

# Customer's Attitude, Preference and Buying Behavior towards Organic Food using Fishbein Multi-Attribute Model



Vijith H

**Abstract:** *Organic food are often seen as nutritious, healthy and eco-friendly. With the change in lifestyle, people are more becoming more concerned towards healthy food. Due to this change, people are now turning towards organic food. The aim of this research is to understand the attitude of people towards organic food, the factors that influence people's desire for and purchasing behaviour towards organic food using Fishbein Multi-Attribute Model . With the results achieved, we can understand the preference and attitude of the customers and the factors that drive the customers in buying the organic food.*

**Keywords:** *Attitude, Customer preference, Eco-friendly, Healthy, Nutritional, Organic food, Price, Pesticide free.*

## I. INTRODUCTION

This is The environmental problems are now considered to be one of the most important issues the facing the world today, and two out of three consumers (64% around the world) find environmental conservation to be the most important problem that lies ahead for encouraging economic growth (Ottaman, 1998). It is because of our past unhealthy, inefficient and fast moving lifestyles that the environmental problems have become extreme and critical. Some studies indicate that around 30 to 40% of environmental issues have been due to our food habits in the past (Grunert, 1995). Due to the increase in the population in the past decade, there has been a huge increase in demand for food. Due to this increase in demand, usage of pesticides and chemicals in food has increased so as to yield more food products. These increase usage of pesticide and chemicals has affected the environment and people around the globe. Due to these reasons, public started to feel sustainable consumption by preserving the environment and the green marketers responded by addressing their needs (Jain and Kaur, 2004).

Consumers have grown interest over the coming years towards healthy and nutritional food due to the growing

concern of healthy and quality life and due to the reports of effects of having chemical and inorganic food. People are more concerned towards the safety of the food and health aspects in the growing urbanisation (Baker, 2007). Organic products are made under certain conditions without the use of chemicals or pesticides. These types of agriculture function at the grass root scale, preserving the reproductive and regenerative ability of the soil, good plant nutrition and sound soil management, providing vitality-rich, vitality-resistant, nutritious food (R.Sangeetha, 2018).

### Organic market in India

Organic farming is introduced and practiced in at least 160 countries worldwide. In India certified organic farming is only about 15 years old in the modern context as established in the developed world. India is also a leading country in organic farming. In the world, it ranks among the largest producers of rice, tea, fruit and vegetables, various spices, pulses, medicinal plants and cashew nuts. Up to 4.5 million hectares of land are used for certified organic farming (S Amudha, 2017)

The organic products market in India has seen a 25% growth in CAGR. The current market size of organic product is ₹4000 crores which is projected to reach at a ₹10,000-₹12,000 crore at 2022.

According to the Agricultural and Processed Food Products Export Development Authority (APEDA), India exported organic products worth Rs. 30 billion (over \$440 million) in 2017-18, down from Rs. 24.77 billion in 2016-17. Increasing awareness and rising demand for organic food have helped to raise and increase sales in the last few years. Now consumers are more aware of the adverse effects of pesticides and chemicals. People have started looking for organic products on their own, and particularly for their children. In fact, thanks to the rise in discretionary income and education, families are constantly investing in the well-being of their children and willing to spend and pay a higher / better price in terms of product quality (Assocham and Ernst, 2019).

Indian consumers have started paying attention to the nutritional content and quality of the food they buy, which contributes to increased demand for organic food. Customer spending on health and education has also significantly increased, driven by factors such as rapid economic development, urbanization and increasing rates of income. With additional funding from the Government of India, farmers are now more inclined towards organic farming, which the Government supports under various schemes such as the follows,

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\* Correspondence Author

**Vijith H**, Department of Management, Kochi, Amrita Vishwa Vidyapeetham, India.

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- a) Mission for Integrated Horticultural Development (MIDH),
- b) National Food Security Mission (NFSM),
- c) National Mission for Sustainable Agriculture (NMSA),
- d) Rashtriya Krishi Vikas Yojana (RKVY), etc. (Aurora, 2020).

## II. LITERATURE REVIEW

There has been a huge increase in the consciousness of the consumer on the well-being, health safety and environmental awareness which has caused an increased in the preference of the consumers in organic products (Loureiro et al, 2001; Nair, 2005). People have been consuming the organic products more under the expectation that the organic food has higher nutritional value, food quality and is healthy as compared to the other conventional foods (Chinnici et al, 2002; Harper and Makatouni, 2002; O'Donovan and McCarthy, 2002). The consumer's most important reason for selecting an organic product is mainly over the nutritional and health benefits that the organic food has to offer relative to the available conventional or inorganic food products. Consumers believe that all organic foods are enriched with nutritional value and are considerably healthier than conventional foods (Squares.L, 2001). In one research study, consumers with a positive attitude toward organic foods were noticed to prefer organic products with a primary advantage of nutritional value and health benefits. (Weng Marc Lim, Juliette Li Shuang Yong & Kherina Suryadi, 2014).

Consumer's attitude has mainly progressed and increased towards the environmental care. An analysis was performed and found that consumers in countries such as Canada, the United States, China and India are more concerned about the adverse effects of pesticide use on farms and other chemical compounds (McKinsey, 2007). Seyfang's (2006) claimed that the environmental concerns and health issues are a combined stimulus which in effect aims at ethical consumption. Growing consumer consciousness for environmental concerns has increased the demand for environment and sustainable friendly products. A progressive change in the consumer's attitudes, perception and purchase intentions occurred as they realized the harm caused to the environment as a result of conventional farming (Giesler and Veresiu, 2014). Consumers are willing to pay for goods that are more environmentally friendly and socially sustainable because of increased consumer-friendly behaviour (Laroche M. Bergeron J. Barbaro-Forleo, 2001).

Wide nutritional and personal traits of organic foods have been attributed to consumer preference and attitude towards organic foods (Onyango *et al.* 2008). It was concluded that organic food products are considered safe from chemical pesticides, synthetic fertilizers and environmentally friendly (Deliana, 2012). On the basis of an American food store, "Whole Food Market," the key reasons why organic foods are chosen is to prevent adverse effects of industrial pesticides and to eat genetically engineered foods along with new and balanced foods (Winter and Davis, 2006). Some studies have shown that consumers believe that organic foods experience less chemical and microbial damage than conventional foods

(Letourneau et al., 1996; Cayuela et al., 1997). The word "organic food invokes lots of images, attitudes and convictions. One of the most common one is "food without chemicals", food grown in close proximity with the nature, free of pesticides and which is natural (Davies et al, 1995; Makatouni, 2002). In some cases organic food products are viewed as a niche-high value commodity (Jonas and Roosen, 2005). They are regarded as branded products with a high quality and luxury image, and are sold in shops at a premium price and labeled as expensive products because of this image (Giovanni and Nucifora, 2002). The results of a study conducted in Malaysia reveal that the premium price tends to discontinue organic consumption (Shaffie and Rennie, 2009). Another survey in Germany showed that their preferences for organic products are vanishing. Some are less sensitive to price and prefer organic products, while others are more sensitive to price and prefer traditional products (Stolz et. Al, 2010). Non-availability and higher prices are also seen as a major factor in the organic product's slow growth (Paul and Rana, 2012). A higher price influences expectations and customer purchasing behaviour, according to Gan et al. (2008). Their findings say higher prices appear to have a detrimental impact on consumers buying organic products. D'Souza et al. (2006) found that customers turned to other goods with high price results. Some groups of consumer are more positive and optimistic about organic foods and willing to pay the higher price (Radman, 2005). In these studies, more focus was placed on the quality of the organic commodity, and the quality was seen as a major attribute to consumer preference and attitude towards organic foods.

A lot of factors depend on how satisfied consumers are with organic food products. One of the key reasons included is the taste for organic foods. Studies also found that the taste of organic food products differed because of conventional food processing practices and agricultural technologies. This taste attribute in organic food products has been a deciding factor in consumers' preference for and intention to buy organic foods (Raghunathan, R., Naylor, R. & Hoyer, W, 2006).

## III. METHODOLOGY

The research explored the attributes like Nutritional value, Eco-friendly, pesticide free, taste and Price which affect the consumer's preference, attitude and buying behaviour. The data used for the research was gathered through a structured questionnaire. The survey was conducted by online distribution of the questionnaire to 75 respondents. The respondents mainly included people who have been using or still use organic products. The respondents fall in the age group of 20-65. People with less than 20 years of age were not included in the sample. The questionnaire included questions across all the variables. The data that was collected was analysed using Fishbein multi-attribute attitude model. Using this model, the attitude of the customer towards the organic food was identified, and the factors influencing that attitude. The preference and buying behaviour of the consumers was found using percentage analysis. The results of the Fishbein multi- attribute attitude model and percentage analysis was interpreted.



IV. ANALYSIS

A. Fishbein Multi-attribute analysis

Study of the Fishbein multi attributes was performed to determine the respondents' overall attitude. The output comes in a score type. The measurement is based on evaluation calculation (ei) and belief (bi) towards the identified attributes. Table 1 displays the results of analysis of the respondent's attitude

Table- I: Result of Attitude analysis

No	Attribute	ei	bi	Ao=ei.bi
1	Nutritional Value	4.44	4.63	20.54
2	Eco-Friendly	4.31	4.43	19.06
3	Pesticide Free	4.19	4.75	19.87
4	Expensive	3.91	3.09	12.08
5	Taste	3.81	4.01	15.30
	Ao= $\sum$ ei.bi			86.86

The overall score of attitudes of the respondent towards organic food was found based on attributes identified from the model of the Fishbein. Market attitudes towards organic food items are ranked 86.86. To decide whether the score is positive or negative we use the following equation to establish the interval from very negative to very positive:

$$Interval=(m-n)/b$$

Where:

m = the highest score may occur

n = the lowest score may occur

b = the number of intervals will be established

The spectrum used in this study includes five classes, which are very negative, negative, neutral, positive and very positive. Then, we will find the possible highest and lowest score. For this analysis the highest score (m) is 120. The lowest score (n) is 9. The list of intervals is shown in Table 2.

Table- II: Attitude Assessment Interval

Very Negative	$9 \leq A_o \leq 31.8$
Negative	$31.8 < A_o \leq 55.6$
Neutral	$55.6 < A_o \leq 77.8$
Positive	$77.8 < A_o \leq 100.8$
Very Positive	$100.8 < A_o \leq 120$

For this research the attitude value obtained is 86.86. Therefore, the attitude score of 86.86 is optimistic based on Table 2. This depicts that the respondents' attitude towards organic food products is positive.

Nutritional value is the dominant attribute, as it has the highest score of 20.54.

B. Percentage Analysis

Preference towards Organic Food

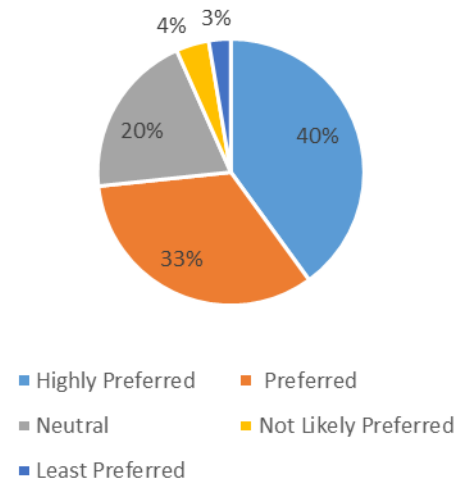


Fig. 1. Preference towards Organic Food

Fig 1 depicts the percentage analysis of the preference of the respondents. Out of the 75 respondents, 40% of them chose Organic food product as Highly preferred, 33% chose preferred, 20% chose Neutral, 4% chose Not likely preferred and 3% chose Least preferred. From the analysis it was determined that the preference for organic food product is high.

Rating of Organic Food

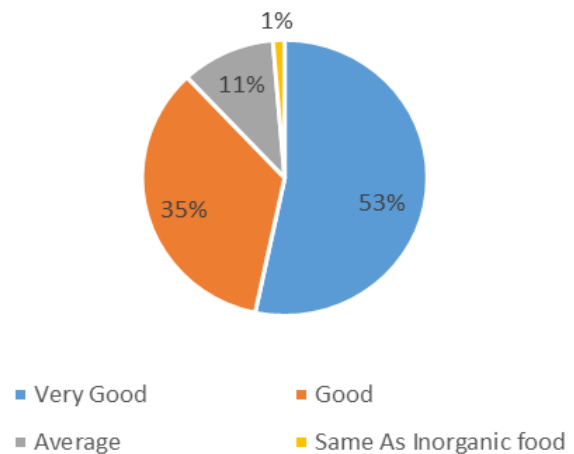


Fig. 2. Rating of Organic Food

Fig. 2 depicts the respondents' rating towards organic foods. Of the 75 respondents, 53% rated organic food as Really Good, 35% rated organic food as Poor, 11% rated organic food as Average and the remaining 1% selected organic food as Same as inorganic food. It was concluded from the study that most respondents view organic food as Very Good.

### Purchasing Behaviour

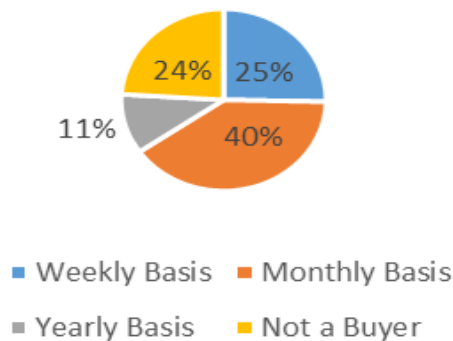


Fig. 3. Purchasing Behaviour

Fig 3 shows the purchasing behaviour of the respondents towards Organic Food products. It was inferred that 40% bought organic food products in monthly basis, 25% bought in Weekly basis and 11% bought in Yearly basis. 24% were not frequent buyers of Organic food products.

### Reason for not buying the Organic food

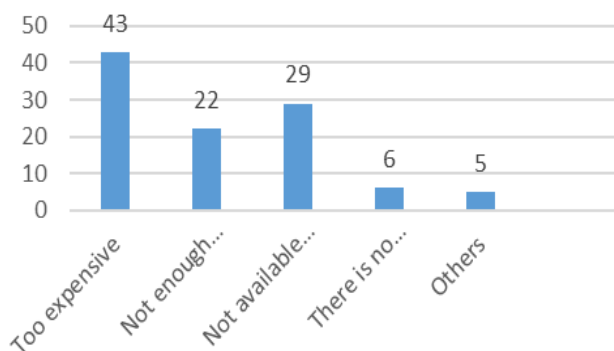


Fig. 4. Reason for not buying Organic food

Fig 4 depicts the percentage analysis of reasons for not purchasing organic food products. It can be concluded that 43% consider organic food to be too expensive, 29% find it not frequently available, 22% find the main reason for not buying organic food to be insufficient choices, 6% says the reasons as no sustainable packaging is available and 5% have selected other reasons why they do not prefer organic products. The other choice included user trust, product certification, health issues etc.

## V. RESULTS

Most of the responses included students and working class professionals. From the study it was found that the attitude score of the respondents' towards Organic food was 86.86, which is considered positive. Therefore, the respondents have a positive attitude towards the organic food. The primary dominant trait many found in organic food was nutritional value. The attitude score for Nutritional Value was 20.54.

This was because many of the respondents believed that Nutritional Value is an important feature of Organic Food which influences the attitude of consumers towards organic food. The lowest score in attitude goes to the expensive that has a score of 12.08. This means that the respondents believe that with high quality product comes high price and organic products are supposed to be expensive because of the quality of the product.

While looking at each component (Evaluation and Belief) of the evaluation part, considering evaluation part, the highest score is for Nutritional Value with a score of 4.44. It is because the consumers expect the organic product to have Nutritional Value.

While in the belief component, the highest score goes to the attribute, Pesticide free which has a score of 4.75. It is because consumers assume that the Organic food Products are pesticide free.

Out of the given respondents, the preference for organic food product was high. 40% of the respondents chose organic product as highly preferred while 33% preferred the organic food product. It can be deduced that the consumer's preference for organic food product is considerably high and that the preference for organic food is due to factors such as health, nutritional value, environmentally friendly taste etc.

The Consumers also rated the product as very good. 53% of the consumers rated the Organic food as very good while 35% of them rated the organic food as Good. Consumers will be confident that organic food is healthier and better than conventional / inorganic foods. This shows that the consumers perceive organic food as Very Good.

The buying behaviour of the consumers were found on the basis of monthly, weekly and Yearly. In that 40% of the consumers preferred buying organic food in a monthly basis. This indicates they are not avid consumers of organic food even though they enjoy organic food. 25 per cent of consumer, however, purchased organic food on a weekly basis. This customer segment only prefers Organic food as their food option.

The main reason for not choosing the Organic food is due to the product's price for those who do not buy Organic food products. 43% chose costly as the reason not to buy organic goods while 29% opted for the product's unavailability. That means customers are not buying organic products because of the product's quality. Since organic food prices are higher than conventional foods, consumers are not purchasing the organic products. This can be attributed to many aspects, such as lower profits, less awareness of the benefits of organic goods etc. Another reason involves organic product unavailability. Since the organic product market is a niche market and is now expanding, the supply of organic food products has been a problem because there are less organic farms than conventional ones. Consumers are forced to resort to purchasing traditional food products because of this non-disponibility of organic food products.

## VI. CONCLUSION

Consumers have been shown to be in favor of these organic foods and their attitude to them is positive. Organic food products are accepted as a nutritious and healthy foods which keeps people fit. The only troubling aspect of consumption is quality. Government will take measures to subsidize the selling of organic food items. It was found that the preference for consuming organic food items was sufficient for eating organic food. Although there are few challenges, organic food consumption is gradually increasing day by day. It is recommended that by providing continuous support from the government or ruling parties to redesign the existing mechanisms and also by providing assistance to the farmers can help in enhancing the production as well as awareness on the benefits organic products among the local buyers which in turn helps in the faster progression, stability and development of organic farming. They continue to buy such organic food products because of the consumer's beliefs and perception that organic food products are nutritious, healthy and eco-friendly. To encourage more consumers to buy organic food products, marketers need to concentrate more on strategies and tactics, and plan the elements of the marketing mix to make organic food more available for consumers. More consumer trust and understanding of the benefits of organic food products must also be generated and proper government certifications and recognition for organic food products must be obtained.

## VII. LIMITATIONS

This research is limited to only 75 respondents, and specifically to educated people. It has further scope of studies as this research has focused on the perception and beliefs of a limited number of respondents as it can be expanded.

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## AUTHORS PROFILE



**Vijith H** is currently pursuing MBA at the renowned Amrita Vishwa Vidyapeetham, Kerala. His area of expertise are in Marketing and Business Analytics. After securing his Bachelor's degree in EEE from Cochin University of Science and Technology. His leadership traits were seemed and developed during academic carrier by being responsible for coordinating various academic activities.