

## **Factors Affecting Consumers to Buy Organic Food Products in Hyderabad and Secuderabad**

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**Abstract:** This study presents factors affecting consumers to buy organic food products in Hyderabad and Secunderabad, India. A sample of 500 consumers was interviewed using structured questionnaires to examine key factors influencing them to use organic food. The data obtained from the survey were analyzed with percentage method, reliability test, and factor analysis. The results revealed that ten factors such as labels, health, concern, environment concern, brand advertising, safety, accessibility, affordability, freshness and store location that are influencing customers to buy organic food. Out of these, health, environment and safety are key factors that are found as primary influencers. Significant relation is found between buying behavior and environment concern. Hence, study made conclusion that health, safety and environment are key reasons why people buy organic food products.

**Keywords:** Consumers, Environment, Factors, Health, and Organic food.

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### **I. INTRODUCTION**

Organic agriculture is very old concept to India and inhabitant to this land. A researcher cannot make start on organic farming without referring India and China. 40 centuries ago Indian and Chinese farmer were sustained by organic farming (A.K Yadav). Early of 19<sup>th</sup> century, Sir Albert Howard capitalized substantially on India's highly sophisticated traditional agricultural systems, which had long applied many of the principles of organic farming (Salvador V. Garibay and Katke Jyoti, 2003). In producing organic food India is the country with most producers (650000) in the world. According to Food and Agricultural Organization of United States, India is producing cereals include triticale, rye, rice, maize, barley, oats, wheat and others (97.1 million hectares), citrus fruit including tangerine, pomelos/grapefruit, lemons and limes, oranges and others (0.75 million), temperate fruits(peaches/nectarines, cherries, plums, pears, apricots, apples and others), tropical and subtropical fruit(pineapples, dates, kiwis, figs, mangos, Avocados, bananas and others), oil seeds(linseed, sesame, rape and turnip rape, peanuts, sunflower, soybeans and others), protein crops (26 million hectares), and vegetables(Willer, H., & Kilcher, L, 2015).

Until a few years ago, organic produce from India mostly went into export markets such as Europe and the US. It is only more recently that sales figures in the domestic market have started to surpass exports. Along with this growth, the domestic market has become more diversified. India's organic boom is happening primarily in the metropolitan cities. In 2011, the total sales value of organic products, according to our estimates, was Rs 9.9 crore for Hyderabad, Rs 17.9 crore for Mumbai, and Rs 21.4 crore for Bangalore. That includes certified as well as non-certified products. The main reasons for this growth are a growing awareness of the dangers of pesticide residues in food and growing disposable incomes of the urban middle classes (Nina Osswald and Manoj K. Menon, 2013).In 2012 YES Bank report estimated India has 4.43 million hectare under organic cultivation and Rs700 crore came from exports - and is growing at 30 to 40 per cent annually. In comparison, the US organic foods market is worth \$26 billion, the European, \$10 billion (Chandresh Dedhia).The report on "India Organic Food Market Forecast & Opportunities, 2019", identified that the organic food market revenues in India are expected to grow at a CAGR [combined annual growth rate] of around 25% during 2014-19 (J. D. Heyes,2014). The growth in sales of organic food has reached to 72 billion US dollars in 2013. Market revenue has increased almost five times since 1999. North America and Europe are occupied over 90 per cent of global organic products sales (Willer, H., & Kilcher, L, 2015).During last two decades consumption of organic food has been increased but it is still retains around one per cent market share of total chemically produced products (Willer and Kilcher, 2011).

## II. LITERATURE REVIEW

Organic food consumers are environmentally conscious (Storstad and Bjorkhaug, 2003).organic food is likely to be purchased as a result of egocentric values, such as health or pleasure, or health and taste (Zanoli and Naspetti, 2001). Health is the main motive for choosing organic products and Environmental concerns are emerging altruistic motives and that organic food is beneficial to health and makes agriculture more environmentally friendly (Lucie Sirieiet.al ,2011). Similar reasons are found across many countries for reasons of purchasing organic food products. In Europe, United States, and India taste, freshness, quality, and health rank among the top reasons for organic purchases (ITC, 1999; The Packer, 2000 & 1998; Shashikiran L. & C. Madhavaiah, 2015).The study on buying behavior of urban residents towards organically produced food products have stated that 61.50 per cent of consumers are willing to pay premium price up to 5 percent and about 27.00 per cent are always buying organic food (Bharathi b et al, 2014). About 95 per cent of customers are ready to purchase of organic product, even the price is hiked up to 80 per cent and majority (66 per cent) are ranked organic products are very good compared non-organic products(Dr .H.M. Chandrashekar, 2014). Rushdi Ahmed and Khadiza Rahman (2015) were reported in their study on consumer behavior towards organic food in Bangladesh Market, a cumulative 52.5 per cent of the consumers are agreed or strongly agreed with the statement Organic food products have high level of safety and control. About 31.7 per cent agreed and 28.3 per cent strongly agreed organic food products are free from harmful chemicals, fertilizers and pesticides. As well as about 41.7 per cent of the respondents strongly agreed and another 33.3 per cent agreed organic products are health and safety standard.

## III. METHODOLOGY

Keeping in view the subject of this research, data was collected from different organic stores (Mantra Organic Store, Jiva Organics, ArogyaRahasya, Sristi Naturals and Dharti Organics) of Hyderabad and Secunderabad by using the convenience sampling technique. The method used for the data collection was a face-to-face interview, using a structured questionnaire, with closed-ended questions. In total, 500 respondents participated. The data were collected during March and April 2015. To understand the Demographic characteristics consumers the Percentage method has been applied and to identify the factors influencing consumers to buy organic food products factor analysis has been employed with principal component extraction with varimax rotation.

### Demographic Factors

**Table.1** Demographic factors

Variables	Respondents(N=500)		Variables	Respondents(N=500)	
	Frequency	Percentage		Frequency	Percentage
<b>Gender</b>			<b>Occupation</b>		
Male	345	69.00	Business	64	12.80
Female	155	31.00	Government Service	20	4.00
<b>Age</b>			Private Sector	190	38.00
<25 years	239	47.80	MNCs	50	10.00
26 – 35 years	218	43.60	Retired	14	2.80
36 – 45 years	37	7.40	Others	162	32.40
46 – 55 years	4	0.80	<b>Monthly Income (USD)</b>		
>56 Years	2	0.40	<300 USD	74	14.80
<b>Educational Qualification</b>			301-500 USD	144	28.80
Up to Secondary	28	5.60	501-1000 USD	216	43.20
Higher Secondary	28	5.60	>1001 USD	66	13.20
Diploma	10	2.00	<b>Family size</b>		
Graduation	149	29.80	2 – 3 Members	101	20.20
Post Graduation	269	53.80	4 – 6 Members	359	71.80
Professionals	16	3.20	Above 6 Members	40	8.00
<b>Marital Status</b>					
Married	201	40.20			
Unmarried	299	59.80			

Source: Computed from primary data

The analysis is stating that out of 500 respondents about 69.00 per cent are male and rest of 31.00 per cent female. About 47.8 per cent respondents age less than 25 years followed by 26-35 years (43.60 per cent) and 36-45 years (7.4 per cent). Post graduation as educational qualification for majority of respondents (53.80 per cent) followed by graduates (29.80 per cent) and secondary education. Unmarried respondents (59.80 per cent) are greater than married respondents (40.20 per cent). Respondents are employed in private sectors about (38.00 per cent) followed by others (32.40 per cent), business (12.80 per cent), MNCs (10.00 per cent), government (4.00 per cent) and retired (2.80 per cent). About 43.2 per cent respondents' monthly income

ranged between 501 to 1000 USD followed by 301-500 USD (28.80 per cent), less than 30 USD (14.80 per cent) and above 1000 USD (13.20 per cent). Majority of respondents' family size is range of 4 to 6 member (71.80 per cent) followed by 2 to 3 members (20.20 per cent) and above six members (8.00 per cent).

**Factors Influencing Consumers to Buy Organic Food Products**

In order to identify the factors influencing consumers to buy organic food products, the factor analysis has been employed. The principal component method of factor analysis was carried out with Eigen value greater than one through varimax rotation and the results obtained through rotated component matrix are presented in Table 2.

**Table.2** Factors influencing consumers to buy organic food products

Factors influencing consumers to buy organic food products	Item	Rotated Factor Loadings on										
		Factor I	Factor II	Factor III	Factor IV	Factor V	Factor VI	Factor VII	Factor VIII	Factor IX	Factor X	
Perceived Product Price	A1		.488									
Perceived Product Quality	A2		.577									
Environmental Awareness	A3		.503									
Environmental Knowledge	A4		.633									
Health Conscious	A5		.569									
Nutrient Contents	A6	.651										
Accessibility to Product Information	A7							.543				
Availability of Products	A8		.409									
Affordability of Consumers	A9								.713			
User Friendly	A10	.628										
Convenience	A11			.323								
Brand Name	A12				.483							
Easily Degradable	A13			.416								
Prestige of Consumers	A14	.492										
Credibility of Advertising	A15					.577						
Personal Values	A16					.701						
Nature of Packaging	A17			.483								
Cultural Value	A18	.630										
Brand Image	A19				.690							
Environmentally Safe	A20			.660								
Government Initiatives	A21			.506								
Self Interest of Consumers	A22			.460								
Personal Habits	A23			.477								
Life Styles	A24				.440							
Eco-Labels	A25	.639										
Value for money	A26				.481							
Freshness	A27								.649			
Flavour	A28	.362										
Safety	A29						.668					
Appearance	A30	.437										
Certification	A31	.723										
Geographical location of production	A32							.596				
Reliability	A33	.680										
Taste	A34						.779					
Location of organic stores	A35										.784	
Eigen Value		3.74	2.39	2.06	1.95	1.87	1.76	1.70	1.55	1.47	1.45	
% of Variance		10.70	6.843	5.888	5.571	5.355	5.035	4.860	4.454	4.205	4.155	
		3										
Cumulative % of Variance		10.70	17.54	23.43	29.00	34.36	39.39	44.25	48.71	52.91	57.07	
Cronbach's Alpha							.852					

*Extraction Method: Principal Component Analysis.*

*Rotation Method: Varimax with Kaiser Normalization.*

*a. Rotation converged in 12 iterations.*

Factor-I: From the table, it is inferred that out of 35 items of factors affecting buying decision of organic food products, nine variables have their high, relatively tightly grouped factor loadings on factor-I.

This factor consists of:

- Nutrient Contents (.651)
- User Friendly (.628)
- Prestige of Consumers (.492)
- Cultural Value (.630)
- Eco-Labels (.639)
- Flavor (.362)

- Appearance (.437)
- Certification (.723)
- Reliability (.680)

Hence, this factor is named as “**ECO-LABELS**”

Factor-II: is formed with:

- Perceived Product Price (.488)
- Perceived Product Quality (.577)
- Environmental Awareness (.503)
- Environmental Knowledge (.633)
- Health Conscious (.569)
- Availability of Products (.409)

These variables are named as “**HEALTH CONCERN**”

Factor-III: This factor includes:

- Convenience (.323)
- Easily Degradable (.416)
- Nature of Packaging (.483)
- Environmentally Safe (.660)
- Government Initiatives (.506)
- Self Interest of Consumers (.460)
- Personal Habits (.477)

These seven variables are named as “**ENVIRONMENT CONCERN**”

Factor-IV: This factor is formed with:

- Brand Name (.483)
- Brand Image (.690)
- Life Styles (.440)
- Value for money (.481)

This factor is named as “**BRAND**”

Factor-V: This factor includes:

- Credibility of Advertising (.577)
- Personal Values (.701)

The factor is named as “**ADVERTISING**”

Factor-VI: This factor is formed with:

- Safety (.668)
- Taste (.779)

This factor is named as “**SAFETY**”

Factor-VII: This factor includes:

- Accessibility to Product Information (.543)
- Geographical location of production (.596)

This factor is named as “**ACCESSIBILITY**”

Factor-VIII: This factor is formed with:

- Affordability of Consumers (.713)

This factor is named as “**AFFORDABILITY**”

Factor-IX: This factor is formed with:

- Freshness (.649)

This factor is named as “**FRESHNESS**”

Factor-X: This factor is formed with:

- Location of organic stores (.784)

This factor is named as “**STORE LOCATION**”

The Cronbach’ s alpha of the scale was 0.85 indicating that each measure demonstrated acceptable internal consistency.

The mean scores attained from the surveys were calculated to determine the factors influencing consumers to buy organic food products. As shown in the Table 3, the study determined *Eco-labels* as a factor influencing organic food buying. This finding is in concordance with that of Eglè Kazlauskienė et al, (2014), who report that majority of respondents (70 percent) recognized eco-labeling as important recognition factor of organic products.

*Health concern* found as second factor containing items A1, A2, A3, A4, A5and A8 and *safety* is another factor has item A29 and 34. Krissoff B (1998) and Saba & Messina (2003) also reported similar findings in their study. The study found that many people have good opinion on organic products consumption that organic products are healthier, safe and environmental friendly than conventional products. Similar findings are reported in past by some other researchers. S.V.Ramesh and M.Divya (2015) reported health, taste, availability of products and packing are factors influencing consumer to buy organic food products are. Price and quality are low priority. Sonia Attanasio et al. (2013) found that health and safety are primary influence to create belief and intention to buy organic food products to buy and 75 per cent respondents were given the main reason of using organic food is health.

The result showed that *Environmental concern* another factor that influencing organic food buying containing items. Pearson, David et al. (2013) found similar results stating that environment concern is primary motivation to buy organic products followed by health and quality young consumers and students have the highest purchase frequency. *Brand* is a factor containing items A12, A19, A24 and A26. Advertising is also a factor formed with items of A15 and A16, *Accessibility* as factor seven containing items A7 and A32. *Affordability, freshness and store location* are factors influencing consumer to buy organic food. These results are matched with study of Dasari.Pandurangarao et al. 2011, highlighted that Quality, accessibility, affordability, familiarity and information are key factors affecting the purchase intention of green products

Item A21 (Government Initiatives) was found to be the highest mean score. While A33 (Reliability), A25 (Eco-Labels), A10 (User Friendly) followed these, item A21 (Freshness) has the lowest mean score

**Table.3** Factors influencing consumers to buy organic food products Items with Mean Scores

Factors	Item	Variables	N	Min.	Max.	Mean
ECO-LABELS	A6	Nutrient Contents	500	1	5	2.70
	A10	User Friendly	500	1	5	2.89
	A14	Prestige of Consumers	500	1	5	2.85
	A18	Cultural Value	500	1	5	2.84
	A25	Eco-Labels	500	1	5	2.90
	A28	Flavor	500	1	5	2.41
	A30	Appearance	500	1	5	2.65
	A31	Certification	500	1	5	2.86
	A33	Reliability	500	1	5	2.98
HEALTH CONCERN	A1	Perceived Product Price	500	1	5	2.02
	A2	Perceived Product Quality	500	1	5	2.28
	A3	Environmental Awareness	500	1	5	2.17
	A4	Environmental Knowledge	500	1	5	1.99
	A5	Health Conscious	500	1	5	2.25
	A8	Availability of Products	500	1	5	2.29
ENVIRONMENT CONCERN	A11	Convenience	500	1	5	2.58
	A13	Easily Degradable	500	1	5	2.48
	A17	Nature of Packaging	500	1	5	2.36
	A20	Environmentally Safe	500	1	5	2.56
	A21	Government Initiatives	500	1	5	3.04
	A22	Self Interest of Consumers	500	1	5	2.19
BRAND	A23	Personal Habits	500	1	5	2.07
	A12	Brand Name	500	1	5	2.41
	A19	Brand Image	500	1	5	2.34
	A24	Life Styles	500	1	5	2.35
	A26	Value for money	500	1	5	2.03
ADVERTISING	A15	Credibility of Advertising	500	1	5	2.73
	A16	Personal Values	500	1	5	2.25
SAFETY	A29	Safety	500	1	5	1.99
	A34	Taste	500	1	5	2.08
ACCESSIBILITY	A7	Accessibility to Product	500	1	5	2.46

		Information				
	A32	Geographical location of production	500	1	5	2.33
<b>AFFORDABILITY</b>	A8	Affordability of Consumers	500	1	5	2.51
<b>FRESHNESS</b>	A27	Freshness	500	1	5	1.87
<b>STORE LOCATION</b>	A35	Location of organic stores	500	1	5	2.31

#### IV. MANAGERIAL IMPLICATIONS

This study has contributed to the research in consumer buying behavior in organic food purchases. It has addressed organic food products in Indian perspective, therefore filling a gap in the current literature. With this research, manufactures and marketers are expected to know the factors and reasons influencing consumer to buy organic food products. Hence, marketers should design advertising campaigns around the health and environment. Since, organic food industry is infancy, extensive advertising camping on organic food awareness and consumption in urban and semi-urban areas can help marketers to expand organic food market.

#### V. CONCLUSION

Organic food products are available and used in major cities of India only. Towns and villages people have very less or no awareness which means the market is still infant stage. The study has concluded ten factors such as labels, health, concern, environment concern, brand advertising, safety, accessibility, affordability, freshness and store location that are to influencing customers to buy organic food. Out of this health, environment and safety are key factors that are found primary influencers. The results are supported by of majority of previous studies, proved that health and environmental concern are strongest motivators for buying organic food products (Musdiana Mohamad Salleh et al,2010; Kamal P. Aryal etal,2009; Pearson, David et al,2013; Dr.K.Chiranjeevi et.al,2015; Parichard Sangkumchaliang and Wen-Chi Huang,2012). Literature review too supported health and environmental concerns are primary factors influencing consumers to buy organic food. Significant relation is found between buying behavior and environment concern.

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