

Preference and purchase attitude of consumers towards organic food products in Coimbatore city

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Abstract

Food consumption patterns are changing as a result of health and environmental issues. Interest in organically produced food is increasing throughout the world. The increased range of healthy foods and the establishment of certificates for pesticide controlled vegetables and food products indicate that there is a potential market available for this segment, hence, this study is an attempt to identify the consumer's level of preference and purchase behaviour of organic food products in Coimbatore. The objectives are to study the level of preference and purchase attitude of consumers for organic food products, to evaluate the barriers for organic food products perceived by the consumers and to suggest measures for improvement of organic food products. The research was descriptive in nature. The organic food stores particularly in and around Coimbatore are taken for the study are the sampling units. A list containing all such sampling units is considered to be the sampling framework. There are about 15 well established and organized food product stores in Coimbatore City limits. For the present study the researcher selected *three stores from each zone* and collected minimum 25 respondents from one store that concludes the samples ($3 \times 25 \times 4 = 300$). The researcher used stratified random sampling method taking only 25% of the consumers from each zone. The researcher used primary and secondary data to collect the details from the respondents. For analyzing the data, the researcher transformed the data into Master Table and calculations were done using SPSS-16 and presented the simple arithmetic tools like Percentage Analysis, Weighted Average, Garrett Ranking Method and to measure the probability to find the relationships Multiple Linear Regression analysis was performed. The major findings are the respondents reasons for preferring and consuming organic food products was ranked first for the statement "*My close friends and family consume organic food*" and the least rank was for the statement "*I care about cholesterol and fat*", while, opinion of the respondents on reasons for the purchasing organic food products was ranked first for the statement "*Better Taste, Flavour and Quality*" and the least rating was for the statement "*Become more readily available*". Further, the respondents ranking towards barriers for preferring organic food products based on certain attributes for which the first rank was perceived for the statement "*Would buy organic frequently if it was cheaper*" and the final rank was for the statement "*Can't get hold of organic products / not convenient*". Finally, the regression analysis reveals that the relationship between the variables preference of organic food products and reasons for preference are found significant for few variables are partially accepted and insignificant for few variables are partially rejected. The study concludes that the if the government and the policy makers takes necessary initiatives there will be a definite green organic revolution expected to strengthen the health quality of the consumers and march towards success in building disease free generation.

Keywords: Health, Organic Food, Preference, Purchase Attitude, etc

Introduction

Food consumption patterns are changing as a result of health and environmental issues. Interest in organically produced food is increasing throughout the world. In order to maximize yields, farmers started to use chemical fertilizers, insecticides and pesticides in large quantities. Organic farming is an emergent sector in India, which shows optimistic growth due to the government initiatives and many private participants in bringing up the organic sector. India has emerged as one of the largest potential markets for organic food consumption globally, owing to the fact that organic foods or products are healthy, contain no chemicals or preservatives, and are completely natural. With growing awareness towards healthy food, surging income levels, and shifts in consumer behavior, the country's nascent organic food market is fast transforming into the world's fastest growing organic food market. Hence, the production is expected to ascend to meet the growing demand in the domestic and international market for organic foods. The increased range of healthy foods and the establishment of certificates for pesticide controlled vegetables and food products indicate that there is a potential

market available for this segment, hence, this study is an attempt to identify the consumer's level of preference and purchase behaviour of organic food products in Coimbatore.

Kaur Jaswinder and Kalra R.K. (2006). Organic farming in Punjab- A case study this paper is an attempt to know the type of farmers engaged in organic farming background and functioning of the concerned private firms and identify the problems faced by the farmers along with the reasons for practicing organic farming. The most popularly accepted definition of organic farming is: 'Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems.'

Samuel Bonti-Ankomah¹ and Emmanuel K Yiridoe² (2012) Growing interest in organic agriculture has prompted numerous studies that compare various aspects of organic and conventionally-produced foods. This report provides a comprehensive evaluation of empirical studies comparing

organic products and conventionally grown alternatives. The emphasis is on key organic consumer demand and marketing issues, including: (1) the implications of an economic definition of organically grown food for consumer demand; (2) attributes that shoppers consider most when comparing organic with conventionally grown products; (3) level and characteristics of consumer knowledge and awareness about organic food; (4) assessment methods and characteristics of organic consumer attitudes and preferences; (5) size of price premium and characteristics of consumers' willingness-to-pay for organic products; and (6) profile of organic consumers.

2. Objectives of the study

- to study the level of preference and purchase attitude of consumers for organic food products
- to evaluate the barriers for organic food products perceived by the consumers
- to suggest measures for improvement of organic food products

3. Hypothesis

- There is a positive significant relationship between preference of organic food products and reasons for preference and consumption of organic food products

4. Methodology

The researcher used descriptive type of research. Descriptive research includes surveys and fact finding inquires of different kind. In this study the research is analyzing the consumer's awareness and attitude towards organic food products in Coimbatore district. Hence, the descriptive is selected for this study. The organic food stores particularly in and around Coimbatore are taken for the study are the

sampling units. A list containing all such sampling units is considered to be the sampling framework. There are about 15 well established and organized food product stores in Coimbatore City limits. Considering, the consumers preference and purchase attitude for organic food products the stores were selected randomly covering all the geographically locations in all directions viz. east, west, north and south. However, for the present study the researcher selected *three stores from each zone* and collected minimum 25 respondents from one store that concludes the samples (3 x 25 x 4 = 300). The researcher used stratified random sampling method taking only 25% of the consumers from each zone. The researcher used primary and secondary data to collect the details from the respondents. Primary data are collected from 300 sample respondents with the help of well-structured questionnaire, which is pre-tested. The primary data are supplemented by spat of secondary sources of data. The secondary sources being the published research and general articles collected from various journals, books and internet etc. For analyzing the data, the researcher transformed the data into Master Table and calculations were done using SPSS-16 and presented the simple arithmetic tools like Percentage Analysis, Weighted Average, Garrett Ranking Method and to measure the probability to find the relationships Multiple Linear Regression analysis was performed

5. Results of the study

Demographic variables of the organic food consumers are classified based on their age, gender, educational qualification, occupation and their monthly income is presented in the Table 1.

Table 1: Demographics Variables of the Organic Food Consumers

Sl. No.	Demographics	Respondents (300 Nos.)	Percentage (100%)
1.	Gender		
	Male	210	70.0
	Female	90	30.0
2.	Age		
	20 to 30 years	83	27.7
	30 to 40 years	92	30.7
	40 to 50 years	68	22.7
	Above 60 years	57	19.0
3.	Educational Qualification		
	UG	29	9.7
	PG	64	21.3
	Professional	81	27.0
	Others	126	42.0
4.	Occupation		
	Government Employee	124	41.3
	Private Employee	91	30.3
	Business	68	22.7
	Others (Home Maker, Student, etc.)	17	5.7
5.	Monthly Income		
	Upto Rs.20000	40	13.3
	Rs.20000 to 40000	117	39.0
	Rs.40000 to 60000	60	20.0
	Above Rs.60000	83	27.7

Source: Computed from Primary Data

The above table shows that majority (70%) of the respondents are male and 30% are female. Maximum (30.7%) of the respondents belong to the age between 30 and 40 years, while 27.7% of the respondents belong to the age between 20 and 30 years, 22.7% of the respondents belong to the age between 40 and 50 years and the remaining 19% of the respondents belong to the age above 60 years. Maximum (42%) of the respondents are having other educational qualifications while, 27% of the respondents are professionally qualified, 21.3% of the respondents are qualified with post-graduation and the rest 9.7% of the respondents are under graduates. Maximum

(41.3%) of the respondents are government employees, 30.3% of the respondents are working in private companies, 22.7% of the respondents are self-employed (conducting their own business) and the remaining 5.7% of the respondents are occupied in other categories (Home maker, student, etc.). Maximum (39%) of the respondents are having income between Rs.2000 and 40000, while 27.7% of the respondents are having income above 60000, 20% of the respondents are having income of Rs.40000 to 60000 and the remaining 13.3% of the respondents are having income upto Rs.20000.

Table 2: Awareness and Purchase Frequency

Sl. No.	Awareness and Frequency	Respondents (300 Nos.)	Percentage (100%)
1.	Source of Awareness		
	Friends / Relatives	109	36.3
	Media / Promotion	94	31.3
	Doctors / Health Advisors	59	19.7
	Others (Well-wishers, Office colleagues, Neighbours, etc.)	38	12.7
2.	Frequency of Purchase		
	Regularly	150	50.0
	Sometimes	112	37.3
	Rarely	38	12.7

Source: Computed from Primary Data

The above table shows that maximum (36.3%) of the respondents were aware through friends / relatives about organic food products, 31.3% of the respondents are aware through media advertisement / promotional activities, 19.7% of the respondents are aware through Doctors / Health Advisors and finally 12.7% of the respondents are aware

through other sources such as Well-wishers, Office Colleagues, Neighbours, etc.

It is understood that half (50%) of the respondents stated regularly purchase was organic food products, 37.3% of the respondents opined sometimes and the remaining 12.7% of the respondents indicated rarely.

Table 3: Level of preference of organic products for consumption

Sl. No.	Level of Preference	Respondents (300 Nos.)	Percentage (100%)
1.	Provisions		
	Highly Preferred	260	86.7
	Least Preferred	40	13.3
2.	Fruits		
	Highly Preferred	206	68.7
	Least Preferred	94	31.3
3.	Vegetables		
	Highly Preferred	261	87.0
	Least Preferred	39	13.0
4.	Dairy Products		
	Highly Preferred	269	89.7
	Least Preferred	31	10.3
5.	Other Products (Honey, Tea, etc.)		
	Highly Preferred	250	83.3
	Least Preferred	50	16.7

Source: Computed from Primary Data

It is clear from the study that majority (86.7%) of the respondents highly preferred organic provision for consumptions while 13.3% of the respondents least preferred. Most (68.3%) of the respondents highly preferred organic fruit consumption while 31.3% of the respondents least preferred. Majority (87%) of the respondents highly preferred consuming organic vegetables while 13% of the respondents least preferred the same. Majority (89.7%) of the respondents highly preferred consuming organic dairy products while 10.3% of the respondents least preferred. Finally, majority

(83.3%) of the respondents highly preferred consuming other organic products like Honey, Tea, etc. while 16.7% of the respondents least preferred the same.

Table 4: Reasons for Preference of Organic Food Products by the Consumers

Attributes	Highly Preferred	Somewhat Preferred	Moderately Preferred	Rarely Preferred	Least Preferred	Wtd. Mean	Rank
My close friends and family consume organic food	73 (1.217)	160 (2.133)	44 (0.440)	16 (0.107)	7 (0.023)	3.920	1
My loved ones expect me to purchase more organic food for them	52 (0.867)	140 (1.867)	81 (0.810)	9 (0.060)	18 (0.060)	3.663	4
I am concerned about the type and amount of nutrition in the food that I consume daily	59 (0.983)	120 (1.600)	99 (0.990)	19 (0.127)	3 (0.010)	3.710	3
I care about cholesterol and fat	30 (0.500)	97 (1.293)	141 (1.410)	30 (0.200)	2 (0.007)	3.410	6
I am concerned about how food is processed	30 (0.500)	133 (1.773)	115 (1.150)	22 (0.147)	0 (0.000)	3.570	5
Organic food is good for health	50 (0.833)	163 (2.173)	79 (0.790)	3 (0.020)	5 (0.017)	3.833	2

Source: Computed from Primary Data

Note: Values in Parenthesis represent Weighted Scores

It is understood from the table that the respondents opinion about the reasons for preferring and consuming organic food products was ranked first for the statement “*My close friends and family consume organic food*” with the mean score of **3.920**, ranked second for the statement “*Organic food is good for health*” with the mean score of 3.833, ranked third for the statement “*I am concerned about the type and amount of*

nutrition in the food that I consume daily” with the mean score of 3.710, ranked fourth for the statement “*My loved ones expect me to purchase more organic food for them*” with the mean score of 3.663, ranked fifth for the statement “*I am concerned about how food is processed*” with the mean score of 3.570, ranked sixth for the statement “*I care about cholesterol and fat*” with the mean score of 3.410.

Table 5: Opinion on Purchase of Organic Food Products by the Consumers

Attributes	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Wtd. Mean	Rank
Healthier / better for you / better for your body	32 (0.533)	144 (1.920)	113 (1.130)	8 (0.053)	3 (0.010)	3.647	4
Become more readily available	39 (0.650)	168 (2.240)	48 (0.480)	21 (0.140)	24 (0.080)	3.590	7
The price of organic produce is coming down / getting cheaper	53 (0.883)	167 (2.227)	57 (0.570)	9 (0.060)	14 (0.047)	3.787	3
Better Taste, Flavour and Quality	92 (1.533)	174 (2.320)	18 (0.180)	7 (0.047)	9 (0.030)	4.110	1
Buy organic / more organic produce for children	28 (0.467)	153 (2.040)	99 (0.990)	17 (0.113)	3 (0.010)	3.620	5
Better for the Environment	75 (1.250)	134 (1.787)	55 (0.550)	36 (0.240)	0 (0.000)	3.827	2
Would like to see more variety / more choice	29 (0.483)	137 (1.827)	122 (1.220)	12 (0.080)	0 (0.000)	3.610	6

Source: Computed from Primary Data

Note: Values in Parenthesis represent Weighted Scores

Opinion of the respondents on reasons for the purchase of organic food products was ranked first for the statement “*Better Taste, Flavour and Quality*” with the mean score of 4.110, ranked second for the statement “*Better for the Environment*” with the mean score of 3.827, ranked third for the statement “*The price of organic produce is coming down / getting cheaper*” with the mean score of 3.787, ranked fourth for the statement “*Healthier / better for you / better for your body*” with the mean score of 3.647, ranked fifth for the

statement “*Buy organic / more organic produce for children*” with the mean score of 3.620, ranked sixth for the statement “*Would like to see more variety / more choice*” with the mean score of 3.610, and finally, ranked seventh for the statement “*Become more readily available*” with the mean score of 3.590,

Garrett Ranking

Table 6: Rating of consumers on barriers to purchase organic food products

Attributes	Rank-1	Rank-2	Rank-3	Rank-4	Rank-5	Rank-6
Would buy organic frequently if it was cheaper	84	73	108	10	12	13
Not able to find difference between organic and non-organic products	24	83	31	26	35	101
No health benefits differentiated between organic and non-organic	77	52	43	16	48	64

Am on a budget / trying to cut down on bills	95	58	60	16	50	21
Can't get hold of organic products / not convenient	12	16	27	103	56	86
Eating non-organic food has not done me any harm	8	18	31	129	99	15

Source: Computed from Primary Data

Table 6: Rank showing consumers opinion on barriers to purchase organic food products

Attributes	Garrett Score	Garrett Mean	Garrett Rank
Would buy organic frequently if it was cheaper	20299.1	67.66	1
Not able to find difference between organic and non-organic products	13030.6	43.44	4
No health benefits differentiated between organic and non-organic	15866.2	52.89	3
Am on a budget / trying to cut down on bills	18651	62.17	2
Can't get hold of organic products / not convenient	10283.4	34.28	6
Eating non-organic food has not done me any harm	11869.7	39.57	5

Source: Computed from Primary Data

The respondents ranking towards barriers for preferring organic food products based on certain attributes for which the first rank was perceived for the statement “*Would buy organic frequently if it was cheaper*” with the mean score of 67.66, ranked second for the statement “*Am on a budget / trying to cut down on bills*” with the mean score of 62.17, ranked third for the statement “*No health benefits differentiated between organic and non-organic*” with the mean score of 52.89, ranked fourth for the statement “*Not able to find difference between organic and non-organic products*” with the mean score of 43.44, ranked fifth for the statement “*Eating non-organic food has not done me any harm*” with the mean score of 39.57, and finally, ranked sixth for the statement “*Can't get hold of organic products / not convenient*” with the mean score of 34.28.

Multiple regression

Multiple regressions are mainly based on equation wherein the predictor variables coefficients are found out. The general multiple Regression equation is.

The general multiple Regression equation is.

$$Y = a_0 + a_1X_1 + a_2X_2 + \dots + a_n X_n$$

Where Y is the dependent variable

a₀ is constant.

a₁, a₂ a_n are the regression coefficients for the independent variables x₁, x₂ x_n respectively.

The analysis starts with estimating the coefficients and the constant (a₀). Here, the variables whose F-value is associated at less than or equal to 0.000 is considered for inclusion in the equation. Also once the variable is included in equation then it is again considered for removal from the equation to avoid multi-colinearity problem.

Hypotheses Predicted

H₀₁: Positive significant relationship between preference of organic food provisions and reasons for preference of organic food products.

H₀₂: Positive significant relationship between preference of Organic Fruits and reasons for preference of organic food products.

H₀₃: Positive significant relationship between preference of Organic Vegetables and reasons for preference of organic food products.

H₀₄: Positive significant relationship between preference of Organic Dairy Products and reasons for preference of organic food products.

H₀₅: Positive significant relationship between preference of other organic food products and reasons for preference of organic food products.

Coefficient Results

$$Y = 7.212 + 1.493 (X_1\text{-Provisions}) + 1.531 (X_2\text{-Fruits}) + 1.708 (X_3\text{-Vegetables}) + 0.059 (X_4\text{-Dairy Products}) \text{ and finally, } + 0.353 (X_5\text{-Other organic food products}).$$

Table 7: Coefficients showing relationship between preference of organic food products and reasons for preference and consumption of organic food products

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	7.212	1.414		5.099	.000
Provisions	1.493	.700	.129	2.134	.034
Fruits	1.531	.474	.181	3.233	.001
Vegetables	1.708	.694	.146	2.462	.014
Dairy Products	.059	.742	.005	.080	.937
Others (Honey, Tea, etc.)	.353	.604	.033	.583	.560

Dependent Variable: Preference

As per the prediction based on testing the probability to find the relationship between preference of organic food provisions and reasons for preference of organic food products which shows positive and significant at 5% level ($t=2.134$, $sig.0.034$), followed by the prediction reveals that there is significant positive relationship between preference of organic fruits and reasons for preference of organic food products, ($t=3.233$, $Sig.0.001$), while, there is significant positive relationship between preference of organic vegetables and reasons for preference of organic food products ($t=2.462$, $Sig.0.014$) and the null hypothesis are rejected for the above measured relationships. Whereas, the

prediction reveals positive relationship between preference of organic dairy products and reasons for preference of organic food products, however, insignificant ($t=0.080$, $Sig.0.937$) and also there is a positive relationship between preference of other organic food products and reasons for preference of organic food products, but found to be insignificant ($t=0.583$, $sig.0.560$) and the null hypothesis is accepted. Therefore, it is concluded that the relationship between the variables preference of organic food products and reasons for preference are found significant for few variables are partially accepted and insignificant for few variables are partially rejected.

Table 8: Regression Analysis on relationship between the preference of organic food products and reasons for preference and consumption of organic food products

R Value	R Square Value	Degree of Freedom – V ₁	Degree of Freedom – V ₂	F-Value	Significance
0.310	0.096	5	294	6.244**	0.000

Predictors: (Constant), Others (Honey, Tea, etc.), Fruits, Vegetables, Dairy Products, Provisions Dependent Variable: Preference

The co-efficient of Multiple determinations in which the correlation was found to be 0.310 which reveal high low level of correlation between the preference of organic food products and reasons for preference and consumption of organic food products and the R² shows 9.6 percent of variation explained by the independent variables to that of the dependent variable. When this R² was tested for its significance by using ANOVA, F value (6.244) was found to be highly significant at 1 percent level.

6. Summary of the results

- Majority of the organic buyers walked into the organic shop are male while, maximum of the respondents belong to the age between 30 and 40 years. Maximum of the respondents are having other educational qualifications who participated in the survey while, maximum of the respondents are government employees, Maximum of the respondents are having income between Rs.2000 and 40000.
- Maximum (36.3%) of the respondents were aware through friends / relatives about organic food products. While, it is understood that half of the respondents stated that they are regular purchasers of organic food products.
- Majority (86.7%) of the respondents highly preferred organic provisions for consumptions while 13.3% of the respondents least preferred. Most (68.3%) of the respondents highly preferred organic fruit consumption while 31.3% of the respondents least preferred. Majority (87%) of the respondents highly preferred consuming organic vegetables while 13% of the respondents least preferred the same. Majority (89.7%) of the respondents highly preferred consuming organic dairy products while 10.3% of the respondents least preferred. Finally, majority (83.3%) of the respondents highly preferred consuming other organic products like Honey, Tea, etc. while 16.7% of the respondents least preferred the same.
- It is understood that the respondent’s opinion about the reasons for preferring and consuming organic food products was ranked first for the statement *“My close friends and family consume organic food”* and the least rank was for the statement *“I care about cholesterol and fat”*.

- Opinion of the respondents on reasons for the purchasing organic food products was ranked first for the statement *“Better Taste, Flavour and Quality”* and the least rating was for the statement *“Become more readily available”*.
- The respondents ranking towards barriers for preferring organic food products based on certain attributes for which the first rank was perceived for the statement *“Would buy organic frequently if it was cheaper”* and the final rank was for the statement *“Can’t get hold of organic products / not convenient”*.
- The regression analysis reveals that the relationship between the variables preference of organic food products and reasons for preference are found significant for few variables are partially accepted and insignificant for few variables are partially rejected.

7. Suggestitons

- Many people in the world are found to be obese due to bad fat content accumulated in their body. The study reveals that very few of the respondents are bothered about the level of cholesterol and fat they consume and accumulate. Therefore, it is recommended that the policy makers need to make aware of the good fat content available in organic food products also needs to make clear about how the organic food products are processed for their consumption. Some of the respondents do not bother about their loved ones even though they expect to purchase organic food where the change in attitude for purchasing organic food needs much attention by the policy makers to create awareness of organic foods.
- As far as the barriers are concerned majority of the respondents ranked highly towards price factor which they feed need to be reduced significantly to make frequent purchases as the consumers are running their family mostly budget based and therefore it is in the hands of policy makers and government initiatives to cut down the cost and make organic food products everywhere available. It is also recommended that the level of promotion needed to be much more effective to explain the health benefits in consuming organic food products and also, comparison is a must to show the differences between organic and non-organic food

products which are the major barriers needed to be eradicated to achieve the planned reach of organic food products in the consumer market.

- There is a need to bring out more variety and more choices in the organic food products highly expected by the consumers and also make sure that the organic store is in the reachable vicinity of the consumers and also the products are more readily available when consumers opt to buy organic food products. When compared to that of the earlier stages (initial) now there is much awareness and also more producers voluntarily participate in producing organic food products which is a good sign to compete with non-organic products in the aspects, price, quality, quantity, availability and brand image aspects. Therefore, only proper promotional activities through media advertisement and door-to-door canvassing will help to turn more buyers towards organic foods that will help the consumers live healthy and also help in building healthy nation.
- It is evident that maximum of the respondents are interested in preferring and consuming organic food provisions, organic fruits and organic vegetables, whereas, few of the respondents are not much interested towards dairy and other organic food products which needed more attention by the policy makers to promote and make the consumers aware of the advantages of consuming the said food products.

8. Conclusion

Organic farming is an emergent sector in India, which shows optimistic growth due to the government initiatives and many private participants in bringing up the organic sector. to study the level of preference and purchase attitude of consumers for organic food products. The objectives of the study is to evaluate the barriers for organic food products perceived by the consumers, to suggest measures for improvement of organic food products. The prediction to find the relationship between preference of organic food products and reasons for preference and consumption of organic food products which reveals that the hypothesis was partially supported and there is a significant difference in the attitude of consumers towards organic food products. Therefore, the study concludes that the if the government and the policy makers takes necessary initiatives there will be a definite green organic revolution expected to strengthen the health quality of the consumers and march towards success in building disease free generation.

9. References

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