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ABSTRACT

The global demand for organic foods has inspired the academicians and practicing professionals to explore consumer purchase behavior in this sector. The multiple promises that organic foods hold for the future – like sustainable food production, food safety, food security, nutrition and reduction of green-house gases – all might have influenced the recent rise of behavioral research in the organic food sector. Interestingly, Bangladesh has been a producer of organic foods since the early ‘80s; however, only a handful of studies could be traced that actually studied consumer behavior in this sector. The current paper explored the important roles that organic foods might play in Bangladesh, synthesized findings of past studies under Bangladesh context, and justified probable areas that might be investigated in future. Therefore, plausible gaps were explored in the existing literature pertaining to Bangladesh context and a tentative research agenda for future researchers was proposed.

JEL classification: M30, M31, M39

Keywords: organic food purchase behavior; organic foods in Bangladesh; roles of organic foods in a developing country; behavior of organic foods consumer; green marketing and organic foods.
1. INTRODUCTION

Organic foods refer to foods grown by farmers who emphasize the use of renewable resources and conservation of soil and water to preserve health and environmental quality for future generations. Conventional pesticides, synthetic fertilizers or sewage sludge, bioengineering, or ionizing radiation cannot be used in producing foods; meat, eggs, and dairy items must come from animals that are not given antibiotics or growth hormones in the process as well (USDA, 1995). The current global scenario of rising eco-awareness of consumers and market trends for organic foods exhibit a global rise of eco-consumerism focusing on organic foods.

In fact, the overall increase in demand for organic foods is encouraging. A report revealed that the global organic food and beverage market was worth nearly $71.2 billion in 2012 and is expected to reach $161.5 billion by 2018, with a five-year compound annual growth rate (CAGR) of 15% (BCC Research, 2014). Asia, Latin America and South Africa are likely to have rising demand due to expanding domestic production, growing governmental support and developing organic food standards.

However, despite this growing trend, the market has not been without challenges. It is reported that conventional food still constitutes the biggest portion of the global food consumption basket. In the USA, where the organic food sector has been growing fast, the United States Department of Agriculture (USDA) revealed that in 2012, organic foods constituted about 3.5% of total foods sales (Osteen, Gottlieb, & Vasavada, 2012). While many Asian countries have been producers and exporters of organic foods, their internal consumption has been very low as compared to the global trend. For example, it was estimated that the percentage of organic foods in Asia would not be over 1% of total food consumption (Kim, 2013). No statistics could be traced regarding organic food to total food consumption ratio in Bangladesh; however, it is commonly thought to be even lower than the Asian average.

It appears that despite the growth of consumption in developed countries, expanding the domestic demand in developing countries has been a challenge for the organic food sector. The same inference may be applicable to the domestic organic food market in Bangladesh, since producers have not been able to serve a viable local market (Sarker & Itohara, 2008). Many factors were proposed that prevented the domestic growth of organic foods in Bangladesh. Some of them were price, availability, confidence in the producer and retailers, awareness about organic foods, reliability of certification process, etc. (Ali, 2013; Mukul, Afrin, & Hassan, 2013). However, only a few studies could be traced that systematically addressed these issues from an organized research perspective. It appears that future researchers would find it valuable if a consolidated piece of work were available so that a direction might be beckoned towards future research agenda. Therefore, it is evident that a consolidated scrutiny of past literature pertaining to Bangladesh is immensely needed.

In line with its objectives as already stated, the paper followed an exploratory approach to set the groundwork for further research by (i) offering insight into why promoting organic food consumption would be beneficial for consumers in Bangladesh, and (ii) evaluating the past studies done under Bangladesh context and identifying whether it is necessary to conduct further studies to explore inhibiting and facilitating factors underlying the organic food consumption.

Thus the outcome would be a critical literature review aimed at identifying further research areas in this sector. In doing so, the literature review is extended beyond studies done under Bangladesh context in order to offer insight into why promoting organic foods would be beneficial for consumers in Bangladesh. The later part consists of a critical analysis of existing research papers conducted under Bangladesh context. Combining these two bodies of studies, it would be easier to focus on explaining why the organic food sector needs to be studied and what areas of this sector require examination under Bangladesh context.
2. LITERATURE REVIEW

In order to achieve the objectives as outlined above, two broad types of studies were reviewed. The first type of papers included those studies that elaborated on the question of why such investigation would be beneficial to a developing country like Bangladesh. For example, the health and environmental issues are in focus in this regard. Studies done beyond Bangladesh context were included in this group. The second type of papers included those studies that were done under Bangladesh context only, focusing on behavioral aspects of consumers. Therefore, geographical scope should be noted while assessing the research gaps. Since this is a literature review with specific objectives in mind, causal approach is not followed, and this may limit the paper’s ability to offer conclusive results through quantitative information. However, the paper may be viewed as a consolidated piece of work that is expected to provide future researchers with a quick start in formulating a tentative research agenda.

2.1. Green Marketing Context

Before stepping further into the literature review, a brief deliberation may be needed to put the organic food scenario in the broad landscape of eco-consumerism and green marketing. Eco-consumerism revolves around the environment-friendly products and services, including the production process and disposal of final products in a way that must not harm the natural environment, leading to a sustainable production and consumption cycle (Satimanon, 2013). Such environmental consciousness of consumers has resulted in marketers’ adoption of green marketing practices, although some researchers opined that the principles of green marketing might not have been practiced properly as seen in the recent marketing history (Peattie & Crane, 2005). Despite the debate on how effectively green marketing was adopted or not, the theoretical definition of green marketing views it as a set of all activities intended to generate and enable any exchange(s) in order to meet human needs or wants, such that the fulfillment of these needs and wants would concur with a minimal harmful impact on the natural environment (Polonsky, 1994). Further research reveals that the consumers’ motivation for and interests in eco-consumerism may go beyond environmental conservation, since these products are usually more expensive than conventional non-green products and consumers are willing to pay more for green products (Peattie & Crane, 2005). Interestingly, such willingness to pay more is not only confined to consumers in high-income countries, but is also present among consumers in developing and emerging economies (Loo, Caputo, & Nayga, 2015; Rahman & Haque, 2011). It follows that consumers may act based on altruism (i.e., benefits for others) rather than only self-serving interests (Griskevicius, Tybur, & Van den Bergh, 2010).

Therefore, from marketers’ point of view, green marketing appears to be profitable while appealing to ethical consumer behavior that calls for environmental sustainability and promotion of collective benefits (Honkanen, Verplanken, & Olsen, 2006). For the success of sustainability initiatives, companies should have confidence that green marketing would work, and therefore make deliberate efforts to integrate necessary product modifications which not only ensure performance, but also ensure marketability (Trivedi, 2015). Such empathetic green behavior of corporations may also have a long-run effect on consumer loyalty as research showed that the communication to consumers by green marketers had a positive impact on the corporate image (Davis, 1994).

However, the discrepancy as pointed out by Peattie and Crane (2005) in adopting green marketing practices is most likely to go away in the long-run as these green practices are increasingly being monitored by regulatory bodies and government policies across the globe (Morgan & Murdoch, 2000). Specifically to organic foods, legislative and certification issues appear to be strictly monitored since the authenticity and consumer credibility seem to be the
key determining factors for growth (Kemp & Bui, 2011). The positive effects of such legislative assurance regarding green marketing of foods, along with several motivating factors behind consumers’ interests, are already evident as organic food sector is showing impressive growth across the globe. It seems that the success of marketing organic foods may contribute to the confidence of green marketing organizations in future.

2.2. Significance of Promoting Organic Foods

Benefits of adopting organic foods may contribute in multiple fronts. Three major areas could be environmental friendliness, nutrition values and healthiness of organic foods. They are elaborated below.

Organic foods were found to be environment-friendly in many ways. Organic foods might reduce carbon footprint of conventional agriculture. Although the major share of global warming (through green-house gas emissions) was caused by industrialization and the use of fossil fuels, conventional agriculture had its own share of liability which should not be ignored. One study reported that the household consumption contributed about thirty to forty percent to the current environmental degradation (Grunert & Grunert, 1993). Some scholars recommended that the agriculture’s share of carbon footprint might be lowered by organic farming, thereby igniting enough interest on the part of policy makers (Baroni, Cenci, Tettamanti, & Berati, 2007).

Organic foods also contribute to soil fertility and prevent soil pollution. Pimentel et. al (2005) posited that organic agriculture facilitates soil quality, bio-diversity and helps in lowering energy input. Soil pollution is much less in organic farming since no pesticide and synthetic fertilizer is allowed in the process. In addition, despite the common perception that organic agriculture would have lower yield than that of conventional agriculture, a good number of past studies have found otherwise. For example, Badgley et al. (2007) analyzed past studies on yields of both types of farming and found that the average yield of organic agriculture is 92.2% of conventional agriculture in the developed world, whereas it is 180.2% of conventional agriculture in the developing countries. The reasons behind a lower yield in developed countries were cited as a longer period of conventional or intensive agriculture as practiced in those countries compared to the length of such practices in developing countries. Such an intensive and continued practice actually deteriorated the soil quality in developed countries more than in developing countries. It appears that the sooner a developing country adopts organic farming, the better situation it will be in. Therefore, specifically for a developing country like Bangladesh, organic farming holds environmental promises.

Many previous studies found organic foods to be more nutritious than genetically modified (GM) foods (Palupi, Jayanegara, Ploeger, & Kahl, 2012). Some authors specifically confirmed the nutritional superiority of plant-based organic foods when compared with genetically modified plant-based foods (Benbrook et al., 2008). Although some studies questioned the general superiority of organic foods in terms of nutritional contents (Rosen, 2010), it appears that they did not mention the residual pesticide content in genetically modified foods (Holzman, 2012). Therefore, organic foods may be considered more nutritious and safer than genetically modified foods.

As a consequence of being nutritious and safe, organic foods are considered beneficial to health. Though studies on humans are still inconclusive, some authors suspected a link between cancer and low level of pesticide residue in genetically modified foods. For example, some studies suspected that continued exposure of low level of pesticide contamination for a long time may lead to certain health risks like pre-mature greying of hair, pre-mature ageing and cancer (Halder, 2007; Hayes, 2004). In contrast, some authors found that organic fruits contain higher levels of nutrients and anti-oxidants (Maciel, Oliveira, Bispo, & Miranda, 2011). Anti-oxidants are believed to prevent various illnesses, like ageing-related illnesses and cancers.
Currently, health concern is a burning issue in Bangladesh since food adulteration has been reported to be widespread in the country (Parveen, 2008). In addition to the unregulated use of pesticides, it was reported that a number of harmful chemicals were used in various processed foods in Bangladesh (Huda, Muzaffar, & Ahmed, 2009). Illegal preservatives that are highly carcinogenic in nature were often used in fishes and vegetables (Mamoon & Haque, 2013). Therefore, availability and adoption of certified organic food could be a possible solution to this problem.

It appears that organic foods have multiple benefits that may warrant mass promotion and adoption at the consumer level. Although Bangladesh has been producing organic foods since the ‘80s, and over 100 national retail stores are already selling organic foods locally, the consumer response appears to be limited to cities only. Despite all the benefits that may accrue out of organic food adoption, it was observed that the domestic market for organic food is limited in Bangladesh (Sarker & Itohara, 2008). This leads to a puzzle as to what is preventing consumers from adopting organic food in their daily diets. Why are consumers not buying enough organic foods that may have multiple benefits when compared with conventionally grown GM foods? Evidently, answering these questions requires understanding consumers’ food purchase behavior and systematic studies that would look into the bottlenecks in consumers’ adoption of organic foods.

2.3. Review of Past Studies under Bangladesh Context

It was found that the studies on organic food purchase behavior under Bangladesh context were scant. Twelve studies on the organic food sector in Bangladesh could be traced either in journals or in other online resources through extensive searching. Out of these twelve studies, only five studies could be traced to the consumer-end, five could be traced to the farmer-end, and the rest were institutional status reports. The following authors conducted consumer-end studies under Bangladesh context – Iqbal (2015), Mamoon & Haque (2013), Mukul, Afrin, & Hassan (2013), Sarker & Itohara (2008) and Rahman, Omar, & Ullah (2007). The following analysis critically reviews these studies and explores the potential gap in studies under Bangladesh context.

The study conducted by Iqbal (2015) followed an exploratory approach in identifying salient features of consumer behavior in the organic food market in Bangladesh. The author identified the strengths that the country has in this sector, as well as the bottlenecks in consumers’ adoption of organic foods. In line with other studies under Bangladesh context, the author mentioned that availability, price and lack of knowledge could act as barriers to widespread adoption of organic foods. Although convenience sampling was conducted, the large sample size (n = 900) might yield the possibility of having some representative information. The author attempted to identify the underlying factors in purchase intention, and derived a three-factor model through a principal component analysis. However, due to low internal consistency, only one factor appears to be relevant. It appears that the questionnaire design needed rigorous modification based on the data reported in the article. It was found that gender, education and income were significant in explaining variability in the data. However, the article did not follow a causal model as only an exploratory factor analysis was reported, thus leaving a scope for future studies with correlational design.

Another study conducted by Mamoon & Haque (2013) followed a development theme of cultivating organic food under Bangladesh context by proposing a worry-free food system for consumers in an otherwise chaotic political and economic environment. The authors rightfully pointed towards the increasing use of fertilizers due to the increase in cultivation of high-yield crop varieties. An increase in the use of fertilizers may ultimately lead to the degradation of soil and water pollution. The city-based and limited organic food culture has also been noted.

As an evidence of lack of policy support, the authors pointed towards the cheaper hybrid seeds and synthetic fertilizers provided by the government to farmers. Poverty among farmers
made them prefer cheaper sources for their agricultural inputs. Fortunately, higher market prices of organic foods were having a pull effect on farmers to adopt organic farming. A number of non-government organizations were contributing to the growth of organic farming since the government did not have any such program in this sector. The study rightfully identified the need for government support in this sector in order to make farmers quickly adopt organic farming, so that the chain of benefits might flow to consumers as well.

However, the study is exploratory and qualitative in nature. No formal theoretical model has been taken to frame the research. It looked into the background, current organic farming situation and consumer adoption preference. Therefore, only some descriptive measurements were reported without any conclusive interpretation on consumers’ purchase behavior. Another limitation of the study was its urban-based sample. Only faculty members of a university were selected through a convenience sampling method that might have the issue of representativeness of actual customers. However, a Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis of organic consumers’ community was conducted, the process of which might be of immense value to future researchers.

The study conducted by Mukul, Afrin, & Hassan (2013) also pointed towards the city-based organic food culture like the foregoing study, and discussed similar issues like food safety and availability. This is the only study that adopted a formal research framework. In fact, this causal study looked into the predictors of organic food perception among consumers. In doing so, five predictors of consumer perception were identified. They were: food safety, price, nutrition, sensory attributes and environmental friendliness. The study found that the nutrition content and low pesticide level were significant predictors of organic food perceptions among consumers. The study suspected that the high price of organic foods could be a reason for a low adoption rate among general public; however, findings did not support this hypothesis. It could be an important finding which might be tested further by future researchers.

The study proposed a random sampling method but ultimately the research was conducted through selective sampling process. Thus the representativeness of the sample was compromised on practical grounds as already mentioned by the authors. It may be highlighted that the research looked into only the perception factors, and not attitude towards organic foods or purchase behavior of consumers. However, future studies may take the result into account and advance such investigation further into measuring the attitude and behavior towards organic foods in Bangladesh.

Another research conducted by Sarker & Itohara (2008) highlighted both the demand and supply side profiles of organic food sector in Bangladesh. The study comprised a field survey on both farmers and consumers conducted through random sampling; therefore, the generalizability of findings would likely be superior to other studies. Although the study followed a quantitative approach, descriptive design was followed rather than causal design. Evidently, no particular underpinning theory was followed as a research framework. This leads to some descriptive results like consumers’ demographic profiles, without any inferential analysis.

Despite these shortcomings, the paper consistently found that upper-income consumers had a higher level of awareness about organic foods. Organic food consumers were mostly clustered among middle and upper-income groups where those groups were also high on health and environmental awareness. A majority of organic food consumers were willing to pay a price premium, although no inferential analysis was done because of the descriptive nature of the survey. However, the paper consistently reported a high proportion of consumers who lack confidence in the organic claims by the sellers. Future researchers may consider this a common trend among most papers that consistently direct attention to the lack of trust under Bangladesh context. In addition, it was also found that a high proportion of consumers thought that organic foods were not widely available. These two bottlenecks (trust and availability) might be studied further to explain a low adoption rate of organic foods in Bangladesh.
The study by Rahman et al. (2007) is a short review paper, exploring a general scenario of both the production and consumption patterns of organic foods in Bangladesh. The paper followed a development approach and discussed how organic foods could contribute in various ways to our society and economy. The authors quoted past survey results by the government agencies and reported a high level of awareness among middle or upper-income class consumers. This finding was consistent with previous findings by other authors as already discussed. It was also reported that a sizable portion of consumers had doubts whether the organic foods sold in the domestic market were genuinely organic. Therefore, lack of confidence in the organic food producers or marketers can be suspected to be a bottleneck in consumers’ adoption. However, since the study is of exploratory type, no conclusive analysis was done with quantifiable data. Despite this shortcoming, the paper fairly identified four bottlenecks in this sector that could be open to further studies. Those were: farmers’ poverty leading to lack of motivation, lack of knowledge and awareness about organic farming, insufficiency of organic inputs and poor marketing by national retailers.

3. DISCUSSION AND CONCLUSIONS

Based on the studies published so far, the following gaps can be identified that may be addressed in future research under Bangladesh context.

It was found that a majority of studies were of exploratory nature, resulting in descriptive results without any inferential analysis. Therefore, a causal study design may be adopted in future research to identify factors facilitating and inhibiting consumers’ adoption of organic foods. This would primarily address a methodological gap.

It is evident that except for one study by Mukul et al. (2013), other studies did not organize the research within any theoretical framework. Therefore, further systematic studies are warranted to either test the validity of previously tested models in organic food market research or identify a viable model that would suit the organic food consumers’ behavior under Bangladesh context.

It may be noted that where the high price of organic foods has been mentioned as a barrier to consumers’ adoption by some studies, this is contradicted by other authors as well. Therefore, this contradiction can be tested further under Bangladesh context. In addition, availability has been mentioned by most authors as a barrier to consumers’ adoption of organic foods; however, these studies are not of causal type. Therefore, further investigation is warranted to infer on this relationship. The issue of availability may also be investigated from the supply side perspective. There is an indication that lack of the government role at the supply side may inhibit the adoption at the farmers’ level, thereby leaving customers short of organic food supply. This potential role of the government may be studied further to find the impact of the government role on raising the adoption rate among consumers. The government role may also be explored in terms of tentative capability and credibility of organic food certification since consumers have reported their lack of confidence in organic claims by the sellers. Therefore, trust factors need to be included in the future research framework.

In summary, it may be concluded that a causal research design is necessary in conducting future investigations on organic food purchase behavior in Bangladesh. The future research framework may examine the influence of price, availability, trust, health concern, environmental concern, sensory attributes of organic foods and other demographic factors on consumer behavior related to organic foods. A clearer scenario of consumer behavior is important for both practicing managers and policy makers at the government level. Such investigations may not only explore the demand side scenario by clearly reflecting on the determinants of purchase behavior, but also reflect on the supply side issues that may interfere with the consumer-adoption process of organic foods.
It may be evident that organic foods hold bright promises for Bangladesh, just like for any other country. Organic foods are generally known for their environmental friendliness, safety, nutrition content and healthiness. However, the low adoption rate in developing countries, including Bangladesh, has been a common phenomenon. Therefore, investigating the behavioral aspect of organic food would provide immense insight to practitioners and policy makers in this sector. Considering the multiple social and economic benefits of organic foods, researchers may immediately address the future research agenda and immensely contribute to the society and economy.

References


