

## Constraints in the Consumption of Organic Foods in Eastern India

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### ABSTRACT

The ushering of twentieth century had experienced a number of social, economic and ecological ill-effects of high input intensive agriculture- at this juncture organic agriculture can be viewed as an alternative to cope up with the challenges of high input intensive conventional agriculture. Organic food market is escalating all over the world at a high rate. Although people are aware but consumption of organic food is still low. Hence, the present study was undertaken to isolate the constraints as perceived by urban people in the access and consumption of organic food. The study was conducted in one metro city Kolkata and one non-metro Ranchi in the eastern part of India. The results revealed institutional constraints were most severe (mean value= 3.27) among different categories of constraints as perceived by respondents of Kolkata and according to respondents of Ranchi, constraints related to means to consumption were most severe (mean rank= 3.28). High price of organic foods was perceived as most severe constraint among other factors under the constraints related to means to consumption for both Kolkata and Ranchi followed by lack of easy availability of organic foods. Other important constraints as perceived by urban people were lack of awareness, inadequate advisory services and lack of government subsidies on organic foods. The research findings will help to formulate appropriate strategies that will lead to increased consumption of organic food.

**Key words:** Organic foods, constraints, urban people, eastern India.

### INTRODUCTION

Intensive agricultural production system of the post green revolution era had put a significant pressure on natural resources and initiated a continuous rise in the application of agro-chemicals. This led to considerable damage to natural resources, serious environmental pollution and health hazards. By that time farmers, policymakers and consumers viewed organic farming as one of the possibilities to cultivate in a more sustainable way. Shifting towards organic agriculture is one alternative way to cope up with challenges of high input intensive agriculture. Organic food is becoming more and more popular, as people look for ways to live a healthier, pesticide-free, environmentally friendly, and sustainable lifestyle. Growing interest towards purchasing organic food products is increasing throughout the world. When the organic food movement began, organic farms were relatively small and their

products were available mostly in local markets. Since the early 1990's, the interest in organic food has grown at a rate of 20 per cent per year. The organic food market has become one of the most rapidly growing sectors in developed economies around the world (Magkos *et al.*, 2007).

India is one of the countries having largest area under organic food production in recent times and it is having a vast potential for setting up a large market of organic foods. But for this the most important requirements are the gaining of consumers' confidence by providing them with quality products (Chakravarti, 2010). In 2015-16, India produced 1.35 million tonnes of certified organic food products ranging from sugarcane, oil seeds, cereals and millets, cotton, pulses to medicinal plants, tea, fruits, spices, dry fruits, vegetables, coffee etc. Among all the states, Madhya Pradesh covered largest area under organic certification followed by Himachal Pradesh and

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Rajasthan. The total volume of export of organic products during 2015-16 was 263687 MT. These facts clearly indicate the budding nature of organic food markets in India. A recent study brought to light the fact that India's organic food market is growing at 25-30%. Rising health consciousness, modern lifestyle, mounting disposable spending act as driving force behind current growth of organic food market. However, the awareness about organic farming and food is still low in India despite huge spending.

Very few studies have been done on the effect of new food adoption process and factors affecting consumption decisions of major category of food products in India. Compared to European and Latin American countries, environmental hazards and health related problems are much more in India but knowledge and consumption status are very poor with respect to those countries. Although people are having knowledge and good perception regarding organic food but still level of consumption is low. Hence the present study was conducted to analyse the factors constraining the consumption of organic food in one metro and one non-metro city of India.

### METHODOLOGY

The study was conducted in two purposively selected cities; one metro city i.e. Kolkata and other comparative non-metro i.e. Ranchi. It is evident from researches that eastern part of India is nutritionally vulnerable (especially West Bengal, Bihar, Jharkhand, Odisha, Chhattisgarh) and organic food consumption system to a large extent governs the nutritional status. Besides these, most of the studies related to organic food were conducted in northern and western India, eastern part still remains untouched. Various news reports revealed that the organic food market is gradually blooming in eastern part of India and demands for organic food is also increasing at par. Hence, Kolkata being a metro city in eastern part of the India was chosen purposively and the equivalent control group i.e. non metro city Ranchi was chosen for a comparative study.

The ex-postfacto research design was used in the study, as the manifestation of the variables presumably had already occurred and there was no scope for further manipulation. From each of the selected cities, ten percent of the total number of municipal wards were chosen randomly. Fifteen respondent households were chosen from each ward of two cities using stratified random sampling technique. From Kolkata, fourteen Municipal Wards (10%\*140) and from Ranchi, (10%\*40) i.e. four municipal wards were chosen randomly. Hence, total

sample size (N) for the current study was (15\*18) i.e. two hundred seventy. Since the study was conducted in the urban area, hence the respondents were mostly urban people.

First exhaustive list of constraints was prepared after personally interviewing non-samplerespondents, studying review of literature in consultation with the experiment in related field of study. Thereafter, constraints like social, financial, marketing, and cultural psychological, lack of knowledge etc. was identified and prioritized using appropriate statistical tools. It was measured using a Likert type scale. Scoring was given from 1 to 3 showing least important to most important. Constraint items were analysed by finding out mean score of each item. Again, different categories of constraints were ranked among themselves by calculating the mean rank obtained for each type of constraint using Friedman test.

### RESULTS AND DISCUSSION

Any factor or factors inhibiting or limiting individuals or groups from adopting intervention or achieving a goal can be defined as constraint. It can be external factor as well as internal factors. According to Merriam Webster Dictionary, constraint can be defined as repression of one's own feelings, behaviour, or actions. Constraints can be operationalized as the factors that hinder the access and consumption of organic food by urban consumers.

An attempt was made to analyse the constraints under the broad heads of constraints related to means to consumption, institutional constraints, social constraints and psychological constraints and also ranking constraints between these categories. The information is purely based on the perception of the urban consumers regarding organic food consumption

#### Constraints perceived by the respondents of Kolkata

The limiting factors as perceived by the respondents of Kolkata are enlisted in Table 1 as per the above mentioned four categories. Under each category, different constraint items were ranked on the basis of the mean score obtained.

#### Constraints related to Means to consumption

Constraints related to means to consumption can be operationalized as the hindrances faced by the respondents in finding a better a way to utilize organic foods which includes price factor, availability and accessibility of organic foods. Five different constraint items were enlisted under this category. Mean score value of each item was calculated and then ranked.

Among the enlisted constraints related to means to consumption of organic foods, high price of organic foods as compared to that of conventional foods was found to be most severe by respondents of Kolkata having a mean score of 2.65 followed by poor availability of organic foods with a mean score of 2.35. The results of this study are in concordance with the study of Chandrasekhar (2015) who explained that consumers perceived that irregular availability, higher price are main limiting factors in consuming organic food.

**Institutional constraints**

Institutional constraints related to organic food consumption can be operationalized as the gap in the part of institutions in proper information and service delivery to the people related to organic food. Under this broad heading, four constraint items were listed. Among different items, respondents of Kolkata perceived lack of awareness as the most severe constraint with a mean value of 2.65. The second most severe institutional constraint was inadequate and inappropriate advisory information services with a mean value of 2.28. The third and fourth constraint under this category are lack of government subsidies on organic food (mean score =2.05) and lack of national level standardization (mean score = 1.83). This reveals that although organic food markets are gaining momentum in India but still institutions promoting organic foods render poor services and information delivery to the common people.

**Social constraints**

Data presented in Table 1 reveals that among two enlisted constraint items under this category , rigid norms of the social system regarding food habits was given rank 1 by the respondents ( mean score= 1.62) and unsupportive peer groups was ranked 2( mean score= 1.50). This explains the fact people are still having stereotypic mind-set that conventional foods are better than organic foods and they don't want to go out of the prevailing track.

**Psychological constraints**

Four items were listed under psychological constraints and after analysis of data it was revealed that lack of willingness to consume organic food was the most severe psychological constraint (mean score= 1.78) followed by lack of good perception regarding benefits of organic food. Similarly, negative attitude towards organic food and mental barriers that malnutrition and health hazards are inevitable are the significant constraints as perceived by the respondents. The result of this findings are similar with the findings of Uma.R. & V. Selvam (2016).

**Table 1: Constraints perceived by the respondents of Kolkata n= 210**

Constraints	Mean Score	Rank
<b>Constraints related to Means to consumption</b>		
Price of organic foods are much more than conventional foods	2.65	I
Organic foods are not easily available	2.35	II
Less accessibility of organic foods	2.26	III
Lack of availability of certified organic products	1.81	IV
Organic foods are not timely available	1.77	V
<b>Institutional constraints</b>		
Lack of awareness regarding organic food and its importance	2.65	I
Advisory information services is inadequate and inappropriate	2.28	II
Lack of govt. subsidies on organic food	2.05	III
Lack of national level standardization	1.83	IV
<b>Social constraints</b>		
Rigid norms of social system regarding food habits	1.62	I
Peer groups are not supportive in nature	1.50	II
<b>Psychological constraints</b>		
Lack of willingness to consume organic food	1.78	I
Lack of good perception regarding benefits of organic food consumption	1.74	II
Negative attitude towards organic food	1.63	III
Mental barrier that malnutrition/health hazards are inevitable	1.50	IV

After analysing the severity of different constraint items under different categories related to organic food consumption, the different categories were ranked among themselves in terms of their severity (Table 2). The analysis of Friedman test for different categories of constraints revealed that institutional constraints stood first in hindering consumption of organic food ( mean rank = 3.27) followed by constraints related to means to consumption ( mean rank= 3.01). The factors ranked in third and fourth position are psychological constraints (mean rank= 1.99) and social constraints ( mean rank= 1.73). The computed p value was less than significant at 1 per cent level.

**Table 2: Ranking of different groups of constraints as perceived by the respondents of Kolkata using Friedman test n = 210**

Different categories of Constraints	Mean Value	Rank
Institutional	3.27	I
Related to means to consumption	3.01	II
Psychological	1.99	III
Social	1.73	IV
Chi-Square value = 240.368, df = 3, Asymp. Sig. = <0.001		

### Constraints perceived by the respondents of Ranchi

The hindrance as perceived by the respondents of Ranchi were also categorised in a similar manner like that of Kolkata in four categories for a comparative study.

#### Constraints related to Means to consumption

Data enlisted in Table 3 reveals that among four items, respondents perceive that high price of the organic foods as compared with that of conventional foods was the most severe constraint (mean rank=2.61) followed by the factor that organic foods are not easily available (mean rank=2.51). Lack of timely availability of organic foods was the least preferred constraint (mean rank=1.96). Another study revealing the same result was of Suganya and Aravinth (2015) who analysed that consumers avoid using organic products mainly because of price differences existing between organic and non-organic products. Mohanty et al. (2009) who found that consumers prefer to buy organic products in large cities but major limiting factors in comparatively small cities are inappropriate linkage, lack of awareness, less product differentiations which finally lead to high price.

#### Institutional constraints

For ranking different institutional constraints mean score was calculated and they were ranked accordingly. Table 3 depicts that lack of proper awareness regarding organic food (mean score=2.48) and inadequate advisory services and information (mean score=2.37) were the most important impeding factors. Kumar and Chandrasekhar (2015) also found that organic products have a paradigm in its awareness and accessibility.

#### Social constraints

It can be inferred from table 3 that rigid norms of the society is the major social constraint towards consumption of organic food (mean score= 1.59). This result is similar with that of Kolkata. The other limiting factor under this category is unsupportive peer groups. Velmurugan et al., (2017) in their study also revealed that distrust among peer groups is a constraint towards consumption of organic foods.

#### Psychological constraints

Among the four enlisted psychological constraint, lack of good perception towards consumption of organic food (mean score= 1.65) was ranked 1, followed by lack of willingness to consume (mean score = 1.61). The other two least important constraints under this category were mental barrier that health hazards are inevitable (mean score= 1.53) and negative attitude (1.46). This result deviates slightly from that of Kolkata, since for the respondents of Kolkata, lack of willingness to consume was the major psychological constraints.

**Table 3: Constraints perceived by the respondents of Ranchi n=60**

Constraints	Mean Score	Rank
Constraints related to Means to consumption		
Price of organic foods are much more than conventional foods	2.61	I
Organic foods are not easily available	2.51	II
Less accessibility of organic foods	2.23	III
Lack of availability of certified organic products	2.11	IV
Organic foods are not timely available	1.96	V
Institutional constraints		
Lack of awareness regarding organic food and its importance	2.48	I
Advisory information services is inadequate and inappropriate	2.37	II
Lack of govt. subsidies on organic food	2.16	III
Lack of national level standardization	1.78	IV
Social constraints		
Rigid norms of social system regarding food habits	1.59	I
Peer groups are not supportive in nature	1.50	II
Psychological constraints		
Lack of good perception regarding benefits of organic food consumption	1.65	I
Lack of willingness to consume organic food	1.61	II
Mental barrier that malnutrition/health hazards are inevitable	1.53	III
Negative attitude towards organic food	1.46	IV

After analysing the severity of different constraint items under different categories related to organic food consumption, the different categories were ranked among themselves in terms of their severity as perceived by the respondents of Ranchi (Table 4). The analysis of Friedman test for different categories of constraints brought to light the fact that constraints related to means to consumption stood first in hindering consumption of organic food (mean rank = 3.28) followed by institutional constraints (mean rank=3.16). The factors ranked in third and fourth position are social constraints (mean rank=1.80) and psychological constraints (mean rank= 1.77). The computed p value was less than significant at 1 per cent level.

**Table 4: Ranking of different groups of constraints as perceived by the respondents of Ranchi using Friedman test n= 60**

Different categories of Constraints	Mean Value	Rank
Related to means to consumption	3.28	I
Institutional	3.16	II
Social	1.80	III
Psychological	1.77	IV
Chi-Square value = 88.028, df = 3, Asymp. Sig. = <0.001		

Comparing the results of metro city Kolkata and non-metro city Ranchi, it was found that for Kolkata, institutional constraints were most whereas for Ranchi, it was related to means to consumption. The most common and severe constraints as perceived by the people of two cities were lack of proper awareness and information regarding organic foods, high price as compared to conventional food products, lack of easy availability, inadequate advisory services, rigid norms of the society, lack of willingness and good perception towards benefits of organic foods, lack of national level standardization *etc.*

### CONCLUSION

Constraints as perceived by the respondents of Kolkata and Ranchi had influencing role on the diffusion of organic foods in those places which ultimately decides the buying behaviour of the urban people. In the present study, high price, low awareness level, lack of easy availability, negative attitudes towards organic food posed as major constraints in consumption of organic foods. It also recommends that there is a need for mass awareness and timely information to the people regarding organic food along with its easy accessibility and availability. This calls for redesigning the institutional roles and services in terms of efficient and effective information delivery regarding organic foods. Some of the strategies that may be adopted to overcome these restrictions related to organic food consumption are authentic certification, price to be brought down by allowing subsidies, demonstrations or exhibitions or discussions to be conducted for enhancing knowledge and awareness, opening more outlets of organic foods in urban areas, a share of profit margin should go to the organic producer and quality control policy to be strict in context of organic products.

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