

Challenges and Possibilities in Consumers' Views of Organic Foods in Rajshahi

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ABSTRACT

This study attempts to investigate how customers view organic food. This essay also tries to investigate the issues with promoting organic farming. Lack of knowledge about organic technology and consumer distrust of goods and advertising strategies are among the important problems. It is discovered that a variety of factors affected people's decisions to buy organic food. Health and environmental awareness were positively correlated with educational attainment. The majority of consumers expressed interest in learning more about the production of organic foods, and it is evident that organic agriculture might lessen the harmful effects of chemical agriculture. The majority of customers expressed a lack of trust in organic food products by being unwilling to pay more for quality assurance and organic certification. Furthermore, there is a significant opportunity to meet the local demand for organic food, notably on the vast agricultural acreage in Rajshahi. Rajshahi has the chance to increase organic food production thanks to the lower wage, which will afterwards lead to the creation of good jobs. The barriers to the growth of the organic markets were recognized as ignorance, ecological consciousness, consumer trust, accreditation, quality control mechanisms, current technology, information literacy, storage capabilities, and crop insurance. The agricultural market chain, which is made up of many intermediary organizations, is also vulnerable. A big benefit of producing organic products that require meticulous care is the accessibility of cheaper labor forces.

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INTRODUCTION

The consumption of organic food is rising daily around the globe. "Organic agriculture is a holistic production management approach that fosters and enhances agro ecosystem functions, comprising biodiversity, biological cycles, and soil biological activity," according to the Codex Committee of the Food and Agriculture Organization of the United Nations. This is achieved by avoiding the use of synthetic materials whenever possible and instead using agronomic, biological, and mechanical processes to carry out any necessary system functions (FAO, 1999).

Currently, this approach appears to be a perfect and legitimate way to create pure foods that reduce the harm that chemical agriculture causes to the environment and human health. For a healthy existence, consumers are now becoming more aware of and critical of the quality of food items and byproducts (Mottalib et al., 2018). In addition to conserving cultural legacy and promoting environmental sustainability, organic agriculture offers the potential to create food that is safe. Studies from Asia, Latin America, and Africa all show that organic farmers often make more money than their traditional ones (UN, 2008). Realizing this, several nations have switched their agricultural growth from traditional agriculture to organic farming methods and implemented a sustainable agricultural policy.

Bangladesh is an agricultural nation, however the majority of its farmers are underprivileged and use conventional farming methods and techniques. Traditional farming techniques were unable to meet the population's growing demands. Chemical agriculture, however, helped the world become self-sufficient in the production of grains for food, but it also had numerous detrimental effects on the environment and human health. Synthetic pesticides have been linked to a variety of risks to human health, from immediate affects like headaches and nausea to long-term consequences including cancer and endocrine disruption. Every year, a sizable number of individuals in Bangladesh are harmed by agrochemicals and afflicted with illnesses (Shammi et al., 2020).

Few non-governmental organizations first began practicing organic gardening in Bangladesh. 75 NGOs and several ethical farmers are now striving to promote organic farming (Sharma, 2006). 47 NGOs are actively involved in manufacturing, compared to less in raising awareness (Sarker&Itohara 2008).

With the cultivation of various fruits and vegetables in Rajshahi in a safe and sanitary manner, gardening around homesteads using biofertilizer has begun to take momentum. Additionally, Rajshahi's poor and marginal farmers have been actively involved in this project for the past few years by making the most of the areas nearby their houses. A few businesspeople have already begun to export their organic goods to several wealthy nations. In Rajshahi, organic vegetable production is currently performed on a huge scale with a focus on export and a target market of urban residents with better incomes. Currently, a variety of superstores sell organic goods, but the farmers are not guaranteed reasonable pricing.

Furthermore, organic farming has evolved into a substitute tool for ensuring food safety, maintaining agricultural yield, and boosting soil fertility. Many producers have stepped up to create organic goods, which are being more expensively offered in various superstores, notably in Dhaka city. Due to a lack of certification, most of the time consumers are uncertain about whether the items are organic. Despite the Bangladeshi government's adoption of the organic agricultural policy, its formal application has not yet begun. Rarely has the impression of organic goods among people been investigated (Rahman & Noor, 2016).

The survey was conducted with the intention of achieving the following objectives:

- To analyze consumer attitudes about organic products in Rajshahi, the study region.
- To ascertain the state of organic farming at the moment and investigate any issues or opportunities connected to the expansion of organic farming in Rajshahi.

REVIEW OF LITERATURE

The organic customer profile is defined by demographic elements as well as lifestyle and environmental values. Regular purchasers of organic food are often more educated, affluent, and socially elite (Padel and Foster, 2005). Women and those with greater levels of education and money had a better awareness of and understanding of dietary dangers (McIntosh et al, 1994; Torjusen et al, 2001). A significant association between rising organic food consumption and levels of formal qualifications was also discovered by Lockie et al. in 2002.

Organic food buyers are ready to pay a premium of around 10%, with women on average paying 9.5% and males 11.4% on average (Urena et al, 2008). Most consumers pay a charge that is around 15% more (Urena et al, 2008). Pesticides and synthetic fertilizers are not commonly used in organic foods. Organic food includes one-third the pesticides found in conventional food (Baker et al, 2002). Organic food consumption is higher among those that are concerned about natural foods. Composting food waste and eating locally produced food are two of the most often described food-related environmental behaviors by consumers, second only to eating organic food. Organic food consumption requires increased awareness and the removal of impediments. To raise consumer interest, the link between health and environmental advantages should be reinforced (Magnusson et al, 2003).

Price premium is the percentage that is added to the cost of organic food above conventional food. Numerous arguments are made regarding the superiority of organic food to support the higher cost to customers (Fillion and Arazi, 2002). Some customers erroneously believe that they cannot buy organic food, while others believe that the market overcharges for healthier options (Whitehead and Nicholson, 2001). Organic labeling education and awareness is definitely one approach to increase the likelihood that a consumer would be willing to pay a premium for organic goods. A consumer survey in Spain on customer willingness to pay for organic products discovered the need to change organic food pricing. Consumers are willing to pay prices similar to those now in effect (Sanjuan et al, 2003). The cost of organic food continues to be a barrier for consumers. To promote consumption, the present price difference between organic and non - organic foods should be narrowed (Gil et al, 2000).

Organic food purchasers are older, come from tertiary-educated households, and have a greater income than those who do not purchase organic food (Roitner-Schobesberger et al, 2008). As a result, it was proposed that consumers are willing to pay for natural foods rises with age and wealth. Gil et al. (2000) discovered that customer socioeconomic indicators are not as important as lifestyle and attitudes toward environmental concerns.

But in Bangladesh, yearly income is a key consideration when purchasing organic food. Despite the increased price, many consumers expressed

interest in organic food and even paid more to buy it because of the foods' positive effects on their health and the environment. According to Sarker&Ithora (2008), 90% of Dhaka City consumers choose organically grown food. According to a study conducted in the Netherlands, the frequency of purchases had an impact on the health and environmental justifications for buying organic food. Health was cited by "incidental" purchasers as a key factor, whereas "heavy" purchasers took environmental concerns into account (Schifferstein and Oude Ouphuis, 1997). When consumers participate in the organic food system, they recognize their place in the community (Pirog and Larson, 2007). The perception of traditional food as being disconnected from "green" consumption is where the consumer recognition comes from. Additionally, customers may link their decisions to buy organic food with emotions of moral obligation and duty to their families (Arvola et al, 2008).

Emotional and moral aspects were revealed to have a substantial effect on forecasts of intentions to purchase organic food. The food may be less expensive and easier to produce, posing a significant challenge to organic food. Consumers who currently buy organic food, on the other hand, might be encouraged to buy more often by increasing availability and reactivity to food quality and market demands (Torjusen et al, 2001).

METHODOLOGY

The research looked at the current state of organic technology dissemination, as well as its opportunities and challenges. Secondary data sources included books, journals, newspapers, and Google searches for specific web URLs. Empirical data, on the other hand, was gathered through the use of a standardized questionnaire. A total of 50 people were questioned in Rajshahi's Amana Big Bazaar and Robi Super Shop. The questionnaire contained demographic information, opinions on organic foods, and a cost-benefit analysis. Simple statistics were used to analyse and evaluate the acquired data. Age, educational qualification, monthly income, occupation, health consciousness, and environmental awareness were used to classify interviewees.

Respondents were categorised as low (0-3), medium (4-6), or high (7-8) in terms of health consciousness using a scoring scale of 0-8. Similarly, respondents were classed as low (0-2), medium (3-4), or high (5-6) in terms of environmental awareness using a rating scale of 0-6.

Five key sources were interviewed, including academics, NGO representatives, government officials, farmer leaders, and organic food businesses, to learn about the sector's prospects and difficulties.

Based on the data obtained, content analysis was performed (Krippendorff, 2004). The variables had already been classified and coded.

RESULTS

Demographic Variables

To estimate the potential of the domestic organic food industry, it is vital to consider the demographic profiles, knowledge, and awareness level of consumers regarding organic foods. It is also important to investigate their views and impressions of the goods, as well as their purchasing decisions.

According to the findings, the majority of customers (38%) are of middle age, with a younger age group coming in second (34%). Males made up 58% of the customers. The majority of respondents have a bachelor's degree, followed by a master's degree (Table-1). According to the survey, the highly educated male population in the middle-aged class preferred to buy organic goods.

Table 1: Demographic Variables of The Study

Characteristics of the consumers	Distribution	Frequency	%
Age (years)	Young (18 - 40)	17	34
	Middle-aged (41-55)	19	38
	Old (>55)	14	28
Gender	Male	29	58
	Female	21	42
Educational Qualifications	< PSC	4	8
	PSC to HSC	8	16
	Honors	21	42
	>Honors	17	34
Occupation	Service	7	14
	Business	22	44
	Student	12	24
	Others	9	18

The richest outnumbered everyone else (42%). The trend shifted downward when monthly income fell. The poor class accounted for the smallest percentage (4%) of customers (Figure-1). The proclivity to purchase organic food is determined by one's financial level.

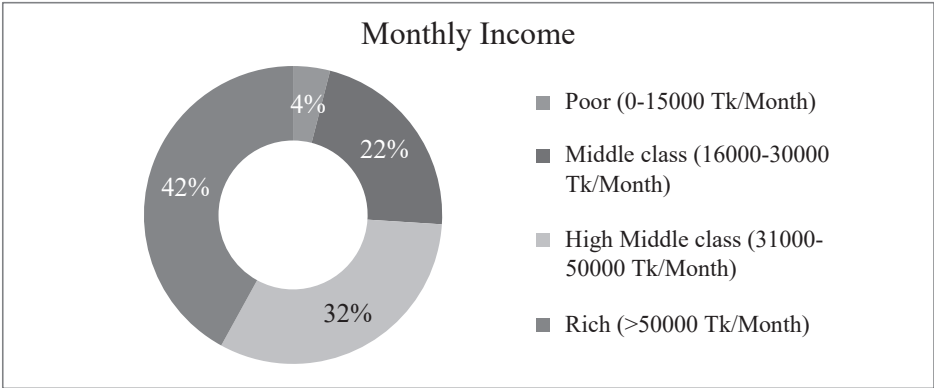


Figure 1: *Distribution of The Respondents According to Their Financial Conditions*

Health Consciousness

Most of the customers (48%) were motivated by greater personal health concerns, followed by medium consciousness. Only 18% customers were least concerned about their health (Figure-2). It might be claimed that health consciousness acts as a motivator for people to consume organic foods.

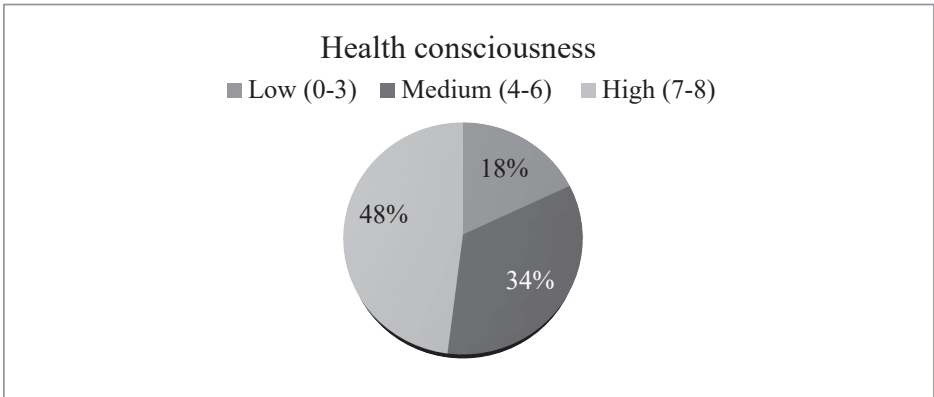
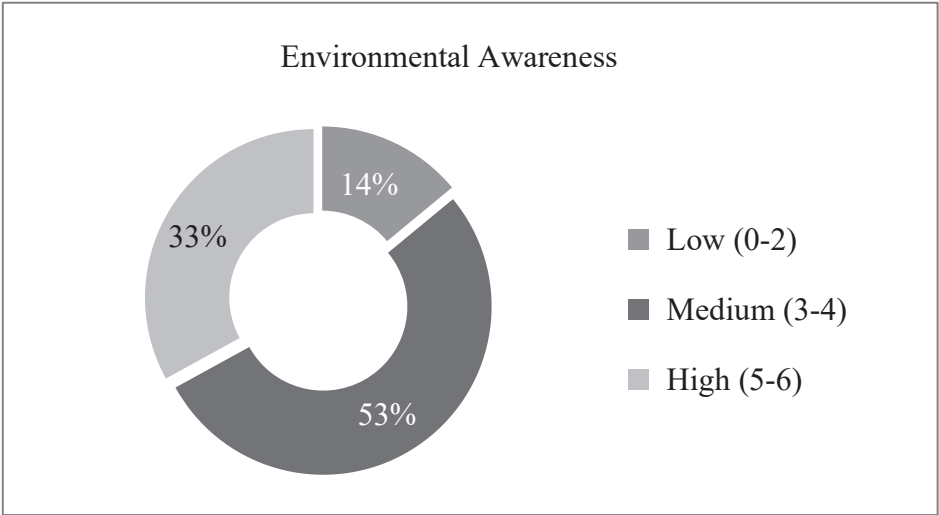


Figure 2: *Distribution of The Respondents According to Their Health Consciousness*

Environmental Awareness

About 53% of respondents were moderately concerned about the environmental risks posed by chemical agriculture. Approximately one-third of customers (33%) were concerned about environmental damage. Surprisingly, 14 percent of respondents were unconcerned about the environment (Figure-3). As a result, the health issue takes precedence over the environmental concern.



***Figure 3:** Distribution of The Respondents According to Their Environmental Awareness Level*

Views About the Meaning of Organic Food

Despite possessing some knowledge and understanding of organic products, consumers are inconsistent in their interpretation of the term "organic." As a result, they were asked to define organic food. Organic food was seen as 'foods without chemicals' by the majority of customers (38%). Without additional explanation, a sizable proportion (22%) classified it as "natural food." Surprisingly, more than one-tenth of customers had no concept what organic food meant. Similarly, 4% of customers stated that organic food was something special, but they couldn't describe why (Table-2).

Table 2: *Consumer's Perceptions About the Meaning of Organic Food*

Comments	Frequency (%)
Not sure/no idea	10
Natural food	22
Foods without chemical fertilizers	38
Foods without pesticides	10
Traditional or Indigenous foods	6
Foods have grown with manure	4
Healthy Nutritious food	6
Something more	4

Consumers Attitude Toward Organic Food and Practice

Two-thirds of customers (64%) agreed that organic agriculture may lessen the harmful effects of chemical agriculture, while 36% disagreed. Approximately 84% of customers indicated an interest in learning more about organic food production. In comparison, just a small percentage of consumers (16%) showed any interest. A total of 78% of respondents were willing to pay additional money for certification and quality control. A small percentage of consumers (22%) were unwilling to invest the extra money related to organic certification (Table-3).

Table 3: *Consumers' Attitude Toward Organic Food and Practice*

Statement	Response to Comments	
	Yes (%)	No (%)
Organic agriculture has the potential to minimize the negative impacts of chemical agriculture	64	36
Interested to know organic food culture and practices	84	16
Willing to pay more money if needed for certification	78	22

Relationships Among Different Factors Of Consumers

There was a reasonable relationship found between educational degree and financial soundness. The people with degrees were more solvents who made up the majority of the group (Table-4). The 'poor' class ranged from illiterate to Higher Secondary Certificate holders. It is inspirational that, despite poverty and a lack of education, this sector consumes organic food.

Table 4: Cross-tabulation Between Financial Condition and Educational Background of Consumers

Educational background	The financial condition of consumer				Sub-total
	Poor	Middle	High Middle	Rich	
<PSC	1	2	1	0	4
PSC- HSC	1	2	2	3	8
Degree/Honors	0	4	5	12	21
>Degree/Honors	0	3	8	6	17
Total	2	11	16	21	50

PSC = Primary school certificate; HSC = Higher secondary certificate

It is clear that educated people are more concerned about their health. Likewise, as one's degree of education rose, so did one's level of health awareness (Table-5). Thus, it might be said that knowledge plays a crucial role in elevating a healthy lifestyle.

Table 5: Cross-tabulation Between Educational Background and Personal Health Awareness of Consumers

Health awareness	Educational background				Sub-total	%
	<PSC	PSC- HSC	Degree/Honors	> Degree/Honors		
Low	3	2	1	0	6	12
Medium	0	3	9	6	18	36
High	1	3	11	11	26	52
Total	4	8	21	17	50	100

In a related manner, educated individuals were more aware of pollution and environmental damage. However, it was noted that environmental awareness was not a major health concern (Table-6).

Table 6: Cross-tabulation Between Educational Background and Environmental Awareness of Consumers

Environmental awareness	Educational background				Sub-total	%
	<PSC	PSC- HSC	Degree	>Degree		
Low	3	2	3	4	12	24
Medium	1	4	13	6	24	48
High	0	2	5	7	14	28
Total	4	8	21	17	50	100

The majority of customers expressed a lack of faith in organic food items by being unwilling to spend additional money for quality assurance and organic certification (Table-7). The willingness and income level exhibited a reasonable association. The "poor" class did not indicate any desire to pay extra. Contrarily, "wealthy" customers were unconcerned about spending extra money on wholesome organic goods.

Table 7: *Cross-tabulation between financial condition and willingness to pay more*

Willingness to pay more money for organic food	The financial condition of consumers (%)				Sub-total
	Poor	Middle	High Middle	Rich	
Yes	0	12	20	36	73
No	4	10	12	6	27
Total	4	22	32	42	100

Possibilities

According to the key informants, hundreds of farmers in Rajshahi's Paba upazila stand out from their counterparts throughout the region by excelling in organic farming. A promising project is being led by the local Upazila Agriculture office, which is teaching 500 farmers how to grow vegetables without the use of artificial pesticides and fertilizers. On 100 acres of land, these farmers divided into 25 groups and constructed 20 model vegetable farms, producing high-quality winter crops. These farmers made large earnings from the sales of these veggies at famous kitchen markets around the nation and even abroad. A farmer's organization head claims that organic vegetables are more in demand and sell for more money than vegetables cultivated with synthetic fertilizers and pesticides. Due to the increased market demand for organic veggies, farmers that use organic farming practices get higher yields and better profits. This can easily produce organic crops needed for the buffer zone (Figure 4).

The preservation of the buffer zone is the key need for organic farming. A further benefit of integrating organic agriculture is the local population's indigenous expertise. They possess a wealth of traditional wisdom and have developed the practice of not using chemicals in agricultural operations. Large-scale organic farming may be provided in Rajshahi by fusing the traditional knowledge with contemporary

agricultural techniques and technology like bio control and integrated soil nutrient management.

Using employees at lower rates is necessary for the labor-intensive production approach known as organic farming. Rajshahi's labor force may be used to provide intensive care for highly valued organic items in order to meet the product's international quality standard and generate more foreign money. As a result, organic farming may create jobs and present new business prospects for entrepreneurs.

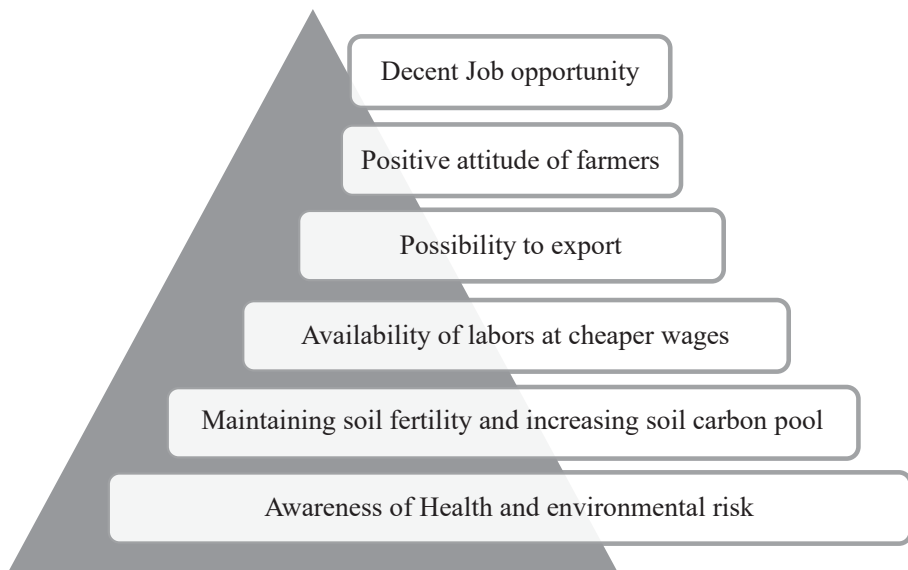


Figure 4: *Key Possibilities of Organic Agriculture in Rajshahi*

Overreaching Challenges

According to the key informants, few individuals are aware of the value of organic food items. On the other hand, the farmers are unfamiliar with agricultural and current technological techniques. Environmental and ecological awareness among people is minimal. Consumers seldom trust commercials and are dubious about the legitimacy of the items. The absence of an efficient quality control system and a reliable organic certification is one of the major issues. It is extremely difficult or almost impossible to tell conventional from organic items. Therefore, buyers must completely rely on manufacturers' or merchants' claims in favor of organic. The institutional and regulatory framework for organic product certification has not yet been created.

The development of other facilities, such as cold storage, vacuum packaging units, processing units, etc., is lacking. Market potential and organic management techniques are not well covered in the literature. In organic farming, the institutional structure for risk insurance is not well established. The agricultural market chain is vulnerable; wholesalers, Faria, Bepari, and other middlemen get the largest profits. The producers as a result receive less money than they anticipated and are denied access to market services. Consumers are simultaneously required to pay a high cost.

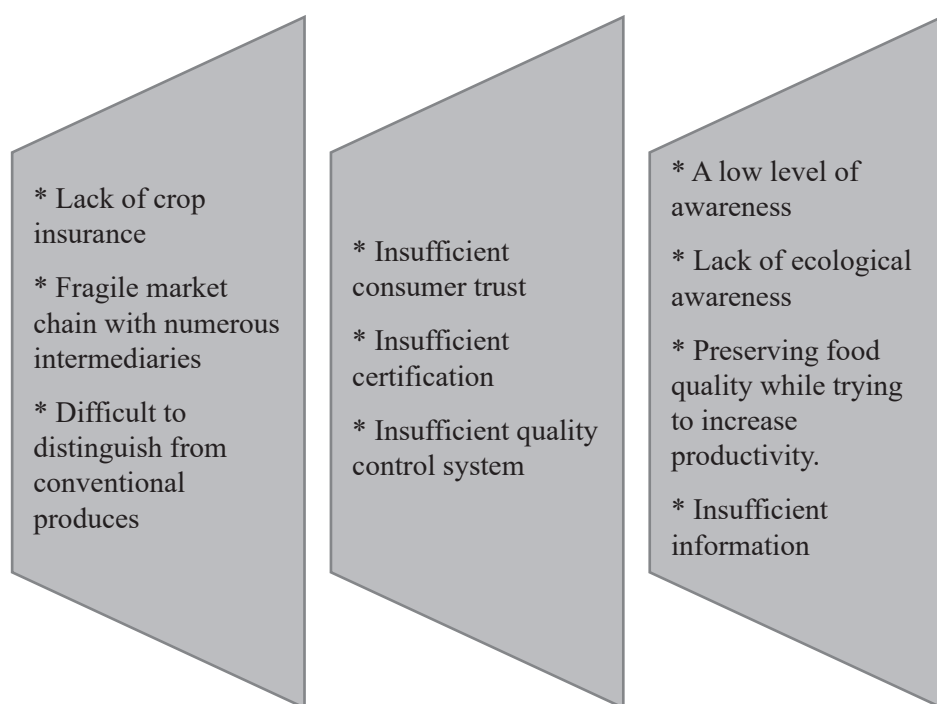


Figure 5: Key Challenges of Organic Agriculture in Rajshahi

DISCUSSION

The tremendous rise in consumer knowledge about organic food is attracting attention globally. This study demonstrated how interest in and readiness to pay extra for organic products were impacted by demographic and socioeconomic characteristics. Other research confirmed the outcome (Sanjay et al., 2011; Javanmardi et al., 2011). The degree of environmental and health awareness is significantly influenced

by education. According to studies by Javanmardi et al. (2011) and Sharon & Jonathon (2011), greater education increases people's knowledge and awareness of environmental and health issues. The majority of customers were familiar with what organic food was. Despite the limited availability of organic food, this suggests the potential of the local Rajshahi organic food sector.

However, because organic food costs more money, people are more prepared to spend more for it when their income or social standing rises. In a similar vein, Cunningham (2002) found a link between income and inclination to buy organic food. Few research have shown no connection between wealth and desire to pay for organic goods (Wolf 2002).

Many studies have been conducted across the world to assess consumer awareness and understanding about organic foods (Environics, 2001; Cunningham, 2002). Sharon and Jonathan (2011) discovered a favorable attitude toward organic food items. He noted that because of their greater educational background, the majority of respondents (80%) had a basic understanding of organic food. They also stated that rising health-consciousness and environmental concerns have resulted in an increase in demand for organic food in recent years.

The majority of respondents in this research were positive towards organic agriculture goods. Similarly, the majority of respondents were prepared to pay higher prices for organic agricultural goods. The most important factor influencing purchasing intent is trust (Ashraf et al., 2019).

Sanjay et al. (2011) studied customer behavior in India's organic goods sector. Customers were driven to buy organic products because of their flavor, quality, and environmental friendliness, according to their findings. The willingness to pay a higher price for organic items was attributed to their high quality. Jung (2011) identified food safety as the most important factor for choosing organic food. Organic food satisfied the vast majority of customers (78.9 percent). It was also shown that the majority of respondents (62.5 percent) planned to purchase more organic food in the future. According to Javanmardi et al. (2011), a greater degree of education increases the rate of intention to use organic goods in Iran. It went on to say that the majority of respondents would pay a 25% or higher price premium for organic items.

Grover and Singh (2011) conducted a socioeconomic analysis and discovered that organic producers were considerably younger in age, which reinforced young farmers' predisposition to adopt the new agricultural style. Organic producers have somewhat higher literacy rates. Organic farming was adopted by farmers whose major source of income was agriculture. The total operating size of organic and inorganic farmers in the research region was not considerably different.

According to Alam (2011), about three-fourths (73%) of organic farmers farmed vegetables, and the majority (37%) sold their products to their respective suppliers. It was also claimed that the primary hurdles of organic farming were a lack of cash and technical support, insufficient organic inputs, marketing issues, and social and cultural impediments.

Interventions In Policy

Organic farming has been adopted by either NGOs or private entities in the majority of nations. Bangladesh is no exception, and the National Organic Agriculture Policy - 2016 is currently in effect to encourage organic farming. Developing Organic Standards and establishing criteria for chemicals to be utilized or employed in organic agriculture in accordance with the International Federation of Organic Agriculture Movements or any other well-established standards has become unavoidable if organic culture is to thrive.

The formation of a National and Regional Association of Organic Farmers and Entrepreneurs will allow them to organize. According to Rahman and Akter (2020), the pilot project, Village-based organization, assisted farmers in uniting and restoring their fundamental natural resource rights. Training and knowledge exchange can help farmers and processors improve their abilities. According to Rahman et al. (2020a), the training enhanced knowledge, abilities, and attitudes toward sustainability. In this sense, educational institutions might take on the obligation of updating the Organic Agriculture syllabus. Farmers should be rewarded for generating high-quality organic manure, bio-pesticides, biofertilizers, and so on.

Given the global demand for organic products, organic agriculture should be deemed the "topmost priority industry." Khas property should

be leased to forward-thinking businesses and innovative farmers in order to develop a "Export Agro-village" in each district. Participation in national and international organic fair/trade fairs, market research, and bonding are all highly recommended.

The agriculture market chain is skewed and vulnerable. The fate of producers and consumers is decided by a set of middlemen (Alam et al. 2020; Rahman et al. 2020b; Rahman and Neena 2018). The Department of Agriculture Extension should collaborate closely with the Trading Corporation of Bangladesh (TCB) to remove all market middlemen and remove all market obstacles. Target 2c of the SDGs emphasizes the adoption of measures to guarantee the proper functioning of food markets.

CONCLUSIONS

Because of environmental concerns, the emphasis is shifting away from conventional farming and toward organic food products. Consumer demand for organic trade-in products is rapidly increasing and is swiftly becoming a worldwide reality. In response to the trend in organic agriculture, several developing countries have moved from chemical to organic farming and established national organic programs. Bangladesh's organic agricultural development is still in its early phases. However, Bangladesh may be able to capitalize on the opportunities given by prospective global organic markets. Infrastructure development, organic product laws, and standardization are all key policy factors. It is extremely difficult for poor Bangladeshi farmers to handle these challenges on their own. The speed with which the organic agricultural policy is implemented will influence the success of organic markets. As a result, a collaborative effort by all stakeholders, particularly the government, to promote the benefits of consuming organic food may aid in changing consumer behavior. Future research should thus include a consumer-centered approach, which is critical for both consumer requirements and how individuals respond to changing market situations. More practical research should be conducted to develop organic agricultural techniques in Bangladesh. Farmers can close the knowledge gap if such discoveries are widely disseminated.

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CONFLICT OF INTEREST

There is no conflict of interest.

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