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Factors Affecting the Buying Intention of Organic Tea Consumers of Bangladesh

Razia Sultana Sumi ¹ and Golam Kabir ^{2,*}

¹ Department of Marketing, Jagannath University, Dhaka-1100, Bangladesh; razia6du@gmail.com

² Department of Mechanical, Automotive, Materials Engineering, University of Windsor, Windsor, ON N9B 3P4, Canada

* Correspondence: golam.kabir@uwindsor.ca; Tel.: +1-519-253-3000

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Abstract: In the modern era of globalization, consumers become aware and concerned about their health as well as natural resources and the environment. Technological improvement and economic growth are continuously exploiting the earth's resources, resulting in an overwhelming burden on earth's ecology. Confirming a state of equilibrium between economic growth and safeguarding the environment becomes a challenge for business people and marketers. Though people worldwide are becoming interested in buying organic food, the concept of organic farming is relatively new in Bangladesh. The tea industry has started off with producing organic tea on a very limited scale. In this study, the researchers tried to examine the buying intention of organic tea among the consumers of Bangladesh. The study demonstrated that trust and perceived price significantly affect the buying intention of organic tea consumers along with product attributes, health consciousness, and environmental concern. Marketers may consider the stated factors to create an influence on the selection process of organic tea by consumers.

Keywords: organic tea; buying intention; perceived value; partial least squares; path analysis

1. Introduction

People worldwide are becoming more conscious about food substances that should contain the minimum standard of perceived physiological benefit comprising health as well as environmental benefit for humans and animals. There has been a rapid movement toward organic food consumption produced through organic farming practices. Historically, Bangladesh is characterized as an agro-based country and its economy is dependent on agriculture; however, due to the overuse of chemical fertilizers, the quality of the soil is degrading and agricultural production is declining sharply. Though the people of Bangladesh have little knowledge about the concept of organic farming, the farmers and consumers have shown their awareness about this concept [1]. In Bangladesh, organic tea production was introduced in the year 2000 by Kazi & Kazi Tea Estate Ltd. (KKTE, Dhanmondi, Bangladesh). The tea was from the Tetulia region and named 'Teatulia Tea Garden'. Panchagarh (Northern part) in Bangladesh was selected as an area for organic tea cultivation as it has better organic matter and pit status for tea soils [2]. Around 7500 skilled and unskilled workers have been working in tea gardens in the Panchagarh district [3–5]. As a sustainable behavior, regular consumption of organic tea not only ensures health and environmental benefit, it also helps to achieve a competitive position in the market over the other firms [6].

Organic farming is a complex innovation that requires a strategic or systematic change which, on one hand, may sometimes imply economic penalties, while on the other hand, the transition may lead to better profitability through a combination of cost savings, premium price marketing, and subsidies [7,8]. Therefore, a comparative assessment of the value and benefit of organic food and its

farming systems that provides the assumed external costs of organic agriculture could entice farmers to adopt more sustainable farming practices [9,10]. A promising and composite relationship has been demonstrated between organic farming and sustainable rural development [11,12]. Different consumer research on the purchasing patterns of organic food have identified several reasons to explain why organic food healthier, more nutritious, and better tasting is compared to non-organic food [11,13]. Unlike non-organic food, organic food is produced without synthetic chemicals and is less exposed to environmentally harmful substances [7,14]. Similarly, organic tea production is also considered profitable because of its premium price and cost-effectiveness. It has been reported that the production of organic tea was equal to or resulted in an even greater yield size than the pre-organic production [15]. Organic farming also restores the natural food chain by protecting the lives of birds and insects [16].

Like other organic food products, organic tea is cultivated by an alternative production system that is ecologically sustainable and free from the intensive use of chemical fertilizers and pesticides. Bangladesh is characterized as an overpopulated developing country where the soil of arable land is deteriorating, and yield size is decreasing due to the unbalanced use of chemical agricultural inputs [1]. Therefore, organic tea production through organic farming technology can reduce the harmful impact of agro-chemicals on human health and wildlife. In Bangladesh, organic tea is produced without chemical pesticides. Instead, natural fertilizers are procured by recycling and thus all internally generated bioresources are used in the production process. A growing interest and adoption behavior of organic food production has occurred among the Bangladeshi people because of their concerns about the environment and health issues related to food production [17].

Numerous studies have investigated the influence of different factors on the purchasing intention of organic food consumers [18,19]. In this study, researchers have focused on the influential factors affecting the buying intention of the organic tea consumers of Bangladesh, where a significant portion of the total population is illiterate. As organic tea has been available in the market since the 1970s as an agricultural commodity, most of the people in Bangladesh remain ignorant about the health benefits and production process of organic tea. Therefore, through this study researchers seek to demonstrate the socio-economic characteristics of the respondents and their buying intention of organic tea. The empirical evidence and literature of this study are illustrated in Section 2. In Section 3, the objectives, conceptual framework, and the hypothesis of the study have been explained. Then the proposed methodology for data collection and analysis has been presented in Section 4. After that, the final analysis and findings have been incorporated in Section 5. Finally, a brief discussion of the results, conclusion, limitation, and future implication of the findings are included in the concluding section.

2. Literature Review and Hypothesis Development

In the established tea market, tea is produced by traditional farming methods. Marketers face a great challenge is attracting customers with new product concepts, such as organically produced tea. Recently, consumers are paying more attention to organic products as a result of the distinguished production method, which is different from the conventional one. Along with different intrinsic causes, external factors highly influence the buying intention of consumers. A consumer's evaluation process about the value of a product and the service required for their perceived benefit and cost will significantly influence their buying decision [20]. In this study, we based our argument on the fact that today consumers are not only searching for product quality and fair price, they also become conscious about health and environmental issues [21]. Therefore, we have extended our proposed model (Figure 1) by adding in health benefit, environmental concern, and trust of the labeling and certification, in addition to the traditional means-end model of Zeithaml [20]. In this study, the perceived value of the customers will be measured with the effect of the perceived quality derived from the product attributes, health benefit issues, environmental awareness, trust, and perceived price, because these attributes consequently influence the buying intention of the customers. Organic tea, which has been produced by natural substances as opposed to chemical ones, motivates customers toward organic consumption. Therefore, along with the product attributes (e.g., good taste, nutrient

value), the influence of health benefits and environmental issues on organic tea consumers are also analyzed in this study.

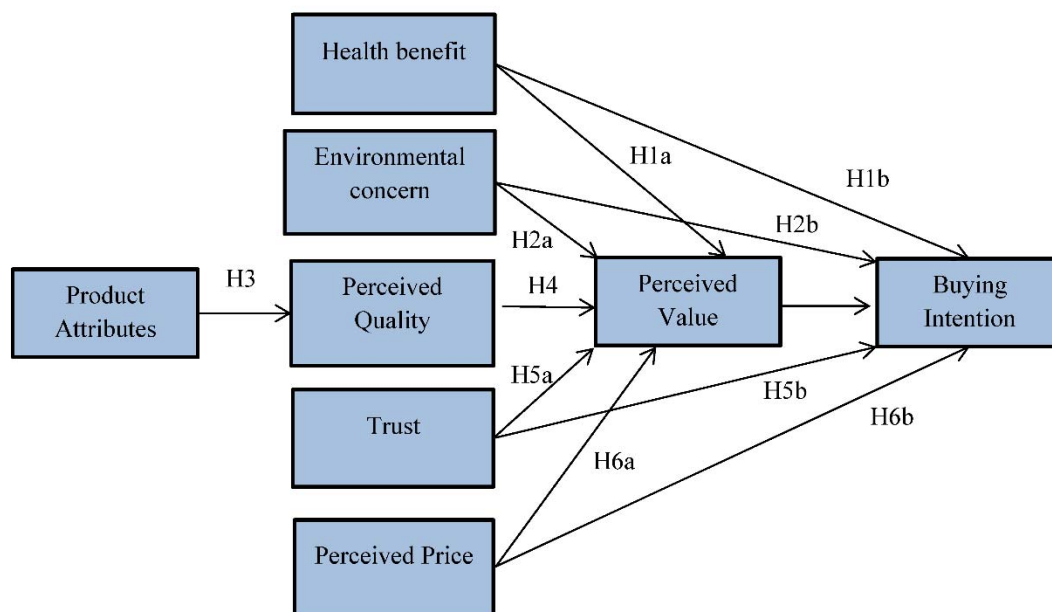


Figure 1. Proposed theoretical framework.

2.1. Health Benefit

Due to a greater awareness about the ill effects of the chemicals used in conventional food production, consumers are more willing to buy organic food [22,23]. Consumers believe that organic food is free from chemical residues and food additives and preservatives [22]. Therefore, people become interested in consuming organic tea instead of traditionally produced tea. With regard to the attributes of organic food, researchers indicate that health and wellness are central to today's mainstream consumers [24]. In North America, 78% of consumers purchased organic food because they perceive these products to be healthier choices for themselves or their children. In Thailand, health consciousness has been the main motive of customers to buy organic food [25]. In many studies on organic food items, health and health benefits are identified as one of the major motivational factors behind the purchase of organic food [24–26]. Likewise, safety and natural content is another major factor that influences the consumption of organic tea and consumer preference to include organic tea as a supplement for a healthy lifestyle [27]. Therefore, among many other factors, the consumer's health concern at the time of purchase [18] is considered as a major influencing factor as to whether they will purchase organic tea products in this study.

Hypothesis (H1a). *Health benefit has a positive effect on perceived value of consumers.*

Hypothesis (H1b). *Health benefit has a positive influence on the buying intention of organic tea.*

2.2. Environmental Concern

Due to the rapid growth of information technology, consumer concern about environmental issues has achieved a strong momentum. Several environmental benefits have been attributed to organic farming and they have been confirmed by the available literature in the area of soils, farm ecosystems, ground and surface water protection, and farm inputs and outputs [8,28]. Organic farming reduces the use of external production factors and avoids the use of synthetic chemicals such as

fertilizers, pesticides, and medical supplies for animals [29] by substituting them with natural manure and pesticides that are safe for the health of human beings and animals. Therefore, an interest in the welfare of the environment and for the animals has directed customers toward consuming organic food. Personal health concerns and environmental concerns are the two most commonly stated motives for purchasing organic foods [30]. People selectively pay attention to aspects of their environment that are relevant to them and that they are able to comprehend [31]. However, a study on Norwegian consumers identified that environmental protection and animal rights impacted their positive identification with organic food [32].

Hypothesis (H2a). *Environmental concern has a positive effect on the perceived value of organic tea.*

Hypothesis (H2b). *Environmental concern positively affects a consumer's buying intention of organic tea.*

2.3. Product Attributes

Product attributes are the features and utilities of a product that satisfy the needs of the customers. To differentiate and identify a product, product attributes play a significant role in the evaluation process of the customer. In a study on the motives of organic food buying behavior, Davis et al. [33] reveal that along with environmental concern and health consciousness, safety, quality concerns, and purchase motives are also attributed to specific product attributes, such as nutritional value, taste, freshness, and price. Nigerian consumers believed that organic food is healthier, tastier, has no harmful effects, and is of a better quality than inorganic food [34]. Consumers perceive organic food as more natural, safer, better in taste, and more enjoyable than conventional produce. Organic food's nutritive attribute has given it a competitive advantage over conventionally produced goods [35]. Therefore taste, natural content, and the nutrient value of organic tea makes it popular choice for health-conscious people.

Hypothesis (H3). *Product attributes have a positive influence on the perceived quality of organic tea.*

2.4. Perceived Quality

Perceived quality can be defined as the consumer's judgment about a product's overall excellence or superiority [36], which has a positive effect on the perceived value and increases buying intention [37]. Many researchers have suggested that as an antecedent, perceived quality has a positive effect on perceived value [38]. Perceived quality defines a customer's subjective judgment and evaluation of the functional and practical benefit of the product. Monroe and Krishnan [39] explained perceived quality as the perceived capability of a product to deliver satisfaction compared with available alternatives. In another study, a consumer's assessment of quality is defined as an attitudinal judgment of a consumer's evaluation of a brand and the extent of the fulfillment of their expectation [40]. Therefore, the perceived quality of organic tea in a consumer's mind is one of the significant mediating variables that measure the buying behavior of Bangladeshi tea consumers.

Hypothesis (H4). *Perceived quality positively affects the perceived value of consumers.*

2.5. Trust

A consumer's intention to buy organic tea highly relies on consumer trust. In most cases, trust increases the reliability of consumers and performs as an effective tool for lessening uncertainty about a product trial. Nowadays consumers show a particular interest in certification and the labeling of an organic product enhances trust. In the organic tea market, consumer trust is a very complicated issue because consumers cannot verify its authenticity even after consumption [10]. According to

Teng and Wang [10], trust in organic food indicates the importance of organic food consumption and subsequently affects consumer attitude and behavior. Reports have found that clear and evident labeling on the product is an important precondition for purchasing organic food [41,42]. Perrini et al. [43] explain that among the Italian consumers, trust in retailers is highly dependent on the retailers' commitment towards consumer rights and the environment. A consumer's trust has a strong positive effect on the purchasing intention [44]. As the organic tea market in Bangladesh is relatively small and underdeveloped, consumer trust of a retailer significantly influences the purchase decision of a buyer. Therefore, we hypothesize that an increase in trust will positively affect the buying intention of the consumer.

Hypothesis (H5a). *Trust has a positive effect on the perceived value of organic tea consumers.*

Hypothesis (H5b). *Trust significantly influences the perceived value of organic tea.*

2.6. Perceived Price

Price is the monetary value of the product that has a major influence on the decision-making process of a customer. Price is considered an indicator of quality when other external factors or benefits of a product remains the same. From a customer's perspective, the price of the product is something lost or sacrificed to attain a product [20]. In a study by Monroe and Krishnan [39], the actual price is considered a stimulus to the customers. The high price of organic tea sometimes acts as a barrier to its growth. Wier et al. [45] indicated high price elasticity in the demand for organic tea. Hack [42] and Jolly [23] point out that high price is one of the important reasons that prevent people from buying organic food. As a huge number of the population is ignorant about the health properties of organic food, the price is considered as one of the important factors that could affect their purchase decisions [13]. Willer et al. [46] have found that because of the high price, organic food is relatively unpopular with consumers in developing countries. Therefore, the perceived price of organic tea negatively influences the perceived value of the product. In another study, Dodds [47] identified a negative effect of price on a product's value but a positive effect on the perceived product quality.

Hypothesis (H6a). *Perceived price has a negative influence on perceived value.*

Hypothesis (H6b). *Perceived price negatively influences the purchase decision of consumers.*

2.7. Perceived Value and Buying Intention

Perceived value is a mental evaluation process of a customer about a particular product and service on the basis of price, attributes, and other benefits. The perceived value of the product is a significant determinant of an individual's belief, which consequently affects the decision to purchase [48]. In marketing, perceived value is termed as a customer's evaluation of the benefits and expenses gained from the purchase of a particular product and receiving of a service [49]. 'Value' implies a 'trade-off' between benefits and sacrifices; moreover, it implies an interaction between a customer and a product or service [50]. Zeithaml [20] defines 'value' as an overall assessment of the utility of the product based upon the consumer's perception of what is given and what is received. Consumer perception of organic food has changed due to its promotion in mass media and the awareness building campaigns undertaken by national and international NGO's [19]. Similarly, Lapierre et al. [38] argue that there is a stronger relationship between perceived quality and perceived value where perceived value implies an interaction between a consumer and a product [51]. Ajzen [52] observes that behavioral intentions refer to the strength of an individual's intention to perform a particular behavior. As a new concept, the decision to buy organic tea requires altering an existing behavioral pattern and reinforcing a positive attitude toward the concept and purchase of organic tea. In their study on organic food,

Attanasio et al. [11] have found that a consumer's intention to purchase organic food was influenced by their perception about the value of the organic product and their belief in the health and safety of the product. In this study, perceived quality and perceived value are considered as mediating constructs that significantly influence the purchase decision of a consumer. In addition, the growing concern of consumers about the environmental problems linked to their consumption behavior has further impacted their attitude towards purchasing organic tea.

Hypothesis (H₇). *Perceived value has a significant positive effect on the intention to buy.*

3. Objectives of the Study & Research Framework

In this study, the major aim of the research is to explore the factors that influence the buying intention of organic tea consumers. After analyzing previous literature on the behavioral patterns of organic food and organic tea consumers, eight constructs have been identified to measure the buying intention of organic tea consumers in the context of Bangladesh.

Drawing from Figure 1, the theoretical framework includes one dependent variable, buying intention; two mediating variables, perceived quality and perceived value; and five independent variables, health benefit, environmental concern, product attributes, trust, and perceived price.

4. Methodology of the Study

4.1. Data Collection

Primarily, because organic is a new concept in the market, exploratory research has been done to identify the variables that stimulate customers to buy organic tea products. In a group discussion session, 30 MBA students participated to find out the constructs that affect the buying decision of organic tea consumers. On the basis of insights into the group discussion and literature review, the authors conceptualized eight constructs to design the research framework. In the final questionnaire, 22 latent variables under eight constructs have been employed with the guidance of the proposed model. A Likert seven-scale is applied to measure all variables and to rate each construct (1 = "strongly disagree", 7 = "strongly agree"). As organic tea is relatively new in the Bangladeshi market, the survey was conducted in two major urban cities where the population was highly affluent and educated, rather than a rural area. A sample was collected using the convenience sampling method and the data was gathered using a structured questionnaire (Appendix A). A mall-intercept interviewing method was used to collect the primary data. Respondents were selected randomly from six superstore chains. Eight graduate students were trained for two weeks to administer the interviewing session. Among 341 persons, 190 participants filled-out the questionnaire and 174 responses were selected as the final sample size. The effective sample recovery rate is 92%.

4.2. Data Analysis

For this study, Partial Least Square Structural Equation Modeling (PLS-SEM) was applied to analyze the research model. This study is characterized by a relatively small sample size compared with the number of indicators [53] and prediction-oriented research [54], which validates the use of Partial Least Squares (PLS), tests and measures the proposed research model. Furthermore, PLS (version 3, build 1126) has the ability to account for measurement errors for unobserved constructs and to examine the significance of the structural paths simultaneously [55]. Structural Equation Modeling (SEM) is a popular model that simultaneously assesses the measurement model (the relationship between constructs and measurements) and the path model (the relationship between the constructs) to test theoretical relationships [56]. In this study, a path analysis model was used to measure the significance and statistical acceptability of the proposed structural model.

5. Results and Discussions

5.1. Demographic Classification

The participants who gave their responses about drinking organic tea consisted of 76% female and 24% male consumers. Most of the respondents were highly educated. 44% of participants had completed their post-graduation, 32% of participants had completed their graduation degree, and 15% of participants were undergraduate students. From the analysis, we found that 34% of respondents are aged 18–25 years, 33% of respondents are aged 26–35 years, and 32% of respondents are aged 35–46 years. In terms of family income, most of the respondents come from families with high income, because 56% of participants earned more than 50,000–60,000 tk/month, and 32% earned more than 40,000–50,000 tk/month.

5.2. Reliability and Validity Test

In the second part of the questionnaire, the responses to the adoption pattern of organic tea were collected through a seven-point Likert scale. The reliability and validity have been assessed in the measurement model. Internal consistency reliability was examined using composite reliability. In PLS, composite reliability relies on actual loadings to compute the factor scores and is a better indicator of internal consistency reliability than Cronbach's alpha [57]. As shown in Table 1, the composite reliability values for the sub-constructs in the model were all above the suggested threshold of 0.7 [58,59] and thus support the reliability of the measurements.

Table 1. Analysis of Measurement Model.

	Standardized Factor Loading	Composite Reliability	Average Variance Extracted
Health Benefit		0.887	0.724
1. Organic tea is beneficial for health	0.840 ***		
2. Organic tea is produced in natural way	0.834 ***		
3. I feel safe as organic tea is free from chemical infusions	0.878 ***		
Environmental Benefit		0.829	0.617
1. Organic tea is more environment-friendly	0.753 ***		
2. Organic tea is produced from organic manure	0.792 ***		
3. Organic tea is produced by using natural pesticides	0.811 ***		
Product Attributes		0.812	0.692
1. Organic tea is a natural product	0.731 ***		
2. Nutrient value is more in organic tea	0.856 ***		
3. Organic tea is tastier	0.714 ***		
Perceived Price		0.770	0.528
1. Price of organic tea is affordable	0.718 ***		
2. Less price difference from traditional tea	0.712 ***		
3. Paying more for organic food is worthy	0.748 ***		
Trust		0.797	0.664
1. Labeling on organic tea is clearly understandable	0.874 ***		
2. Certification of organic tea is highly reliable	0.751 ***		
3. Promotional demand about organic tea is trustworthy	0.732 ***		
Perceived quality		0.758	0.613
1. I think quality of organic tea is superior than traditional	0.702 ***		
2. Positive image of organic food inspires me to buy organic tea	0.856 ***		
3. Organic tea is better substitute than conventional tea	0.756 ***		
Perceived Value		0.848	0.736
1. I find positive value in terms of benefits and costs of organic tea	0.885 ***		
2. High price of organic tea creates great value to me	0.830 ***		
Buying Intention		0.820	0.696
1. I regularly drink organic tea as a healthy beverage	0.903 ***		
2. I search different stores to buy organic tea	0.759 ***		

Note: *** indicates *t*-test has reached the significance level ($p < 0.001$ level).

Convergent validity was evaluated through average variance extracted (AVE), and two tests were used to measure this validity. The first step included examining all items by their factor loadings on their construct and the second test examined whether the AVE values of all items should have loadings above the suggested 0.55 [60], as shown in Table 1. Items that carried less than the minimum loading were deleted at the time of calculation. The test results of this study examined the AVE values and showed that all the sub-constructs were above the limit of 0.50 [61], except for perceived price.

Discriminant validity was examined for both the items and the construct level. For this study, the authors have examined the discriminant validity at the construct level. At the construct level, the square root of the AVEs in the diagonal cells for each construct is larger than any correlation between this construct and any other construct [61], as shown in Table 2. Thus, the discriminant validity was supported.

Table 2. Discriminant Validity.

	Environmental Concern	Health Benefit	Buying intention	Perceived Price	Perceived Quality	Perceived Value	Product Attributes	Trust
Environmental Concern	0.786							
Health Benefit	0.559	0.851						
Buying intention	0.389	0.392	0.834					
Perceived Price	−0.217	−0.220	−0.202	−0.727				
Perceived Quality	0.640	0.539	0.506	−0.191	0.783			
Perceived Value	0.478	0.432	0.426	−0.334	0.566	0.857		
Product Attributes	0.615	0.451	0.474	−0.260	0.546	0.511	0.831	
Trust	0.601	0.540	0.406	−0.219	0.633	0.493	0.547	0.814

The **bold** numbers of the diagonal are the square roots of average variance extracted (AVE). Off-diagonal elements are correlations among constructs.

5.3. Path Analysis

In this study, Partial Least Square Structural Equation Modeling (PLS-SEM) has been applied to estimate the standardized path coefficients (direct effect). The reason for using PLS-SEM over CB-SEM is that few restrictions are placed on the unbiased estimates of the sample size [21]. Furthermore, PLS-SEM is the preferred analysis tool of this study to measure the path coefficients that indicate the strength of relationships between constructs. The significance of the path coefficients is assessed by the bootstrap *t*-values, which should be higher than 2.0 [62]. The PLS path coefficients are shown in Figure 2. For this analysis, 174 responses have been collected as the sample with the dependent variable of “buying Intention”. To assess the statistical significance using bootstrapping, 500 resamples were used. Chin [62] found that PLS does not explain an overall goodness-of-fit index, rather, it primarily assesses validity through investigating R^2 and the structural paths, as one would with a regression model. The findings support the hypothesis of the model (see Figure 2). The perceived value has a positive influence on a consumer’s buying intention of organic tea, with significance at the $p < 0.05$ level. Approximately 75% of the variance in intention to buy organic tea is accounted for by the dependent construct attitude in the model ($R^2 = 0.744$). The standardized path coefficient accounted 0.603 from the perceived value derived from perceived quality, health benefit, environmental concern, trust, and perceived price, which accounted $R^2 = 0.876$, exceeding the suggested minimum standard of significance at 0.20 [62]. Thus, the fit of the overall model is good.

To measure the strength of the effect of a particular independent variable on the dependent variable [62], Effect size (f^2) was also computed. The threshold cut-off value was $f^2 = 0.02$ for the small effect, $f^2 = 0.15$ for medium effect, and $f^2 = 0.35$ for large effect sizes [63]. The results of the F-statistics explain a large effect of the perceived value on the buying intention of organic tea and are accounted for as an F value = 45.78 is significant at 5% level.

The sub-constructs of perceived value, the health benefit, environmental concern, perceived quality, and trust, had a positive and significant influence on a consumer’s buying intention of organic tea. Whereas the perceived price of organic tea had a negative influence on a consumer’s buying intention. In addition, product attributes have a high (0.546) influence on perceived quality, which

relatively affected (0.766) the perceived value of organic tea in the mind of the customers. Health benefit, environmental concern, and trust had a significant influence on the buying intention of the buyer; however, these sub-constructs had no influence on the perceived value. Whereas the perceived price had a negative influence on the perceived value, the influence on the buying intention of the customer was not significant.

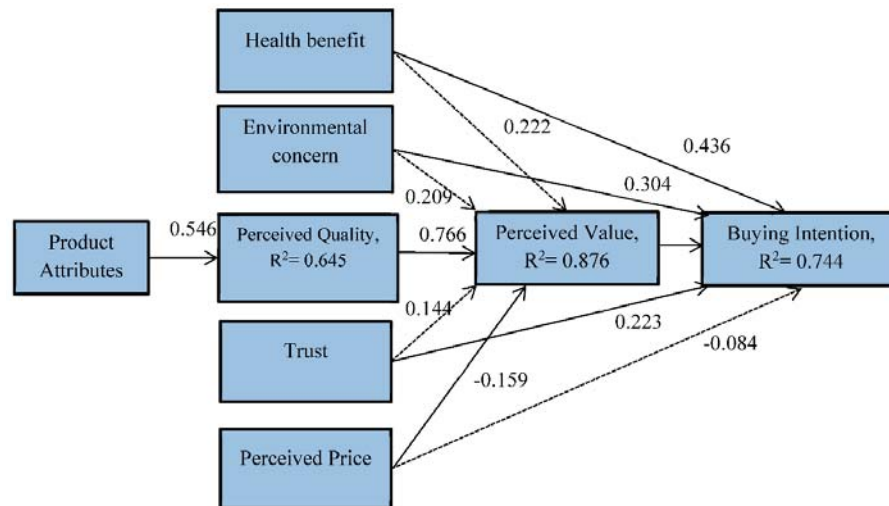


Figure 2. Standardized Total Effect. (The dotted line indicates the t-test does not reach the significance level of $p < 0.1$).

Table 3 shows the ultimate decision of the proposed hypothesis of the model. From Table 3, the t -value for the path of H1b (4.24), H2b (1.98), H3 (6.03), H4 (2.32), H5a (2.44), H6b (4.57), and H7 (3.16) were higher than the standard value. Therefore, this study supports the hypothesis that health benefit and environmental concern will have a positive influence on trust and the intention to buy organic tea and the product attributes will have a positive influence on the perceived quality, perceived value, and buying intention. In addition, the perceived price will have a negative influence on the perceived value of the organic tea consumers.

Table 3. Path analysis of the Research Model.

Between Facets	Path Coefficients (β)	t -Value	p -Value	Hypothesis	Decision
Health Benefit \rightarrow Perceived Value	0.222	1.886	0.115	H1a	Not Supported
Health Benefit \rightarrow Buying intention	0.436	4.236	0.000 ***	H1b	Supported
Environmental Concern \rightarrow Perceived Value	0.209	1.124	0.645	H2a	Not Supported
Environmental Concern \rightarrow Buying intention	0.304	1.982	0.016 **	H2b	Supported
Product Attributes \rightarrow Perceived Quality	0.546	6.036	0.000 ***	H3	Supported
Perceived Quality \rightarrow Perceived Value	0.766	2.324	0.021 **	H4	Supported
Perceived Price \rightarrow Perceived Value	-0.159	2.437	0.015 **	H5a	Supported
Perceived Price \rightarrow Buying intention	-0.084	0.459	0.647	H5b	Not Supported
Trust \rightarrow Perceived Value	0.144	0.967	0.334	H6a	Not Supported
Trust \rightarrow Buying intention	0.223	4.567	0.000 ***	H6b	Supported
Perceived Value \rightarrow Buying intention	0.603	3.156	0.033 **	H7	Supported

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$ (one-tailed test).

6. Conclusions

From this study, the authors have found that all the constructs and sub-constructs support the reliability and validity of the measures. In addition, the study demonstrates that the product attributes health benefit issues, environmental concern, trust, and perceived price significantly influence the buying intention of the organic tea consumer. Product attributes have a high positive effect on the perceived quality and perceived value, which subsequently influences a consumer's buying intention. Through the use of rigorous statistical methods, meaningful and distinct influential factors have

been identified among the urban organic tea consumers in Bangladesh. In Bangladesh, organic tea is a completely new concept and the limited awareness about this concept is mostly focused on its environmental and health benefits. Therefore, due to a lack of knowledge about organic food and availability, consumers have no option without nonorganic food [1]. Proper motivation and engagement with healthy food consumption can raise a consumer's intention of buying more organic tea in our country. Adequate marketing policies and an effective promotional campaign [64] that articulates the nutritional value of both conventional food and organic food should be assimilated.

From the investigation, respondents showed a negative reaction to price, which affects the perceived value of organic tea consumers and validates the models of other research findings [64]. Sometimes the price premium of organic products was greater than 10–20% of conventional products [12,65], which limits the market share of organic products. Therefore, the affordability of consumers and the costs of production of organic tea can be better indicators for setting and adjusting the price. Proper planning and a food budget may ensure the purchase of healthier and tastier food at an affordable price. Moreover, the packaging and labeling of organic tea confirms the quality and consumer trust also adds value to the products. However, many studies have found that consumers are willing to pay the price premium for organically produced items and fair-trade leveled local products [7,66]. Hence, marketers can charge a higher price when consumer's trust in certification and labeling is achieved.

People have become conscious about sustainable agriculture. To popularize organic farming in developing countries requires intensive education programs, training initiatives, and financial support for initial investments from both private and government level to ensure the farmers are supported during the conversion. To generate awareness, new promotional management approaches rather than criticism of conventional agriculture will help to minimize the negative reactions amongst conventional farmers [8] and encourage consumers to purchase organic products. Organic tea farms safeguard natural resources, avoid adverse effects to the environment (e.g., topsoil erosion and degradation, emissions of air and water pollutants), improve tea production and quality, and increase agricultural input and energy use efficiency.

The present study confirmed a model that predicts the willingness to buy organic tea among Bangladeshi consumers. In so doing, this study contributed to the Zeithaml's [20] means-end model. In this study, health benefits, environmental concern, and trust of organic tea retailers were added into the model to enhance the explanatory power of the means-end model in the context of Bangladeshi organic tea consumers. This study also validated the mediating effect of perceived quality and perceived value on the buying intention of consumers.

For managerial implications, in many developed and developing countries organic food has become popular for its healthy properties. Hence, to encourage Bangladeshi people toward the consumption of organic food, organic manufacturers should focus on generic promotion; especially through social media, which can be an effective medium. The potential benefits of organic consumption should be promoted, which will reinforce a favorable attitude toward organic tea. Policy makers and professionals must step forward about organic farming, which may considerably contribute to sustainable agriculture, economic advancement, and resource creation.

7. Limitations and Future Research

The major limitation of the research is that the respondents are geographically concentrated in two major cities of Bangladesh, which may not provide a complete picture of the whole nation's intention to buy organic tea. In a broader context, some other factors may influence the results of this current study. Hence, the findings of the study cannot be generalized for other countries. The current study only focused on a particular food rather than various types of organic products. In the study, results of the path analysis show that the variables explain 74 percent of consumer buying intentions, suggesting that there are still other unaccounted for variables. To deepen our understanding about the factors affecting the purchase decision of organic tea consumers, more variables can be included in further

future studies; e.g., brand loyalty, acceptable price, and the food's county of origin. Further study may cover the tradeoff benefits between values and product that consumers consider at the time of purchase, especially for organic tea products.

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Appendix A. Questionnaire

Thank-you for helping complete our survey! The purpose of our research is to try and understand how individuals are taking their purchasing decision at the time of buying organic tea during the current economic situation in Bangladesh. The results will be analyzed and used as part of our research paper. Your anonymity is absolutely guaranteed.

Please circle one answer per question

- | | | |
|-----------------------|--|--|
| 1. Gender: | 1. Male | 2. Female |
| 2. Educational Level: | 1. Primary
2. Secondary
3. Higher Secondary | 4. Graduation
5. Post-Graduation
6. Others |
| 3. Age: | 1. 18–25
4. 47–60 | 2. 26–35
5. 60+
3. 35–46 |
| 4. Occupation: | 1. Student
2. Govt. Employee
5. Other (please mention) | 3. Private Employee
4. NGO |
| 5. Family Income: | 1. 20,000–30,000 tk/month
2. 30,000–40,000 tk/month | 3. 40,000–50,000 tk/month
4. 50,000–60,000 tk/month |

For each of the following statements, please indicate your opinion by circling one of the numbers on the scale where 1 = Strongly Disagree and 7 = Strongly Agree.

	Strongly Disagree	Disagree	Somehow Disagree	Neutral	Somehow Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
Health Benefit							
1.	I think organic tea is beneficial for health						
2.	I believe organic tea is produced in natural way						
3.	I feel safe as organic tea is free from chemical infusions						
4.	I believe organic has been produced 100% organically						
Environmental Benefit							
1.	I believe organic tea is more environment-friendly						
2.	I trust organic tea is produced from organic manure						
3.	I think organic tea is produced by using natural pesticides						
4.	I think less use of additives in organic tea production is less harmful						
Product Attributes							
1.	I believe organic tea is a natural product						
2.	Nutrient value of organic tea is higher than traditional tea						
3.	Organic tea is tastier than traditional tea						
Perceived Price							
1.	I think price of organic tea is affordable						
2.	There is less price difference between organic tea and traditional tea						
3.	Paying more for organic food is worthy for me						
Trust							
1.	Labeling on package of organic tea is clearly understandable for me						
2.	Certification on organic tea product is highly reliable						
3.	Promotional demand about organic tea is trustworthy						
Perceived quality							
1.	I think quality of organic tea is superior than traditional tea						
2.	Positive image of organic food inspires me to buy organic tea						
3.	Organic tea is better substitute than conventional tea						
Perceived Value							
1.	I find positive value in terms of benefits and costs of organic tea						
2.	High price of organic tea creates great value to me						
Intention to Buy							
1.	I regularly drink organic tea as a healthy beverage						
2.	I search different stores to buy organic tea						

References

1. Ajzen, I. From Intentions to Actions: A Theory of Planned Behavior. In *Action-Control: From Cognition to Behavior*; Kuhl, J., Beckmann, J., Eds.; Springer: Berlin/Heidelberg, Germany, 1985; pp. 11–39.
2. Al-Swidi, A.; Huque, S.M.R.; Hafeez, M.H.; Shariff, M.N.M. The Role of Subjective Norms in Theory of Planned Behavior in the Context of Organic Food Consumption. *Br. Food J.* **2014**, *116*, 1561–1580. [[CrossRef](#)]
3. Attanasio, S.; Carelli, A.; Cappelli, L.; Papetti, P. Organic Food: A Study on Demographic Characteristics and Influencing Purchase Intentions among Consumers in Pontina Province. *Int. J. Latest Res. Sci. Technol.* **2013**, *2*, 128–132.
4. Biswas, A.; Motalib, A.M. Comparative Study on Tea Soils of South India and Bangladesh. *Tea J. Bangladesh* **2012**, *41*, 27–36.
5. Bissinger, K.; Leufkens, D. Ethical food labels in consumer preferences. *Br. Food J.* **2017**, *119*, 1801–1814. [[CrossRef](#)]
6. Bourn, D.; Prescott, J. A Comparison of the Nutritional Value, Sensory Qualities and Food Safety of Organically and Conventionally Produced Foods. *Crit. Rev. Food Sci. Nutr.* **2002**, *42*, 1–34. [[CrossRef](#)] [[PubMed](#)]
7. BTB. Annual Report. 2009. Available online: <http://www.teaboard.gov.bd/index.php?option=historytearearea> (accessed on 20 January 2017).
8. Chang, H.H.; Wang, H.W. The moderating effect of customer perceived value on online shopping behavior. *Online Inf. Res.* **2011**, *35*, 333–359. [[CrossRef](#)]
9. Chin, W.W. Issues and Opinion on Structure Equation Modeling. *MIS Q.* **1998**, *22*, vii–xvi.
10. Chin, W.W.; Marcolin, B.L.; Newsted, P.R. A partial Least Squares Latent Variable Modeling Approach for Measuring Interaction Effects: Results from A Monte Carlo Simulation study and an electronic mail adoption study. *Inf. Syst. Res.* **2003**, *14*, 189–217. [[CrossRef](#)]
11. Chin, W.W. How to write up and report PLS analyses. In *Handbook of Partial Least Squares: Concepts, Methods and Applications in Marketing and Related Fields*; Esposito Vinzi, V., Chin, W.W., Henseler, J., Wang, H., Eds.; Springer: Berlin/Heidelberg, Germany, 2010; pp. 655–690.
12. Chinnici, G.; D’Amico, M.; Pecorino, B. A multivariate statistical analysis on the consumers of organic products. *Br. Food J.* **2002**, *104*, 187–199. [[CrossRef](#)]
13. Cohen, J. *Statistical Power Analysis for the Behavioral Sciences*; Routledge Academic: New York, NY, USA, 1988.
14. Crittenden, V.L.; William, F.C.; Linda, K.F.; Ferrell, O.C.; Christopher, C.P. Market-Oriented Sustainability: A Conceptual Framework and Propositions. *J. Acad. Mark. Sci.* **2011**, *39*, 71–85. [[CrossRef](#)]
15. Daruvala, D. Organic Tea from South India. *CommerNet*, 20 February 2001. Available online: www.beveragesite.com/articles/2000/12/18/0D70D11A520546CA94D4F519D3136536.asp (accessed on 25 January 2017).
16. Davis, A.; Titterton, A.J.; Cochrane, C. Who Buys Organic Food? A Profile of the Purchasers of Organic Food in N. Ireland. *Br. Food J.* **1995**, *97*, 17–23. [[CrossRef](#)]
17. Denver, S.; Jensen, D.J. Consumer preferences for organically and locally produced apples. *Food Qual. Preference* **2014**, *31*, 129–134. [[CrossRef](#)]
18. Dipeolu, A.O.; Philip, B.B.; Aiyelaagbe, I.O.O.; Akinbode, S.O.; Adedokun, T.A. Consumer Awareness and Willingness to Pay for Organic Vegetables in S.W. Nigeria. *Asian J. Food Agro-Ind.* **2009**, *10*, 57–65.
19. Dodds, W.B.; Monroe, K.B.; Grewal, D. Effects of Price, Brand, and Store Information on Buyers’ Product Evaluations. *J. Mark. Res.* **1991**, *28*, 307–319. [[CrossRef](#)]
20. Edwards, J.R.; Bagozzi, R.P. On the Nature and Direction of Relationships between Constructs and Measures. *Psychol. Methods* **2000**, *5*, 155–174. [[CrossRef](#)] [[PubMed](#)]
21. Falk, R.F.; Miller, N.B. *A Primer for Soft Modeling*; University of Akron Press: Akron, OH, USA, 1992.
22. Fornell, C.; Larcker, D.F. Evaluating Structural Models with Unobserved Variables and Measurement Errors. *J. Mark. Res.* **1981**, *18*, 39–50. [[CrossRef](#)]
23. Goodhue, D.; Lewis, W.; Thompson, R. PLS, Small Sample Size, and Statistical Power in MIS Research. In *Proceedings of the 39th Hawaii International Conference on System Sciences*, Kauai, HI, USA, 4–7 January 2006.
24. Haghiri, M.; McNamara, M.L. Predicting Consumers’ Acceptability of Pesticide-Free Fresh Produce in Canada’s Maritime Provinces: A Probit analysis. *J. Int. Food Agribus. Mark.* **2007**, *19*, 45–59. [[CrossRef](#)]

25. Hack, M.D. Organically grown products: Perception, preferences and motives of Dutch consumers. *Acta Hortic.* **1995**, *340*, 247–253. [CrossRef]
26. Honkanen, P.; Verplanken, B.; Olsen, S.O. Ethical values and motives driving organic food choice. *J. Consum. Behav.* **2006**, *5*, 420–430. [CrossRef]
27. Hoyer, W.D.; MacInnis, D.J. *Consumer Behavior*, 4th ed.; Houghton Mifflin: Boston, MA, USA, 2006.
28. Hossain, S.T.; Sugimoto, H.; Ueno, H.; Haque, S.M.R. Adoption of organic rice for sustainable development in Bangladesh. *J. Org. Syst.* **2007**, *2*, 27–37.
29. Iqbal, M. Consumer Behavior of Organic Food: A Developing Country Perspective. *Int. J. Mark. Bus. Commun.* **2015**, *4*, 58–67.
30. Jolly, D.; Schutz, H.; Diez-Knauf, K.; Johal, J. Organic foods: Consumer attitudes and use. *Food Technol.* **1989**, *43*, 61–69.
31. Kim, D.J.; Ferrin, D.L.; Rao, H.R. A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decis. Support Syst.* **2008**, *44*, 544–564. [CrossRef]
32. Lapierre, J. Customer-Perceived Value in Industrial Contexts. *J. Bus. Ind. Mark.* **2000**, *15*, 122–140. [CrossRef]
33. Lewin, K. *Principles of Topological Psychology*; McGraw-Hill Book Company: New York, NY, USA, 1936.
34. Monroe, K.B.; Krishnan, R. The Effect of Price on Subjective Product Evaluations. In *Perceived Quality*; Jacoby, J., Olson, J., Eds.; Lexington Books: Lexington, MA, USA, 1985; pp. 209–232.
35. Michaelidou, N.; Hassan, L.M. Modeling the factors affecting rural consumers' purchase of organic and free-range produce: A case study of consumers' from the Island of Arran in Scotland, UK. *Food Policy* **2010**, *35*, 130–139. [CrossRef]
36. Mukul, A.Z.A.; Afrin, S.; Hassan, M.M. Factors Affecting Consumers' Perceptions about Organic Food and Their Prevalence in Bangladeshi Organic Preference. *J. Bus. Manag. Sci.* **2013**, *1*, 112–118.
37. Oxfam. The Tea Market: A Background Study. 2002. Available online: <http://www.maketrade-fair.com/assets/english/TeaMarket.pdf> (accessed on 15 February 2017).
38. Ozguven, N. Organic foods motivations factors for consumers. *Procedia Soc. Behav. Sci.* **2012**, *62*, 661–665. [CrossRef]
39. Padel, S. Conversion to Organic Farming: A Typical Example of the Diffusion of an Innovation? *Sociol. Rural. Eur. Soc. Rural Sociol.* **2001**, *41*, 40–61. [CrossRef]
40. Paul, J.; Rana, J. Consumer behavior and purchase intention for organic food. *J. Consum. Mark.* **2012**, *29*, 412–422. [CrossRef]
41. Payne, A.; Holt, S. Diagnosing customer value: Integrating the value process and relationship. *Br. J. Manag.* **2001**, *12*, 159–182. [CrossRef]
42. Perrini, F.; Castaldo, S.; Misani, N.; Tencati, A. The impact of corporate social responsibility associations on trust in organic products marketed by mainstream retailers: A study of Italian consumers. *Bus. Strateg. Environ.* **2010**, *19*, 512–526. [CrossRef]
43. Piri, Z.; Lotfizadeh, F. Investigation of the Influence of Perceived Quality, Price and Risk on Perceived Product Value for Mobile Consumers. *Asian Soc. Sci.* **2016**, *12*, 103–116. [CrossRef]
44. Ranganathan, C.; Dhaliwal, J.S.; Teo, T.S.H. Assimilation and Diffusion of Web Technologies in Supply-Chain Management: An Examination of Key Drivers and Performance Impacts. *Int. J. Electron. Commer.* **2004**, *9*, 127–161.
45. Roitner-Schobesberger, B.; Darnhofer, I.; Somsook, S.; Vogl, C.R. Consumer perceptions of organic foods in Bangkok, Thailand. *Food Policy* **2008**, *33*, 112–121. [CrossRef]
46. Regional Tea Research Station (RTRS). *Annual Report 2011*; RTRS: Panchagarh, Bangladesh, 2012; pp. 7–19.
47. Sultana, J.; Siddique, M.N.A.; Kamaruzzaman, M.; Halim, M.A. Conventional to Ecological: Tea Plantation Soil Management in Panchagarh District of Bangladesh. *J. Sci. Technol. Environ. Inform.* **2014**, *1*, 27–37.
48. Sakthirama, V.; Venkatram, R. An Analysis on Food Choice Motives of Organic Tea in Coimbatore. *J. Contemp. Res. Manag.* **2013**, *8*, 35.
49. Shaharudin, M.R.; Pani, J.J.; Mansor, S.W.; Elias, S.J. Factors Affecting Purchase Intention of Organic Food in Malaysia's Kedah State. *Cross-Cult. Commun.* **2010**, *6*, 105–116.
50. Rafi, A.; Ali, A.; Saqib, S.; Choudhary, A.I.; Akhtar, S.A. Exploring the purchasing motives of young Pakistani consumers for foreign brands information. *Manag. Bus. Rev.* **2012**, *4*, 136–144.
51. Sánchez-Fernández, R.; Iniesta-Bonillo, M.A. The Concept of Perceived Value: A Systematic Review of the Research. *Mark. Theory* **2007**, *7*, 427–451. [CrossRef]

52. Sriwichailamphan, T.; Sucharidtham, T. Factors Affecting Adoption of Vegetable Growing Using Organic System: A Case Study of Royal Project Foundation, Thailand. *Int. J. Econ. Manag. Sci.* **2014**, *3*, 179. [[CrossRef](#)]
53. Straub, D. Validating Instruments in MIS research. *MIS Q.* **1989**, *13*, 147–169. [[CrossRef](#)]
54. Stolze, M.; Piorr, A.; Häring, A.; Dabbert, S. The Environmental Impact of Organic Farming. In *Organic Farming in Europe: Economics and Policy*; University of Hohenheim: Stuttgart, Germany, 2000; Volume 6.
55. Teng, C.; Wang, Y.M. Decisional factors driving organic food consumption: Generation of consumer purchase intentions. *Br. Food J.* **2015**, *117*, 1066–1081. [[CrossRef](#)]
56. Trijp, H.C.M.; Steenkamp, J.-B.E.M.; Candel, M.J.J.M. *Quality Labeling as Instrument to Create Product Equity: The Case of IKB in the Netherlands*; Kluwer Academic Publishers: Dordrecht, The Netherlands, 1997.
57. Yin, S.; Wu, L.; Du, L.; Chen, M. Consumers' purchase intention of organic food in China. *J. Sci. Food Agric.* **2010**, *90*, 1361–1367. [[CrossRef](#)] [[PubMed](#)]
58. Wandel, M.; Bugge, A. Environmental concerns in consumer evaluation of food quality. *Food Qual. Preferences* **1997**, *8*, 19–26. [[CrossRef](#)]
59. Wier, M.; Hansen, L.G.; Smed, S. Explaining Demand for Organic Foods. Presented at the 11th Annual EAERE Conference, Southampton, UK, 28–30 June 2001.
60. Wilkins, L.J.; Hillers, N.V. Influences of pesticide residue and environmental concerns on organic food preference among food cooperative members and non-members in Washington State. *J. Nutr. Educ. Behav.* **1994**, *26*, 26–33. [[CrossRef](#)]
61. Willer, H.; Yussefi, M. *The World of Organic Agriculture—Statistics and Emerging Trends 2007*; International Federation of Organic Agriculture Movements (IFOAM), DE-Bonn and Research Institute of Organic Agriculture, FiBL, CH-Frick: Bonn, Germany, 2007.
62. Yang, Z.; Peterson, R.T. Customer perceived value, satisfaction, and loyalty: The role of switching costs. *Psychol. Mark.* **2004**, *21*, 799–822. [[CrossRef](#)]
63. Yun, J.J.; Yang, J.; Park, K. Open innovation to business model: New perspective to connect between technology and market. *Sci. Technol. Soc.* **2016**, *21*, 324–348. [[CrossRef](#)]
64. Yun, J.J.; Jeong, E.; Park, J. Network Analysis of Open Innovation. *Sustainability* **2016**, *8*, 729. [[CrossRef](#)]
65. Zaithaml, V.A. Consumer perceptions of price quality and value: A means-end model and synthesis of evidence. *J. Mark.* **1988**, *52*, 2–22. [[CrossRef](#)]
66. Zanolli, R.; Naspetti, S. Consumer motivations in the purchase of organic food. A means-end approach. *Br. Food J.* **2002**, *104*, 643–653. [[CrossRef](#)]



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