

Consumer Behavior and Purchase Intention in Indian Organic Food Market

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A growing concern among consumers for health and environmental aspects has lead to a spur in the demand of healthy and safe agricultural products among consumers across the globe. As a consequence of this, there is an increased inclination to grow and consume organic foods obtained from organic farming.

Trailing the global movement, the demand for organic foods in India has also shown an uptrend. Though, earlier organic food producers primarily exported to Europe and the United States, as of now there is a gradual shift towards own domestic market. However, the organic culture in India is still at its nascent stage, despite its proven value for producing the high quality food with reliable nutritional value. While previous researches in India have focused on consumer behavior towards different food products, a very few studies have been conducted on organic foods.

The present research is an attempt in this direction. It specifically endeavors to investigate the consumer awareness and preferences regarding organic food products available in the market. To achieve the aforesaid purpose, primary data was collected from 120 consumers of north India with the help of a structured questionnaire. The inferences drawn from the research highlighted certain interesting but striking findings about organic food market in India.

Though a high degree of awareness and positive attitude of consumers for organic foods was observed, but in sharp contrast to this the purchase frequency of the same was very low. In spite of consumers finding these foods healthy, safe and environmental friendly, a dissatisfaction and distrust with regards to its information, availability, variety and price level coupled with distrust/non- reliability on the sources of supply was observed. Research results identified 'Product Information and Access', 'Convenience', 'Reliability', 'Social Appeal', 'Health and Safety', 'Sensory Appeal' as the perceived barriers to organic food consumption based on results of Factor Analysis.

The research findings have strong implications for organic food producers, marketers, retailers, marketing academicians, consumers and policy makers. Evidently marketers and regulatory bodies should realize that availability of greater information; increased variety of organic foods along with easy availability and standardized certifications have the potential to boost organic food sales.

Keywords: Organic food, consumer behavior, barriers, marketers, India

AN INTRODUCTION TO ORGANIC FOOD INDUSTRY IN INDIA

In present era, consumers are gradually becoming more and more aware of not only the benefits but also the harmful effects of the foods they are consuming. The stress of producing more food out of the limited land resource by adding artificial nutrients in the land is not a healthy practice. The usage of pesticides has been linked to a myriad of diseases. The Pesticides Literature Review, which is based on studies conducted by a multi-university research team in Toronto, concludes, 'people should reduce their exposure to pesticides because of links to serious illnesses'. Results of this study found a consistent evidence of serious health risks such as cancer, nervous system diseases and reproductive problems in people exposed to pesticide. Similar research has linked exposure to pesticides to increased presence of neurological disorders, Parkinson's disease, childhood leukemia, lymphoma, asthma and also a wide range of neurological health effects such as memory loss, loss of coordination, reduced speed of response to stimuli, reduced visual ability, altered or uncontrollable mood and general behavior, and reduced motor skills. The World Health Organization estimates that there are 3 million cases of pesticide poisoning each year and up to 220,000 deaths, primarily in developing countries.

Alarming increase in the cases of cancer can be related to the polluted food and water we are

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consuming. Chemicals like ammonia can cause cancer founded in our food chain. As per the Statistics released by the Punjab government, Punjab alone has over 90 cancer patients per 1 lakh population. This is much higher than the national average of 80 per 1 lakh. The Malwa region, also known as the cancer belt has the highest average of 136 cancer per one lakh. Data over the last five years show that 8 people die every day due to cancer on an average. Simultaneously food has become more costly affair than it used to be.

Children, and indeed any young and developing organisms, are particularly vulnerable to the harmful effects of pesticides. Even very low levels of exposure during development may have adverse health effects. Growing responsiveness and understanding towards the ill effects of the food produced has resulted in an urge among consumers to choose a healthier option. Progressing to organic repellents is a logical step to potentially help reduce the chances of disease or disease acceleration. In the present times where the consumers are becoming increasingly health conscious, organic food is a recent development in the food industry. Researches on organic food market in India show that it is expected to grow at a CAGR of 21.34 percent over the period 2012-2016. The key vendors dominating this market space include Conscious Food Pvt. Ltd., Eco Farm Ltd., Morarka Organic Foods Pvt. Ltd., Organic India Pvt. Ltd., Sresta natural Bio products Pvt. Ltd, Fabindia Overseas Pvt. Ltd and many others. One of the key factors contributing to the growth of this market is the increasing number of health conscious consumers. Nevertheless, the high cost of organic food could pose a challenge to the growth of this market

Organic food is very much native to the land of India. Whosoever seeks to script a history on organic food will have to refer India and China. The farmers of these two countries are farmers of nearly 40 centuries and it is organic food that has sustained them. The very concept of organic food is based on the principle that Nature is the best role model for

food, since it does not use any inputs nor demand unreasonable quantities of water, entire system is based on intimate understanding of nature's ways'. Organic Farming does not believe in mining of the soil of its nutrients and do not degrade it in any way for today's needs, soil in this system is a living entity, soil's living population of microbes and other organisms are significant contributors to its fertility on a sustained basis and must be protected and nurtured at all cost.

In today's terminology organic farming may be defined as a method of food system which primarily aims at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by use of organic wastes (crop, animal and farm wastes, aquatic wastes) and other biological materials along with beneficial microbes (biofertilizers) to release nutrients to crops for increased sustainable production in an eco-friendly pollution free environment. As per the definition of the United States Department of Agriculture (USDA) study team on organic food "organic food is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection". In another definition Food and Agriculture Organisation of United Nations (FAO) suggested that "Organic agriculture is a unique production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity, and this is accomplished by using on-farm agronomic, biological and mechanical methods in exclusion of all synthetic off-farm inputs".

In philosophical terms organic food means "food in spirits of organic relationship. In this system everything is connected with everything else. Since organic food means placing food on integral relationship, we should be well aware about the

relationship between the soil, water and plants, between soil-soil microbes and waste products, between the vegetable kingdom and the animal kingdom of which the apex animal is the human being, between agriculture and forestry, between soil, water and atmosphere etc. It is the totality of these relationships that is the bed rock of organic food. Keeping in mind the above factors, organic food seems to be a better solution for many health problems. There are certain claims that organic farming can reduce the production cost in agriculture as well as a farmer can get many benefits as his/her product will be sold at a higher price and also there is a need of organic food which guaranties a substantial growth of farmers.

LITERATURE REVIEW

Environment friendly products are gaining high popularity among consumers because they are becoming more aware about their health and protection of the environment. People who believe in health benefits, taste, environmental protection and are inclined to improve their life style can be the potential consumers of organic food. Also consumers are willing to “pay for the privilege of buying green” (Mintu-Wimsatt and Bradford, 1995). Many factors induced the consumers to be attracted towards environment, explained by numerous studies during this period. This issue also attracted the media to explore, resulting more stringent legislation, which further resulted in the rise of premier group activities that has led consumers to become more concerned about the environment, resulting further, in great stir of major industrial disasters (Schlegelmilch et al., 1996). This consciousness towards health is growing gradually with the increase of age.

Stefanicet. al. (2001) in his study of 250 respondents confirmed that individuals are not sufficiently informed about organic food and that they do not know how to properly define organic production. Its participants identified organic food quality, label

correctness and product brand as the most important features of organic food when compared to conventional food. Interestingly, one third of respondents found organic food to be healthier, tastier and better looking than conventional food. In fact an overwhelming majority (nearly 90 percent) of individuals believed that organic food is more expensive than conventional food but, nevertheless, they are willing to pay a higher price for organic food. Magnusson et al. (2001) in their study on attitudes towards organic foods among Swedish consumers reported demographic differences with respect to Swedish consumers’ attitudes towards organic foods (milk, meat, potatoes, bread), purchase frequency, purchase criteria, perceived availability, and beliefs about organic food based on a sample of 1158 respondents. The majority of consumers, and particularly women and young respondents (18-25 years) reported positive attitudes, but purchase frequency was low. A total of 13 per cent stated that they regularly bought organic milk. Corresponding figures for organic meat, potatoes, and bread were 13, 16, and 8 per cent respectively. The most important purchase criterion was good taste, and the least important was “organically produced”. Approximately half of the respondents were satisfied with the availability of the organic foods. The organic foods were perceived to be more expensive and healthier than conventionally produced alternatives. A major obstacle to the purchase of organic foods was reported to be premium prices. The results suggest that the consumption will not increase as long as important purchase criteria and perceived beliefs about organic foods do not match. Later Znaor (2002) studied organic agriculture and indicated the main motives for organic food purchases and consumption as one’s concern for health. It was also observed that organic food is of better quality than conventional food and consumers’ belief that organic food purchases support environmental protection and the development of rural areas are the added motives.

Radman (2005) conducted a research study on organic food consumption and the consumers’ perception of organic food through a questionnaire survey on 179 Croatian consumers. The research findings affirmed that consumers believed organic products to be healthy, of good quality and tasty. However, they perceived organic food as expensive and are not satisfied with its appearance. Furthermore, the consumers do not know where organic food is typically being sold. Most of the consumers name the city market as a place of sale of organic food while the organic food in Croatia is not being sold at city markets. Thus, consumers equalize organically grown food with traditionally grown food. It was also found that consumers who have a more positive attitude to organic food are willing to pay higher prices for organic food. Nonetheless nearly 70 percent of the respondents said they would purchase more organic food if its price was lower. On the one side, due to organic trend being weakened in the Eastern and southern Europe, Italy being an exception, consumers of these areas were not much interested in the organic food (Dabbert et al., 2004; Padel et al., 2008), whereas on the other side, the developed and industrialized cities in these areas showed a remarkable growth in the market share of certified organic food products (Aschemann et al., 2007). The GfK market research (2008) on the organic food consumption based on a personal survey of households in May 2008, studied 1000 citizens (older than 15) of the Republic of Croatia. According to the research, 83 percent of the respondents are familiar with the organic food produced according to the criteria of organic agriculture. The participants older than 65 and the participants with a lower level of education are not familiar with organic food. At the place of purchase, 53 percent of the respondents would recognize organic food, with a higher level of recognition among the respondents with a higher education level (64 percent). The research has shown that organic food is identified with healthy food. The research observed that 37 percent of the respondents recognize organic food in stores with the help of the

front label, while 36 percent of the respondents mentioned the label ‘healthy product’ on the product or packaging. The research showed that the buyers of organic food are generally younger and middle aged people, highly educated and people with a higher personal income.

Different markets have different factors determining the popularity of organic food. The transformation in attitudes towards organic food was firstly witnessed at a political level initially in Europe and then North America and Japan. This was in response to the growing interest in organic products because of serious problems caused by the dominant world view underlying the methodologies of technology such as over production, environmental pollution, food scare and the depopulation of rural areas (Lockeretz, 2007; Padel and Lampkin, 2007). A progressive increase in environmental consciousness has been observed since the last four decades (Grant, 2007, Goleman, 2009). In addition to these efforts consumer awareness also encouraged consumers to take some responsibility to reduce environmental damage through recycling and purchasing ecologically sound products (Paladino and Baggiere, 2008). Renko and Bosnjak (2009) in their study of Croatia found that the consumers are still not sufficiently informed about organic food and do not recognize the unique symbol of the Croatian organic product. While comparing organic and conventional products, the authors confirmed that the majority of consumers find organic products to be healthier than conventional products but they find them to be more expensive than conventional ones. The study confirmed that 64 percent of the respondents are buying organic food. Furthermore, 26.2 percent of those who buy organic food buy it once a week; bread and other cereal products are the most purchased category (73.8 percent) and organic food is mostly bought in supermarkets and hypermarkets (40.9 percent). In the research, authors concluded that demand for organic food indeed exists and confirmed the importance of supermarkets and hypermarkets as the distribution channels of organic food in Croatia. Tolusic (2009)

observed that consumers are interested in organic food but, due to a poorly developed distribution network in Eastern Croatia, such products are purchased to a lesser extent. Zakowska and Biemans (2010) found that besides the price, foreign literature also identifies some other motives for not buying organic food: actual or perceived inaccessibility of organic food, inadequate organic food assortment, low consumer confidence in the quality and environmental standards for the production of organic food, low consumer confidence in the process of certification and labeling of organic food, difficulties in identifying organic food and insufficient education of consumers, i.e. their lack of recognition of organic food. The demand for organic food is increasingly based on the concept of values, a place of residence and access to information rather than on socio-demographic factors.

Recent studies across different countries also show mixed results and findings. Shafia and Rennie (2012) in their study of Malaysian customers observed that food safety, human health and environmental concern along with sensory attributes such as nutritive value, taste, freshness and appearance influence organic food consumer preferences. Consumers also associated organic food with natural process, care for the environment and animal welfare and the non-use of pesticides and fertilisers. The correlation between demographic variables such as age, income and education and organic food consumption is not very significant. Results found that premium price continued to hold back organic food consumption. Chen, Lobo and Rajendran (2014) in their research investigated the important attitudes, demographics and segmentation of potential consumers' purchase intentions of organic food in urban China. The survey based on data collected at supermarkets in the major cities from 935 respondents generated five dimensions affecting attitude towards organic foods. Of these, the strongest dimension was 'Certification' which accounted for 24.7% of the total variance of 58.4% explained by the other five

dimensions. This dimension included food safety, government regulations and correct labelling. Chinese consumers are highly concerned about food safety issues relating to personal health. The findings also revealed that gender, age and educational level had no significant relationship in influencing the purchase intentions. However, income, attitudes and pre-purchase intentions all demonstrated weak to moderate significant correlations with purchase intentions of organic food. Finally, a cluster analysis was performed which generated three distinct clusters, which we named safety conscious, gastronomes and sceptics.

Among the developing countries, India is one of the most potential markets for marketing of organic food. Generally people over the centuries are well aware that the organic food is much more healthy and safe than inorganic food. India had been one of the main followers of organic food with increasing focus on production through natural fertilizers. Hence, India can be the best potential market for the marketers of organic food, but there is a need to win the confidence of consumers through quality products to make them loyal customers of organic food. (Chakrabarti, 2010). Another Indian study by Paul and Rana (2012) based on a survey of 463 respondents provided valuable insight into consumer behavior regarding organic food in India by examining the factors that influence consumers' intention to purchase organic food. Results indicated that health, availability and education positively influence the consumer's attitude towards buying organic food. Overall satisfaction of consumers for organic food was found to be more than inorganic food but the satisfaction level varied due to different factors. The study suggested that retailers can develop effective marketing program and strategies to influence consumers positively. They can emphasize the health benefits and quality of organic food. They can make these products easily available to attract consumers to buy organic food. Shafi and Madhavaiah (2013) investigated the interrelationship between the measure of brand

equity and consumer behaviour in purchasing branded organic foods in India. Brand equity dimensions such as brand awareness, brand loyalty, perceived quality and brand association emerged as the most attributing features of brand equity based on 150 organic foods consumers from Shopian the largest district of Kashmir. The results revealed that all the four elements of brand equity have highest impact on consumer buying behavior but the highest impact on consumer purchasing behaviour is of brand loyalty.

Recent studies by Mehra and Ratna (2014) on attitude and behaviour of consumers towards organic food in India found that the organic food sector is growing significantly and surmounted growth is being witnessed from tier 1 and tier 2 cities in India, indicating huge acceptance among the masses. Six significant factors were found to influence the attitude towards organic food. They were perception towards organic food, health consciousness, product information, value for money, accessibility and trust. The demographic factors seemed to affect the attitude towards organic food, while they did not explain the actual buying behaviour. The paper attempts to provide evidence on the relatively under-researched area of attitude and behaviour towards organic food in the growing cities in India. Later, Ali, Alam and Ali, (2015) in his study of market structure analysis of health and wellness food products in India analyzed the market structure and level of competition in health and wellness food products by type, category, prime positioning and distribution networks in India. The study found that with growing incidences of problems like obesity, diabetes, coronary heart diseases and foodborne diseases, consumers are becoming aware of the role of food in ensuring health and well-being. There have been significant structural changes in the health and wellness food market compositions and India has huge market potential for health and wellness food products with a market size of Rs. 435 billion in 2013 and growing at a significantly high annual growth rate of about 13.8

percent during 2002-2013. Results indicated that there is significant competition in the health and wellness food market with average. However, the structure of market competition showed a varied trend across the types, categories, prime-positioning and distribution channels of health and wellness food products

NEED AND OBJECTIVES OF THE STUDY

The increasing consumption of non organic foods is causing serious health problems like asthma, cancer, birth disorders and arthritis. It can also be linked with the numerous diseases allergies, obesity, and immunity system. On social front, the cost of production of non organic food is raising day by day putting huge pressure on farmers as well as the consumers. Despite all these serious problems, people still have a greater tendency to consume these food products and a weak inclination towards organic food is seen. In India, there are some initiatives of organic farming in the state of Maharashtra and Karnataka. Nonetheless, these initiatives and organic products have gone unnoticed by majority of the Indian consumers. A review of past literature reveals that very few studies have been conducted in India on organic foods and the reasons for its low preference. There is a growing need to explore the consumer perception and attitude towards organic food in India. The present research is a step in this direction.

The prime objective of the research is to determine the consumer attitude and behavior towards organic foods in specifically North India. The specific objectives of the research are:

- To study the consumer awareness and preferences regarding organic foods.
- To investigate consumer perceptions, beliefs and reasons for buying inorganic foods and disregarding organic foods.
- To explore the barriers to consumption of organic foods, that is to determine the factors responsible for non purchase of these foods.

Sources of Data and Methodology

The research is based on a primary survey of 120 respondents of Northern India selected conveniently from the different states primarily Punjab, Haryana, Chandigarh. The survey questionnaire was self-administered and distributed personally. The respondents were debriefed about the objectives of the research and the questionnaire was explained to them. The questionnaire comprised of a questions on likert scale, rank order and other closed ended questions pertaining to organic foods.

RESULTS AND DISCUSSIONS

The survey covered respondents of different gender, educational qualifications, ages and household incomes belonging to different areas of Punjab, Haryana and Chandigarh (Table 1). The study brought to light certain interesting but striking findings about consumer attitude towards organic foods.

Results reveal that in North Indian households both males and females were the grocery shoppers in equal preference (32 percent and 33 percent approx.) A similar proportion of households (35 percent) had shared responsibility among both males and females for the same (table 2).

Table : 1 Demographic Profile of Respondents (N=120)

Gender		No. of Respondents (N=60)
Male		48 (40.0)
Female		72(60.0)
Education		No. of Respondents (N=60)
Under graduate		2(1.7)
Graduate		14(11.6)
Post graduate		104(86.7)
Age (years)		No. of Respondents (N=60)
15 – 30 yrs		98(81.7)
31 – 45 yrs		20(16.7)
46 – 60 yrs		2(1.6)
> 60 yrs		0(0)
Household Income (monthly)		No. of Respondents (N=60)
= 20000		44(36.7)
Rs. 20001- Rs. 40000		22(18.3)
Rs. 40001- Rs. 60000		28(23.3)
> Rs. 60000		26(21.7)

Source: Author's calculations based on primary data

Table: 2 Grocery Shoppers in Household

Grocery Shopper		No. of Respondents
Males		38(31.7)
Females		40(33.3)
Shared Responsibility		42(35.0)
Total		120(100)

Source: Author's calculations based on primary data

Consumer Purchase Decision With Regards to Grocery Products

Survey results reveal that the frequency of purchase of Milk and Vegetables is very high in grocery items (Table 3). While milk is bought almost daily or 3-4 times a week by nearly 55 percent respondents, vegetables and drinkables is purchased in the same frequency by nearly 38 percent and 34.5 percent of respondents respectively. The frequency of purchase of meat, rice and wheat is lowest with nearly 84 percent, 77 percent, 73 percent of respondents respectively purchasing it either monthly or even less followed by rice and wheat. Pulses also have low purchase frequency with 68 percent purchasing it either monthly or even less.

Freshness of the grocery and its quality came out to be the major influencing attribute, which contribute to the purchase decision making of the consumers (Table 4). Nearly 78 percent respondents ranked freshness/quality in top 3. This was followed by Nutrition value and Price being rank in top 3 by nearly 52.5 percent and 46 percent respondents. Convenience to use was the least influencing factor with only 3 percent respondents giving it high ranks.

Evidently freshness and quality of product, nutrition value and price emerged as the three most important attributes affecting purchase decisions of grocery foods.

Table: 3 Frequency of Purchase of Grocery

	Never Or less than once a month	Rarely (2-3 Times a Month)	Sometimes (2-3 Fortnight)	Often (3-4 Times a week)	Always (Almost Daily)	No. of Respondents
Milk	14(12.07)	24(20.69)	14(12.07)	12(10.3)	52(44.82)	116
Rice	50(43.10)	40(34.48)	12(10.34)	6(5.17)	8(6.9)	116
Wheat	30(25.86)	56(48.27)	20(17.24)	8(6.69)	2(1.72)	116
Vegetables	8(6.69)	36(31.03)	29(25.86)	17(15.51)	26(22.41)	116
Pulse	24(20.69)	56(48.27)	20(17.24)	8(6.69)	8(6.69)	116
Meat	76(65.51)	22(18.97)	10(8.62)	4(3.45)	4(3.45)	116
Drinkables	12(10.34)	37(32.75)	28(24.13)	21(18.97)	18(15.51)	116

Source: Author's calculations based on primary data

Note: Figures in parenthesis show percentage w.r.t. the row total.

Table: 4 Importance of Different Attributes in Purchase Decision Making.

Attributes	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Total	Mean Rank	Std. Dev.
Price	20(16.9)	18(15.3)	16(13.6)	20(16.9)	16(13.6)	14(11.8)	14(11.8)	116	3.77	1.99
Brand Name	20(16.9)	16(13.6)	8(6.7)	14(11.8)	28(23.7)	18(15.3)	12(10.2)	116	4.00	2.00
Availability	8 (6.7)	4(3.4)	10(8.5)	28(23.7)	10(8.5)	32(27.1)	22(18.6)	116	4.81	1.79
Taste	16(13.5)	18(15.3)	34(28.8)	12(10.2)	24(20.3)	6(5.1)	6(5.1)	116	3.44	1.67
Freshness/Quality	40(33.9)	34(28.8)	18(15.3)	6(5.1)	12(10.2)	6(5.1)	0(0)	116	3.44	1.52
Nutrition Value	12(10.2)	24(20.3)	26(22.0)	24(20.3)	12(10.2)	8(6.8)	10(8.5)	116	3.55	1.72
Convenience to Use	0(0)	0(0)	4(3.4)	14(11.8)	14(11.8)	32(27.1)	52(44.1)	116	5.98	1.18

Source: Author's calculations based on primary data

Note: Figures in parenthesis show percentage w.r.t. the row total.

Consumer Awareness and Preferences for Organic Foods

An overwhelming majority of 93 percent of the respondents were found to be aware of organic food, with 41.67 percent respondents being those who bought organic food occasionally and 11.67 percent being those who were regular buyers of organic food (Table 5).

Vegetables and fruits are found to be the main grocery products for which organic foods are preferred being purchased by nearly 37 percent respondents followed by organic wheat flour being purchased by a meager 19 percent respondents (Table 6). A similar 17 percent purchased Organic milk. Thus vegetables and fruits are the main products in organic food segment that people prefer to purchase.

It is obvious from survey results that while there is a high awareness level about organic foods among the individuals in North India, the purchase preference is low.

Consumer Perception towards Organic Foods

It is noteworthy that majority of the respondents were in agreement with all the positive statements about perceptions regarding organic food, except the perception that organic food is tastier than inorganic food with approx. 52 percent respondents being neutral about it. While a vast majority of 84 percent respondents agreed with the statement that organic food is healthier than non organic food, 79 percent were in agreement that organic foods are pesticides free and 77 percent were of the belief that buying organic food is good for environment (Table 7).

Table: 5 Knowledge about Awareness of Organic Food.

Level of Knowledge	No. of Respondents
Never Heard of it.	4(3.33)
Heard of it, Never bought it	48(40.0)
Heard of it, bought it occasionally	50(41.7)
Regular buyer of Organic food	14(11.67)
Purchase Organic Food Only	0(0)
Total	116(96.7)

Source: Author's calculations based on primary data

Table: 6 Product-Wise Purchase of Organic Food

Grocery Foods	Yes	No	No. of Respondents
Milk	20(16.9)	98(83.1)	118
Rice	16(13.6)	102(86.4)	118
Wheat flour	22(18.6)	96(81.4)	118
Pulses	12(10.2)	106(89.8)	118
Vegetables/ fruits	44(37.3)	74(62.7)	118
Meat	2(1.7)	115(98.30)	118
Drinkables	6(5.1)	112(94.9)	118

Source: Author's calculations based on primary data

Unquestionably, respondents belief organic foods to be healthy, safe and environmental friendly though they have doubts on the taste.

Table 8 shows that an overwhelming majority of 78 percent respondents felt that lack of information available about organic food, makes it difficult to make a purchase decision. Similarly, a vast majority of 76 percent felt that organic food is not easily available in local and supermarkets so they are hesitant to purchase it. An equal proportion (76 percent) felt that less variety and choice available in organic food is another big reason for its non purchase.

Interestingly a good majority of 60 percent respondents disagreed that they believed using

organic food is just a fashion and is not necessary for a healthy life. Nearly 40 percent respondents disregarded the statement that 'they are satisfied with non organic food hence don't want to shift to use organic food'. A similar proportion of 40 percent respondents they showed their disagreement to the perception they believe that non-organic foods are equally healthy so they do not purchase organic foods. Thus prime reasons for non purchase of organic foods among individuals in North India are lack of information about organic food, its benefits and range, constrained availability, and reduced variety. Consequently, there is a need of information flow towards customers about organic food .Further easy availability and enhanced variety will boost demand of these foods.

Table: 7 Perceptions about Organic Food.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Mean Score	Std. Dev.
Buying organic food means I am providing healthier food to my family	48(41.4)	50(43.1)	18(15.5)	0(0.0)	0(0.0)	116	4.25	0.71
Organic food tastes better than non-organic food.	20(17.3)	32(27.6)	60(51.7)	0(0)	4(3.4)	116	3.55	0.90
Buying Organic food means I support local farmers and agriculture	16(13.8)	48(41.4)	42(36.2)	8(6.9)	2(1.7)	116	3.57	0.879
Buying organic food means I care for environment	34(29.3)	56(48.2)	22(18.9)	2(1.7)	2(1.7)	116	4.00	0.89
Buying organic food means my food is pesticides free	54(46.5)	38(32.8)	20(17.3)	4(3.5)	0(0)	116	4.22	0.86
Buying organic food means I care more for value than price	38(32.8)	42(36.2)	32(27.6)	4(3.5)	0(0)	116	3.99	0.87
Buying organic food means I am saving money, which otherwise will be spent on medicines	24(20.7)	54(46.5)	30(25.9)	6(5.2)	2(1.7)	116	3.79	0.89

Source: Author's calculations based on primary data

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Table: 8 Level of agreement with the reasons for not buying organic food

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Mean Score	Std. dev
There is less variety available of organic food	26(23.6)	58(52.7)	14(12.7)	12(10.9)	0(0)	110	3.89	0.89
There is lack of scientific evidence about organic food being healthy	14(12.7)	30(27.3)	44(40.0)	20(18.2)	2(1.8)	110	3.31	0.97
Organic food is not easily available in local market and even in supermarket	40(36.4)	44(40.0)	14(12.7)	10(9.1)	2(1.8)	110	4.00	1.01
There is lack of information available about organic food, so it is difficult to make a purchase decision	34(30.9)	52(47.3)	18(16.4)	5(5.5)	0(0)	110	4.03	0.83
I believe that non-organic foods are equally healthy	2(1.7)	16(14.5)	48(43.6)	38(34.5)	6(5.5)	110	2.72	0.84
Doubt about the taste of organic food, that it is actually good	6(5.5)	28(23.3)	46(41.8)	26(23.6)	4(3.6)	110	3.05	0.93
There is no guarantee whether the product is really organic, fresh and of good quality	22(20.0)	52(47.3)	24(21.8)	12(10.9)	0(0.0)	110	3.76	0.90
You are satisfied with non-organic food hence don't want to shift to use organic food	4(3.6)	30(27.3)	32(29.1)	38(34.5)	6(5.5)	110	2.89	0.99
Your friends and family do not use organic food	8(7.27)	46(41.8)	38(34.6)	16(14.5)	2(1.8)	110	3.38	0.89
Distrust on the source of supply	8(7.27)	44(40.0)	44(40.0)	14(12.7)	0(0)	110	3.42	0.80
I believe using organic food is just a fashion and is not necessary for a healthy life	6(5.5)	22(12.0)	16(14.5)	52(47.3)	14(12.7)	110	2.58	1.11

Source: Author's calculations based on primary data

A perusal of Table 9 reveals that the prime reason why people go for purchase of non organic food is it's easy availability as 67 percent respondents give it top three ranking and its mean rank is lowest (2.896) (Table 9). Next important reason for purchase emerged to be a large variety in the market as its mean rank came out to be second lowest (3.465) and 57 percent respondents ranked it in top three. Respondents do not think that non organic food is equally healthy and give this reason with the last

rank with a mean rank of 4.551. Further complete knowledge about non organic foods is not a motivation to purchase these foods, as mean rank to it was second highest 4.482.

Perceived Barriers to Consumption of organic foods

To identify empirically the barriers to consumption of organic foods and explore these factors that lead to non-purchase of organic foods, Factor Analysis

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technique was used which reduce the vast number of statements into a fewer factors, which explain much of the original data. Tables 10, 11, 12 and 13 show the results of the factor analysis.

Measure of sample adequacy such as Bartlett's Test of Sphericity (approx chi-square is 1106.43, degree of freedom is 120, significance is 0.000) and KMO value (0.57) indicate that the data was fit for factor analysis (Table 10). Bartlett's Test of Sphericity is significant. Thus, the hypothesis, that the inter correlation matrix involving these 16 variables is an identity matrix, is rejected. Empirical estimates of Bartlett's test and KMO value factor analysis indicate that factor analysis is feasible.

Principal component analysis along with Varimax rotation method was used for extracting factors. Six factors were retained on the basis of Eigen values (value that represents the total variance explained by each factor) and variance explained. The standard practice normally used is that all the factors with an Eigen value of one or more should be extracted.

Clearly there are six factors having Eigen values more than 1 (Table 11). Thus, six factors were extracted which cumulatively explained 87.09 percent of the total variance. The factors extracted using principal component analysis was rotated using Varimax rotation. All the variables / statements with factor loadings greater than 0.40, were considered in the relevant factor (Table 12).

After the number of extracted factors was decided, the factors were interpreted and named. This was done by the process of identifying the factors that were associated with each of the original variables. The rotated factor matrix is used for this purpose. The name of the factors, variable labels and factor loadings are summarized in Table 13. Table 13 shows that Factor 1 is linear combination of variable number 3, 4, 5 and 15. Factor 2 is linear combination of variable number 8 and 14. Factor 3 is linear combination of variable number 13 and 16. Factor 4 is linear combination of variable number 9, 10 and 11. Factor 5 is combination of variable number 1, 2, 12. Factor 6 is combination of variable number 6 and 7.

Table: 9 Ranking of Reasons for buying Non-Organic Food on basis of their Importance

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Total	Mean Rank	Std. Dev
It offers large variety	24(20.7)	26(22.4)	16(13.8)	12 (10.3)	6(5.2)	24(20.7)	8(6.9)	116	3.46	2.04
It is equally healthy as organic food	12(10.4)	18(15.5)	16(13.8)	12(10.4)	6(5.2)	10(8.6)	42(38.2)	116	4.55	2.26
There is complete knowledge of information about it	4 (3.5)	8(6.9)	22(18.9)	20(17.3)	30(25.8)	20(17.3)	12(10.3)	116	4.48	1.56
It is easily available in the market	36(31.0)	30(25.7)	12(10.3)	10(8.6)	12(10.3)	8(6.8)	8(6.8)	116	2.89	1.94
It is fresh and of good quality	26(22.4)	12(10.4)	10(8.6)	22(18.9)	22(18.9)	16(13.7)	8(6.8)	116	3.70	1.96
Its price lower than organic food	10(8.6)	20(8.6)	24(20.6)	10(8.6)	20(17.4)	18(15.5)	24(20.7)	116	4.46	1.95
It tastes really good	4(3.5)	12(10.3)	18(15.5)	30(25.8)	20(17.2)	16(13.7)	16(13.8)	116	4.39	1.65

Source: Author's calculations based on primary data

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Table: 10 Results of KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.57	
Bartlett's Test of Sphericity	Approx. Chi-Square	1106.431
	df	120.000
	Sig.	0.000

Source: Author's calculations based on primary data

Table: 11 Principal Component Analysis-Total Variance Explained

Total Variance Explained								
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance
1	5.038	31.485	31.485	5.038	31.485	31.485	3.207	20.045
2	2.436	15.225	46.710	2.436	15.225	46.710	2.472	15.452
3	2.236	13.973	60.683	2.236	13.973	60.683	2.455	15.341
4	1.810	11.310	71.993	1.810	11.310	71.993	2.097	13.107
5	1.414	8.840	80.833	1.414	8.840	80.833	1.869	11.679
6	1.001	6.258	87.091	1.001	6.258	87.091	1.835	11.468
+7	0.898	5.610	92.701					
8	0.459	2.871	95.572					
9	0.248	1.550	97.122					
10	0.213	1.329	98.450					
11	0.102	0.639	99.089					
12	0.056	0.349	99.438					
13	0.038	0.238	99.677					
14	0.034	0.211	99.888					
15	0.012	0.074	99.963					
16	0.006	0.037	100.000					

Source: Author's calculations based on primary data

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Table: 12 Varimax Rotated Component Matrix

Rotated Component Matrixa						
	Component					
	1	2	3	4	5	6
VAR00003	0.813					
VAR00004	0.846					
VAR00005	0.740					
VAR00015	0.815					
VAR00008		-0.895				
VAR00014		0.819				
VAR00013			0.749			
VAR00016			0.896			
VAR00009				0.891		
VAR00010				0.753		
VAR00011				0.685		
VAR00001					0.743	
VAR00002					0.904	
VAR00012					0.616	
VAR00006						0.759
VAR00007						0.853

Source: Author's calculations based on primary data

All the factors have been given appropriate names according to the variables that have been loaded on each factor. Table XIV identifies six factors /barriers leading to non-purchase of organic foods.

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Table: 13 Factors Responsible for Non-Purchase of Organic Foods

FACTORS	STATEMENTS	FACTOR LOADING
Factor 1– Product Information and Access	Organic food is not easily available in local and even in supermarket.	0.815
	Lack of information about organic food, so it is difficult to make a purchase decision.	0.813
	Non-organic foods are easy to purchase in market	0.846
	Availability of complete knowledge about Non-organic foods	0.740
Factor 2- Convenience	You are satisfied with non-organic food hence don't want to shift to use organic food.	0.819
	Non-organic food is easily available in the market.	-0.895
Factor 3- Reliability	Distrust on the source of supply and Organic foods	0.749
	Prices of Non-organic are lower than organic food.	0.896
Factor 4- Social Appeal	Your friends and family do not use organic food as well.	0.753
	Non-organic foods offers a large variety of products	0.891
	Less choice available in organic food category.	0.685
Factor 5 Health and Safety	There is belief that there is nothing bad in non-organic foods and it is equally healthy	0.616
	There is lack of scientific evidence about organic food being healthy.	0.904
	Non-organic is equally fresh and of good quality.	0.743
Factor 6- Sensory Appeal	Doubt about the taste of organic food, that it is actually good.	0.853
	There is no guarantee whether the product is really organic, fresh and of good quality	0.759

Source: Author's calculations based on primary data

Table: 14 Ranking of Factors that would boost Purchase of Organic Food

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Total	Mean Rank	Std. Dev.
Lower Price of Organic Food	32(26.6)	16(13.8)	4(3.5)	8(6.9)	10(8.6)	14(12.1)	32(27.6)	116	4.01	2.49
More Information About Organic Food	22(18.9)	30(25.9)	20(17.2)	18(15.5)	16(13.8)	6(5.2)	4(3.5)	116	3.08	1.66
More Advertisement for Organic Food	8(6.9)	14(12.1)	16(13.9)	22(18.9)	16(13.7)	22(18.9)	10(15.5)	116	4.39	1.85
Wide product Range Of Organic Food	12(10.3)	24(20.7)	22(18.9)	18(15.5)	20(17.2)	14(12.1)	6(5.2)	116	3.65	1.73
Influence From Friends and Family	4(3.45)	2(1.72)	12(10.3)	20(17.2)	18(15.5)	26(22.4)	34(29.3)	116	5.24	1.63
More Scientific Evidence Of Organic Food Being Healthy	26(22.4)	16(13.8)	22(18.9)	12(10.3)	12(10.3)	18(15.5)	10(8.6)	116	3.53	2.02
Easy Availability of Organic Food	12(10.3)	14(12.1)	20(17.4)	18(15.5)	24(20.7)	16(13.8)	12(10.3)	116	4.06	1.82

Source: Author's calculations based on primary data

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Based on the results of Factor Analysis,' Product Information and Access', 'Convenience', 'Reliability', 'Social Appeal', 'Health and Safety', 'Sensory Appeal' emerged as the perceived barriers to organic food consumption. These factors were found to be responsible for non purchase of organic foods.

Factors that would boost Purchase of Organic Food

Availability of greater information about organic foods and reduced prices of these foods emerged as the most influential factors which may influence respondents to start purchasing organic food with nearly 45 percent and 40 percent of the respondents agreeing with the same (Table 14). Scientific evidence about organic food being healthy and its increased variety were found to be the other motivators for the same. People gave least importance to influence of friends and family with giving it highest mean rank (5.241) as 67 percent people kept it in the lowest three ranks. Further increased advertisement about organic food was also not a major influence as 47 percent gave it the lowest three ranks with giving it the second high mean rank of 4.396.

Evidently marketers should realize that availability of greater information; reasonable prices and increased variety and choice of organic foods have the potential to boost organic food sales.

FINDINGS OF THE STUDY

The research based on a primary survey of 120 respondents of North India aimed at studying the consumer attitudes and perceptions towards organic foods. It further identified the barriers to organic food consumption and explored the factors that could motivate and attract consumers towards these healthy alternatives.

Research findings confirmed that in North Indian households both males and females are the grocery shoppers in equal preference and a similar proportion of households have a shared responsibility among both males and females for the same. Furthermore, the frequency of purchase of

milk and vegetables is very high while that of meat, rice and wheat is very low in the category of grocery products. Freshness and quality of product, nutrition value and price emerged as the three most important attributes affecting purchase decisions of grocery foods.

It is obvious from survey results that while there is a high awareness level about organic foods among the individuals in North India, the purchase preference is low. It is noteworthy that an overwhelming majority of ninety three percent of the respondents is aware of organic foods, but only forty two percent are those who bought organic food occasionally. Surprisingly, a meager twelve percent respondents are regular buyers of organic food confirming a lower purchase preference in this segment. Additionally, vegetables and fruits are the main grocery products that people prefer to purchase in the organic food segment.

Unquestionably, respondents believe organic foods to be healthy, safe and environmental friendly though they have doubts on the taste. Results conclude that the prime reasons for non purchase of organic foods among individuals in North India are lack of information, constrained availability, and reduced variety. The primary reason why people go for purchase of non organic food is its easy availability and vast variety.

'Product Information and Access', 'Convenience', 'Reliability', 'Social Appeal', 'Health and Safety', 'Sensory Appeal' emerged as the perceived barriers to organic food consumption based on results of Factor Analysis. These factors were found to be responsible for non purchase of organic foods.

Results indicated that availability of greater information about organic foods and reduced prices of these foods emerged as the most influential factors which may influence respondents to start purchasing organic food. Scientific evidence about organic food being healthy and its increased variety are found to be the other motivators for the same. Increased advertisement and influence of family and friends were not so strong factors affecting purchase decision of organic foods

Consequently, there is a need of information flow towards customers about organic food. Further easy availability and enhanced variety will boost demand of these foods. Evidently marketers should realize that availability of greater information; increased variety and choice of organic foods have the potential to boost organic food sales. The consumers is

CONCLUSION AND IMPLICATIONS

Despite the growing consciousness among Indian consumers for health and environment, Organic food market in North India is still at its nascent stage and can be considered as immature. Though the availability of ample fertile land especially in North India can remove the supply-related barriers to organic foods, but the promotion of various attributes of organic food remain one of the key issues to boost the demand of these foods. In spite of consumers finding these foods healthy, safe and environmental friendly, there is dissatisfaction and distrust with regards to its information, availability, variety and price level. Poor product information and access, lack of convenience and availability coupled with distrust/non-reliability on the sources of supply are the prime barriers to purchase of organic food in India.

Nonetheless our research is an area specific research limited to North India and restricted to specific grocery products but it has strong implications for organic food producers, marketers, retailers, marketing academicians, consumers and policy makers.

As the global and Indian production of organic food is expected to increase considerably, organic food industry has the potential to multiply and grow by many folds. It is evident from research our research in India that marketing academics need to play a crucial role to play in generating further insights into understanding the organic consumer and the marketing system in which they must make purchase decisions and consume organic products. This information may then be employed to aid consumers, the food industry (growers and retailers

alike), policy makers, and special interest groups in enhancing organic food demand. Research can also enlighten the industry and policy makers on what marketing strategies will be beneficial in educating and informing the public on the one hand; and at the same time also providing strategic advice on packaging, communications, pricing strategies etc. Retailers should develop effective marketing programs and strategies to influence consumers positively. They can emphasize the health benefits and quality of organic food. Organic food has positive connotation in consumers mind but more effort is needed to communicate various aspects of organic food production referring to organic standards and common principles covering environmental, social and ethical benefits of organic food consumption. Policy makers and regulatory bodies should provide proper certifications and labeling on organic products to authenticate the quality to foster consumer trust and reliability. Evidently marketers should realize that availability of greater information; increased variety of organic foods along with easy availability and standardized certifications have the potential to boost organic food sales. Indian consumers have a positive perception towards organic foods and they want to shift or at least give a try to organic foods, provided they are assured easy access and complete information and trust along with value for price.

REFERENCES

- Ali, T., Alam, A., & Ali, J. (2015). Market structure analysis of health and wellness food products in India. *British Food Journal*, 117(7).
- Aschemann, J., Hamm, U., Naspetti, S., & Zanoli, R. (2007). The organic market. *Organic farming: An international history*, 123-151.
- Chen, J., Lobo, A., & Rajendran, N. (2014). Drivers of organic food purchase intentions in mainland China-evaluating potential customers' attitudes, demographics and segmentation. *International Journal of Consumer Studies*, 38(4), 346-356.
- Chen, J., Lobo, A., & Rajendran, N. (2014). Drivers of organic food purchase intentions in mainland China-evaluating potential customers' attitudes, demographics and segmentation. *International Journal of Consumer Studies*, 38(4), 346-356.
- Croatian Agriculture Chamber, available at www.hzps.hr/adminmax/researches/V22704.doc
- Dabbert, S., Haring, A. M., & Zanoli, R. (2004). *Organic farming: policies and prospects*. Zed Books.

- GfK (2008). *Slight Decline In Organic Products*, available at <http://www.marketresearchworld.net/content/view/2729/77/>
- Gracia A. and Majistris T (2007) Organic food product purchase behavior: a pilot study for urban consumers in south of Italy, *Spanish Journal of Agriculture*, 5, 439-451
- Lockeretz, W. (2007). What explains the rise of organic farming? *Organic Farming: An International History*, CABI, Wallingford, 1-8.
- Magnusson M.k, Arvola. A and Hursti K (2001), Attitude towards organic food among Swedish consumer, *British Food Journal*, 103, 211
- Magnusson, M. K., Arvola, A., KoivistoHursti, U. K., Åberg, L., & Sjöden, P. O. (2001). Attitudes towards organic foods among Swedish consumers. *British food journal*, 103(3), 209-227.
- Mehra, S., & Ratna, P. A. (2014). Attitude and behaviour of consumers towards organic food: an exploratory study in India. *International Journal of Business Excellence*, 7(6), 677-699.
- Mintu-Wimsatt, A. T., & Bradford, D. M. (1995). In search of market segments for green products. *Environmental marketing: strategies, practice, theory, and research*. Nova lorque: Haworth.
- Organic food among consumer, available at www.fas.usda.gov/gainfiles/200808/14629558.pdf
- Padel, S. (2008). Values of organic producers converting at different times: results of a focus group study in five European countries. *International Journal of Agricultural Resources, Governance and Ecology*, 7(1-2), 63-77.
- Padel, S. and Lampkin, N.H. (2007). The development of governmental support for organic farming in Europe. Lockeretz, W. (Ed.). *Organic Farming: An International History*, CABI, Wallingford, 93-122.
- Paul, J., & Rana, J. (2012). Consumer behavior and purchase intention for organic food. *Journal of Consumer Marketing*, 29(6), 412-422.
- Radman M. (2005) Consumer consumption and perception of organic products in Croatia, *British Food journal*, 107, 263-273
- Radman, M. (2005). Consumer consumption and perception of organic products in Croatia. *British food journal*, 107(4), 263-273.
- Renko S. & Bosnjak K. (2009), Current state and prospects of development of the organic food market in Croatia, *Economic Review*, 60, 385-386
- Schlegelmilch, B. B., Bohlen, G. M., & Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental consciousness. *European Journal of Marketing*, 30(5), 35-55.
- Shafi, S. I., & Madhavaiah, C. (2013). The Influence of Brand Equity on Consumer Buying Behaviour of Organic Foods in India. *Journal Of Marketing & Communication*, 9(2).
- Shafie, F. A., & Rennie, D. (2012). Consumer perceptions towards organic food. *Procedia-Social and Behavioral Sciences*, 49, 360-367.
- Stefanic (2001), what the consumer really wants: organic food market in Croatia, *The Natural Resources*, Vol. 52, 243-248

- Stefanic, I., Stefanic, E., & Haas, R. (2001). What the customers really want: organic food market in Croatia?. *Bodenkultur*, 52(4), 323-328.
- Thambiah, S., Khin, A. A., Muthaiyah, S., & Yen, Y. Y. (2015). Organic Food Consumption among Generation Y in Malaysia: A Conceptual Framework. *Journal of Applied Sciences*, 15(3), 570-575.
- Zakowska and Bieman S. (2010) what the consumer really wants: organic food market in Croatia, *The national Resources*, 113, 153
- Znaor D (1996) Organic farming- agriculture of tomorrow, Publisher Globus, 14, 256-257
- Znaor, D. (2002). Contribution of organic agriculture to macro-economic and environmental performance of the countries with economies in transition. *Vagos Research Papers*, 53(6), 41-46.

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