

## **Green Marketing: Consumers' Perceptions of Organic Foods in Dhaka City**

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### **Abstract**

*The focus of the present article is perceptions and choice of organic food, and motives for choosing/not choosing foods that are produced in an eco-friendly way. People are actively trying to reduce their impact on the environment. However, this is not widespread and is still evolving. Organizations and business however have seen this change in consumer attitudes and are trying to gain an edge in the competitive market by exploiting the potential in the green market industry. The study introduces the concept of green marketing and looks into the various ways in which the different consumer attributes are related to the concept of green marketing and organically produced foods. The article test the customers' perceptions about the 'Product' attribute of green marketing mixes. In the survey it is found that majority of the customers have positive perception about different attributes of organic foods which are Eco-friendly products.*

**Key Words:** Green Marketing, Organic Product, Eco-friendly Production, Consumer Perception

### **1. Introduction**

The concept of sustainability is almost ubiquitous today by showing application in corporate strategy, consumer choice, student education and academic research. The need for sustainable business practices by corporations around the world is identified to be a result of overall increase in the consumer awareness of lack of environmental protection and social inequities. Over the last decade environmentalism has emerged to be a vital aspect due to increasing issues related to acid rains, depletion of the ozone layer, and degradation of the land and many more pressing environmental issues. This resulted in increase in consumer concern with regards to restoration of ecological balance by presenting demands for eco-friendly products

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in countries around the world. There has been extensive growth in interest exhibited by marketing academics as well as practitioners with regard to the impact of marketing on promoting and maintaining ecological balance (Chammaro et al., 2009; Bhattacharya, 2011). There is a great deal of depletion of non renewable energy resources which accompanied by generation of non bio-degradable pollutants has lead to an increase in consumer and corporate awareness of green marketing issues (Cherian Jacob, Jacob J., 2012).

Green marketing term appeared at the end of the 1980's. This concept has been defined by many researchers such as (Mintu et al, 1993) and ( Polonsky et al., 1994) in a broad sense. It is the marketing activities which facilitate exchanges to satisfy consumer needs and wants by minimizing the impact of these activities on the physical environment. This literature indicates green marketing to be an approach which indicated signs of shift in consumer attention to green product. At that time green marketing research concentrated on the shift in consumer consumption of green products. There was a great deal of empirical research carried out to identify interest among consumers in using and purchasing green products. According to (Mintel et al., 2006) Green marketing approach was researched from a corporate interest point of view in the early 90s. Research indicated that 92% of MNCs from Europe changed their products to address growing concerns of environmental pollution. Consumers from the developed countries including USA and Western Europe were found to be more conscious about the environment (Curlo, E., 1999). Research in the last decade has indicated that consumers are aware and are willing to pay more to "**go green**".

Another study about the customer attitudes toward sustainable consumption (based on a sample of 26,500 respondents) made in April 2009 demonstrated that more than 80% of European citizens thought that "a product's impact on the environment is an important element when deciding which products to buy" (Flash Eurobarometer-256, 2009).

Green marketing has rose attention due to the environmental deterioration and it becomes a global problem (Kumar, P. D., 2010). Nowadays, the American Marketing Association (AMA) divides the definition of green marketing in three aspects as a) Retailing definition: "The marketing of products that are presumed to be environmentally safe", b) Social marketing definition: "The development and marketing of products designed to minimize negative effects on the physical environment or to improve its quality" and finally c) Environments definition: "The efforts by organizations to produce, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns". (marketingpower.com)

According to (Chen et al., 2010) green marketing is defined as the activities taken by firms concerned about environmental problems or green problems, by delivering the environmental sound goods or services to create customers' and society's satisfaction.

Welford (2000) defined green marketing as “the management process responsible for identifying, anticipating and satisfying the requirements of customers and society in a profitable and sustainable way”. Green marketing-mix elements and eco-friendly products are designed and developed as having less harmful for the environment and profitable in business perspective (Chitra, K., 2007).

According to a press release made by Mintel (organization of food and drink market researches) in November 2010, the consumer packaged goods (CPG) or FMCG sector should follow twelve trends, among these trends some of them concern the environment such as “redefining natural” or “sustainability” such as respect the regulation to say that a product is natural or not and for example continue to reduce packaging. These trends show that the FMCG sector is going to change and become greener.

An eco-friendly product is supposed to reduce the impact of its consumption on the environment thanks to the use of making-processes, components and recycling techniques which are less harm for the natural environment than those of conventional products (nationalgeographic.com). According to a survey made by the Gallup organization in 2009, around one of fifth of European interviewees think that the action which has the greatest impact on solving environmental problems was “to buy products produced by eco-friendly production” just after “minimizing waste and recycling” action. Furthermore for example in the CPG sector between January 2009 and April 2009 “458 new products hit the market with claims of being eco- friendly” in the United States, compared to 2008, this market is “three times higher in 2009” (corporate-eye.com). Another example in the United States showed that “between 2005 and 2009 green cleaners grew 229%” (marketwire.com). The market of green products is more and more increasing. In this thesis “eco-friendly” as well as “green” products will be used to mention environmental products.

Bangladesh is located in a huge delta formed by the Ganges, Brahmaputra and Meghna having alluvial soil. The economy of the country is till agrarian although industrialization is going on rapidly. But the agriculture is the basic support for livelihood of majority of the population. High population growth offset the increased agricultural production thereby aggravate the food deficit and poverty. About 8.7 million hector lands are cultivated in Bangladesh of which around 65% is in crop production (MOA, 2011). However, since the population is increasing increases in food production must occur. Intensive and extensive cultivation increases crop age in the short term but there is a cost to the natural environment and a decrease in yield in long term. Dependency on chemical fertilizers, pesticides, irrigation and high yielding plants has been increasing, degrading the soil quality. In 2008-09 high yielding varieties covered about 72% of the total cultivable land area in Bangladesh now is 80 % (BRRI, 2012). Therefore a large amount of fertilizer is being used to cultivate high yielding varieties and consequently the demand of chemical fertilizer follows an increasing trend.

Decline in land productivity has been caused by intensive cropping, indiscriminately use of fertilizers and continued use of irrigation and removal of bio-mass from agricultural fields (Uddin et al., 2012). Fertilizers and pesticides are used inefficiently and indiscriminately with minimal control or no controls. Pesticides and chemical pollute waterways air and soil and poison the environment and reduce the genetic diversity of plant population with the use of high yielding non-native plant species. Furthermore some of these chemicals have negatively effect on wildlife as well as humans. So question arises to produce food items in such a way that is beneficial both for the natural environment as well for the wellbeing of the society. Here the eco-friendly production referred as organic farming and the food as organic food.

Organic produce is being seen as a natural choice by consumers, and consequently by producers, in both domestic and international markets due to the problems in the supply chain of conventional or mainstream agro produce. The growing health coupled with non-viability of modern farming on a small scale, are some of the factors behind the move from chemical based to organic production and consumption systems.

## 2. Literature Review

Making a commitment to healthy eating is a great start towards a healthier life. Beyond eating more vegetables, fruits, whole grains, and good fats, however, there is the question of food safety, nutrition, and sustainability. There are different books, articles published in different renowned journals nationally and internationally, seminar and conference papers and research reports have been reviewed in this section.

(Allen et al., 2007) in his book *The Business of Food: Encyclopedia of the Food and Drink Industries* wrote that the 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.

(BOFMA, 2012) in their web materials mention that organic products are grown under a system of agriculture without the use of chemical fertilizers and pesticides with an environmentally and socially responsible approach. This is a method of farming that works at grass root level preserving the reproductive and regenerative capacity of the soil, good plant nutrition, and sound soil management, produces nutritious food rich in vitality which has resistance to diseases. Bangladesh is bestowed with lot of potential to produce all varieties of organic products due to its various agro climatic regions. In several parts of the country, the inherited tradition of organic farming is an added advantage. This holds promise for the organic producers to tap the market which is growing steadily in the domestic market related to the export market.

A study conducted by (Caswell J.A., 2000) on *Valuing the Benefits and Costs of Improved Food Safety and Nutrition* with the aim of identifying the cost of benefits of having or consuming organic food instead of conventionally produced food. Caswell have identified five broad food quality attributes, namely safety, nutrition, value, package, and production process for which customers are willing to pay more.

(Drinkwater L.E., 2009) in his book *Ecological Knowledge: Foundation for Sustainable Organic Agriculture*, chapter: *Organic farming* wrote that the organic farming movement arose in the 1940s in response to the industrialization of agriculture known as the Green Revolution. Green Revolution refers to a series of research, development, and technology transfer initiatives, occurring between the 1940s and the late 1970s that increased agriculture production around the world. It forms a part of the 'neo-colonial' system of agriculture wherein agriculture was viewed as more of a commercial sector than a subsistence one.

A Research Institute of Organic Agriculture (FiBL) in collaboration with the International Federation of Organic Agriculture Movements (IFOAM) and BioFAC conducted a survey and present *The Latest Facts and Figure about Organic Agriculture*. 1.8 million farmers in 162 countries grow organically on more than 37 million hectares of agricultural land worldwide in 2011. The global market for organic food reaches US\$ 62.9 billion, which is an increase of US\$ 4 billion compared to the previous year. The leading market is the US with 21 billion euros. In Europe, where 21.5 billion euros were spent, Germany leads at 6.6 billion euros, followed by France (3.8 billion euros). Moving from consumers to producers, approximately 80% of global total of 1.8 million farms that practice organic methods are located in developing countries. From a farmland perspective, a total of 37.2 million hectares were organic at the end of 2011. The largest growth of organic agricultural land was in Asia where an increase of 0.9 million hectares was noted. This brings the figure for organic farmland to 3.7 million hectares (+34% year on year growth). One third of all global organic agricultural land is in Oceania (33%), followed by Europe (29%). These figures show that in countries where organic agriculture is institutionally well embedded, there is constant market growth and expansion of the area under organic management (FiBL et al., 2013).

(Hansen, L. G., 2001) conducted a research on *Consumer Demand for Organic Foods—Domestic and Foreign Market Perspectives* and found that as a credence good, information about an organic product is asymmetric. That is, consumers may not detect the presence or absence of organic characteristics even after purchase and use. Consumers may only know that the product is organic when they are informed. According to Hansen, the characteristics of organic foods that may enter the utility function of the consumer can be grouped into general and commodity-specific attributes. General attributes relate to food safety and human health, environmental effects, and farm animal welfare aspects, while commodity-specific attributes include variables such as visual appeal, nutritional value, taste, freshness, etc.

*International Federation of Organic Agriculture Movements (IFOAM)* conducted a research with the aim of predicting the emerging trends of the world organic agriculture and found that the interest in organically produced food is increasing throughout the world in response to concerns about conventional agricultural practices, food safety and human health concerns. With few exceptions organic farming in Bangladesh is still on experimental basis. Total land area under organic farming in Bangladesh has been estimated at 2% of the country's total cultivable land. As we consider marketing aspect, few NGO in Bangladesh are playing a major role to inform, give ideas, funding to the farmers and also helps in selling the product in capital city (IFOAM, 2006).

(Mervin R. et al., 2013) conducted a survey research on 750 respondents to identify *Consumer's Attitude towards Organic Food Products*. They have found that Organic marketing is a holistic marketing system. Organic food market is very challenging in food market. Consumers have raised great interest to healthy and quality food with high nutritional value, environmental concern and food safety. The research work also revealed that gender, monthly income, area of residence, family status, period of consumption, level of awareness on organic foods and state of health are associated with consumer positive attitude towards organic foods. The research work shows an inverse relationship between consumer awareness and positive attitude towards organic food. The research result suggest that Government and social organizations have to take necessary steps in creating awareness in the midst of consumers on the merits of using organic foods and extend necessary assistance in cultivating high quantum of organic foods by the majority of the farmers.

Currently, *PROSHIKA* has introduced an organic vegetable marketing project to promote the consumption of organic vegetables, and one marketing channel of *PROSHIKA* is selling eco-friendly produce to the public in Mirpur area of Dhaka city. Furthermore, mobile vans are being used to sell organic vegetables in some areas, including apartment complexes, mega shops and departmental stores. Observing the benefits of cultivating organic crops by the NGO farmers, a small number of non-NGO conventional farmers have started to cultivate organic crops. Among the few private companies that have started to invest in organic farming, Kazi and Kazi is a leader (*PROSHIKA* (2004).

(Sarker M. A. et al., 2007) conducted a study entitled *Organic Farming- the Milestone of Tomorrow's Poverty Elimination: A suggested model for Bangladesh*. To identify the core problems for organic farming in Bangladesh, he has conducted a problem analysis considering all the problems mentioned by the organic farmers and consumers as well as researchers personal observations. The research found that organic farming in Bangladesh has four core problems such as a) Poor farmers b) Lack of knowledge of organic farming and its benefits c) Insufficiency of organic inputs and d) Poor marketing of organic foods. They have also identified some Basic problems of organic farming such as limited land holdings,

unavailability of agricultural labor, lack of capital, Input problems such as unavailability of organic inputs, decreasing cattle population, Knowledge & Information problems such as lack of training, lack of technical knowledge and lack of technical support, Marketing problems such as price problems and Social problems such as social obstacles are main hindrances in organic farming and marketing its products.

Tea International, in their online news it is found that Kazi and Kazi have established an organic tea garden at Tetulia, in the Panchagarh district. This tea is certified by the SGS organic production standard in accordance with the EU Regulation 2092/91, and it is marketed as "Meena Tea". This company also produces fresh organic vegetables and herbs for sale in their supermarket, "Meena Bazar," in Dhaka city (Tea International, 2005).

(Yussefi M., et al., 2003) conducted a research with the title *The World of Organic Agriculture 2003- Statistics and Future Prospects* have argued organic agriculture is not just a solution for rich countries, but can also be beneficial for poor countries, where it can contribute to purposeful and sustainable socio-economic and ecological development. Until now, however, Bangladeshi farmers have not been able to benefit from the growing global organic market, and they have even failed to create a good domestic market of organic foods.

(Elkington, J., 1994) in his article title *Toward the Sustainable Corporation: Win-Win Business Strategies for Sustainable Development* refers a green consumer can be identified to be one who avoids any product which may harm damage to any living organism, cause deterioration of the environment during process of manufacturing or during process of usage, consume a large amount of non renewable energy, involves unethical testing on animals or human subjects.

(UNEP, 2010) in its report *Assessing the Environmental Impacts of Consumption and Production* refers the green economy initiative is designed to assist governments in "greening" their economies by reshaping and refocusing policies, investments and spending towards a range of sectors, such as clean technologies, renewable energies, water services, green transportation, waste management, green buildings and sustainable agriculture and forest management. A green economy can be defined as an economy that results in improved human well-being and reduced inequalities over the long term, while not exposing future generations to significant environmental risks and ecological scarcities.

According to American Marketing Association, green marketing is the marketing of products that are presumed to be environmentally safe. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. Thus green marketing refers to holistic marketing concept wherein the production, marketing consumption and disposal of products

and services happen in a manner that is less detrimental to the environment with growing awareness about the implications of global warming, non-biodegradable solid waste, harmful impact of pollutions etc. Both marketers and consumers are becoming increasingly sensitive to the need for switch in to green products and services. We can define green products by following measures: products those are- originally grown, recyclable, reusable and biodegradable, with natural ingredients, containing non-toxic chemical, do not harm or pollute the environment, that have eco-friendly packaging i.e. reusable etc. (Chauhan Vinayak, 2011).

### **2.1 Global Scenario in Green Marketing**

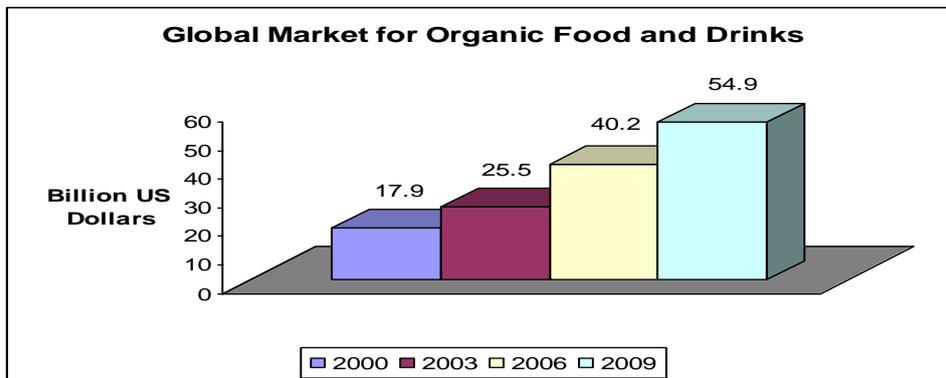
“Green’ is the buzzword that is gaining popularity among the current generation. A number of businesses right from private entities such as Wal-Mart trying to push the concept of organic food to public entities like the London governments congestion charge are all aimed at improving the environment by promoting ‘Green’ products and issues. 87% of people from various nations like Brazil, Canada, China, France, Germany, India, the UK and the US have shown an interest in reducing their impact on the environment, according to a survey by (Mckinsey, 2007). However, showing interest and actually acting on the interest are two different deeds. This fact is proved by a survey that was conducted on a global scale, which was repeated in 2008 with the help of BBC World, which showed that not a lot of people were actually doing something to move their lifestyle to a green lifestyle.

The overall market for green marketing is said to be worth \$ 3.5 trillion by the year 2017, according to a report by Global Industry Analysts Inc. The report also states that increasing awareness about the environmental issues among the people, businesses and the governments is one of the main reasons for such market potential.

### **2.2 Organic Agriculture in the World**

The International Federation of Organic Agriculture Movements (IFOAM) defines organic agriculture as: “Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.” Since the 1970s, organic agriculture has developed into a market concept, with standards, certification and finally, government regulation in most developed countries. Global markets in organic food and drinks were estimated to be worth around US\$50 billion in 2008 (Willer, H. et al., 2011) and the market have continued to grow throughout the recession in most countries. Organic products mostly command market premium prices of between 10 and 100 per cent, with most products in the range of 15 to 25 percent.

Figure-1: Global Growth of Organic Markets



Source: Willer and Kilcher, 2011

Throughout the world, over 100 countries are producing certified organic products on a commercial basis, including 30 countries in Africa, 30 in Asia, 20 in Central America and the Caribbean, 10 in South America, 5 in Australasia and the Pacific, most countries in Europe, as well as the United States and Canada (IFOAM, 2006). These figures include at least 90 developing countries, of which about 15 are regarded as Least Developing Countries (LDCs) (IFOAM 2006). For example, Kenya is a developing country that currently produces organic vegetables, pulses, tea and cotton; and its exports include certified organic macadamia nuts. Uganda produces a similar range of organic products, and exports certified cocoa, sesame, sweet banana, pineapple, ginger and coffee; and Zambia produces a considerable organic fresh produce, most of which is exported to the United Kingdom and sold through some of the major food outlets.

India, our neighbor, produces and exports a wide range of fresh and processed organic fruits, vegetables, nuts, oil crops, grains, coffee, sugar cane, herbs and spices, although it is best known as an exporter of organic tea. Other Asian countries, including China, the Republic of Korea and Sri Lanka, are also active producers and exporters of organic foods. Like other developing countries, Bangladesh has the capacity to realize a significant share of the global organic market. This offers an opportunity to increase farmers' incomes, thereby making a significant contribution towards reducing poverty for among poor farmers.

### 2.3 Status of Organic Farming in Bangladesh

With few exceptions, organic farming in Bangladesh still occurs largely on an experimental basis. Total land area under organic cultivation in Bangladesh has been estimated at 0.177 million hectares (IFOAM, 2006), representing only 2% of the country's total cultivable land. By 2005, only 100 of its traditional farms had converted to organic agriculture. Since the

introduction of organic farming into Bangladesh, by NGOs, the movement is still being largely being directed by these organizations. According to IFOAM (1996), of the 138 NGOs that are members of the Forum for Regenerative Agriculture Movement (FORAM) in Bangladesh, 47 are engaged in practicing organic agriculture, 87 are intending to practice sustainable agriculture, and 3 are involved in advocacy, lobbying and campaign for sustainable development. Among these NGOs, PROSHIKA, with its “Ecological Agriculture Program” (EAP), is the peak organic body in the country. “Since 1978 PROSHIKA began to spread ecological practices among its group members by growing varieties of seasonal vegetables. PROSHIKA's EAP has involved around 0.8 million farmers in organic cultivation across 0.22 million acres of land. Out of these, 0.22 million farmers started to practice ecological agriculture on 0.08 million acres of land in the last five years. PROSHIKA has also introduced an organic vegetable marketing project to promote the consumption of organic vegetables. Currently, one marketing channel of PROSHIKA is selling eco-friendly produce to the public in Mirpur area of Dhaka city. Furthermore, mobile vans are being used to sell organic vegetables in some areas, including apartment complexes, mega shops and departmental stores” (PROSHIKA 2004). Between July 1999 and March 2003, PROSHIKA received some funding support from the World Bank (The New Nation 2006).

Observing the benefits of cultivating organic crops by the NGO farmers, a small number of non- NGO conventional farmers have started to cultivate organic crops. Among the few private companies that have started to invest in organic farming, Kazi and Kazi Ltd. is a leader. They have established an organic tea garden at Tetulia, in the Panchagarh district. This tea is certified by the SGS organic production standard in accordance with the EU Regulation 2092/91, and it is marketed as “Meena Tea” (Tea International, 2005). This company also produces fresh organic vegetables and herbs for sale in their supermarket, “Meena Bazar,” in Dhaka city.

### **3. Objectives**

The main objectives of the study are:

- To understand the concept of green marketing
- To review some of the studies those have dealt with the concept of Green marketing
- To test the consumers’ perceptions about the organic product those are produce in eco-friendly environment

### **4. Methodology**

Both exploratory and descriptive research designs have been applied in this study. Pertinent secondary materials were reviewed. Both quantitative and qualitative research methods were

adopted to collect primary data. For conducting the survey, structured questionnaires were designed in the light of the objectives of the study. Survey questionnaires were administered through personal interviewing including both in-home and mall intercept. Dichotomous and multiple choice questions were used in the questionnaire.

Convenience sampling technique was followed to collect data from a sample size of 300 customers of various superstores and markets. Data have been collected from different locations of Dhaka city like Shantinagar, Malibagh, Mirpur, Dhanmondi, New Market and Uttara. From each location 50 customers who come to shop at different superstore such as Agora, Pacific, MeenaBazar, Nandu, Prince Bazar, and Shantinagar and New Market vegetable market (Kacha Bazar) were surveyed with a questionnaire which includes both open-ended and closed-ended questions.

For making the sample size representative for the survey, efforts were made to include a variety of respondents in terms of age, gender, income level, education are surveyed. Most of the respondents have good shopping experience in home and abroad.

Respondents are asked 10 questions about organic food to measure their awareness about green product as well as green marketing, interest and different aspects of attributes of green marketing mixes such as green product, green promotion, availability of green product, price of green products and process aspect of production of green product. They are also asked question about their willingness to purchase green products.

Demographic characteristics of the consumers participating in the research are as follows:

Table-1: demographic properties of the respondents

<b>Factors</b>		<b>N</b>	<b>%</b>
<b>Gender</b>	Male	140	46.67%
	Female	160	53.33%
<b>Age</b>	25-35 Yrs	45	15%
	35-45 Yrs	90	30%
	45-55 Yrs	120	40%
	55-65 Yrs	45	15%
<b>Education</b>	College	0	0%
	University	300	100%
<b>Income</b>	30000-50000	120	40%
	50000-70000	130	43.33%
	70000-90000	32	10.67%
	>90000	18	6%

All the data that have been collected from the respondent through interview with the questionnaire are analyzed using SPSS. Response of the respondent are recorded on 1 to 5 point likert scale and standard deviation and mean are calculated using SPSS. A correlation and significance test was made to judge the answer of the respondent regarding various aspect of the green marketing such as green product, green environment, green promotion, green product distribution, green marketing awareness and knowledge.

## **5. Findings and Analysis**

### **5.1 Impact of Consumers Gender on Green Marketing Perception**

When demographic properties of consumers are examined, while green promotion, environment awareness, green price, green product features affect green purchasing for male consumers, for female consumers green promotion, green product features affect purchase intention. Overall female scores high mean (4.77) than male (4.55) on green marketing perspective.

### **5.2 Impact of Consumers Age on Green Marketing Perception**

In the study conducted on age, while environment awareness, green product features, and green promotion affect green purchasing for consumers in 25-35 years age group and scores highest mean (4.69), green price and green promotion affect green purchasing for consumer in age 35-45 years group (mean 4.38), for consumer in age 45-55 years group (mean 3.77) only green environment affect green purchase and consumer in age group of over 55 years (mean 4.35) only green promotion affect their green perspective.

### **5.3 Impact of Consumers Education on Green Marketing Perception**

In the study conducted on education, higher educated people are more concern on green environment, green product and green promotion than less educated people

### **5.4 Consumers' Perceptions of Organic Foods**

With regard to the perception of the consumers concerning the organic foods in Dhaka city, a five point rating scale from 1 to 5, with 1 being 'strongly disagree', and 5 being 'strongly agree' was used to rank responses by consumers to ten statements. The result is summarized in table-3.

79% respondents believe that the organic food is good for health. Only 36% respondent believes that supply of organic food items in the local market was sufficient; and most mentioned that organic rice, fruits, fish, shrimp, egg and chicken are rarely available in the store to meet their demand. Only for organic vegetables, few respondents said it is available

but not all the time. Majority mentioned that this represented less than half of their vegetable demand. However 6% of respondents mentioned that their total vegetable consumption was organic. Less than 5% said that they consume organic tea or green tea as it is very costly compare to conventional tea.

Table-3 Consumers' Perceptions of Organic Foods in Dhaka City (N = 300)

Organic (Eco-friendly) products	Strongly disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly agree 5	positive Perception (4+5)	% of +ve Perception (4+5)
1. Are good for the environment	33	42	6	108	111	219	73%
2. Are healthy	21	36	6	108	129	237	79%
3. Have a good quality/performance	21	48	6	123	102	225	75%
4. Have a better taste and or good smell	24	33	6	144	93	237	79%
5. Have a good quality/performance than conventional products	30	54	12	129	75	204	68%
6. Have reasonable price	69	81	0	78	72	150	50%
7. Are well promoted	141	99	6	33	21	54	18%
8. Are available in the supermarket	111	81	0	72	36	108	36%
9. I recommend eco-friendly products to my friends and family	27	18	6	129	120	249	83%
10. I am willing to pay a premium price for an eco-friendly product	36	33	15	111	105	216	72%

Source: Prepared from response of respondents

73% respondents noted that organic products are good for the environment as they are not using any chemical fertilizer to produce the product. But about 25% people are not agreed that organic producers are not using chemical fertilizers.

75% respondents mentioned that organic products have good quality and their perceived performances are good whereas 23% do not believe on its good quality. 68% respondents mentioned that organic food quality is better than that of conventional food quality. 79% of the respondents believe that organic food have good taste whereas 19% response negatively. Half (50%) of the respondents said that the price of organic food are reasonable others commented that it is charged high price in response to its low production costs.

Only 18% respondents believe that organic foods are promoted properly. Rigorous promotion can help to create awareness in the minds of people. So that vast population will be in favor of organic food. Govt. should take proper initiatives to promote organic cultivation, marketing and consumptions. 83% users are in favorable publicity (word of mouth advertisement) of organic foods to their friends and family.

72% of the respondents are willing to pay premium price if the sellers are able to ensure the supply of organic foods on consideration of the health status of the user. They quoted that they are sometimes bound to purchase conventional product as the organic foods are not sufficiently available.

The attitudes to organic foods were mainly positive but the reported purchase frequency was relatively low. "Health concerns" appear to be a more important predictor of attitudes and purchase of organic foods than "environmental concerns". However, the performance of "environmentally friendly behaviors" was also an important predictor of the purchase of organic foods.

The potential benefits of organic agriculture and organic foods have been investigated from different perspectives. Environmental effects, nutritional content and sensory characteristics of organic agriculture and foods in comparison to conventional agriculture and foods have been investigated. Consumers have positive beliefs about organic foods in comparison to conventional alternatives.

Research indicates that there are a variety of perceptions among consumers concerning "healthy" and "unhealthy" eating. Some perceptions are related to the nutritional content of foods, while others concern the combination of foods, an "overall" perception of a food product or the food manufacturing/preparation process.

The proportion of regular purchasers of organic foods is low. Thus, there is a discrepancy between preferences and behavior. Frequent organic food purchasers seem to differ from those who buy organic foods less frequently.

The information that a product is organically produced has been shown to increase consumer preference. Thus, consumer perceptions of organic foods having superior sensory attributes may be due to positive beliefs about the production method rather than scientific evidence. Positive beliefs about organic foods have been found to be connected with an increased choice of such foods.

Women appear to be more interested in healthy and natural foods than men. Studies indicate that women eat fruits and vegetables more frequently than do men. They also think it is more important to follow recommendations given by health experts than men do. Women also seem to perceive that environmentally friendly product attributes are more important and perform more environmentally friendly behaviors than men.

Environmental concern has been proposed to depend on age, younger people being more environmentally concerned than the older ones.

The study demonstrated that the consumption frequency of fresh fruits and vegetables increased with an increasing level of education or family income. This study reveals that educational level is more important factor for healthy eating than is family income.

### 5.5 Correlation Study of Different Factors of Green Marketing

Table-4: correlation of different green marketing factors

		Green_Environment	Green_Product	Green_Promotion	Green_Price	Green_Labeling	Green_Certification
Green_Environment	Pearson Correlation	1	-.322(**)	-.268(**)	-.180(**)	.016	-.013
	Sig. (2-tailed)	.	.000	.000	.002	.778	.828
	N	300	298	298	298	298	298
Green_Product	Pearson Correlation	-.322(**)	1	.268(**)	.200(**)	.073	-.148(*)
	Sig. (2-tailed)	.000	.	.000	.001	.211	.010
	N	298	298	298	298	298	298
Green_Promotion	Pearson Correlation	-.268(**)	.268(**)	1	.102	-.204(**)	-.356(**)
	Sig. (2-tailed)	.000	.000	.	.080	.000	.000
	N	298	298	298	298	298	298
Green_Price	Pearson Correlation	-.180(**)	.200(**)	.102	1	-.025	.179(**)
	Sig. (2-tailed)	.002	.001	.080	.	.664	.002
	N	298	298	298	298	298	298
Green_Labeling	Pearson Correlation	.016	.073	-.204(**)	-.025	1	.309(**)
	Sig. (2-tailed)	.778	.211	.000	.664	.	.000
	N	298	298	298	298	298	298
Green_Certification	Pearson Correlation	-.013	-.148(*)	-.356(**)	.179(**)	.309(**)	1
	Sig. (2-tailed)	.828	.010	.000	.002	.000	.
	N	298	298	298	298	298	298

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

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

*Source:* Created from response data using SPSS

From table-4, it is found that different properties of green marketing are significantly correlated with each other. While green environment is strongly correlated with green product, green price and green promotion; green product is correlated with green environment, green promotion, green price and green certification.

Green promotion is significantly related with green environment, green product, green labeling and green certification. Green labeling is correlated only with green certification and green promotion while green certification is correlated with green product, green promotion, green price and green labeling.

### 5.6 Impact of Consumers Income on Green Marketing Perception

In the study conducted on income, while only green price affect green marketing for consumers having income level tk. 30000-50000; green environment, green price, affect consumers having income level tk.50000-70000; green product features, green environment, affect consumers having income higher than tk.70000.

**Table-5:** Descriptive Statistics

	<b>Mean</b>	<b>Std. Deviation</b>	<b>N</b>
Male	4.55	.499	300
Female	4.7633	.56128	300
yr_25_35	4.6900	.46327	300
yr_35_45	4.3867	.48780	300
yr_45_55	3.7700	.99014	300
Yr_55_65	4.3500	.47777	300
college_edu	3.8033	.93501	300
university_edu	4.3200	.46726	300
income_30_50	4.4333	.49636	300
income_50_70	4.7700	.42154	300
income_70_90	4.7567	.42981	300
income_90_plus	4.8700	.33687	300

Source: Created from response of the respondent using SPSS

## 6. Conclusion

With industrialization and development and progress of technology, diversification in human needs has increased. As result of increase in diversification in the needs, our world has faced with the devastation and pollution of its natural resources. As result of use of natural sources, environmental devastation and pollution affect human life negatively. Humans have been in the search for ensuring their futures and sustaining their life in appropriate conditions. Consumers have started to consider whether the products they purchase is environment-friendly or not apart from price and quality features of the products. With environment and environmental problems gaining importance for people, companies have started to change their production, goods or service generation, and hence marketing strategies accordingly. They have started to produce environment-friendly products such as organic products and have tried to reach `Green Marketing` concept to the consumers. As result of the study, as environment consciousness, green product features, green promotion and green price increase, green purchasing behavior increases as well. The result of the present study shows that people are now willing to pay more for environment-friendly product against environmental pollution that threatens our world together with developing technology and industrialization. Marketer has to create awareness of eco-friendly products with the appropriate initiatives of the govt. to mass population from producers to users' level only than organic agriculture will sustain and green marketing era will sustain for longer life.

In the study it is found that demographic characteristics such as age, gender, income, education all have profound impact on green marketing perceptions. So company should consider gender, age, education, income into consideration in their green marketing strategies.

As result of the study, as environment consciousness, green product features, green promotion, green prices and green certification influences green marketing activities companies should be carefully in product development, broadcasting promotion and setting price of the green product. As many customer wants to get only certified green product company has to have certificate from the approved authority.

Finally company has to undertake rigorous promotion to create awareness in the minds of customer the consequences of organic product in compare to traditional product which are produce by adopting chemical fertilizer.

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