	7.60
Diploma	26	5.20
Graduation	149	29.80
Post Graduation	211	42.20
Professional	48	9.60
<b>Occupation</b>		
Business	61	12.20
Government Service	163	32.60
Private Sector	190	38.00
MNCs	51	10.20
Retired	14	2.80
Others	21	4.20
<b>Monthly Income</b>		
Below Rs.10,000	57	11.40
Rs.10,001 – Rs.15,000	30	6.00
Rs.15,001 – Rs.20,000	49	9.80
Rs.20,001 – Rs.25,000	96	19.20
Rs.25,001 – Rs.30,000	123	24.60
Rs.30,001 – Rs.35,000	72	14.40
Rs.35,001 – Rs.40,000	31	6.20
Rs.40,001 – Rs.45,000	22	4.40
Rs.45,001 – Rs.50,000	12	2.40
Above Rs.50,001	8	1.60
<b>Marital Status</b>		
Married	345	69.00
Unmarried	155	31.00

The results reveal that about 24.60 per cent of consumers of organic food products belong to the monthly income group of Rs.25,001 – Rs.30,000 followed by Rs.20,001 – Rs.25,000(19.20 per cent), Rs.30,001 – Rs.35,000(14.40 per cent), below Rs.10,000(11.40 per cent), Rs.15,001 – Rs.20,000(9.80 per cent), Rs.35,001 – Rs.40,000(6.20 per cent), Rs.10,001 – Rs.15,000(6.00 per cent), Rs.40,001 – Rs.45,000(4.40 per cent), Rs.45,001 – Rs.50,000(2.40 per cent) and above Rs.50,001(1.60 per cent). It is apparent that about 69.00 per cent of consumers of organic food products are married, while, the rest of 31.00 per cent of consumers of organic food products are unmarried.

### 3.2. Factors Influencing Consumers' Buying Decision of Organic Food Products

In order to identify the factors influencing consumers' buying decision of organic food products, the exploratory factor analysis has been employed. The principal component method of factor analysis has carried out with Eigen values greater than one through varimax rotation and the results obtained through rotated component matrix are presented in Table-2. The results of Kaiser-Meyer-Olkin (KMO test) measure of sampling adequacy (KMO=0.895) and Bartlett's test of Sphericity (chi-square value= 0.0044; significance=0.000) indicates that the factor analysis method is appropriate. There are five factors which are extracted accounting for a total of 82.33 per cent of variations on 35 variables. The each of the five factors contributes to 26.74 per cent, 18.56 per cent, 14.95 per cent, 11.63 per cent and 10.45 per cent respectively.

**Table 2: Factors Influencing Consumers' Buying Decision of Organic Food Products**

Factor	Item	Rotated Factor Loadings	Eigen Value	% of Variation	Factor Name
<b>I</b>	Perceived Product Price	0.64	5.91	26.74	<b>Value</b>
	Affordability of	0.63			
	User Friendly	-0.65			
	Prestige of Consumers	0.61			
	Personal Values	0.59			
	Cultural Value	0.57			
	Personal Habits	-0.62			
	Life Styles	0.61			
	Value for money	0.67			
	Reliability	-0.58			
<b>II</b>	Perceived Product	0.62	3.33	18.56	<b>Quality</b>
	Health Conscious	0.67			
	Convenience	0.60			
	Easily Degradable	-0.59			
	Eco-Lables	0.65			
	Safety	0.67			
	Appearance	-0.60			
<b>III</b>	Environmental	0.61	2.64	14.95	<b>Environmental Concern</b>
	Environmental	0.58			
	Environmentally Safe	-0.65			
	Government Initiatives	0.67			
	Self Interest of	0.69			
	Certification	0.60			
<b>IV</b>	Nutrient Contents	0.63	1.37	11.63	<b>Brand</b>
	Availability of Products	0.65			
	Brand Name	-0.60			
	Credibility of	0.66			
	Brand Image	0.64			
	Location of organic	0.58			
<b>V</b>	Accessibility to Product	0.63	1.16	10.45	<b>Product Attributes</b>
	Nature of Packaging	0.59			
	Freshness	0.61			
	Flavour	0.65			
	Geographical location of	-0.58			



	Taste	0.63			
	Cumulative % of			82.33	
	Cronbach's Alpha				0.85

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 Rotation converged in 10 iterations.

Factor-I: From the results, it is inferred that out of 35 variables, 10 variables have their high, relatively tightly grouped factor loadings on factor-I.

This factor consists of:

- Perceived Product Price (0.64)
- Affordability of Consumers (0.63)
- User Friendly (-0.65)
- Prestige of Consumers (0.61)
- Personal Values (0.59)
- Cultural Value (0.57)
- Personal Habits (-0.62)
- Life Styles (0.61)
- Value for money (0.67)
- Reliability (-0.58)

Hence, this factor is named as **“Value”**.

Factor-II: is formed with:

- Perceived Product Quality (0.62)
- Health Conscious (0.67)
- Convenience (0.60)
- Easily Degradable (-0.59)
- Eco-Lables (0.65)
- Safety (0.67)
- Appearance (-0.60)

These variables are named as **“Quality”**.

Factor-III: This factor includes:

- Environmental Awareness (0.61)
- Environmental Knowledge (0.58)
- Environmentally Safe (-0.65)
- Government Initiatives (0.67)
- Self Interest of Consumers (0.69)
- Certification (0.60)

These variables are named as **“Environmental Concern”**.

Factor-IV: This factor is formed with:

- Nutrient Contents (0.63)
- Availability of Products (0.65)
- Brand Name (-0.60)
- Credibility of Advertising (0.66)
- Brand Image (0.64)
- Location of organic stores(0.58)

This factor is named as **“Brand”**.

Factor-V: is formed with:

- Accessibility to Product Information (0.63)
- Nature of Packaging (0.59)
- Freshness (0.61)

- Flavour (0.65)
- Geographical location of production (-0.58)
- Taste(0.63)

These variables are named as “**Product Attributes**”.

The Cronbach’s alpha value is 0.85, which indicates that each measure demonstrate acceptable internal consistency. It is inferred that value, quality, environmental concern, brand and product attributes are the factors influencing consumers’ buying decision of organic food products.

### 3.3. Socio-Economic Characteristics of Consumers and Factors Influencing Consumers’ Buying Decision of Organic Food Products

In order to study the difference between socio-economic characteristics of consumers and factors influencing consumers’ buying decision of organic food products, the ANOVA (Analysis of Variance) test has been applied and the results are presented in Table-3.

**Table 3: Difference between Socio-Economic Characteristics of Consumers and Factors Influencing Consumers’ Buying Decision of Organic Food Products**

Particulars	F-Value	Sig
Gender and Factors Influencing Consumers’ Buying Decision of Organic Food Products	8.719	.000
Age Group and Factors Influencing Consumers’ Buying Decision of Organic Food Products	2.183	.034
Educational Qualification and Factors Influencing Consumers’ Buying Decision of Organic Food Products	2.533	.023
Occupation and Factors Influencing Consumers’ Buying Decision of Organic Food Products	5.429	.000
Monthly Income and Factors Influencing Consumers’ Buying Decision of Organic Food Products	3.552	.000
Marital Status and Factors Influencing Consumers’ Buying Decision of Organic Food Products	8.859	.000

The results indicate that the F-values are significant at one per cent level indicating that there is significant difference between socio-economic characteristics of consumers and factors influencing consumers’ buying decision of organic food products. Hence, the null hypothesis of there is no significant difference between socio-economic characteristics of consumers and factors influencing consumers’ buying decision of organic food products is rejected.

### 3.4. Impact of Factors Influencing the Consumers’ Buying Decision of Organic Food Products on Average Buying Value Per Visit

In order to examine the impact of factors influencing the consumers’ buying decision of organic food products on average buying value per visit, the multiple linear regression has been employed and the results are presented in Table-4. The factors influencing the consumers’ buying decision of organic food products derived from exploratory factor analysis are considered as independent variables and the average buying value per visit is considered as dependent variable.

**Table 4: Impact of Factors Influencing the Consumers’ Buying Decision of Organic Food Products on Average Buying Value per Visit**

Factors Influencing the Consumers’ Buying Decision	Regression Coefficients	t-value	Sig
Intercept	2.038**	7.607	.000
Value (X <sub>1</sub> )	.394**	5.890	.000
Quality (X <sub>2</sub> )	.410**	5.996	.000
Environmental Concern (X <sub>3</sub> )	.485**	6.159	.000
Brand (X <sub>4</sub> )	.452**	6.102	.000
Product Attributes (X <sub>5</sub> )	.359**	5.764	.000
R <sup>2</sup>	0.69		
Adjusted R <sup>2</sup>	0.67		
F	32.674		.000
N	500		

Note: \*\* Significance at one per cent level

The results show that the coefficient of multiple determination (R<sup>2</sup>) is 0.69 and adjusted R<sup>2</sup> is 0.67 indicating the regression model is good fit. It is inferred that about 67.00 per cent of the variation in dependent variable (Average Buying Value per

Visit) is explained by the independent variables (Factors Influencing the Consumers' Buying Decision). The F-value of 32.674 is statistically significant at one per cent level indicating that the model is significant.

The results indicate that environmental concern, brand, quality, value and product attributes have positive and significant impact on average buying value per visit of consumers at one per cent level. Therefore, the null hypothesis of there is no significant impact of factors influencing the consumers' buying decision of organic food products on average buying value per visit is rejected.

#### 4. Conclusion

Majority of consumers of organic food products are males and most of them belong to the age group of 26 – 30 years. Most of consumers of organic food products are post graduates and majority of them working in private sector. Majority of consumers of organic food products belong to the monthly income group of Rs.25,001 – Rs.30,000 and most of them are married.

The exploratory factor analysis indicates that value, quality, environmental concern, brand and product attributes are the factors influencing consumers' buying decision of organic food products. The results show that there is significant difference between socio-economic characteristics of consumers and factors influencing consumers' buying decision of organic food products. The regression analysis reveals that environmental concern, brand, quality, value and product attributes have positive and significant impact on average buying value per visit of consumers.

In order to improve consumers' buying decision of organic food products, the marketers can therefore understand, identify and design marketing mix strategies to appeal to the preferences of the market segments for organic food products at suitable price levels and also consider environmental and quality aspects and product attributes in order to attract more consumers. Thus, organic food products must perform competitively as there is a scope for organic food marketers to tap this potential market for long term growth.

#### References

1. Bhaskaran, Polonsky, M., Cary, J. and Fernandez, S., (2006), "Environmentally Sustainable Food Production and Marketing", *British Food Journal*, 108 (8): pp. 677-690.
2. Davies, A., Titterton, A.J. and Cochrane, C., (1995), "Who Buy Organic Food Products? A Profile of the Purchaser of Organic Food Products in Northern Ireland", *British Food Journal*, 97(10): pp.17-23.
3. Eltayeb, T. K., Zailani, S. and Jayaraman, K., (2010), "The Examination on the Drivers for Green Purchasing Adoption among EMS 14001 Certified Companies in Malaysia", *Journal of Manufacturing Technology Management*, 21(2): pp. 206-225.
4. Follows, S.B. and Jobber, D.,(200), "Environmentally Responsible Purchase Behaviour: A Test of a Consumer Model", *European Journal of Marketing*, 34(5/6): pp. 723-746.
5. Geen, N. and Firth, C. (2006), "The committed Organic Consumer", Paper Presented at Joint Organic Congress, Odense.
6. Goldman, B.J. and Clancy, K.C., (1991), "A Survey of Organic Produce Purchases and Related Attitudes of Food Cooperative Shoppers", *American Journal of Alternative Agriculture*, 6: pp. 89-95.
7. Jones, P., Hill, C.C. and Hiller, D., (2001), "Case Study: Retailing Organic Food Products", *British Food Journal*, 103(5): pp.358-365.
8. Magistris, T. and Gracia, A., (2008), "The Decision to Buy Organic Food Products in Southern Italy", *British Food Journal*, 110(9):pp. 929-947.
9. Khwaja, Z. R., (2008), "Consumer Voice", Consumer Rights Council, SINDH.06, from [www.crc.org.pk](http://www.crc.org.pk).
10. Lea, E. and Worsley, T., (2005), "Australians' Organic Food Beliefs, Demographics and Values", *British Food Journal*, 11(4):pp.855-869.
11. Peattie, Ken and Crane, Andrew., (2005), "Green Marketing: Legend, Myth, Farce or Prophecy?", *Qualitative Market Research: An International Journal*, 8(4): pp. 357-370.
12. Ragavan, N. and Mageh, R.,(2013), "A Study on Consumers' Purchase Intentions towards Organic Products", *PARIPEX - Indian Journal of Research*,2(1): pp.111-114.
13. Tsakiridou, E., Boutsouki, C., Zotos, Y. and Mattas, K., (2008), "Attitudes and Behavior towards Organic Products: An Exploratory Study", *International Journal of Retail & Distribution Management*, 36(2):pp.158-175.
14. Yiridoe, E.K., Bonti-Ankomah, S. and Martin, R.C. (2005), "Comparison of Consumers Perceptions and Preferences toward Organic Versus Conventionally Produced Foods: A Review and Update of the Literature", *Renewable Agriculture and Food System*, 20: pp.193-205.