

REVITALIZE THE THEORY OF PLANNED BEHAVIOR: A CASE OF ORGANIC FOOD

Prinkle

Research Scholar, Department of Commerce
Kurukshetra University, Kurukshetra
E-mail: prinklerozaphd@kuk.ac.in

Mahabir Narwal

Professor, Department of Commerce
Kurukshetra University, Kurukshetra
E-mail: msnarwal@kuk.ac.in

Neha Bansal

Research Scholar, Department of Commerce
Kurukshetra University, Kurukshetra
E-mail: nehabansalphd@kuk.ac.in

ABSTRACT

This study proposed and examined a conceptual framework based on the idea of planned behavior, which gives various insights. An examination of the antecedents of attitude and intent of consumers to buy organic food was the goal of the study. With the integration of the Theory of Planned Behavior and value belief norms theory, we hypothesized two additional factors i.e., health consciousness and environmental, to assess the impact of attitude toward purchase of organic food along with subjective norm and perceived behavioral control to influence purchase intention. A PLS-SEM analysis was performed on data collected from 300 consumers with knowledge of organic food. Environmental concern and health consciousness were the compelling and significant antecedents of attitudes toward buying organic food. Similar to theory of planned behavior, attitude toward purchasing organic food, perceived behavioral control and subjective norm were found to be significant predictor of intention to purchase organic food. As per the results of the study, planned behavior theory was successfully applied in case of consumer's behavior regarding organic food.

Keywords: Theory of Planned behavior, Organic Food, Attitude, Purchase Intention, Structural Equation, Modelling.

INTRODUCTION

In today's era everybody wants healthy life and most the people are looking for green, safe and natural foods. Organic food provides an option to choose healthy lifestyle to consumers as they are free from chemical fertilizers, not genetically modified and contains no antibodies or growth hormones, etc. In order to be organic, food must follow rigorous guidelines when it comes to ensuring the quality of soil, water, and air. Demand for organic food products is continuously increasing due to this the shortage of supply is becoming a problem and this has opened doors for the opportunists in the field of agriculture and producers of organic food (Fotopoulos and Krystallis, 2002). Various researches are showing a boom in the organic food market worldwide and even with double digit growth rates, including

India. The worldwide market for organic food items is growing @16 per cent CAGR (Compound annual growth rate) as compared to other business sectors of conventional items @10 per cent CAGR (Willer and Lernoud, 2019). Demand for the food liberated from synthetic chemicals will undoubtedly increase with the evolving outlook (Höfer *et al.*, 2015). According to report, "India Organic Food Market Forecast and Opportunities, 2019," Over the next five years, organic food earnings are expected to grow at a CAGR of around 25 per cent (Misra and Singh, 2016). So, there is an urgent need of conceptual framework that will provide the groundwork for researchers to further empirically examine the relationship between consumer's attitude and purchase intention towards organic food. Organic cultivation has been rehearsed in India since many centuries but, post independent India witnessed severe food crises and dependent on heavy imports from the western countries due to the shortage of food. After this, due to the success of green revolution in Mexico it was also introduced in India in 1970s and changed the situation of India from food importer to food exporter by 1990 (Das *et al.*, 2020). With the increased use of chemicals and high yielding seeds for crops, production driven supply chain was created in India. Adequate supply of water is prerequisite for the use of chemicals and this was fulfilled by Punjab and Haryana that's why they had showed tremendous growth in yield but these positive results are on the cost of ground water pollution, degradation of soil fertility, micro-organisms, birds food from agriculture were vanished and chemicals in food that adversely affects health (Pandey, 2019). As the income and awareness level is rising so there is a change in "production-driven supply chain" to a "demand-driven value chain" (ASSOCHAM and EY, 2018), particularly in the past five years the organic market is developing (Willer and Sahota, 2020). They are not living in the society that is troubled by deficiencies any more (Pham *et al.*, 2018). Purchasers can stand to pick items dependent on assortment, quality, security, and comfort. Organic food product items are helping in accomplishing the national goals of food security, ecological assurance and sustainability (Padel and Foster, 2005).

What Does The Term 'Organic' Defines?

Indian organic market is mostly associated with food, drinkable quenchers, beverages items, health & wellbeing products, beauty & personal care and items of clothing & textile (Willer *et al.*, 2018). Organic foods are those that are environment friendly because they have been well disposed on the grounds of being created utilizing ecologically sound techniques and don't include modern engineered substances like pesticides and manures, don't contain GMOs (Genetically modified organisms) (Kapuge, 2016) and are not prepared using irradiation, industrial solvents, or chemical food additives (Das *et al.*, 2020; Mishra and Kaushik, 2013). According to Baker *et al.* (2002) organic food contains only one third of chemical pesticides in comparison of conventional food products. Food grown without conventional pesticides can be labeled as organic food. International Federation of Organic Movements (IOFAM) described organic food as "a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved." In other words, organic products offer more social, monetary, cultural, political and ecological advantages over the long haul than regular items. This requires lot of efforts that is why; Farmers hesitate to adopt organic farming (Akaichi *et al.*, 2012). In accordance with the concept of sustainable consumption, green food alludes to food sources that are suitable for utilization, fine in quality and are more nutritious (Rezai *et al.*, 2012).

Highlights of Organic Consumers

Characteristics of organic consuming people are different as per the point of view of different authors. Joint decision of purchase is being taken by consumers while buying organic products. After studying the available literature, it was found that demographics has impact on buying behavior of organic food (Mishra and Kaushik, 2013; Gumber and Rana, 2017; Mehra and Patna, 2014; Paul and Rana, 2012; Gil and Soler, 2006). Families, who

see natural nourishments as better and perceive organic are healthier than other food options and hence are bound to buy organic food. These households have high willingness to pay (Andersen, 2008). Female will in general buy more natural food item. Family with more children and more income will in general buy more natural items, but in some other studies demographics has no significant impact on buying behavior (Tsakiridou *et al.*, 2008; Hashem *et al.*, 2018; Paul and Rana, 2012; Chinnici *et al.*, 2002; Dimitri *et al.*, 2012). People of more age and high income tend to buy more organic food. Married consumers have more positive attitude than unmarried consumers (Mishra and Kaushik, 2013).

Theory of Planned Behavior

According to the theory of planned behavior which is the most widely applied theories in social psychology (Greve, 2001), actual action's intention or buying intention is affected by three main factors first is the attitude towards buying, second is the extent to which one can be influenced by social environment or the degree of pressure to perform action one can felt from peers, friends, family or the people around him or her (called subjective norms). Third is a person's own perception towards degree of control for performing that action or behavior and consumers desirability to perform that action, this control may be internal as well as external (Chen, 2007). The initial two psychological constructs indicate the perceived attractiveness of completing the activity, while the last construct reflects whether or not the conduct is individually controlled. These three elements determine intention, and anticipate the behavior. Theory of planned behavior (Ajzen and Fishbein) is an improved version of a renowned theory i.e., Theory of reasoned action where, purchase intention is predicted by attitude towards behavior and subjective norms. In addition to three variables mentioned, the theory of planned behavior added perceived behavioral control (Madden *et al.*, 1992). Attitude is the psychological construct that measures the behavioral intention whereas subjective norms mean considering the viewpoint of those people who are important in life while making the purchase intention. Behavioral intention is a pre determinant of purchase behavior through

which behavior is determined properly (Ajzen, 1991).

The Value Belief Norms Theory

According to Prakash *et al.* (2019) and Stern *et al.* (1999), The Value-Belief-Norm theory consist of three major values that influence environmental behavior i.e., egoistic, altruistic, and biosphere values. In the case of organic food consumption, both egoistic and altruistic values are included in the purchasing process (Kareklas *et al.*, 2014). Egoistic values comprise behavior taken with the anticipation of personal gain, whereas altruistic values include actions taken for the benefit of others (Kollmuss and Agyeman, 2002; Schwartz, 1968). With regards to organic food, health concerns and environment concerns are used as proxies for egoistic and altruistic values, respectively, because the former indicate that consumers want food that is beneficial to their health and the latter indicate that consumer's concerns about environment (Yadav, 2016). The two kinds of values have forever been the two most predominant explanations behind buying organic food (Wandel and Bugge, 1997). Thus, the review proposes that values, as a theoretical cognizance existent in one's heart, may have potential to influence on customers' attitudes about organic food purchases as well as buying intentions.

This research paper integrates the variables from planned behavior theory and the theory of value belief norms by documenting the main variables as Attitude and Purchase Intent. This synthesized information will be beneficial for various parties such as organic retailers, policy makers, agriculturists, researchers, etc. Organic food has many benefits to the human being as well as this whole nature and this stimulates the demand for organic food in this era, but there are some reasons like high price and lack of information about organic food to farmers as well as consumer. Producers, retailers and other parties concerned with organic food businesses must think of these factors and try to implement suggestions in their marketing mix, and business strategies.

LITERATURE REVIEW

Life style of the consumers and food consumption habits are changing around the globe. More

disbursement of knowledge about organic will induce consumer to buy organic as it positively affects attitude towards organic food (Magistris and Gracia, 2008). The surplus of consumer's demand and the determinants of buying intent for organic milk have very well explained the role of information in the formation of attitude and increase promptitude to buy organic milk. Flourishing awareness & dissemination of information could be helpful for producers and sellers to increase the demand as well as supply of organic food products (Akaichi *et al.*, 2012). Socio demographic aspect of consumers affects the level of knowledge of consumers. Trust of the consumer can be established by improving their attitude towards labeling and certification system, purchase intention could be increased by improving the closeness between both parties (consumer and retailers) and by increasing nutrients value and environmental values in organic food (Liang, 2016).

Interest of the consumers has been increasing due to the health and nutritious factor (Chen, 2009). Health-conscious lifestyle mediating through attitude towards organic food products contributes towards buying decision of consumer. In a study conducted by Magnusson *et al.* (2003), health consciousness was found to be an important predictor of attitude and buying intent for organic food. However, not all research has corroborated this (Tarkiainen and Sundqvist, 2005). Subjective norms also assume a significant part in marketing of organic food products because word of mouth can influence the intention to buy and the latter induce the actual and real consumption of the organics (Pieniak *et al.*, 2010). Perceived behavioral control also affect intention to purchase organic food because If consumer perceives that they have more control over their behavior regarding the purchase decision so more will be their intention to buy food product which are organic (Chen, 2009). Consumer perceives that environment is being destroyed and damaged in many irreversible ways this induces them to purchase organic food (Ueasangomsate and Santiteerakul, 2016), but according to Kapuge (2016) environmental concerns has no impact on purchase intension for organic food products.

Consumer decision making is affected by many factors like positive attitude which constitutes health, safety balanced lifestyle aspect of consumer (Magistris and Gracia, 2008). Purchasers have more uplifting mentality and positive attitude towards organic food items (Tsakiridou *et al.*, 2008). Availability is one of the reasons why organic food isn't purchased, followed by price, taste, and lastly popularity. That is why Satisfaction level varies on the basis of these factors and informative measures (Paul and Rana, 2012). Price is the main factor that hinders the growth of the organic food industry (Chen, 2009). But for higher income group people price will no more be a barrier. If high price of the organic food is there, so more emphasis will be on extrinsic clues like closeness to retailer, dependence on channel of supply. These will be considered for intention to purchase and in case of low price of organic food more emphasis will be on attitude in respect to organic food and labeling information to buy food (Liang, 2016). Decision regarding the willingness to pay has been affected by attitude of the consumer for organic food, lifestyle and knowledge of the consumer (Gil and Soler, 2006). Attitude and expectation towards purchasing natural food is positive around the world (Tarkiainen and Sundquist, 2005; Zhou *et al.*, 2013; Swidi *et al.*, 2014). Some studies showed contradictory findings on factors like quality, taste, price of the organic food, environment consciousness, sensory appeals, labelling of organic food. There is no difference found between the pattern of activities performed by family with children or family with no children. Numerous variables that influence the acquisition or purchase of organic food items are their health attributes, nutritious value for children, high price, and availability. Both altruistic and hedonic behavior of the consumer contributes in decision making process of buying organic (Hashem *et al.*, 2018). There will be great increase in demand of organic food products in future because after the analysis of magnitude of the demand, there exist a difference between products consumed today and anticipated to be devoured in the future (Mishra and Kaushik, 2013). Green marketing is getting success due to the usage words as per the expectations of the consumers. This will help in strengthening the position in market (Hofer *et al.*, 2015).

Table 1: Relevant Studies as Per Review of Literature

S. No.	Variables	Relevant Studies
1	Health Consciousness	Davies <i>et al.</i> (1995), Huang (1996), Stern <i>et al.</i> (1999), Tarkiainen and Sundqvist (2005), Magnusson <i>et al.</i> (2003), Chen (2009), Briz and Ward (2009), Mishra and Kaushik (2013), Wee <i>et al.</i> (2014), Swidi <i>et al.</i> (2014), Suki (2016), Hashem <i>et al.</i> (2018), Hsu <i>et al.</i> (2016), Ricci <i>et al.</i> (2018), Basha and Lal (2018), Hwang (2015), Teng and Wang (2015), Yadav and Pathak (2016), Anisimova (2016), Yadav (2016), Liang (2016), Mainardes <i>et al.</i> (2017), Singh and Verma (2017), Goyal and Bansal (2018), Zhang <i>et al.</i> (2018), Wang <i>et al.</i> (2019), Prakash <i>et al.</i> (2019), Nagaraj (2021).
2	Environmental Consciousness	Hashem <i>et al.</i> (2018), Ueasangkomsate and Santiteerakul (2016), Kapuge (2016), (Mohamad <i>et al.</i> (2014), Chen (2007), Goyal and Bansal (2018), Magistris and Gracia (2008), Mishra and Kaushik (2013), Basha and Lal (2019), Hwang (2015), Petrescu and Mag (2015), Wee <i>et al.</i> (2014), Liang (2016), Kumar and Smith (2018), Cheung <i>et al.</i> (2015), Stern <i>et al.</i> (1999), Yadav (2016).
3	Attitude Towards Purchase of Organic Food	Mainardes <i>et al.</i> (2017), Paul and Rana (2012), Swidi <i>et al.</i> (2014), Tarkiainen and Sundqvist, 2005, Yadav and Pathak (2016), Ricci <i>et al.</i> (2018), Ajzen (1991), Chen (2007).
4	Subjective Norms	Pieniak <i>et al.</i> (2010), Hassan <i>et al.</i> (2015), Swidi <i>et al.</i> (2014), Hsu <i>et al.</i> (2016), Tarkiainen and Sundqvist (2005), Yadav and Pathak (2016), Wang <i>et al.</i> (2019), Suki (2016), Basha and Lal (2019), Teng and Wang (2015), Hong <i>et al.</i> (2023), Singh and Verma (2017).
5	Perceived Behavioral Control	Hassam <i>et al.</i> (2014), Swidi <i>et al.</i> (2014), Chen (2007), Tarkiainen and Sundqvist (2005), Yadav and Pathak (2016), Ricci <i>et al.</i> (2018), Wang <i>et al.</i> (2019), Kumar and Smith (2018), Chen (2009), Madden <i>et al.</i> (1992).
6	Purchase Intention	Ajzen (1991), Chen (2007), Briz and Ward (2008), Mishra and Kaushik (2013), Cheung <i>et al.</i> (2015), Meyer and Spiller (2015), Hwang (2015), Teng and Wang (2015), Yazdanpanah and Forouzani (2015), Petrescu and Mag (2015), Liang (2016), Hsu <i>et al.</i> (2016), Anisimova (2016), Kumar and Smith (2017), Mainardes <i>et al.</i> (2017), Zhang <i>et al.</i> (2018), Goyal and Bansal (2018), Wang <i>et al.</i> (2019), Parashar <i>et al.</i> (2023), Masukujjaman <i>et al.</i> (2023).

The following proposed model is prepared (Fig 1). This proposed model defines the relationship between different variables. Contradictions from findings of previous studies have been observed between the relationships of variables. The following model is mixture of renowned value belief norms theory and planned behavior theory given by Stern *et al.* (1999) and Ajzen (1991), respectively. The theoretical model of planned behavior in the organic food context, two additional constructs were added: health consciousness and environmental consciousness. The following are the hypotheses formulated on the basis of review of literature:

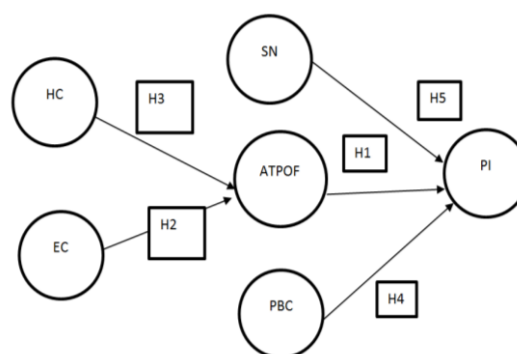


Fig 1: Conceptual Model

HC: Health Consciousness
 EC: Environmental Consciousness
 ATPOF: Attitude Towards Purchase of Organic Food
 SN: Subjective Norms
 PBC: Perceived Behavioral Control
 PI: Purchase Intention
 H: Hypothesis
 Source: Author’s compilation.

RESEARCH METHODOLOGY

In terms of awareness, young tend to have more knowledge about organic food products. Young are more concerned but can't afford due to less disposable income or purchasing power. Convenience sampling has been used to collect the data from those districts of Haryana, which has highest rate of literacy. Questionnaire tool containing 24 statements on different constructs of theory of planned behavior and two additional constructs has been prepared to get information from respondents. Questionnaire contains some

filter questions about awareness and knowledge about organic food. Only those young respondents were selected, who were aware about organic food. Also, as per Kline (2015), the data of 10

respondents per statement was needed. Hence, data of 300 young consumers has been taken for further analysis and analyzed by using PLS 3 software.

Table 2: The Following Table Contain the Statements Used and Their Sources

S. No.	Construct	Statements	Sources
1.	HC: Health Consciousness	HC1: I am very conscious about my health.	Michaelidou and Hassan (2008); Schifferstein and Oude Ophuis (1998)
		HC2: I choose food carefully to ensure good health.	
		HC3: I make efforts to improve my immunity.	
		HC4: I can sacrifice many things for good health.	
2.	EC: Environmental Consciousness	EC1: I am concerned about the environment problems.	Chan and Lau (2002)
		EC2: I am willing to pay more for environment friendly products.	
		EC3: I am emotionally involved in the environmental protection issues.	
		EC4: We should care about environmental problems.	
3.	ATPOF: Attitude Towards Purchase of Organic Food	ATPOF 1: Buying organic food is important decision.	Kim and Han (2010)
		ATPOF2: Buying organic food is good for environment.	
		ATPOF 3: Organic food purchase is beneficial for health.	
		ATPOF 4: Buying organic food is wise decision.	
4.	SN: Subjective Norms	SN1: Individuals who are significant for me, believe that I ought to purchase food which is organic.	Cheung <i>et al.</i> (2015)
		SN2: The Trend of buying organic food is increasing in the Society.	
		SN3: My family and friends will appreciate me, If I buy organic food.	
		SN4: I am told to buy organic food by my family and close friends.	
5.	PBC: Perceived Behavioral Control	PBC1: On my choice to purchase organic food, I have full control.	Wang <i>et al.</i> (2019); Ajzen (1991)
		PBC2: It is very much possible for me to buy organic food.	
		PBC3: It is financially feasible for me to purchase organic food.	
		PBC4: The difficulties associated with my purchase of organic food (money, time, information, availability) are not a concern for me.	
6.	PI: Purchase Intention	PI1: Next time when I look for food, I will choose organic food.	Asif <i>et al.</i> (2018)
		PI2: I am willing to buy organic food on regular basis in near future.	
		PI3: I will recommend others to buy organic food.	
		PI4: I will buy organic food if they are available in food shop.	

ANALYSIS AND RESULTS

For multivariate data, PLS-SEM (partial least square based structural equation modeling) is found to be the suitable tool for analysis. PLS structural equation modeling is useful when there is no prior condition of normal data and availability of sample size is small. It examines the variance of different constructs with key construct (Hair *et al.*, 2012). The analysis was performed in two steps:

1. Evaluation of the Structural Model

The structural model of the study was assessed through bootstrap (Efron, 1987) with sub samples of 5000. Collinearity test is performed when two or more variables are maximum correlated in a model of multiple regression that describe that one variable can be estimated from other one. When the value of Variance Impact Factor (VIF) is more than 5 (Henseler, 2010; Hair *et al.*, 2021), it conveys that indicators have collinearity issue. Table 3, shows that all the items have VIF value less than 5,

it conveys that there is no issue of collinearity hence validating the structural model.

Table 3: VIF Values of Exogenous and Endogenous Constructs

Constructs	ATPOF	PI
HC	1.341	
EC	1.341	
SN		1.943
PBC		1.557
ATPOF		1.675

2. Assessment of Measurement Model

Assessment of measurement model is done by convergent validity, internal consistency, indicators reliability and discriminant validity. The convergent validity of individual items was analyzed through the loadings as is illustrated in Figure 2. In present model all items exceed the cut off value is of 0.50 (Fornell and Larcker, 1981). To evaluate construct reliability, values of Cronbach's alpha and composite reliability were studied. The

cut off value for these is 0.70 and the same is illustrated in Table 4 shows. The value of average variance extracted (AVE) for the constructs must be higher than 0.5 and this was also proven for convergent validity.

Table 4: Values of Cronbach’s Alpha, Composite Reliability (CR) and Average Variance Extracted (AVE) (Representing Convergent Validity and Reliability)

Factor	Cronbach’s Alpha	CR	AVE
ATPOF	0.871	0.912	0.721
EC	0.852	0.900	0.693
HC	0.857	0.903	0.701
PBC	0.837	0.891	0.672
PI	0.890	0.924	0.752
SN	0.811	0.876	0.640

SPSS and Smart PLS SEM were used to analyze the data. A valid internal reliability analysis was performed using Cronbach’s α to assess the authenticity of all items (Nunnally and Bernstein, 2010). The values for α reliability coefficients for the present study (ATPOF= 0.871, EC= 0.852, HC= 0.857, PBC= 0.837, PI= 0.890, SN= 0.811), are greater than the value of 0.70 (Qing *et al.*, 2019). According to MacKinnon (2008), discriminant validity is a measure of how much a latent variable differs from other latent variables in the same model. In Table 5, the values of square root of AVE are greater than the inter-constructs correlation showing the presence of discriminant validity (Hair *et al.* 2012).

Table 5: Values of Mean, SD, Correlation and Square Root of AVE

Variable	Mean	SD	ATPOF	EC	HC	PBC	PI	SN
ATPOF	4.13	0.76	0.849					
EC	4.16	0.77	0.658	0.832				
HC	3.87	0.84	0.472	0.504	0.837			
PBC	3.65	0.87	0.477	0.475	0.556	0.820		
PI	3.96	0.79	0.715	0.584	0.518	0.543	0.867	
SN	3.24	0.75	0.617	0.581	0.470	0.578	0.692	0.800

SD = Standard Deviation

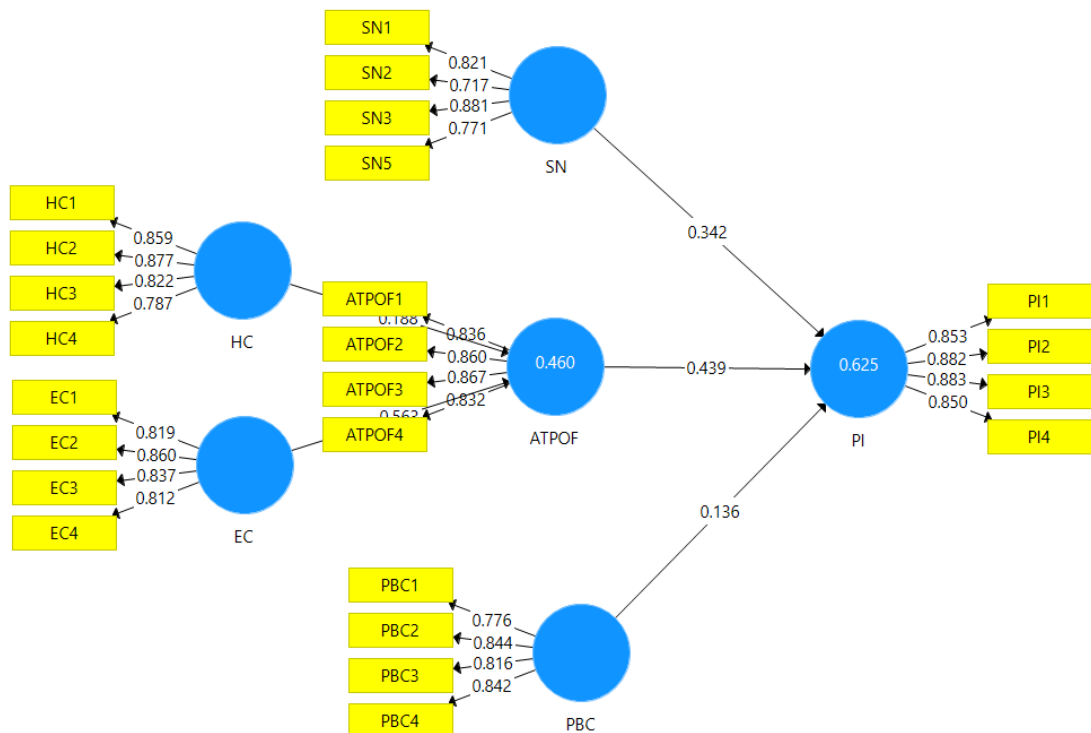


Fig 2: Analyzed Model

Table 6: Results of Hypothesis

Hypothesis	Hypothesized Path	t value	p value	Result
H1	ATPOF→PI	6.900	0.000***	Hypothesis Supported
H2	EC → ATPOF	9.727	0.000***	Hypothesis Supported
H3	HC→ ATPOF	2.815	0.005***	Hypothesis Supported
H4	PBC → PI	2.758	0.006***	Hypothesis Supported
H5	SN → PI	5.506	0.000***	Hypothesis Supported

***P-value < 0.01

Table 6 represents, the results of relationship between constructs. To study the relationship between various factors, five hypotheses were framed (H1, H2, H3, H4, H5). Out of the entire present hypothesis all were accepted. As represented in the table 5 ATPOF ($t=6.9$, $p=0.000$) significantly influence the PI. EC ($t= 9.727$, $p= 0.000$) and HC ($t= 2.815$, $p=0.005$) significantly influence ATPOF, respectively. While, PBC (t -value is 2.758, p value is 0.006) and SN (t -value is 5.506, p value is 0.000) also has significant impact on PI, respectively. Health and environmental consciousness predicted attitudes toward organic food purchases, explaining 46 per cent ($R^2 = 0.46$) of the variation in attitudes toward organic food. While attitudes toward organic food purchases, subjective standards, and perceived behavioral control explained nearly 63 per cent ($R^2 = 0.625$), indicating a strong R-squared value. In addition to the foregoing analysis, the saturated model's SRMR value is $0.058 < 0.08$, represents the suggested proposed framework's model fit. Q-square also influences whether or not the model is predictive. Since the values of $Q^2 = 0.306$ and 0.439 , respectively, for attitude toward purchasing organic food and buy intention. It argues that the model has excellent endogenous construct predictive relevance since its values are greater than zero (Hair *et al.*, 2014). As a result, the model in this study exhibits high predictive relevance.

DISCUSSION

There is a range of empirical confirmations on understanding the consumer's conduct in regards to disposition and intent to buy organic food items (Mainardes *et al.*, 2017; Akaichi *et al.*, 2012; Chen, 2009). In today's concept of marketing, customers have to understand what they buy to fulfill their necessities and needs. Consumers purchase decisions for organic food depends on the level of Health Consciousness, Environmental Consciousness, attitude towards the purchase of

organic food, subjective norms and perceived behavioral control. In this study the attitude towards purchasing organic food is being affected by health consciousness with is in line with various studies such as Suki (2016), Hsu *et al.* (2016), Huang (1996), Hashem *et al.* (2018), Hassan *et al.* (2015), Swidi *et al.* (2014), Yadav and Pathak (2016), Teng and Wang (2015), Singh and Verma (2017), Anisimova (2016), Krystallis and Chrysosohodies (2005), Hwang (2015), Zang *et al.* (2018), Singh and Verma (2017), Petrescu and Mag (2015), Mainardes *et al.* (2017), Briz and Ward (2009), Davies *et al.* (1995) except Tarkiainen and Sundquist (2005). Environmental concerns also affect attitude towards purchase of organic food, this is also in accordance with Hashem *et al.* (2014), Chen (2009), Goyal and Bansal (2018), Magistris and Gracia (2008), Basha and Lal (2019), Petrescu and Mag (2015), Wee *et al.* (2014), Liang (2016), Kumar and Smith (2018), Cheung *et al.* (2015). Day by day, degradation of environment is becoming as a matter of concern for society and people have a more positive attitude towards organic food. This may be attributed to the eco-friendly behavior of organic food products. Companies can be benefited by using this kind of attributional function to attract those who are eco-conscious and health conscious. In this study too, People often seem to feel perceived social pressure from friends and family and perceived control over purchase or non-purchase of any product (Ajzen, 1991). In the case of organic food items too, subjective criteria and perceived behavioral control and difficulties plays a very important role in assessing the consumer's purchasing intention for organic food, which is in line with Swidi *et al.* (2014), Tarkiainen and Sundquist (2005), Zhou *et al.* (2013). Perceived knowledge, concern for environment, health and trust towards organic food act as antecedents of attitude towards organic food and theory of planned behavior states that perceived difficulty in performing any behavior and

subjective norms affect purchase intention of consumer. Attitude towards purchase of organic food affects the intention to purchase organic produce, which confirm the findings of Brown (1950), Hassan *et al.* (2015), Singh and Verma (2017). This relation of attitude and purchase intention connects antecedents of attitude and antecedents of buyers buying intention. This model aides organic items retailers to comprehend the way of behaving of the customer towards organic food items, that what purchaser needs to buy and why.

CONCLUSION

Purchase of organic food has now become the piece of way of life for the individuals who have health and wellbeing awareness, status cognizance and climate awareness. Individuals who purchase organic food can be earth concerned, individuals who dread from food synthetics (food phobic), and individuals who worry about the present unscrupulous cultivating techniques. Interest for organic food items has been expanding because of expansion in green industrialism since it is raising the interest for those items that- are eco- friendly. In any case, it isn't essential that the individuals who are ecologically aware will fundamentally purchase organic food. Primary explanation behind the utilization of organic food is seeing health advantages in the natural food, but now environmental concerns equally contributing in building up positive attitude towards organic food. Current research proves that theory of planed behavior and values belief norms theory are not died, they are alive. They can be efficiently use in predicting the behavior for organic food purchase. Government of the developed countries are effectively working in the area of organic food. Developing countries must direct their efforts towards exploring the prospects in this field. Awareness based on scientific facts, providing packaging information based eco-labelling or mentioning motivating attributes on label and nudging for health & environmental benefits can potentially support consumers in their sustainable buying behavior. Marketer can increase their sales by emphasizing on the health and environmental aspects in their marketing strategies such as brand development, effective communication and proper labelling for their organic food products.

IMPLICATIONS OF THE STUDY

This research framework provides groundwork for researchers to further empirically study the above

given proposed model of consumer behavior. Significance of researching the Consumer conduct with respect to organic food has been perceived by different streams like human science, marketing, ecological examinations, horticultural investigations, and so on. Data identified with inclination for organic food is significant for retailers, agriculturist, ranchers, strategy producers, and so forth. They will get ample monetary advantages from organic purchasers. Our review analysis expressed the change in buying conduct when current conditions will change in future. But it is hard to anticipate the exact conduct of the human behavior as they, at the end of the day, humans can't predict their own conditions.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Akaichi, F., Nayga, Jr, R. M., and Gil, J. M. (2012). Assessing consumers' willingness to pay for different units of organic milk: evidence from multiunit auctions. *Canadian Journal of Agricultural Economics/Revue canadienne d'agroeconomie*, 60(4), 469-494.
- 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), 1561-1580.
- Andersen, L. M. (2008). Organic milk—who and why?. *Information Provision to Consumers as an Instrument of Environmental Regulation*, 14.
- Anisimova, T. (2016). Integrating multiple factors affecting consumer behavior toward organic foods: The role of healthism, hedonism, and trust in consumer purchase intentions of organic foods. *Journal of Food Products Marketing*, 22(7), 809-823.
- Asif, M., Xuhui, W., Nasiri, A., and Ayyub, S. (2018). Determinant factors influencing organic food purchase intention and the moderating role of awareness: A comparative analysis. *Food Quality and Preference*, 63, 144-150.

- Assocham and EY. (2018). The Indian organic market: a new paradigm in agriculture.
- Baker, B. P., Benbrook, C. M., Iii, E. G., and Benbrook, K. L. (2002). Pesticide residues in conventional, integrated pest management (IPM)-grown and organic foods: insights from three US data sets. *Food Additives and Contaminants*, 19(5), 427-446.
- Basha, M. B., and Lal, D. (2019). Indian consumers' attitudes towards purchasing organically produced foods: An empirical study. *Journal of Cleaner Production*, 215, 99-111.
- Bernstein, I. H. (2010). *Psychometric theory*. Tata McGraw-Hill Education.
- Briz, T., and Ward, R. W. (2009). Consumer awareness of organic products in Spain: An application of multinomial logit models. *Food Policy*, 34(3), 295-304.
- Brown, G. H. (1950). Measuring consumer attitudes toward products. *Journal of Marketing*, 14(5), 691-698.
- Chan, R. Y., and Lau, L. B. (2002). Explaining green purchasing behavior: A cross-cultural study on American and Chinese consumers. *Journal of International Consumer Marketing*, 14(2-3), 9-40.
- Chen, M. F. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality and Preference*, 18(7), 1008-1021.
- Chen, M. F. (2009). Attitude toward organic foods among Taiwanese as related to health consciousness, environmental attitudes, and the mediating effects of a healthy lifestyle. *British Food Journal*, 111(2), 165-178.
- Cheung, R., Lau, M. M., and Lam, A. Y. (2015). Factors affecting consumer attitude towards organic food: An empirical study in Hong Kong. *Journal of Global Scholars of Marketing Science*, 25(3), 216-231.
- Chinnici, G., D'Amico, M., and Pecorino, B. (2002). A multivariate statistical analysis on the consumers of organic products. *British Food Journal*, 104(3/4/5), 187-199. <https://doi.org/10.1108/00070700210425651>
- Das, N., Garber, L. L., Hyatt, E. M., and Nafees, L. (2020). Organic food perceptions of Indian millennials, and the growth of the Indian organic food industry. *Handbook of Eating and Drinking: Interdisciplinary Perspectives*, 873-893.
- Davies, A., Titterton, A. J., & Cochrane, C. (1995). Who buys organic food?: A profile of the purchasers of organic food in Northern Ireland. *British Food Journal*, 97(10), 17-23.
- Magistris, T. D., & Gracia, A. (2008). The decision to buy organic food products in Southern Italy. *British Food Journal*, 110(9), 929-947.
- Dimitri, C., and Dettmann, R. L. (2012). Organic food consumers: what do we really know about them?. *British Food Journal*, 114(8), 1157-1183.
- Efron, B. (1987). Better bootstrap confidence intervals. *Journal of the American Statistical Association*, 82(397), 171-185.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Fotopoulos, C., and Krystallis, A. (2002). Purchasing motives and profile of the Greek organic consumer: a countrywide survey. *British Food Journal*, 104(9), 730-765.
- Gil, J. M., and Soler, F. (2006). Knowledge and willingness to pay for organic food in Spain: Evidence from experimental auctions. *Acta Agriculturae Scand Section C*, 3(3-4), 109-124.
- Global Organic Food Market to Grow at Over 16 per cent by 2020, Concludes TechSci Research. Retrieved 3 March 2020, from <https://www.prnewswire.com/news-releases/globalorganic-food-market-to-grow-at-over-16-by-2020-concludes-tech-sci-research-523104261.html>
- Goyal, A., and BANSAL, S. (2018). The dynamism of eco-organic food products and consumer intentions for purchasing. *International Journal of Business Management and Research (IJBMR)*, 8, 45-62.

- Greve, W. (2001). Traps and gaps in action explanation: theoretical problems of a psychology of human action. *Psychological Review*, 108(2), 435.
- Gumber, G., and Rana, J. (2017). Factors Influencing Willingness to Pay Price Premium for Organic Food in India. *International Journal of Emerging Research in Management and Technology*, 6(2), 1-15.
- Hair JF, Hult GTM, Ringle CM, Sarstedt M. (2014). *A Primer on Partial Least Squares*
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., and Sarstedt, M. (2021). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage publications.
- Hair, J. F., Ringle, C. M., and Sarstedt, M. (2012). Partial least squares: the better approach to structural equation modeling?. *Long Range Planning*, 45(5-6), 312-319.
- Structural Equation Modeling (PLS-SEM) (1 Ed.)*. Thousand Oaks, CA: Sage.
- Hashem, S., Migliore, G., Schifani, G., Schimmenti, E., and Padel, S. (2018). Motives for buying local, organic food through English box schemes. *British Food Journal*, 120(7), 1600-1614.
- Hassan, S. H., Yee, L. W., and Ray, K. J. (2015). Purchasing intention towards organic food among generation Y in Malaysia. *Journal of Agribusiness Marketing*, 7(2015), 16-32.
- Henseler, J. (2010). On the convergence of the partial least squares path modeling algorithm. *Computational Statistics*, 25(1), 107-120.
- Hong, Y., Hu, J., Chen, M., and Tang, S. (2023). Motives and antecedents affecting green purchase intention: Implications for green economic recovery. *Economic Analysis and Policy*, 77, 523-538.
- Hsu, S. Y., Chang, C. C., and 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), 200-216.
- Huang, C. L. (1996). Consumer preferences and attitudes towards organically grown produce. *European Review of Agricultural Economics*, 23(3), 331-342.
- Hwang, C. G., Lee, Y. A., and Diddi, S. (2015). Generation Y's moral obligation and purchase intentions for organic, fair-trade, and recycled apparel products. *International Journal of Fashion Design, Technology and Education*, 8(2), 97-107.
- Kapuge, K. D. L. R. (2016). Determinants of organic food buying behavior: Special reference to organic food purchase intention of Sri Lankan customers. *Procedia Food Science*, 6, 303-308.
- Kareklas, I., Carlson, J. R., and Muehling, D. D. (2014). "I eat organic for my benefit and yours": Egoistic and altruistic considerations for purchasing organic food and their implications for advertising strategists. *Journal of Advertising*, 43(1), 18-32.
- Kim, Y., and Han, H. (2010). Intention to pay conventional-hotel prices at a green hotel—a modification of the theory of planned behavior. *Journal of Sustainable Tourism*, 18(8), 997-1014.
- Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling*. Guilford publications.
- Kollmuss, A., and Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. *Environmental Education Research*, 8(3), 239-260.
- Krystallis, A., and Chrysohoidis, G. (2005). Consumers' willingness to pay for organic food: Factors that affect it and variation per organic product type. *British Food Journal*, 107(5), 320-343.
- Kumar, A., and Smith, S. (2018). Understanding local food consumers: Theory of planned behavior and segmentation approach. *Journal of Food Products Marketing*, 24(2), 196-215.
- Liang, R. D. (2016). Predicting intentions to purchase organic food: the moderating effects of organic food prices. *British Food Journal*, 118(1), 183-199.

- Madden, T. J., Ellen, P. S., and Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and Social Psychology Bulletin*, 18(1), 3-9.
- Magnusson, M. K., Arvola, A., Hursti, U. K. K., Åberg, L., and Sjöden, P. O. (2003). Choice of organic foods is related to perceived consequences for human health and to environmentally friendly behaviour. *Appetite*, 40(2), 109-117.
- Mainardes, E. W., de Araujo, D. V. B., Lasso, S., and Andrade, D. M. (2017). Influences on the intention to buy organic food in an emerging market. *Marketing Intelligence and Planning*, 35(7), 858-876.
- Masukujjaman, M., Wang, C. K., Alam, S. S., Lin, C. Y., Ho, Y. H., and Siddik, A. B. (2023). Green Home Buying Intention of Malaysian Millennials: An Extension of Theory of Planned Behaviour. *Buildings*, 13(1), 9.
- MacKinnon DP. (2008). *Introduction to Statistical Mediation Analysis*. Mahwah, NJ: Erlbaum.
- Mehra, S., and Ratna, P. A. (2014). Attitude and behaviour of consumers towards organic food: an exploratory study in India. *International Journal of Business Excellence*, 7(6), 677-699.
- 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), 163-170.
- Mishra, R., and Kaushik, N. (2013). Consumer insights for organics food market: A Delhi-NCR study. *Apeejay J Mgmt Tech*, 89(2), 15-18.
- Misra, R., and Singh, D. (2016). An analysis of factors affecting growth of organic food: Perception of consumers in Delhi-NCR (India). *British Food Journal*, 118(9), 2308-2325.
- Mohamad, S. S., Rusdi, S. D., and Hashim, N. H. (2014). Organic food consumption among urban consumers: Preliminary results. *Procedia-Social and Behavioral Sciences*, 130, 509-514.
- Nagaraj, S. (2021). Role of consumer health consciousness, food safety and attitude on organic food purchase in emerging market: A serial mediation model. *Journal of Retailing and Consumer Services*, 59, 102423.
- Padel, S., and Foster, C. (2005). Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food. *British Food Journal*, 107(8), 606-625.
- Pandey, D., Kakkar, A., Farhan, M., and Khan, T. A. (2019). Factors influencing organic foods purchase intention of Indian customers. *Organic Agriculture*, 9(4), 357-364.
- Parashar, S., Singh, S., and Sood, G. (2023). Examining the role of health consciousness, environmental awareness and intention on purchase of organic food: A moderated model of attitude. *Journal of Cleaner Production*, 386, 135553.
- Paul, J., and Rana, J. (2012). Consumer behavior and purchase intention for organic food. *Journal of Consumer Marketing*, 29(6), 412-422.
- Petrescu, D. C., and Petrescu-Mag, R. M. (2015). Organic food perception: fad, or healthy and environmentally friendly? A case on Romani consumers. *Sustainability*, 7(9), 12017-12031.
- Pham, T. H., Nguyen, T. N., Phan, T. T. H., and Nguyen, N. T. (2018). Evaluating the purchase behaviour of organic food by young consumers in an emerging market economy. *Journal of Strategic Marketing*, 1-17.
- Pieniak, Z., Aertsens, J., and Verbeke, W. (2010). Subjective and objective knowledge as determinants of organic vegetables consumption. *Food Quality and Preference*, 21(6), 581-588.
- Prakash, G., Choudhary, S., Kumar, A., Garza-Reyes, J. A., Khan, S. A. R., and Panda, T. K. (2019). Do altruistic and egoistic values influence consumers' attitudes and purchase intentions towards eco-friendly packaged products? An empirical investigation. *Journal of Retailing and Consumer Services*, 50, 163-169.

- Rezai, G., Teng, P. K., Mohamed, Z., and Shamsudin, M. N. (2012). Consumers awareness and consumption intention towards green foods. *African Journal of Business Management*, 6(12), 4496-4503.
- Ricci, E. C., Banterle, A., and Stranieri, S. (2018). Trust to go green: an exploration of consumer intentions for eco-friendly convenience food. *Ecological Economics*, 148, 54-65.
- Schifferstein, H. N., and Ophuis, P. A. O. (1998). Health-related determinants of organic food consumption in the Netherlands. *Food Quality and Preference*, 9(3), 119-133.
- Schwartz, S. H. (1968). Words, deeds and the perception of consequences and responsibility in action situations. *Journal of Personality and Social Psychology*, 10(3), 232.
- Singh, A., and Verma, P. (2017). Factors influencing Indian consumers' actual buying behaviour towards organic food products. *Journal of Cleaner Production*, 167, 473-483.
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., and Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 81-97.
- Suki, N. M. (2016). Green product purchase intention: impact of green brands, attitude, and knowledge. *British Food Journal*, 118(12), 2893-2910.
- Tanner, C., and Wölfing Kast, S. (2003). Promoting sustainable consumption: Determinants of green purchases by Swiss consumers. *Psychology and Marketing*, 20(10), 883-902.
- Tarkiainen, A., and Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107(11), 808-822.
- Teng, C. C., and Wang, Y. M. (2015). Decisional factors driving organic food consumption: Generation of consumer purchase intentions. *British Food Journal*, 117(3), 1066-1081.
- Tsakiridou, E., Boutsouki, C., Zotos, Y., and Mattas, K. (2008). Attitudes and behaviour towards organic products: an exploratory study. *International Journal of Retail and Distribution Management*, 36(2), 158-175.
- Ueasangkomsate, P., and Santiteerakul, S. (2016). A study of consumers' attitudes and intention to buy organic foods for sustainability. *Procedia Environmental Sciences*, 34, 423-430.
- Von Meyer-Höfer, M., Nitzko, S., and Spiller, A. (2015). Is there an expectation gap? Consumers' expectations towards organic: An exploratory survey in mature and emerging European organic food markets. *British Food Journal*, 117(5), 1527-1546.
- Wandel, M., and Bugge, A. (1997). Environmental concern in consumer evaluation of food quality. *Food Quality and Preference*, 8(1), 19-26.
- Wang, X., Pacho, F., Liu, J., and Kajungiro, R. (2019). Factors influencing organic food purchase intention in developing countries and the moderating role of knowledge. *Sustainability*, 11(1), 209.
- Wee, C. S., Ariff, M. S. B. M., Zakuan, N., Tajudin, M. N. M., Ismail, K., and Ishak, N. (2014). Consumers perception, purchase intention and actual purchase behavior of organic food products. *Review of Integrative Business and Economics Research*, 3(2), 378.
- Willer, H., and Lernoud, J. (2019). *The world of organic agriculture. Statistics and emerging trends 2019 (pp. 1- 336)*. Research Institute of Organic Agriculture FiBL and IFOAM Organics International.
- Willer, H., and Sahota, A. (2020). *The World of Organic Agriculture, Statistics and Emerging Trends 2020 at BIOFACH 2020*.
- Willer, H., Lernoud, J., and Kemper, L. (2018). *The world of organic agriculture 2018: Summary. In The World of Organic Agriculture. Statistics and Emerging Trends 2018 (22-31)*. Research Institute of Organic Agriculture FiBL and IFOAM-Organics International.

- Yadav, R. (2016). Altruistic or egoistic: Which value promotes organic food consumption among young consumers? A study in the context of a developing nation. *Journal of Retailing and Consumer services*, 33, 92-97.
- Yadav, R., and Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, 135, 732-739.
- Yazdanpanah, M., and Forouzani, M. (2015). Application of the Theory of Planned Behaviour to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production*, 107, 342-352.
- Zhang, B., Fu, Z., Huang, J., Wang, J., Xu, S., and Zhang, L. (2018). Consumers' perceptions, purchase intention, and willingness to pay a premium price for safe vegetables: a case study of Beijing, China. *Journal of Cleaner Production*, 197, 1498-1507.
- Zhou, Y., Thøgersen, J., Ruan, Y., and Huang, G. (2013). The moderating role of human values in planned behavior: the case of Chinese consumers' intention to buy organic food. *Journal of Consumer Marketing*, 30 (4), 335-344.