



Assessing Young Consumers' Purchase Intention towards Organic Food: Evidence from Bangladesh

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Abstract:

In Bangladesh, the inclination to consume organic food is rising in response to issues such as conventional agricultural practices, food safety, human health and environmental sustainability. This study aims to identify the factors that influence the young consumers to purchase organic food and also investigate the effects of those factors on their buying intention. A survey was conducted through a structured questionnaire which was randomly distributed among the students of Islamic University, Bangladesh and collected data from 165 respondents; whereas 150 completed questionnaires were considered for the final study. All reliability and validity measurements have been tested. Structural Equation Modeling (SEM) has been applied to test the proposed hypotheses of this study with the help of AMOS (Version-24). Findings of the study reveal that health consciousness, perceived value and food safety have direct positive influences on young consumers purchase intention in case of buying organic foods. The study findings will help the organic food marketers to design effective marketing strategies to gain the potential benefits from the markets. This study is geographically focused and limited to small sample size.



Keywords: Health Consciousness, Food Safety, Perceived Value, Organic Food, Purchase Intention, Young Consumers, Bangladesh

Introduction:

Due to improvement in the quality of life, increased awareness of health diet and education consumers attitude towards life is changed which leads to increase the consumptions of organic foods in developed and developing countries since couple of years (Al-Swidi et al., 2014; Rana and Paul, 2017; Wang et al., 2019). Different health hazards like diabetics, blood pressure, heart disorders, obesity, anemia, blindness, depression even life threatening disease like cancer are most influential antecedents of organic food purchasing behavior among the modern consumers (Wang et al., 2019; Mukul, Afrin and Hassan, 2013). At present one in four adults in Bangladesh suffers from high blood pressure and one in ten suffers from diabetes (The Daily Prothom Alo, 2020). Besides, stress in career, imbalanced lifestyles, and other food related causes like conventional, adulterated, hybridized and hormonal food are also responsible for the diseases. A food sector which is free of food additives or counterfeiting is very hard to discover in Bangladesh. In Bangladesh, food products such as cereals, rice, processed food, fruits, raw vegetables, milk, milk products, fish, meat etc. are somewhat infected or contaminated, resulting in various kinds of health illnesses and consumers' dissatisfaction towards food produced by industrial agriculture. (Gil, Gracia and Sanchez, 2000; Rahman et al., 2015; Ashraf, Joarder and Ratan, 2018). As a response, consumer awareness of the consumption of organic food has risen (Al-Swidi et al., 2014) and consumers who give priority to food safety are also voicing their willingness to buy foods that are ecologically responsible and considered safe to protect their own health (Wang et al., 2019). Accordingly, organic food is welcomed not only in developed European and North American countries, but also in developing countries such as China, India and Bangladesh (Mukul, Afrin and Hassan, 2013). As the country has reached a middle-income status, the rising demand for organic food and awareness of food choices is increasing in Bangladesh. There is an increasing shift in demand for organic food from a niche field to a highly potential market (Lian and Yoong, 2019). Bangladesh's organic food market is now in its initial stages and has significant opportunities for expansion. In stimulating the growing trend (organic), the Bangladesh Organic Products



Manufacturers Association (BOPMA) is playing a crucial role. Many producers and marketers namely Probortana, PROSHIKA, Meena Bazar, Agora, Nandan, UBINIG, Shams Enterprise, Organic Bangladesh Ltd., Northern Agro Products Ltd., Mamun Agro Services Ltd., Mridha Agricare Ltd., Matirhashi Unnayan Sangtha and others are producing and marketing their various organic food items at different cities of Bangladesh (Iqbal, 2015). The growing demand for organic food among consumers especially those who are affluent, educated and young, is contributing to the growth of the organic food sector. Past literatures have also generated extensive motives of increasing the demand of organic foods like health consciousness (O'Donovan and McCarthy, 2002; Lillywhite, Al-oum and Simonsen 2013; Wang et al., 2019), environmental concerns (Wier and Calverley, 2002; Nguyen and Nguyen, 2016; Lian and Yoong, 2019), ethics (McEachern and McClean, 2002; Wier and Calverley, 2002; Rana and Paul, 2017), food safety concern (Harper and Makatouni 2002; O'Donovan and McCarthy, 2002; Hsu, Chang and Lin, 2016; Lian and Yoong, 2019), perceived value/quality (O'Donovan and McCarthy, 2002; Curvelo, Watanabe and Alfinito, 2019), nutritional value (Harper and Makatouni 2002; O'Donovan and McCarthy, 2002; Kihlberg and Risvik, 2007; Rana and Paul, 2017), subjective norms (Lian and Yoong, 2019; Wang et al., 2019), attitudes (Curvelo, Watanabe and Alfinito, 2019; Wang et al., 2019), perceived behavior control (Ashraf, Joarder and Ratan, 2018; Wang et al., 2019), affordability (See and Mansori, 2012; Lian and Yoong, 2019), sensory attributes (O'Donovan and McCarthy, 2002; Mukul, Afrin and Hassan, 2013) and so on. However, there has been little focus in previous literature to assess the purchase intention of younger generations for organic food (Thambiah et al., 2015; Rahman and Noor, 2016; Lian and Yoong, 2019) and few studies have been reported in Bangladesh. In order to identify and target young organic food buyers, it is necessary to know their perspectives, their purchasing intentions and their purchasing behavior. What are the attributes that affect the intention of young consumers to buy organic food? What are the relationships between the attributes that affect young consumers' purchase intention of organic food? Amazingly, the intention of young customers to buy organic food is ignored in the prospects of developing nations, particularly in Bangladesh. The purpose of this study is therefore to find out the factors affecting young consumers' intention to buy organic food and to check the relationships among the factors. The findings of the study will help the organic food marketers to understand the insights of the



markets and to design effective marketing strategies to identify, target, expand and diversify the markets.

The Focus of the Study:

This exploratory research aims to examine the key motives that influence the buying intention of young consumers towards organic food in context of developing country, Bangladesh with the following primary objectives:

- To identify the factors that affect young consumers' purchase intention for organic food
- To find the relationships between the variables that affect young consumers' purchase intention for organic food.
- To recommend some measures for the organic food marketers to design effective marketing strategies to identify, target, expand and diversify the markets.

Literature Review:

Theoretical Background

Existing literatures suggest that customers buying behavior, intention and attitudes are explained through different established and popular theories and models namely Hierarchy of Effect Model-HEM (Lavidge and Steiner, 1961), Theory of Reasoned Action-TRA (Ajzen and Fishbein, 1980), Theory of Planned Behaviour-TPB (Ajzen, 1991), Consumer Decision Model-CDM (Howard, 1989), The Theory of Buyer Behavior (Howard and Sheth, 1969) and so on. Organic food purchase attitude, intention and behavior are also explained through Hierarchy of Effect Model-HEM (Lee and Goudeau, 2014; Lian and Yoong, 2019) and Theory of Planned Behaviour-TPB (Al-Swidi et al., 2014; Teng and Wang, 2015; Ashraf, Joarder and Ratan, 2018; Bagher, Salati and Ghaffari, 2018; Curvelo, Watanabe and Alfinito, 2019; Wang et al., 2019).

Hierarchy of Effect Model (HEM)

HEM clarified that when making buying decisions, customers would go through various mental phases. The three aspects of the HEM are cognitive, affective and conative. The first aspect of the

model is cognitive which indicates knowledge and belief regarding a product or service that can be acquired through past experience or direct observation. The second aspect is affective which refers to the feelings, emotion and thinking towards an object. The final aspect conative (behavior) indicates the final action towards a product or service. Beliefs as cognitive, attitudes as affective and loyalty as conative have been used and applied to explain the young consumers buying behavior towards organic food (Lee and Goudeau, 2014; Lee and Yun, 2015; Lian and Yoong, 2019). In context of organic food purchase behavior food safety, health consciousness and perceived value are used as cognitive dimension, purchase intention is used as affective dimension and actual purchase behavior is used as conative dimensions (Lee and Yun, 2015; Lian and Yoong, 2019).

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) has been extensively used and applied to explain organic product consumption behavior (Chen, 2007; Teng and Wang, 2015; Curvelo, Watanabe and Alfinito, 2019). The major components of the TPB theory are subjective norms, attitudes, perceived behavior control, intention and behavior. TPB explains people's actual behavior which is framed by their intention (Ajzen, 1991). The intention of people are formed through attitudes, subjective norms (beliefs) and perceived behavior control. Thus, actual behavior of peoples is influenced by their attitudes and beliefs and perceived behavior control through intention (Ajzen, 1991, 2008). The dimensions Subjective norms (influences of references groups/society), attitudes (favorable or unfavorable evaluation), perceived behavior control (purchasing power, knowledge and resources), intention (willingness to purchase) and behavior (actual purchase decision) are used in explaining the customers buying behavior in case of organic food (Al-Swidi et al., 2014; Ashraf, Joarder and Ratan, 2018; Curvelo, Watanabe and Alfinito, 2019). The theory of planned behavior is presented in the figure 1. In this study the young consumers' purchase intention towards organic food is examined with the help of the intention variable in the TPB model where intention is formed through health consciousness, food safety concern and perceived value.

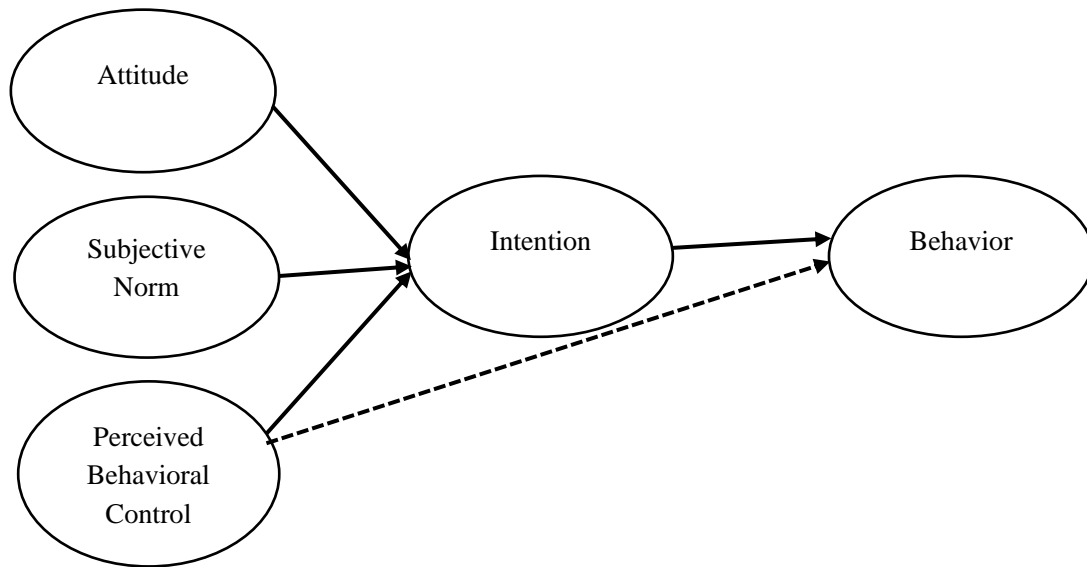


Figure 1: Theory of Planned Behavior (TPB); Source: Ajzen (1991)

Conceptual Framework and Hypothesized Model:

The conceptual framework and hypothesized research model shown in figure 2 is used in this study which is based on HEM and TPB model to explicate the buying intention of young customers toward organic food in the context of Bangladesh. From the HEM model two dimensions cognitive and affective are adopted. From the TPB model this study has taken the variables beliefs (subjective norms) attitudes (perceived value) and intention to explain the young consumers' intention towards organic food. The dimension conative (behavior) from both the models is intentionally excluded as this study has aimed to check only intention rather than the actual purchase behavior. Therefore, this conceptual model explains the direct relationship between the cognitive to affective dimension (attitudes to intention as per TPB). The conceptual framework of this study grounds that the underpinnings health consciousness, food safety concern and perceived value towards organic food will accelerate the purchase intention.

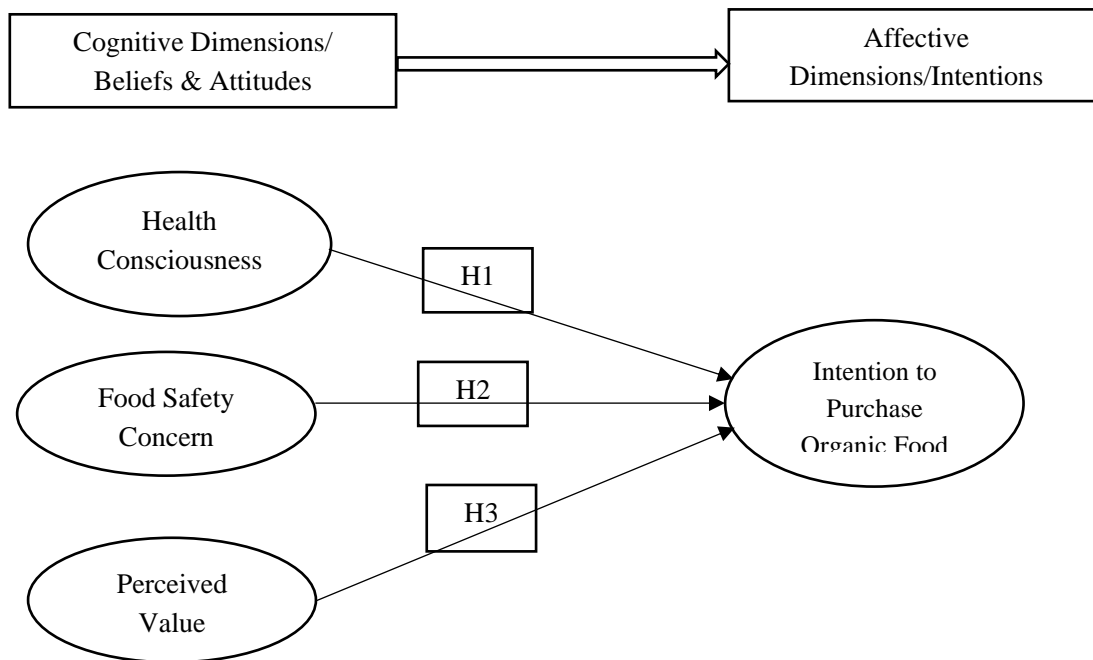


Figure 2: Conceptual Framework and Hypothesized Model (Authors' Own Construction)

Organic Food

In general organic food means the food that are produced without chemical, fertilizers, insecticides, pesticides, growth hormones, genetically modified organisms, food additives, antibiotics and irradiation (Honkanen, Verplanken and Olsen, 2006; Wang et al., 2019). Organic food is not genetically modified (Hsu and Chen, 2014; Iqbal, 2015). By maintaining environmental sustainability, conserving resources, maintaining food safety and health concerns the foods which are produced by farmers are known as organic food (Ashraf, Joarder and Ratan, 2018; Sobhanifard, 2018). It is also considered that in organic food production no harm to animals and environments are made. Organic foods are perceived as safer, healthier, more nutritious, environmental friendly, fresher and pure than the conventional foods (Teng and Wang, 2015; Rana and Paul, 2017).

Consumers' Purchase Intention

Intention usually implies the urge to do something or not to do. Intention refers to the plan, determination or decision of an individual to perform an activity or achieve a certain goal (Harland,



Staats and Wilke, 1999; Wang et al., 2019). Therefore the behavioral intent of an individual to conduct (or not conduct) a behavior is the direct antecedent of the actual action of that person (Ajzen, 1991). Purchase intention refers to the deliberate plan of a person to make an attempt to buy a product (Lian and Yoong, 2019). With the assistance of purchasing intention, actual purchasing activity can be assessed and purchasing intention is a propensity of customers to their purchasing action (Teng and Wang, 2015). The intention of consumers to buy a product can be defined by the degree of purchase intent. The intention of buying seems to be a plan in advance to buy certain goods in the future (Warshaw and Davis, 1985). The intention to buy reflects the inclination of the customer to buy, i.e. if the intention to buy is high, the readiness of the consumer to buy a product or service is also high (Schiffman and Kanuk, 2000). The attributes of organic food such as health perception, food safety, nutritional value, perceived quality, environmental friendly, availability, affordability and price can influence the purchase intention of consumers towards organic food (Paul and Rana, 2012; Curvelo, Watanabe and Alfinito, 2019). It is also explored that in addition to environmental consciousness knowledge and attitude towards organic food affect the desire to purchase organic foods (Maichum, Parichatnon and Peng, 2017).

Health Consciousness

Health consciousness assesses the willingness of one to deliberate on health actions (Wang et al., 2019). Health-conscious consumers, also referred to as organic customers, are very passionate about improving or preserving their overall quality of life because of their understanding and consideration for their health (Williams and Hammitt, 2001; Wang et al., 2019). Actually, the customers who buy organic foods they are very concerned about their health and they are also known about the effects of pesticides and chemicals on health (Saba and Messina, 2003). In turn, organic food consumption is referred as healthy and green consumption. Loebnitz and Aschemann-Witzel (2016) have found out that health-related advantages are one of the key characteristics of organic food intake. Empirical research has confirmed that the decision to buy organic food depends largely on their health concerns. (Padel and Foster, 2005; Michaelidou and Hassan, 2008; Rana and Paul, 2017; Curvelo, Watanabe and Alfinito, 2019; Lian and Yoong, 2019). Thus, the following hypothesis is proposed-



H₁: Young consumers' health consciousness has a positive influence on the purchase intention of organic food.

Food Safety Concern

Food safety has been described as a key persuader in rising the consumption of organic food based on several studies (Thomas and Gunden, 2012; Rana and Paul, 2017). Organic foods are grown without the use of pesticides and other chemicals that that are detrimental to human health (Rana and paul, 2017). Hood safety indicates the food are free from pesticides, chemicals and not detrimental to health. Organic foods are known as pure, healthier and safer. Organic food purchase intention is influenced by the factor food safety (O'Donovan and McCarthy, 2002; Lockie, et al., 2004; Padel and Foster, 2005; Michaelidou and Hassan, 2008; Hsu, Chang and Lin, 2016; Lian and Yoong, 2019). Consumers who purchase organic foods for the food safety concern they are also willing to pay more than conventional foods (Krystallis and Chryssohoidis, 2005). In turn, the following hypothesis is anticipated-

H₂: Young consumers' food safety concern has a positive influence on the purchase intention of organic food.

Perceived Value

The perceived value indicates a general evaluation made by customers based on the consumer's expectations of what is earned and what is paid for in conjunction with the utility of a good or service (Zeithaml, 1988). The term perceived value has different dimensions such as functional value, economic value, social value and emotional value (Sweeney and Soutar, 2001). Customers think that in purchasing and having organic product they are getting more benefits than they sacrifice for having the product. As organic foods are healthier, more nutritious and safer consumer perceived that they are getting more value by consuming the organic foods. Singh and Verma (2017) examined the variable perceived value has a positive effect on the buying intention of young customers towards organic food. Thus the perceived benefit or value of organic food has a positive influence on the buying intent of consumers (O'Donovan and McCarthy, 2002; Rana and Paul, 2017; Curvelo, Watanabe and Alfinito, 2019). Thus, the following hypothesis is developed-



H3: Perceived Value has positive influences on the purchase intention of organic food.

Research Methods:

Data Collection and Screening

The nature of the study is empirical which is based on both survey type quantitative and qualitative study. A standardized questionnaire to achieve the study goals was developed with the aid of comprehensive literature review and discussion with the experts. The items of the questionnaire was developed from previous studies and pilot test was done with small number of respondents (20). This research uses a simple random sampling technique which in turn is a survey of 165 young organic food consumers. Questionnaires were distributed randomly to the students of Islamic University, Bangladesh by following some conditions. As this study is focused on young consumers purchase intention towards organic food age of the respondents were fixed in between 18 to 30 years. Second condition was whether the respondent is known about organic food or not. The question was like (Do you know about organic food?). If the answer of the question was yes, then he was supplied with the questionnaire. Third condition was who purchase organic food (any one of the items like fruits, vegetables, cereals, milk, meat etc.) at least once in the last one year. The question was like (Do you have purchased any organic food in the last one year?). If the answer of the question was yes, then he was administered to fill up the questionnaire. After collecting the data, verification of missing values and multivariate extreme cases were checked and finally this study has found 150 complete responses. To check the multicollinearity effects this study has used the variance inflation factor (VIF) statistic to determine if the indicators were too highly correlated.

Instrument Design

In order to achieve the research goals, total 14 study measures/items were adapted from previous studies. The items were designed in a five point Likert scale, ranging from 1 (very strongly disagree) to 5 (very strongly agree). To assess the health consciousness four items were adapted from Wang et al. (2019) and Lian and Yoong (2019). Four items for food safety concern were adjusted from Wang et al. (2019). Perceived value was measured through the items adapted by

Curvelo, Watanabe and Alfinito (2019) which were originally developed by Sweeney and Soutar (2001). Items (4) for measuring purchase intention for organic food were adapted from the studies (Wang et al., 2019; Teng and Wang, 2015).

Data Analysis

In order to achieve the research goals, this study initially carried out EFA (Exploratory Factor Analysis) to identify the factors that influence customers purchase intention towards organic food. EFA was performed for this study with the aid of Principal Component Analysis (PCA) of Varimax Rotation to maximize the number of items with high loads on a construct/component (Malhotra, 2003). Cross-loadings have been dropped from the dataset in this way. In case of extracting constructs/ factors, Eigen value standards were deployed (e.g. Eigen value more than 1 or equal to 1). Cornbach's Alpha was tested to evaluate the reliability of 14 items. To check the sampling adequacy and justification for factor analysis, KMO (Kaiser- Meyer- Olkin) and the Bartlett test were carried out, in addition (Kaiser, 1974). Then, the study examined the convergent and discriminant validity of latent factors by performing first-order confirmatory factor analysis (CFA) through AMOS-24 in the measurement model. Finally, the structural model was built and analyzed to test the hypotheses and model fit.

Findings:

Demographic Profile of the Respondents

Demographic profile of the respondents is shown in the following table 1. The demographic profile of the respondents shows that 69% of the respondents are male and 31% are female; of which most of them (89%) are between 20-25 years of age and have completed graduation (91%).

Table 1: Demographic Profile of the Respondents

Variables	Categories	Frequency	Percentage
Gender	Male	103	69%
	Female	47	31%
Age	Below 20 years	5	3%
	20-25 years	133	89%
	26-30 years	12	8%

Education	Graduation	137	91%
	Masters	13	9%

This study also has collected some elementary information about organic food consumption from the respondents which are as bellows:

Table 2: Basic Information Regarding Organic food Consumption of the Respondents

Variables	Categories	Frequency	Percentage
Do you know about organic food?	Yes	150	100%
Have you purchased organic food?	Yes	150	100%
Most frequently purchased category	Fruits and Vegetables	117	78%
	Cereal	3	2%
	Milk	9	6%
	Others	21	14%
How long you are interested in consuming of organic food?	Since 1 year	43	28.7%
	2 years	21	14%
	3 years	8	5.3%
	More than 3 years	78	52%
Frequency of the purchase of organic food	Daily	13	8.7%
	Weekly	49	32.7%
	Monthly	62	41.3%
	Occasionally	26	17.3%

EFA (Exploratory Factor Analysis)

Before going to start EFA, the study has checked the multicollinearity effects through variance inflation factor (VIF) statistic to determine if the indicators were too highly correlated. The tolerance value of less than 0.1 indicates a possibility for multicollinearity. If the VIF value exceeds 10, there is a high degree of collinearity (Pallant, 2013). The VIF values and tolerance score for the independent variables of the study are within the recommended value (VIF ranging from 1.05 to 1.730; and tolerance score ranging from .578 to .905). Therefore, multicollinearity did not pose a threat to the validity of the measures at the level of the indicator in this analysis. The overall reliability for the measures was measured and the value was .840 which is matched with standard threshold value 0.70 (Nunnally, 1978). In addition to test the sampling adequacy KMO and Bartlett's test were performed (Kaiser, 1958). Threshold value of KMO should be > 0.50 (Nunnally, 1978), in this study the KMO value is 0.792 which indicates the sample size is



sufficient to consider the data is normally distributed and justified for factor analysis (Kaiser, 1974). To measure the level of significance, the chi-square test was applied and its value was 885.374 that were significant at 1% significant level.

In EFA this study has explored 13 items among 14 items which construct four factors with Kaiser's criterion. Total variance explained was 72.169 percent. Due to cross loading one item from food safety concerns (FS2) was eliminated. Factor loadings of each item and alpha value of the each construct from EFA are shown in table 3.

Measurement Model & Confirmatory Factor Analysis (CFA)

To validate the four constructs extracted in EFA a measurement model was built and its overall quality was assessed by employing CFA in AMOS-24. The measurement model was estimated using the maximum likelihood method and the model fit was tested using several fit indices. The measurement model with item loadings of CFA are shown in figure 3.

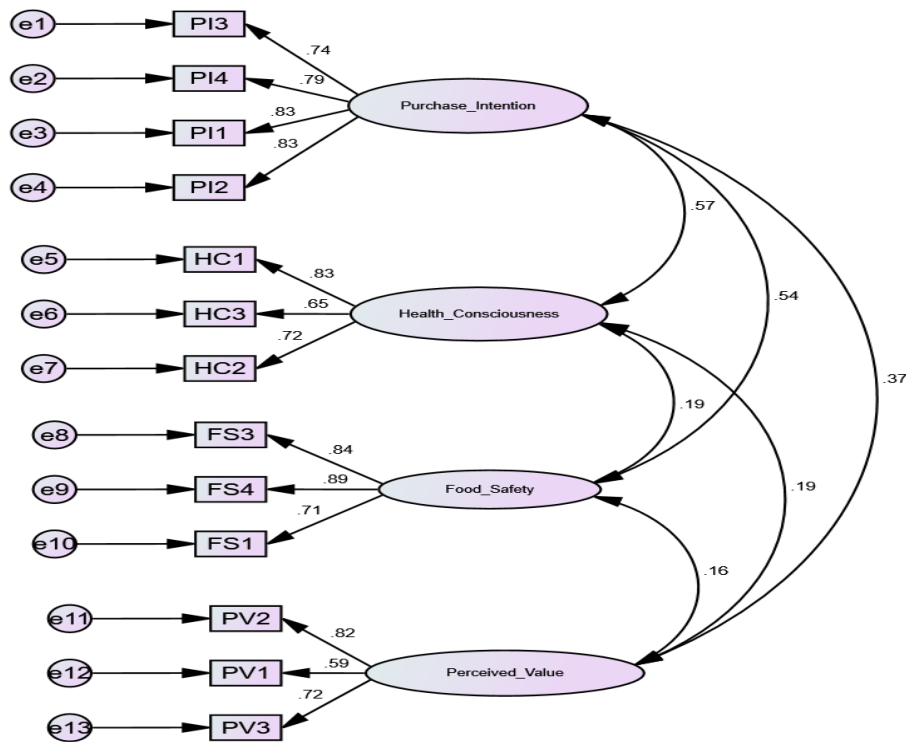


Figure 3: Measurement Model of CFA

The Chi-square value was achieved 85.520 and degrees of freedom was 59 where probability level was 0.01. The CMIN/DF (Minimum Chi-Square / Degrees of Freedom) was 1.449. The Goodness of Fit Indices were as follows Root Mean Square Error of Approximation (RMSEA)= .05, Goodness of Fit Index (GFI)= .921, Comparative Fit Index (CFI)=.968, Root Mean Squared Residual (RMR)= 0.031, Average Goodness of Fit Index (AGFI)=.877, Parsimonious Normed Fit Index (PGFI)= .597, Normed Fit Index (NFI) = 0.907; Incremental Fit Index (IFI) = .969; Tucker-Lewis Index (TLI)= 0.958. In the measurement model the study got acceptable fit in all fit indices (Fornell and Larcker, 1981; Hu and Bentler, 1999).

In the assessment of measurement model two major components are convergent validity and discriminant validity. For ensuring convergent validity, internal consistency/ reliability (Alpha

value) and composite reliability for each construct should be greater than .70 (Hair et al., 2016). The AVE (Average Variance Extracted) for each construct also should be more than 0.50. In this study all the conditions for convergent validity are found satisfactory (see table 3)

Table 3: Information from EFA and Properties of Measurement Model

Construct	Item	Factor Loading	Alpha	CR	AVE	Eigen Value & Variance	Collinearity Statistics	
							Tolerance	VIF
Purchase Intention	PI3	.836	0.873	0.873	0.633	2.79 (21.44%)	.578	1.730
	PI4	.807						
	PI2	.795						
	PI1	.707						
Food Safety Concern	FS3	.890	.855	0.781	0.546	2.40 (18.43%)	.776	1.288
	FS4	.848						
	FS1	.818						
Health Consciousness	HC1	.824	0.775	0.858	0.670	2.15 (16.53%)	.766	1.306
	HC3	.807						
	HC2	.775						
Perceived Value	PV2	.863	0.749	0.759	0.516	2.05 (15.76%)	.905	1.05
	PV3	.793						
	PV1	.756						

Notes: CR= Composite Reliability, AVE= Average Variance Extracted, VIF= Variance Inflation Factor, The Chi-square = 85.520, The CMIN/DF = 1.449. Root Mean Square Error of Approximation (RMSEA) = .05, Goodness of Fit Index (GFI) = .921, Comparative Fit Index (CFI) = .968, Root Mean Squared Residual (RMR) = 0.031, Average Goodness of Fit Index (AGFI) = .877, Parsimonious Normed Fit Index (PGFI) = .597, Normed Fit Index (NFI) = 0.907; Incremental Fit Index (IFI) = .969; Tucker- Lewis Index (TLI) = 0.958.

In discriminant validity the AVE should be greater than MSV and the squared root of the AVE should be greater than inter-construct correlation. The bold diagonal and off diagonal in the table 4 represents the square root of the AVEs and correlations respectively. All the conditions for discriminant validity for the constructs in this study are achieved (Fornell and Larcker, 1981; Hu and Bentler, 1999; Gaskin and Lim, 2016).

Table 4: AVE, MSV, Inter-Construct Correlations and Squared Root of the AVE

Constructs	AVE	MSV	PI	HC	FS	PV
Purchase Intention (PI)	0.633	0.328	0.795			



Health Consciousness (HC)	0.546	0.328	0.573***	0.739		
Food Safety (FS)	0.670	0.294	0.543***	0.192†	0.819	
Perceived Value (PV)	0.516	0.137	0.371***	0.186†	0.163	0.718

Notes: AVE = Average Variance Extracted, MSV = Maximum Shared Variance, The Bold Diagonals = Square Root of the AVEs, and The Off Diagonals = Inter-construct Correlations, Significance of Correlations: †p < 0.100, *p < 0.050, **p < 0.010, ***p < 0.001

Structured Model

As the measurement model has achieved good model fit indices and confirmed convergent and discriminant validity, therefore this study has built structured model to test the proposed hypotheses of the study as well as to test the goodness of model fit of the hypothesized model by employing SEM (Structural equation modeling) in AMOS. To ensure the model validity of the structured model coefficient of determination (R^2) and path coefficients are needed to be determined. Here, Health consciousness, food safety concern and perceived value and behavioral intention explain 52% of the variance in purchase intention, while all the path coefficients are significant. In the structured model the study has found the following values of Chi square and Degree of freedom were 94.370 and 62 respectively. The Cmin/df value is 1.522. Final structured model is shown in the figure 4 and Goodness of fit indices of the final structured model is shown in below Table-5.

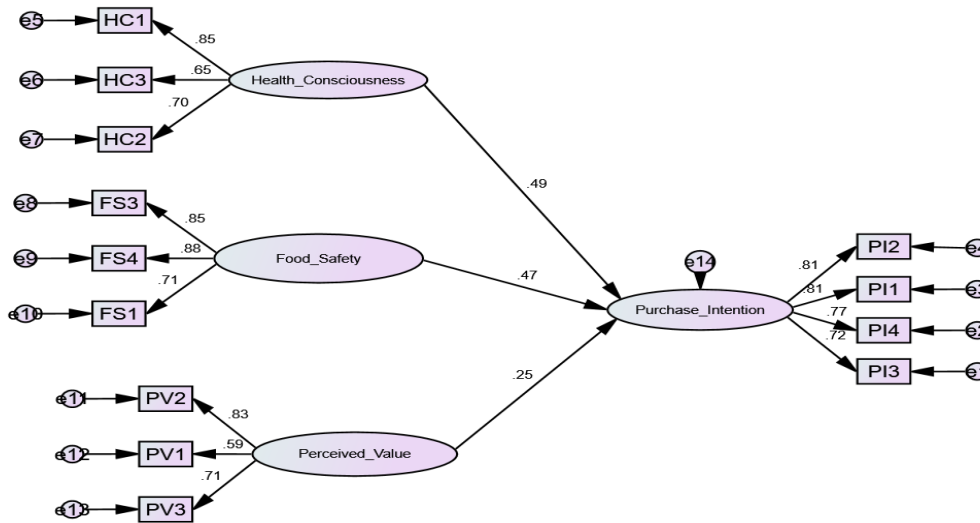


Figure 4: Final structural model

Table 5: Key Goodness-of-Fit Indices in Structured Model

Type of fit	Key index	Acceptable level	In proposed model
Absolute Fit	Chi-Square (χ^2)	$2df \leq \chi^2 \leq 3df$	94.370
	Root Mean Square Error of Approximation (RMSEA)	$0.05 \leq RMSEA \leq .08$	0.059
	Goodness of Fit Index (GFI)	$0.90 \leq GFI \leq 0.95$.913
	Root Mean Squared Residual (RMR)	$0.05 \leq RMR \leq .10$	0.058
Comparative Fit	Normed Fit Index (NFI)	$0.90 \leq NFI \leq 0.95$.897
	Relative Fit Index (RFI)	$0.90 \leq RFI \leq 0.95$.871
	Incremental Fit Index (IFI)	$0.90 \leq IFI \leq 0.95$.962
	Comparative Fit Index (CFI)	$0.90 \leq CFI \leq 0.95$.961
Parsimonious Fit	Parsimonious Normed Fit Index (PNFI)	$PNFI > 0.5$.713
	Parsimonious Goodness-of-Fit Index (PGFI)	$PGFI > 0.5$.622
	Parsimonious Fit Index (PCFI)	$PCFI > 0.5$.764

Source: Adapted from Byrne (2001); Schermelleh-Engel, Moosbrugger and Müller (2003); and Kline (2005)

Besides those the structured model has Average Goodness of Fit Index (AGFI) =.873 and Tucker-Lewis Index (TLI) = 0.951. Almost all model fit indices are acceptable in this study.

Hypotheses Testing

In hypotheses testing path analysis is used in structured model by which the researchers can take decisions on the proposed hypotheses. Path analysis also helps to realize the bonding of relationship between dependent and independent variables. Structural equation modelling was performed to test various hypothesized causal relationships among the purchase intention dimensions of organic food.

Table 6: Direct path analysis based on standardized regression weights

Hypotheses	Dependent Variables	Independent Variables	Std. Esti.	Estimate	SE	C.R.	P	Comments
H1	Purchase Intention	Health Consciousness	.487	.420	.081	5.160	***	Supported
H2	Purchase Intention	Food Safety Concern	.467	.553	.102	5.392	***	Supported
H3	Purchase Intention	Perceived Value	.251	.271	.091	2.986	.003	Supported

Note: H= Hypothesis, Std. Esti. = Standardized Estimate, SE= Standard Error, C.R. = Critical Ratio, P= probability, ***= 0.000.

The path analysis exhibits that health consciousness among the young consumers significantly influences the purchase intention towards organic food ($\beta = .487$, $P < 0.001$). Table 6 shows that food safety concern has positive impact on young consumers purchase intention in case of purchasing organic food ($\beta = .467$, $P < 0.001$). Perceived value also positively influences the purchase intention of organic food ($\beta = .251$, $P < 0.003$). Thus, the hypotheses H1, H2, and H3 are supported.

Discussions:



Findings of the study reveal that young consumers purchase intention is strongly influenced by health consciousness, food and safety concern and perceived value. The factor health consciousness among the young consumers significantly influence the purchase intention towards organic food ($\beta = .487, P < 0.001$). This indicates marketers of organic food should concentrate on foods which will be healthier for customers (Rana and paul, 2017; Curvelo, Watanabe and Alfinito, 2019; Lian and Yoong, 2019). Food safety concern has positive impact on young consumers purchase intention in case of purchasing organic food ($\beta = .467, P < 0.001$). This indicates that customers prefer organic foods which are free from pesticides, fertilizers and genetic modifications. Health risk free products are desired by customers. This findings also matched with previous studies (O'Donovan and McCarthy, 2002; Padel and Foster, 2005; Hsu and Chen, 2014; Lian and Yoong, 2019). Perceived value also positively influences the purchase intention of organic food. ($\beta = .251, P < 0.003$); which goes in line with the findings of O'Donovan and McCarthy (2002), Rana and Paul (2017), and Curvelo, Watanabe and Alfinito (2019). These findings reveal that customers of organic foods think about functional benefits before purchasing. They search and prefer the products which contain vitamins, minerals and nutrition, which are natural and free from any externally added chemical content.

Recommendation, Conclusion and Future Research Direction

Demand for organic and natural food is increasing tremendously in Bangladesh. But surprisingly, natural, organic and free from harmful chemical, counterfeiting and food additives food sector is still a dream to the health conscious people in Bangladesh. This study is an initiation towards a safer food sector in Bangladesh, in which the consumers can have food products such as cereals, rice, processed food, fruits, raw vegetables, milk, milk products, fish, meat etc. that are free from contamination, health hazards, and undesired illnesses. This study provides an understanding of young consumers' perspective regarding their intention to purchase organic foods, which will help stakeholders, such as marketers, retailers, and producers. Hence, it is expected that the findings of the study will help the organic food marketers to understand the insights of the markets and to design effective marketing strategies to identify, target, expand and diversify the markets.



However, this study suffers from certain limitations. This research is based on small sample size and specific segment, as well as geographically concentrated. Besides, the authors did not consider full Theory of TPB and HEM. Moreover, this study ignored many variables such as environmental concern, awareness, knowledge, actual purchase, trust and sensory attributes etc. Therefore, authors suggest conducting future research on young Bangladeshi consumers' organic food purchase intention by considering large sample size with more segments and comparative analysis among segments. Further, full theory of TPB and HEM can be applied to know about their underlying factors influencing purchase intention as well as actual purchase behavior. Besides, mediating analysis through variables like trust, attitudes, and intention and moderating through income and education level can be done.

References:

- Al-Swidi, A., Huque, S.M.R., Hafeez, M.H., and Shariff, M.N.M. (2014). The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal*, 116(10), pp.1561-1580, <https://doi.org/10.1108/BFJ-05-2013-0105>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, pp.179-211.
- Ajzen, I.(2008). Consumer attitudes and behavior. In: Haugtvedt, C.P., Herr, P.M. and Cardes, F.R. (Eds). *Handbook of Consumer Psychology*. New York, NY: Lawrence Earlbaum Associates. pp. 525-548.
- Ajzen, I., and Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Ashraf, M. A., Joarder, M.H.R., and Ratan, S.R.A. (2018). Consumers' anti-consumption behavior toward organic food purchase: an analysis using SEM. *British Food Journal*, doi:10.1108/bfj-02-2018-
- Bagher, A.N., Salati, F., and Ghaffari, M. (2018). Factors Affecting Intention to Purchase Organic Food Products Among Iranian Consumers. *Academy of Marketing Studies Journal*, 22(3), pp.1-23.
- Byrne, B. M. (2001). *Multivariate applications book series. Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.



- Chen, M.F. (2007). Consumer attitudes and purchase intention in relation to organic foods in Taiwan: moderating effects of food-related personality traits. *Food Quality and Preference*, 18(7), pp.1008-1021.
- Curvelo, I.C.G., Watanabe, E.A.M., and Alfinito, S. (2019). Purchase intention of organic food under the influence of attributes, consumer trust and perceived value. *Revista de Gestão*, 26(3), pp.198-211
- Fornell, C. and Larcker, D.F. (1981). Evaluating structural equation models with un-observed variables and measurement error. *Journal of Marketing Research*, 18(1), pp.39-50.
- Gaskin, J. and Lim, J. (2016). *Master validity tool*. AMOS Plugin. Gaskination's StatWiki
- Gil, J.M., Gracia, A., and Sanchez, M. (2000). Market Segmentation and Willingness to Pay for Organic Products in Spain. *The International Food and Agribusiness Management Review*, 3(2), pp.207-226.
- Hair, J.F., Hult, G.T.M., Ringle, C., & Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLSSEM)* (2nd ed.). Thousand Oaks, CA: SAGE Publications.
- Harland, P., Staats, H., and Wilke, H.A. (1999). Explaining proenvironmental intention and behavior by personal norms and the Theory of Planned Behavior. *J. Appl. Soc. Psychol.*, 29, pp.2505–2528.
- Harper, G.C., and Makatouni, A. (2002). Consumer perception of organic food production and farm animal welfare. *British Food Journal*, 104(3/4/5), pp.287-299.
<https://doi.org/10.1108/00070700210425723>
- Honkanen, P., Verplanken, B., Olsen, S.O. (2006). Ethical values and motives driving organic food choice. *J. Consum. Behav. Int. Res. Rev.*, 5, pp.420–430
- Howard, J.A. (1989). *Consumer Behaviour in Marketing Strategy*. Englewood Cliffs, NJ: Prentice-Hall.
- Howard, J. A. and Sheth, J.N. (1969). *The Theory of Buyer Behavior*. New York: John Wiley & Sons.
- Hsu, C.-L., and Chen, M.-C. (2014). Explaining consumer attitudes and purchase intentions toward organic food: Contributions from regulatory fit and consumer characteristics. *Food Quality and Preference*, 35, pp.6–13. doi:10.1016/j.foodqual.2014.01.005



- Hsu, S.Y., Chang, C.C., & Lin, T.T. (2016). An analysis of purchase intentions toward organic food on health consciousness and food safety with/under structural equation modeling. *British Food Journal*, 118(1), pp.200-216. <https://doi.org/10.1108/BFJ-11-2014-0376>
- Hu, L.T. and Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), pp.1-55.
- Iqbal, M. (2015). Consumer behavior of organic food: a developing country perspective. *International Journal of Marketing and Business Communication*, 4(4), pp.59-68.
- Kaiser, H.F. (1958). The varimax criterion for analytic rotation in factor analysis. *Psychometrika*, 23(3), pp.187-200.
- Kaiser, H.F. (1974). An index of factor simplicity. *Psychometrika*, 39(1), pp.31–36.
- Kihlberg, I., and Risvik, E. (2007). Consumers of organic foods – value segments and liking of bread. *Food Qual. Prefer.*, 18, pp.471–481.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling*. New York, NY, US: Guilford Press.
- Krystallis, A., and Chrysosoidis, G. (2005). Consumers' willingness to pay for organic food: Factors that affect it and variation per organic product type. *British Food Journal*, 107(5), pp.320-343.
- Lavidge, R.J., and Steiner, G.A. (1961). A model for predictive measurements of advertising effectiveness. *Journal of Marketing*, 25(6), pp.59-62. <http://dx.doi.org/10.2307/1248516>
- Lee, H.-J., and Goudeau, C. (2014). Consumers' beliefs, attitudes, and loyalty in purchasing organic foods: The standard learning hierarchy approach. *British Food Journal*, 116(6), pp.918–930. <http://dx.doi: 10.1108/BFJ-02-2013-0030>
- Lee, H.-J., and Yun, Z.-S. (2015). Consumers' perceptions of organic food attributes and cognitive and affective attitudes as determinants of their purchase intentions toward organic food. *Food Quality and Preference*, 39, pp.259–267. doi:10.1016/j.foodqual.2014.06.002
- Lian, S.B., and Yoong, L.C. (2019). Assessing the Young Consumers' Motives and Purchase Behavior for Organic Food: An Empirical Evidence from a Developing Nation. *International Journal of Academic Research in Business and Social Sciences*, 9(1), pp.69–87.



- Lillywhite, J.M., Al-Oun, M., and Simonsen, J.E. (2013). Examining organic food purchases and preferences within Jordan. *Journal of International Food & Agribusiness Marketing*, 25, pp.103-121.
- Lockie, S., Lyons, K., Lawrence, G., and Grice, J. (2004). Choosing organics: a path analysis of factors underlying the selection of organic food among Australian consumers'. *Appetite*, 43 (2), pp.135-146.
- Loebnitz, N., and Aschemann-Witzel, J. (2016). Communicating organic food quality in China: consumer perceptions of organic products and the effect of environmental value priming. *Food Quality and Preference*, 50, pp.102-108.
- Maichum, K., Parichatnon, S., and Peng, K. (2017). The influence of attitude, knowledge and quality on purchase intention towards Halal food: a case study of young non-Muslim consumers in Thailand. *International Journal of Management & Social Sciences*, 6(3), pp.354–364.
- Malhotra, N.K. (2003). *Marketing Research- An Applied Orientation*. Singapore: Pearson Education.
- McEachern, M.G., and McClean, P. (2002). Organic purchasing motivations and attitudes: are they ethical? *Int. J. Consum. Stud.*, 26 (2), pp.85–92.
- Michaelidou, N., and Hassan, L.M. (2008). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies*, 32(2), pp.163–170. doi:10.1111/j.1470-6431.2007.00619.x
- Mukul, A.Z.A., Afrin, S., and Hassan, M.M. (2013). Factors Affecting Consumers' Perceptions about Organic Food and Their Prevalence in Bangladeshi Organic Preference. *Journal of Business and Management Sciences*, 1(5), pp.112-118
- Nguyen, K.N., and Nguyen, T.H.N. (2016). Attitudes and Young Consumers' Organic Food Purchasing Intentions. *Journal of Science*, 19, pp.55-62.
- Nunnally, J.C. (1978). *Psychometric theory* (2nd Ed.). New York: McGraw-Hill.
- O'Donovan, P., and McCarthy, M. (2002). Irish consumer preference for organic meat. *British Food Journal*, 104(3/4/5), pp.353–370. doi:10.1108/00070700210425778
- Padel, S., and Foster, C. (2005). Exploring the gap between attitudes and behavior: Understanding why consumer buy or do not buy organic food. *British Food Journal*, 107 (8), pp.606-625.
- Pallant, J. (2013). *SPSS survival manual: A step by step guide to data analysis using SPSS* (5th ed.). Maidenhead: Open University Press/McGraw-Hill.



Paul, J., and Rana, J. (2012). Consumer behavior and purchase intention for organic food. *Journal of Consumer Marketing*, 29(6), pp.412–422. doi:10.1108/07363761211259223

Rahman, K.M., and Noor, N.A.M. (2016). Evaluating gaps in consumer behavior research on organic foods: a critical literature review under Bangladesh context. *Journal of Marketing and Consumer Behavior in Emerging Markets*, 1(3), pp.42-50.

Rahman, M.A., Sultan, M.Z., Rahman, M.S., and Rashid, M.A. (2015). Food adulteration: a serious public health concern in Bangladesh. *Bangladesh Pharmaceutical Journal*, 18(1), pp. 1-7.

Rana, J., and Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services*, 38, pp.157–165. doi:10.1016/j.jretconser.2017.06.004

Saba, A., and Messina, F. (2003). Attitudes towards organic foods and risk/benefit perception associated with pesticides. *Food Qual. Prefer.*, 14, pp.637–645.

Schermelleh-Engel, K., Moosbrugger, H. and Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), pp.23-74.

Schiffman, L.G., and Kanuk, L.L. (2000). *Consumer Behavior* (7th ed.). Wisconsin: Prentice Hall.

See, S.Z., and Mansori, S. (2012). Young Female Motivations for Purchase of Organic Food in Malaysia. *International Journal of Contemporary Business Studies*, 3(5), pp.61-72.

Singh, A., and Verma, P. (2017). Factors influencing Indian consumers' actual buying behavior towards organic food products. *Journal of Cleaner Production*, 167, pp.473-483.

Sobhanifard, Y. (2018). Hybrid modeling of the consumption of organic foods in Iran using exploratory factor analysis and an artificial neural network. *British Food Journal*, 120(1), pp.44-58.

Sweeney, J.C., and Soutar, G.N. (2001). Consumer perceived value: the development of a multiple item scale. *Journal of Retailing*, 77(2), pp.203–220.

Teng, C.-C., and Wang, Y.-M. (2015). Decisional factors driving organic food consumption. *British Food Journal*, 117(3), pp.1066–1081. doi:10.1108/bfj-12-2013-0361

Thambiah, S., Khin, A.A., Muthaiyah, S., and Yuen, Y. Y. (2015). Organic Food Consumption among Generation Y in Malaysia: A Conceptual Framework. *Journal of Applied Sciences*, 15(3), pp.570-575. DOI:10.3923/jas.2015.570575



The Daily Prothom Alo (2020). 25pc Bangladeshis suffer from high blood pressure, 10pc have diabetes. *The Daily Prothom Alo*, January 21. Available at: <https://en.prothomalo.com/bangladesh/1-out-of-10-suffers-from-diabetes-1-of-4-from> [Accessed 17 December 2020].

Thomas, T., Gunden, C., (2012). Investigating consumer attitudes toward food produced via three production systems: conventional, sustainable and organic. *J. Food Agric. Environ.*, 10(2), pp.132–135.

Wang, X., Pacho, F., Liu, J., and Kajungiro, R. (2019). Factors Influencing Organic Food Purchase Intention in Tanzania and Kenya and the Moderating Role of Knowledge. *Sustainability*, 11(1), pp.209. doi:10.3390/su11010209

Warshaw, P.R., and Davis, F.D. (1985). Disentangling behavioral intention and behavioral expectation. *Journal of Experimental Social Psychology*, 21(3), pp.213-228. [http://dx.doi.org/10.1016/0022-1031\(85\)90017-4](http://dx.doi.org/10.1016/0022-1031(85)90017-4)

Wier, M., and Calverley, C. (2002). Market Potential for Organic Food in Europe. *British Food Journal*, 104(1), pp.45-62. <https://doi.org/10.1108/00070700210418749>

Williams, P.R., and Hammitt, J.K. (2001). Perceived risks of conventional and organic produce: Pesticides, pathogens, and natural toxins. *Risk Anal.*, 21, pp.319–330.

Zeithaml, V.A. (1988). Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), pp.2-22, doi: 10.2307/1251446