

Consumer Preference for Organic Food Products in Southern Karnataka: An Analysis of Socio-economic Factors

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ABSTRACT

The demand for eco-friendly products such as organic foods has significantly increased due to increasing awareness on health, food safety and environmental concerns. The present study was an attempt to assess consumer preference for organic food products in South Karnataka, through personal survey carried out in some organic outlets found in Bengaluru, Mysuru and Mandya. A logit function was used to analyse the socio-demographic features and preference to purchase organic food products. Safety, eco-friendly and taste were the driving forces to prefer organic food products which are influenced positively by age, purchase frequency and experience and negatively by increase in the family size of the respondents.

How safe is the food we are eating...??!! If one realizes the truth he will be horrified. The farm products we use in preparing the food are being produced with the use of high levels of chemical inputs especially indiscriminate and heavy doses of pesticides including banned as well as systemic pesticides which have long residual effect. In fact, some of the fruits and vegetables are dipped in pesticides to prevent post-harvest losses. It has become a common practice to ripen fruits using chemicals. Processed foods are added with preservatives many of which have dangerous side-effects. Many of the processing locations and processing procedures are done in highly unhygienic conditions. All these factors contribute to the food we consume unsafe that affects not only human health but also environmental safety. In recent years, increasing concern about food safety, health hazards and environmental damage both among consumers and producers is leading to increased adoption of organic farming and production of organic foods. In India, there are over 5, 97,873 certified organic producers and the number is growing fast over the years (IFOAM, 2015). Earlier days, organic foods were produced and majorly exported to Europe and the United States as most of the Indian consumers were price conscious and not quality conscious. However, the scenario has changed in recent years, domestic demand for organic food products in India has picked up substantially and registered a growth

of 25-30 per cent during the last couple of years particularly in metros such as Delhi, Mumbai and Bengaluru. However, the consumer awareness about organic food products and their availability is still low in India. Creation of consumer awareness is an important factor to augment demand for organic food. This needs understanding the factors that motivate the consumers to choose organic food products as well as the socio-economic factors which determine such concern. An attempt was made to analyse the consumer preference and the motivating factors to choose organic food products and its relationship with socio-economic characteristics of the consumers. The results are expected to help administrators and policy makers to design strategies and policy as well as identify the target group for consumer education on the benefits of opting for organic food.

The study was based on primary data collected in Bengaluru, Mysuru and Mandya districts representing the South Karnataka from 60 consumers available in selected retail outlets during the random visits of the researcher in 2015-16. The information collected was tabulated and analyzed using simple averages and percentages. Garrett's ranking technique was employed to analyze the motivating factors influencing consumers to prefer organic food products. As per the Garrett's ranking technique, the percentage positions was calculated by the following formula:

Per cent position =

where,

R^{ij} = Rank given for the i^{th} item by the j^{th} individual, and

N^j = Number of items ranked by the j^{th} individual

Further, logit function was used to assess the impact of socio-economic characteristics on the motivating factor for the consumer to choose organic food products rather than conventional food. The model was:

$$\text{Motivation for purchase of organic food product (yes/x}_i) = \hat{a} + \sum_{ii} \hat{a}_{ii} X_{ii} + e$$

where,

Y_i = '1' if consumer respond positive answer to particular variable, otherwise '0'

\hat{a} = Constant term

X_i = Independent variable (socio-demographic factors)

\hat{a}_i = Logistic coefficients for the i^{th} independent variable

e = Error term

The socio- demographic feature of the respondents consuming organic food products are listed in Table I. The respondents selected for understanding the consumer preference to buy organic food products were mostly females (72 %). Usually, females tend to have more responsibility and concern about food safety and family health than males. Younger consumers in the age group of 36 - 45 years (Avg. age 41 years) were the major buyers (45 %) of organic food products. It is mostly the elite population that buys organic food products and seems to be following consumers of the developed countries. Approximately 82 per cent of the respondents were college educated and the average family size was four members. As for as income level of the consumers was concerned, majority (68 %) of the respondents belong to higher income group (>Rs. 50001). About 62 per cent of

respondents bought organic food products on monthly basis, while, 25 per cent were occasional buyers. Most of the consumers (50 %) were aware of organic certification and logos and buying the products for more than one year in organic outlets. Further, eight per cent of the respondents were growing organic food crops on terraces for their requirements.

The organic food products that the consumers regularly purchased from selected organic outlets are shown in Fig. 1. Jaggery powder was the most common item purchased by the sample customers (75 %). More than 60 per cent the consumers bought fruits and finger millet. Organic foxtail millet, honey, milk and milk

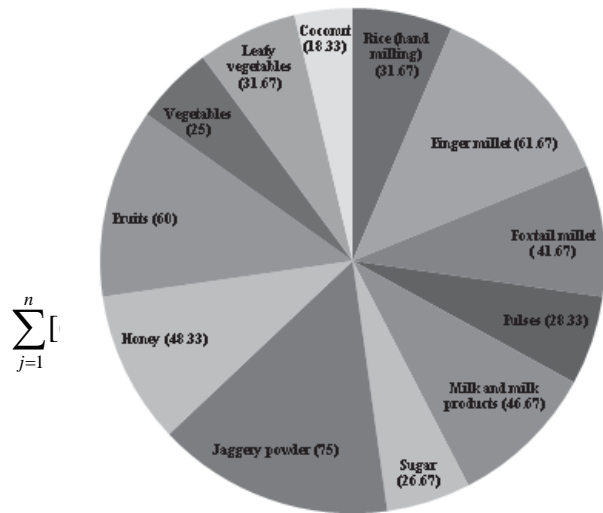


Fig. 1 : Major organic food products preferred by the respondents

products were also on the list and got significant appreciation from the consumers (> 40 %). Among the most relevant marketable organic items, rice and leafy vegetables were bought by 32 per cent of the respondents, while, pulses, sugar, vegetables and coconut accounted to 28, 27, 25 and 18 per cent, respectively. These findings are similar to that of Idda *et al.* (2008) who studied motivational profile of organic food consumers in Italy and opined that more than 60 per cent of the interviewed consumers bought rice and durum wheat pasta.

The motivating factors influencing consumers to prefer organic food products are delineated in Table II. It was found that, food safety and eco-friendly

TABLE I

Socio- demographic profile of the respondents and description of independent variables

n = 60

Variable	Notation	Description	Number	Per cent
Gender	X ₁	0 if female	17	28.33
		1 if male	43	71.67
Age	X ₂	1= <25 years of age	2	3.33
		2= 26-35	14	23.33
		3= 36-45	27	45.00
		4= 46-55	12	20.00
		5= >55	5	8.33
		Average age	40.82	
Education	X ₃	1= Primary school	0	0.00
		2= Secondary school	0	0.00
		3= PUC	11	18.33
		4= Degree and above	49	81.67
Family size	X ₄	1= Single	4	6.67
		2= 2 people	16	26.67
		3= 3 people	11	18.33
		4= 4 people	22	36.67
		5= 5 or more people	7	11.67
		Average family size	3.55	
Income	X ₅	1= <20000Rs./month	0	0.00
		2= 20000-50000	19	31.67
		3= 50001-100000	32	53.33
		4= >100000	9	15.00
Purchase experience	X ₆	1= < 1month	6	10.00
		2= 1-6months	13	21.67
		3= 6-12 months	11	18.33
		4= 1to 2 years	22	36.67
		5= > 2years	8	13.33
Frequency of purchase	X ₇	1= occasionally	15	25.00
		2= weekly	6	10.00
		3= fortnightly	2	3.33
		4= monthly	37	61.67
Place of purchase	X ₈	1=Organic outlets	60	100.00
		2=Organic outlets and super bazaars	9	15.00
		3=Organic outlets and own	5	8.33

TABLE II

Factors influencing consumers' preference for organic food products

Reasons	Garrett's mean score	Rank
Food safety	76.13	I
Eco-friendly	69.01	II
Tasty	56.34	III
Nutrition	48.62	IV
Increased shelf-life	38.55	V

reasons were the major concerns for purchase of organic food products with Garrett mean score of 76.13 and 69.01, respectively. In addition to the above, the other major reasons were taste (56.34), nutrition (48.62) and increased shelf-life (38.55) as indicated by the Garrett's ranking. The results indicated that the factors for purchase of organic food products in Southern Karnataka were similar to the findings from Huang (1996).

The relationship between consumer preference to buy organic food products and socio-demographic

TABLE III

Estimated parameters of logit model

A. Food safety

Variables	Co efficient	Odds ratio	P value
constant	2.110**	8.248	0.0160
Age	0.950 **	2.586	0.0263
Gender	“0.659	1.934	0.7859
Purchase experience	1.010***	2.747	0.0024
Log-likelihood		-39.45	
Log likelihood ratio Test		62.19	
Akaike criterion		86.91	
Schwarz criterion		75.29	
Correct prediction (%)		90.00	

Note: ** and *** represent 5 % and 1 % significant levels, respectively

B. Eco-friendly

Variables	Co efficient	Odds ratio	P value
constant	3.591 **	36.23	0.028
Age	“0.327	1.39	0.783
Education	1.224	3.40	0.191
Family size	“0.518**	1.68	0.027
Income	0.164	1.18	0.778
Frequency	0.641***	1.90	0.008
Purchase experience	0.440**	1.55	0.010
Log-likelihood		-29.74	
Log likelihood ratio test		35.34	
Akaike criterion		71.57	
Schwarz criterion		84.13	
Correct prediction (%)		76.70	

Note: ** and *** represent 5 % and 1 % significant levels respectively

C. Taste

Variables	Co efficient	Odds ratio	P value
constant	1.359 **	3.892	0.028
Age	0.729 **	2.073	0.011
Gender	0.459	1.582	0.057
Frequency	0.218	1.244	0.249
Purchase experience	0.724**	2.063	0.013
Log-likelihood		-30.42	
Log likelihood ratio test		57.59	
Akaike criterion		70.84	
Schwarz criterion		81.31	
Correct prediction (%)		78.30	

Note: ** represent 5% and 1% significant level

variables are analyzed through step-wise logit model (Table III). Safety model was built by taking into the regular organic customers and their age, as they are true organic consumers mainly associated to health. It could be seen from the safety model that, a unit change in purchase experience leads to significant increase in odds ratio in favour of preferring organic food products as health consciousness by 27 per cent. This clearly indicates that the people who are using organic food products have been really convinced about health benefits of these products. The eco-friendly model confirms the reasons for purchase of organic food products. The results revealed that one who has low household size rather than large families confirms their purchasing behaviour of organic foods as eco-friendly. This may be because smaller families have more disposable income and can afford to purchase organic food products which are relatively costly. Similarly, purchase frequency also contributed significantly to prefer organic food products as eco-friendly nature. Further, the taste model confirms that only experienced consumers who evidently enjoy personal satisfaction (taste) when eating organic food products. These findings corroborate with the study conducted by Chandrashekar (2014) in Mysuru district of Karnataka.

In conclusion, safety, eco-friendly and taste conform to be the most important driving factors for

organic food customers. It is not surprising to notice that the small family size prefer to buy organic food products than large families. This indicates, as the organic food products are bit costly and it is difficult to purchase for large families. More over, some promotional strategies need to implemented to ensure general health and environmental safety of the consumers.

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(Received : May, 2016 Accepted : June, 2016)