

Factors Affecting Consumers' Perceptions about Organic Food and Their Prevalence in Bangladeshi Organic Preference

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Abstract Globalization, mounting incomes, fluctuating virtual prices, urbanization and migration are conducting consumption behavior to sky-scraping value agricultural products in many developed and developing countries. These genes entail changes both in food technology and food distribution systems. There is an escalating consumers' apprehension for food safety and quality and, at the same time, there has been a momentous market augmentation in differentiated or high value products consumption, admitting organic products. Fresh fruits and vegetables are of vital importance to the organic sector as they are the entrance point for many customers and account for one-third of sales. In relation to organic food, there is a divergence between consumers' perception of its superior health features and scientific evidence. The objective of this paper is to analyze consumers' perceptions about the risk and quality ascribes of organic food consumption. Questionnaires were used to collect data from 100 respondents by using random Sampling method. The foremost determinations of this study show that Consumers' perceptions on quality sureness of organic food consumption is influenced by Five factors namely Food safety, Price, Environmental friendly, Nutrition and sensory attributes. Food consumption patterns are shifting as a result of health and environmental issues. Interest in organically produced food is escalating end-to-end the world.

Keywords: *Food safety, organic, perceptions, demographics, environment friendly*

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1. Prelude

Agriculture is the indispensable culture of Bangladesh. Agriculture has a enceinte contribution to the Gross Domestic Product (GDP) of the country. Earlier more than 50% of GDP came from this sector [4,5].

Balanced diet is human need and right as it provides elements for better health. But in Bangladesh, food is very much biased to cereals resulting imbalanced diet. Moreover, the produced food is contaminated with various chemicals. As a consequence, malnutrition, which is the manifestation of under nutrition, is wide spread with different disorders like diabetics, heart diseases, blindness, beriberi, anemia etc. Food is usually derived from animal and plant resources. With rising awareness and consciousness on environmental, ethical and welfare issues, consumers now expect their food to be produced and processed with greater respect for the environmental safety and the consumers are increasingly looking for quality in food products. Organic practices are the right option to fulfill the demand of the consumers. Organic foods are foods that are produced using methods of

organic farming – that do not involve modern synthetic inputs such as synthetic pesticides and chemical fertilizers. Organic foods are also not processed using irradiation, industrial solvents, or chemical food additives. Organic food production is a heavily regulated industry, distinct from private gardening. The aspiration of food consumption is not only body nourishment but also heath improvement over lifetime. If the food available is not safe or its consumption does not enhance health, it does not contribute to food security. Organic food has been analyzed from many perspectives and in many countries. It contributes to an emerging paradigm for food production which relies on biology, ecology and sociology rather than more one-dimensional chemical and physical management approaches. [14,15] The global organic food market has anticipated 25 billion US\$ in the year 2003. Right through the world, about 90 developing countries, of which about 15 are Least Developing Countries (LDCs) are producing certified organic and gaining the noteworthy share from the global organic food market [10].

Organic food is becoming popular among the consumers of city area. Situation is different among well off conscious elite persons living the urban areas. This

awareness compels to initiate organic food shops like Probortana, PROSHIKA, Meena Bazar and others sales these commodities at a higher price which beyond the capacity of general people. Opposite situation is found in rural areas. Farmers in general grow vegetable and other consumable foods without pesticide and fertilizer for their own household consumption and these are not sold in the markets. Recently different private companies/chain shops (like Agora, Minabazar, Nandan etc.) are selling organic vegetables – these are for higher income people. Kazi farm is already exporting 100% of their products in the USA and EU countries. [1] Proshika and BARI farmers and Dhamrai dairy need to improve animal husbandry and fertilizer management to reach at international level. Production and marketing system of organic agricultural products mainly are done by contract farming for private organizations/companies / chain shops and does not ensure fair price for the producing farmers. At present, govt. also started to think about sustainability in agriculture. [11] There is a incredible scope to grow vegetables organically as the consumers inclination are escalating as well as quality of vegetable can be assured through technological encroachment. Augmented organically produced safe vegetable its consumption will thwart the incidence of mal-nutritional disorders, reduce the ingestion of cereals and generate more income to the farmers and vegetable traders. Moreover, vegetable export volume will be increased. Effectual collaboration, capacity building, formulations of regulations can help foster the organic production sustainably. Thus the safe vegetables can play vital role for nutritional, financial and food security of the peoples of Bangladesh [6].

Consumers will purchase products depending on their perceived quality expectations. The attributes of quality-nutritional content, i.e.; safety, [12] sensory attributes of food; price, environmental production processes are all valued according to the consumers' subjective perception [3,7,8,13].

2. Objective of the Study

1. report the eloquent scrutiny on the respondents' demographic characteristics in stare to organic food ;
2. scrutinize factors that influence purchase intention of organic food among consumers
3. to find out the feasibility of introducing organic food in Bangladesh

3. Literature Review

FAO (1998) [16] on the FAO/IFOAM meeting on Organic Agriculture-organic foods consumption consider that because of their high price, organic foods are relatively unpopular with consumers in developing countries It notes that market opportunities in high income countries offer good incentives for practicing organic agriculture, but inadequate incentives in low income countries.

In Bangladesh, a recent research on Organic Food consumers was conducted by Sarker (2007) [9] and they observed that most of the consumers were aware of the 'harmful effects of pesticides or chemical fertilizer on

human body and environment'. Due to the lack of knowledge about organic food, they have no option to normal food.

Asaduzzaman *et al* (2008) [2] shows that consumers were highly conscious regarding their personal health, had medium awareness regarding the environmental hazards caused by agro-chemicals, and a few had low awareness. But the supply of organic food items in the local market was insufficient; and most mentioned that organic rice, fruits, fish, shrimp, egg and chicken satisfied less than half of their family demand.

The intention of this study is generally to comprehend the outlook of local consumers on their target towards buying organic food product. These consumers are among those who have experience consuming or buying organic products and those who never purchase any organic products.

4. Research Hypotheses

To achieve the objectives of the study, the following hypotheses are formulated:

H1: Food Safety will have a significant impact on consumer perception to buy organic food

H2: Price will have a significant impact on consumer perception to buy organic food

H3: Nutrition will have a significant impact on consumer perception to buy organic food

H4: Sensory attributes will have a significant impact on consumer perception to buy organic food

H5: Environmental friendly will have a significant impact on consumer perception to buy organic food

5. Research Methodology

5.1. Research Model

The aim of this study was to examine the impact of Five organic food quality dimensions on consumer perception to buy organic food (see Figure 1).

In the present study, methodology is taken to indicate the underlying principles and methods or organizing and the systems or inquiry procedure leading to completion of the study. This chapter deals with various methodological issues relating to the study like profile of the sample unit, sample size of the respondents, sources of data and analysis of data used in the study.

5.2. Sampling Plan and Area

This is all about how handle the sample. Here, at the time of taking sample plan we have spent some days. We collect data from the following locations in Dhaka city: *Meena Bazar, Shopno, Mohammadpur krishi market* . It takes time because customers are not always in mood to talk and sometimes different types of situation have arisen so that we have to wait to make a favorable situation.

5.3. Sampling Method

In case of choosing the sampling method here the first priority is random sampling method. Considering this method in mind here, we have tried to focus on those samples which are easy to get access.

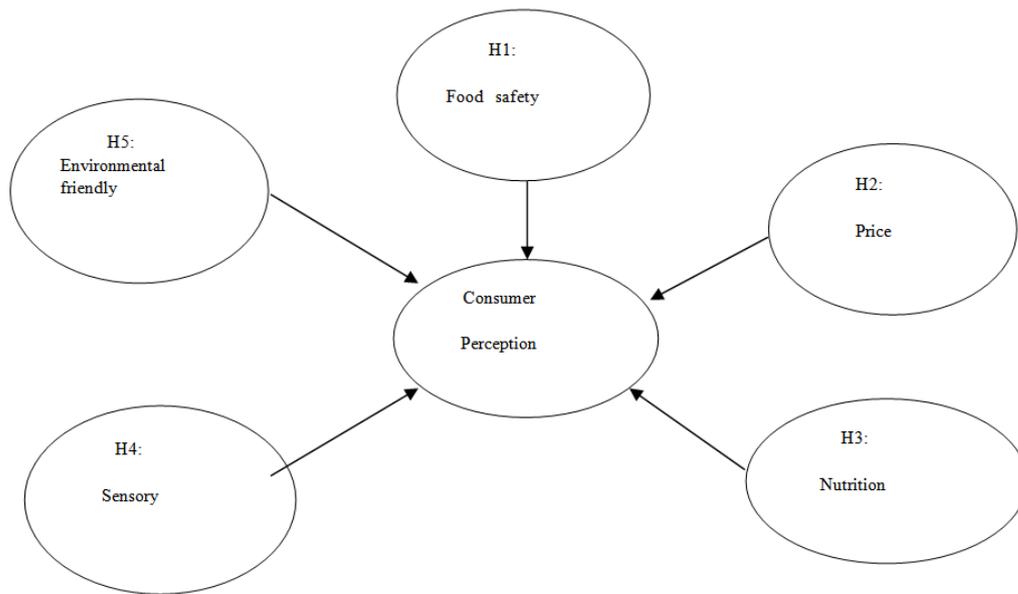


Figure 1. Research Model

5.4. Sources Of Data

The study is involved in collection of data both from the primary and secondary sources. Different types of data and their sources are discussed under the following heads:

5.4.1. Primary Data

Primary data were collected by the researcher themselves through personal interview with the respondents. To attain accuracy and reliability of data, care and caution were taken in data collection. The researcher’s took all possible effort to establish a congenial relationship with the respondents do not feel hesitation or hostile to furnish correct data. Before interviewing, the aims and objectives of the study were explained to respondent. As a result, they were convinced that the study was purely an academic one and was not likely to have an adverse effect on them. During data collection an attention was also paid to the mood of respondents. The collected data have been processed, tabulated and analyzed in the logical manner.

5.4.2. Secondary Data

We can’t find enough secondary data for this study. The secondary sources include different web sites, books, journals, annual report and unpublished research works.

6. Data Analysis & Findings

6.1. Demographic Analysis of the Respondents

Frequency Table:

Table 1. Gender Of The Respondent

Gender	Number	Percentage (%)
Male	62	62
Female	38	38
Total	100	100

Source: Primary Data From Field Survey.

Male respondents were more interested about organic Food than female respondents. For that reason most of our respondents are male displayed in Table 1.

Table 2. Age Of The Respondent

Age	Number	Percentage (%)
18-24 Years	16	16
25-54 Years	60	60
55 And Older	24	24
Total	100	100

Source: Primary Data From Field Survey.

From the above Table 2 it would be said that middle aged people purchase Organic Food very often. Since, age of the respondent (25-54 years) is 60%.

Table 3. Distribution of the respondents according to their education

Education Categories	Number	Percentage (%)
Illiterate	20	20
Primary	14	14
Secondary	26	26
Higher Secondary & Others	40	40
Total	100	100

Source: Primary Data From Field Survey.

Table 3 shows that Respondents (40 %) are Higher secondary & others) followed by Secondary (26%), Illiterate (20%) and Primary (14 %.). Respondents were classified into four categories on the basis of their education. Higher secondary & others Respondent is by and large alike Organic Food.

Table 4. Distribution of the respondents according to their Family size

Family Size	Number	Percentage (%)
Small (1-4)	26	26
Medium (5-6)	26	26
Large (Above 7)	48	48
Total	100	100

Source: Primary Data From Field Survey.

In **Table 4**: Respondents were classified into three categories on the basis of their family size.

Respondents having large family size (48%) are interested in Organic Food.

Table 5. Distribution of the respondents according to their Monthly Income

Monthly Income	Number	Percentage (%)
Below 15000	36	36
15000- 30000	24	24
30000 - 50000	18	18
Over 50000	22	22
Total	100	100

Source: Primary Data From Field Survey.

The above table is Figured in Units BDT TAKA (Currency of Bangladesh with 1USD = 78.02 BDT)

In **Table 4**: Respondents were classified into four categories on the basis of their monthly income. Respondents having monthly income below 15000 TK are more interested in Organic Food.

6.2. Perception Statements Analysis of the Respondents

Table 6 shows that average mean value of the Perception statements in the Food Safety dimension is 4.32 on a 5 point Likert scale. This means that consumers are satisfied with the Food Safety of Organic Food .So, hypothesis 1 is accepted.

Table 6. Food Safety

Perception statements in the Food Safety dimension	Number of the respondent	Minimum	Maximum	Mean	Std. Deviation
Organic food is safe	100	3	5	4.62	.59933
Containing less pesticides	100	1	5	4.02	.99473
Valid Number of the respondent(list wise)	100				
Average mean				4.32	

Source: Calculated From Primary Data

Table 7. Price

Perception statements in the Price dimension	Number of the respondent	Minimum	Maximum	Mean	Std. Deviation
Organic food is pricey	100	1	5	3.52	1.10536
Appeal more for organic food	100	2	5	4.06	.95155
Valid Number of the respondent (list wise)	100				
Average mean				3.79	

Source: Calculated From Primary Data

Table 7 shows that average mean value of the Perception statements in the Price dimension is 3.79 on a 5 point Likert scale. This means that consumers are moderately satisfied with the Price of Organic Food. So, hypothesis 2 is accepted.

Table 8 shows that average mean value of the Perception statements in the Nutrition dimension is 4.74 on a 5 point Likert scale. This means that consumers are highly satisfied with the Nutrition of Organic Food. So, hypothesis 3 is accepted.

Table 8. Nutrition

Perception statements in the Nutrition dimension	Number of the respondent	Minimum	Maximum	Mean	Std. Deviation
Organic food are more nutritious than others	100	4	5	4.74	.44084
Valid Number of the respondent (list wise)	100				
Average mean				4.74	

Source: Calculated From Primary Data

Table 9. Sensory

Perception statements in the Sensory dimension	Number of the respondent	Minimum	Maximum	Mean	Std. Deviation
Organic food is better taste than others Food	100	3	5	4.36	.55994
Organic food is better smell than others Food	100	3	5	4.68	.54828
Valid Number of the respondent (list wise)	100				
Average mean				4.52	

Source: Calculated From Primary Data

Table 9 shows that average mean value of the Perception statements in the Sensory dimension is 4.52 on a 5 point Likert scale. This mean that consumers are highly satisfied with the Sensory attributes of Organic Food. So, hypothesis 4 is accepted.

Table 10 Shows that average mean value of the Perception statements in the Environmental friendly Dimension is 4.06 on a 5 point Likert scale. This means that consumers are satisfied with the Environmental Friendliness of Organic Food. So, hypothesis 5 is accepted.

Table 10. Environmental Friendly

Perception statements in the Environmental friendly dimension	Number of the respondent	Minimum	Maximum	Mean	Std. Deviation
Organic food residue is helpful for improving the environment	100	2	5	4.06	.95155
Valid Number of the respondent (list wise)	100				
Average mean				4.06	

Source: Calculated From Primary Data

Table 11. Overall Consumer Perception In Organic Food

Perception statements in the Overall consumer perception dimension	Number of the respondent	Minimum	Maximum	Mean	Std. Deviation
Overall consumer perception in Organic Food	100	1	5	4.04	1.26103
Valid Number of the respondent (list wise)	100				
Average mean				4.04	

Source: Calculated From Primary Data

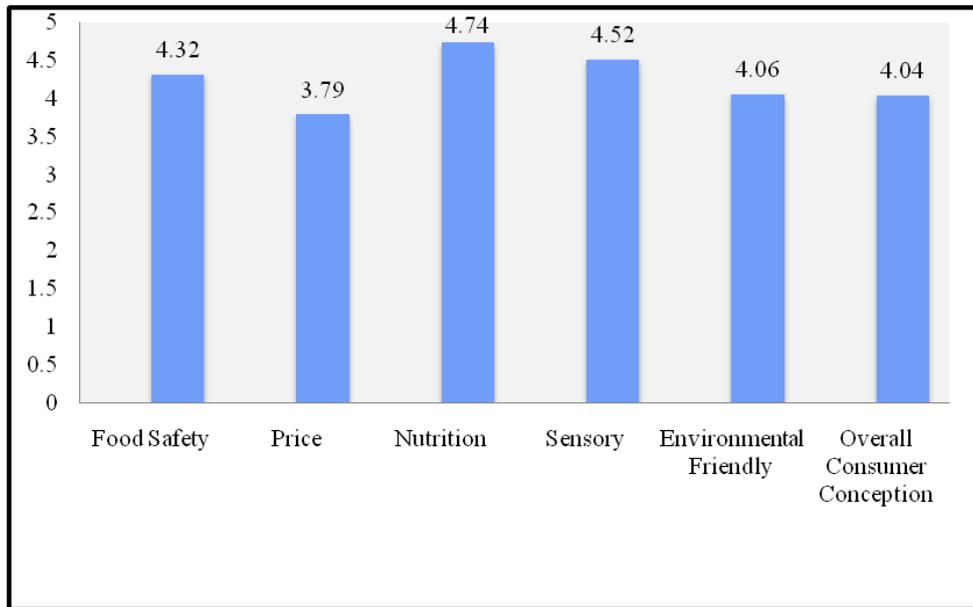


Figure 2. Overall Consumer Perception In Organic Food (Source: Calculated From Primary Data)

Table 11 & Bar graph shows that average mean value of the Perception statements in the Overall Consumer Perception in Organic Food dimension is 4.04 on 5 point Likert scale. This means that consumers are satisfied with

the Food Safety of Organic Food. Because they get the Food Safety, Sensory attributes, Nutrition etc. from Organic Food.

Table 12. CORRELATIONS

	Organic food is safety	Containing less pesticides	Organic food is Pricey	Appeal more for organic food	Organic food are more nutritious than others Food	Organic food is better taste than others Food	Organic food is better smell than others Food	Organic food residue is helpful for improving the environment
Organic food is safety	1	.013	.240(*)	.111	-.072	-.130	-.128	.111
Containing less pesticides	.013	1	.027	-.257(**)	.012	-.231(*)	-.247(*)	-.257(**)
Organic food is Pricey	.240(*)	.027	1	.373(**)	-.051	.054	-.023	.373(**)
Appeal more for organic food	.111	-.257(**)	.373(**)	1	.086	.149	.192	1.000(**)
Organic food are more nutritious than others Food	-.072	.012	-.051	.086	1	-.026	.070	.086
Organic food is better taste than others Food	-.130	-.231(*)	.054	.149	-.026	1	.050	.149
Organic food is better smell than others Food	-.128	-.247(*)	-.023	.192	.070	.050	1	.192
Organic food residue is helpful for improving the environment	.111	-.257(**)	.373(**)	1.000(**)	.086	.149	.192	1

Source: Calculated From Primary Data

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

1. Appeal more for organic food has significant positive correlation with Organic food residue is helpful for improving the environment. Because its residue is helpful for improving the environment, its appeal is increasing.
2. Organic food is Pricey has positive correlation with Organic food is safety. Since organic food is Safe, it is pricey.
3. Organic food residue is helpful for improving the environment has positive correlation with Organic food is Pricey. Because Pricey Organic Food is helpful for improving the environment.
4. Organic food is Pricey has positive correlation with Appeal more for organic food. Because appeal more for organic food is increase its price.
5. Organic food is better taste than others Food has negative correlation with Containing less pesticides. Because containing less pesticide does not affect its taste.

6.2. Regression Analysis

a. Predictors: (Constant), Organic food residue is helpful for improving the environment, Organic food is more nutritious than other Food, Organic food is safe, Organic food better tastes than other Food, Organic food

has better smell than other Food, Containing less pesticides, Organic food is Pricey.

Table 13. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.396(a)	.157	.093	1.19505

Source: SPSS Regression result of the field work

Table 14. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	24.451	7	3.493	2.446	.024(a)
Residual	131.389	92	1.428		
Total	155.840	99			

Source: Calculated From Primary Data

a. Predictors: (Constant), Organic food residue is helpful for improving the environment, Organic food is more nutritious than other Food, Organic food is safe, Organic food better tastes than other Food, Organic food has better smell than other Food, Containing less pesticides, Organic food is Pricey.

b. Dependent Variable: Overall consumer perception in Organic Food.

Table 15. Coefficients (a)

	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.413	2.466		.573	.568
Organic food is better smell than others Food	.124	.231	.054	.535	.594
Organic food is better taste than others Food	-.202	.225	-.090	-.900	.371
Organic food are more nutritious than others Food	.827	.276	.291	2.995	.004
Appeal more for organic food	-.142	.146	-.108	-.976	.332
Organic food is Pricey	.129	.122	.114	1.062	.291
Containing less pesticides	-.340	.132	-.270	-2.582	.011
Organic food is safety	.108	.211	.051	.509	.612

Source: Calculated From Primary Data

a. Dependent Variable: Overall consumer perception in Organic Food

a Predictors in the Model: (Constant), Organic food residue is helpful for improving the environment, Organic food are more nutritious than others Food, Organic food is safety, Organic food is better taste than others Food, Organic food is better smell than others Food, Containing less pesticides, Organic food is Pricey.

b Dependent Variable: Overall consumer perception in Organic Food

From this regression analysis, we conclude that organic food are more nutritious than others food and containing less pesticides has statistically significant (significance value is less than 0.05) effect on Overall consumer perception in Organic Food. Moreover, Organic food is better smell than others Food, Organic food are more nutritious than others Food, Organic food is Pricey, Organic food is safety has positively associated with overall consumer perception in organic food because beta value represents the slope means nature(Positive/Negative)

of relationship. On the other hand, containing less pesticides, Appeal more for organic food, Organic food is better taste than others Food has negatively associated with overall consumer perception in organic food.

7. Limitation of the Study

A wholehearted effort was applied to conduct the study work and to bring a reliable and fruitful result from which proper strategy can be adopted to strengthen the Overall Consumer Perception in Organic Food. In spite of best efforts there were limitations that acted as barriers to conduct the study:

1. This study focuses on the selective consumers only in Dhaka city, mainly metropolitan area .So the findings of this study do not reflect the overall status of organic consumers in Bangladesh, even in greater Dhaka.

2. The sample size was very selective as the surveys were conducted in the selected locations and the focus group was only the green buyers (vegetables, fruits and other herbs).
3. Respondents were very busy. A study that encloses interview of 50 Respondents cannot conclude anything accurately and as such, it was based on miss information.
4. Secondary data are not much available on this topic.
5. For the success of the survey, the author has had to play a vital role in carrying out the fieldwork with shortage of time and fund.

8. Conclusions

The increase of the environmental consciousness has had a thoughtful effect on consumer behavior, with the green product market expanding at a remarkable rate. Therefore, in the past decades there has been an increased production and consumption of organically-produced products which is seen as having less impact to the environment.

Organic food consumption is increasing because of concerns over environmental and health issues associated with food production. The main motives to purchase organic food products are health and environmental benefits. The increase in consumers' interest in organic food products has been attributed among other issues to the growing demand for food free from pesticides and chemical residues. With the present study an attempt is made to describe the existing situation regarding Bangladeshi consumers' perceptions about organic foods.

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