

Customer Perception Towards Organic Food Products in Selected Regions of Mumbai

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Abstract

In current years, consumer worries about environmental and health concerns related to food products have increased a lot which has led to the growth in demand for organic food. This paper therefore attempts to gain knowledge about the customer perception about organic food in Mumbai. A structured questionnaire was made which intended to study the purchase status, reasons for purchasing or not purchasing organic food and level of satisfaction for organic food. The data obtained was analysed via statistical tools like t-test, anova and multiple regression in SPSS. The findings reveal that the consumers consider organically grown food products as healthy and those who are not consuming organic food are not much aware of its availability. The research implication indicates an important work for the marketers to raise consumers' awareness about organic food and to decide upon some ways for differentiating it in the marketplace.

Keywords: Organic Food, Environment, Health

Introduction

According to Organic Foods Production Act, 1990 organic food are those which are produced without using conventional pesticides. The natural process of growth of animals and birds that are a source of food (meat, eggs or dairy) should not be interfered by using hormonal medicines. Organic foods are foods that are grown without the use of chemical fertilizers and harmful pesticides.

According to the survey by Research Institute of Organic Agriculture (FIBL) and International Federation of Organic Agriculture Movements (IFOAM) on certified organic culture worldwide in the year 2013, countries with the most producers of organic products are India (650'000) followed by Uganda (189'610) and Mexico (169'703). India has 5.2 million hectares of non-agricultural organic area. So, it is very much evident that India has a great scope of converting the non-agricultural organic area to agricultural organic area.

According to Garcí'a-Gallego and Georgantzí's (2011) customer awareness about green products can be increased by effective advertising and promotion. The impactful promotions may convince customers to buy organic products irrespective of their high prices. Numerous studies have laid emphasis on understanding the consumer behaviour towards green products and encouraging its adoption at a fast speed. However factors influencing the organic products' acceptance are market specific as every market has its unique characteristics. Initially, the change in attitude towards organic food was seen in Europe and then followed by North America and Japan (Lockeretz, 2007; Padel and Lampkin, 2007). In the recent past India has emerged as one of the most promising market for organic products. The rising health concerns have made it obvious that the organic food items are healthier as compared to their inorganic counterparts. India has been adopting organic food as it has been fully dependent on natural fertilizers. Therefore, India can be the best potential market for organic food, but they will have to build confidence in consumers' minds and gain their loyalty (Chakrabarti, 2010).

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Consumers have become more and more conscious about their health and protection of the environment as a result environmental friendly products have gained popularity these days. Families who consider organic foods as healthy, safe and high on nutritional value have a higher tendency to choose them over inorganic food items. They are more willing to buy in spite of the comparatively higher prices (Andersen, 2007). Marketers have also dedicated themselves to sell the organic products with the increasing demand of customers about environment friendly products and issues such as eco-friendly, naturopathy and go green. Marketers who are involved in selling of organic products have to segment the market and identify the most potential segments to market their products and increase their market share. Individuals who are health conscious and follow a healthy lifestyle have emerged as the potential consumers for organic products. Organic products come with a privilege of being “green” and “healthy” and therefore consumers are ready to pay for them (Mintu-Wimsatt and Bradford, 1995).

The present study aims to identify the level of consumer awareness and consumption of organic food products in selected regions of Mumbai. It focuses on the impact of various demographic factors on purchase of organic food and examines the factors influencing purchase and non-purchase of organic food products. Moreover, the impact of various attributes of organic food products on consumer satisfaction is also studied.

Literature Review

Gender has an influence on concern, knowledge of ecology, buying behaviour and attitude towards organic products (Mostafa, 2007). Additionally it is believed that females consider organic food as more healthy and prefer purchasing them (Govindnasamy and Italia, 1990; Mostafa, 2007; Van Doorn and Verhoef, 2011). Young females in thirties with high disposable income and kids are more likely to purchase organic products (Dettmann and Dimitri, 2007). Income is another factor which also influences purchase of organic food. Education too is found to be a factor influencing the organic food purchase decisions. Dettmann and Dimitri (2007) opine that people who are educated are more inclined towards organic products as compared to the lesser educated. Not all studies find demographics as a factor influencing organic product’s purchase intention (Yin et al., 2010).

Health issues are concerned as the most important factor influencing the purchase of organic products irrespective of the higher prices (Brugarolas and Rivera, 2005). Grossman (1972) too posit that the growing health concerns have influenced the rising preference for organic products. Bourn and Prescott (2002) too suggest that the higher nutritional value of organic products have given them an edge over inorganic products. However it is not the only reason to its purchase, tastes also influences purchase of organic products (Fotopoulos and Krystallis, 2002). Although health benefits is believed to be a key influencer in buying organic products, but some studies (Tarkiainen and Sundqvist, 2005; Michaelidou and Hassan, 2008) do not consider it very essential.

A number of studies have explained many factors which induced consumers to be attracted towards organic products (Paladino and Baggiere, 2008). According to Coddington (1993) there is a change in the perception of the consumers. Consumers are now more bothered about the impact of environmental damage on their health and safety. Their anxiety have compelled the sellers to combine environment safety in their decision making. Many countries have raised their concern for environmental safety and organic food like Germany (Von Alvensleben, 1998) and Nigeria (Dipeolu et al., 2009). Nigerian consumers consider organic food as healthy, tasty, harmless and in quality its better than inorganic food. According to Shepherd et al. (2005) consumers buy organic food mainly because they are healthy.

According to Fraj and Martinez (2007) there is one group of consumers who fall in ecological market segment who always believe in self-improvement and are interested in ecological lifestyle, i.e. environmental awareness, accepting environmental friendly products and rejecting non-environmental friendly products and also taking part in various events which are introduced to protect the environment.

Realising the growing popularity of organic products most of the supermarkets are now selling a wide range of organic products making it readily available for the consumers (Dettmann and Dimitri, 2007). Easy availability of organic foods have made them all the more popular among the consumers (Davies et al., 1995). One of the major reasons of the slow growth of organic products was attributed to their non-availability and high prices (Paul and Rana, 2012). Similarly Murphy (2007) in

his paper have reported higher prices and poor availability due to seasonality as the key barriers for organic purchase.

The satisfaction level of consumers depend upon a lot of factors. Customers choose organic food because they are nutritious, safe, taste good and fresh (Bourn and Prescott, 2002; Beharrell and MacFie, 1991). On the other hand some researches have reported contradictory results. In one study it was found that consumers consider appearance to be less important (Lin et al., 1986). Some researchers (Jolly and Norris, 1991; Sparling et al., 1992) have opined that consumers do not feel the taste of organic food and inorganic food as being different.

Research Methodology

The data has been collected through a structured questionnaire. The survey was conducted outside supermarkets and food stores of selected regions of Mumbai. A total of 600 questionnaires were sent and with that 388 valid questionnaires came during the period from October 2015 to January 2016. The questionnaire was designed to obtain the demographic information like age, gender, education, occupation and annual income. Information about the status of organic food purchase, reason for purchasing and for not purchasing organic food was obtained. The level of satisfaction of customers with respect to the various attributes of organic food was also acquired. People with less than 20 years of age were not included in the sample as they were not thought to be the true representation of the population. Convenience sampling method was used for approaching consumers who were coming out of the stores and willing to answer the questions.

Data Analysis

The questionnaires were thoroughly checked and edited. Out of the 600 questionnaires 426 were completed and 388 were found to be usable. Therefore, the data from 388 respondents were analysed in this study. The respondents were customers who were interviewed outside supermarkets and food stores of selected areas of Mumbai from October 2015 to January 2016. The data were entered in Statistical Package for Social Sciences. Various statistical tools and techniques were used to analyze the data like t-test, anova and regression analysis. The organic food purchase status of consumer is shown in

Table 1. Among the respondents 43.04% were purchasing organic food and 56.95% were not purchasing organic food.

Table 1: Organic Food Purchase Status of Consumer

S.No	Purchase of organic food	Frequency	Percentage
1	Purchasing	167	43.04
2	Not Purchasing	221	56.95

The demographic characteristics of the respondents are shown in Table 2. The gender distribution of the respondents shows 44% are female respondents and 55% are male respondents. The dominant age group of the respondents was 20 to 40 years (40.20%), followed by 41 to 60 years (32.98%) whereas customers from above 60 years were 26.80%.

In terms of level of education 43.04% of the respondents were graduates, 32.98% of the respondents had a post graduate education, and 23.96% of the respondents were in school or were unemployed. The result shows the relatively high educational attainment of the respondents. In terms of occupation 55.15% were in services, 29.86% were in Business or self-employed and 14.94% were either student or unemployed. With respect to income 35.82% of the respondents had annual income of 6 lakh -12 lakh, 28.86% of the respondents had annual income of 12 lakh -24 lakh, 19.58% of the respondents had annual income of less than 6 lakh and 15.72% of the respondents had annual income of more than 24 lakh.

Table 2: Demographic Profile of the Respondents

	Frequency	Percentage
Gender		
Male	216	55.67
Female	172	44.32
Age		
20-40 years	156	40.20
41- 60 years	128	32.98
Above 60 years	104	26.80
Education		
School	93	23.96
Graduation	167	43.04
Post Graduation	128	32.98
Occupation		

	Frequency	Percentage
Service	214	55.15
Businessman/ self employed	116	29.89
Student/ Unemployed	58	14.94
Annual Income		
Less than 6 lakh	76	19.58
6 lakh -12 lakh	139	35.82
12 lakh -24 lakh	112	28.86
More than 24 lakh	61	15.72

Hypothesis: There is significant impact of various demographic factors on purchase of organic food.

In this study it was observed that demographic variables have an impact on the purchase of organic food. T-test and Analysis of variance was conducted to check for significant difference between purchases of organic food and for the various demographic factors. It was found that education has a significant impact on the purchase of organic food. The p value is 0.034 which is less than the level of significance (0.05). Therefore, we reject (H_{01}) null hypothesis for education. It is interpreted that education and purchase of organic food are positively related. Consumers who have high and professional education tend to buy more organic food. The results are consistent with the study by Dettmann and Dimitri (2007). For all the other demographic factors p value was more than the level of significance (gender, $p=0.462$; age, $p=0.528$; occupation, $p=0.725$; income, $p=0.461$) (See table 3). Which means that there is no significant difference between purchase of organic food on the basis of gender, age, occupation and income. Therefore, we accept (H_{01}) null hypothesis for gender, age, occupation and income.

Table 3: Difference of Means (t) Test and Anova

Gender	Age	Education	Occupation	Income
t= 0.745	F=0.784	F=2.648	F=1.0479	F=1.547
Sig.= 0.462 (n.s)	Sig.= 0.528 (n.s)	Sig.= 0.034 (p<.05)	Sig.= 0.725 (n.s)	Sig.= 0.461 (n.s)

Table 4 shows the list of various reasons for buying organic food which indicates health benefit is a significant factor for buying organic food followed by environmental

friendliness and taste. The results are similar with some studies who states health (Grossman, 1972; Schifferstein and Oude Ophuis, 1998; Brugarolas and Rivera, 2005) and taste (Fotopoulos and Krystallis, 2002) as the significant factor for purchasing organic products. For almost 57.48 percent of the respondents health benefit is the most important reason for buying organic food. 25.74 percent of the respondents regard environmentally friendliness is a most important reason for buying organic food. Last around 16.76 percent of the respondents regard taste is a most important reason for buying organic food.

Table 4: Respondents Choices of Reasons for Buying Organic Food

Reasons for buying organic food	(Percentage)	Frequency
They are tasty	16.76	28
They are healthy/nutritious	57.48	96
They are environmentally friendliness	25.74	43

Table 5 shows the list of various reasons for not buying organic food which indicates availability is a significant factor for not buying organic food followed by price and authenticity. The results are consistent with earlier studies (Murphy, 2007; Paul and Rana, 2012).43 percent of the respondents regard availability is a most important reason for not buying organic food. 30 percent of the respondents regard price is a most important reason for not buying organic food. Last, around 25 percent of the respondents regard authenticity is a most important reason for not buying organic food.

Table 5: Respondents Choices of Reasons for Not Buying Organic Food

Reasons for not buying organic food	(Percentage)	Frequency
They are not available /don't know where to get them	43.89	97
Price is too high/expensive	30.76	68
Authenticity is doubtful	25.33	56

Multiple regression analysis was employed to investigate whether the independent variables (attributes of organic food) exerted significant impact on the dependent variable (satisfaction).

The multiple regression procedure was employed because it provided the most accurate interpretation of the independent variables. The five independent variables were expressed in terms of the standardized factor scores (beta coefficients). The significant variables that remained in the regression equation were shown in order of importance based on the beta coefficients. The dependent variable, customers' satisfaction, was measured with a statements on a 5-point Likert-type scale.

The equation for customers' satisfaction was expressed as:

$$Y_s = \beta_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5$$

Where,

Y = customers' satisfaction with organic food

β_0^s = constant (coefficient of intercept)

X_1 = Taste

X_2 = Quality

X_3 = Freshness

X_4 = Availability

X_5 = Timely delivery

B_1, \dots, B_{10} = regression coefficient of X_1 to X_5 .

The results of the regression analysis are shown in table 6. To predict the goodness-of-fit of the regression model, the multiple correlation coefficient (R) and coefficient of determination (R^2), were examined. First, the R of independent variables (five attributes, X_1 to X_5) on the dependent variable (customers' satisfaction, or Y_s) is 0.76, which showed that the customers had positive and high satisfaction levels with the five attributes. Second, the R^2 is 0.68, suggesting that around 68% of the variation of customers' satisfaction was explained by the five attributes. The regression model achieved a satisfactory level of goodness-of-fit in predicting the variance of customers' satisfaction in relation to the five attributes. In other words, at least one of the five attributes was important in contributing to customers' satisfaction with organic food.

In the regression analysis, the beta coefficients could be used to explain the relative importance of the five attributes (independent variables) in contributing to the variance in customers' satisfaction (dependent variable). The results of multiple regression show that all five attributes have a significant impact on customers' satisfaction. As far as the relative importance of all the attributes is concerned, Quality ($B_2=0.46, p=0.000$) carried the heaviest weight

for customers' satisfaction, followed by Taste ($B_3=0.32, p=0.000$), Freshness ($B_1=0.28, p=0.000$), Availability ($B_5=0.26, p=0.000$) and Timely delivery ($B_7=0.22, p=0.000$). In conclusion, all underlying dimensions are significant.

Table 6: Multiple Regression Results for Impact of Various Attributes of Organic Food on Customer Satisfaction

R-0.76, R^2 - 0.68, Adj R2 – 0.67, SEE -0.36

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	1.26	0.16		8.20	0.00
	Quality	0.18	0.01	0.46	15.2	0.00
	Taste	0.14	0.02	0.32	11.5	0.00
	Freshness	0.16	0.05	0.28	10.4	0.00
	Availability	0.22	0.04	0.26	8.8	0.00
	Timely delivery	0.24	0.06	0.22	8.6	0.00

a Dependent Variable: satisfaction

Conclusion

In the study it's revealed that education and purchase of organic food are positively related. Consumers who have high and professional education buy more organic food. Health benefit is the prime motivating factor for buying organic food followed by environmental friendliness and taste. Availability is a significant barrier for buying organic food followed by price and authenticity. The finding also show that those consumers who were purchasing organic food were satisfied with organic food for variety of reasons. Quality came first in their mind above taste, freshness, availability and timely delivery.

The findings of the study provides some recommendations for the marketers who are selling organic food. The study will also be helpful to the producers of organic food which identifies their target market by indicating the relationship between demographic factors and organic food consumption. The marketers can design their marketing strategy according to different consumer segments. They should focus on communicating the health benefits which is an important determinant in influencing consumers for

buying organic food products. The results also indicate that availability is a significant barrier in purchase of organic food products. Therefore, retailers should see its availability at all important locations. Price of organic food product is also a barrier in its purchase, so the retailers should develop a proper strategy for communicating its benefit to the consumers. They should generate confidence in consumers mind about its authenticity.

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