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Role of Organic Certification and Trust in Organic Food Buying Intention: Attitude as a Mediator

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Abstract

The present research study aims to evaluate the impact of organic certification and trust on consumers' purchase intention of organic food products by using the TPB framework with evaluating the mediation effect of attitude. The present study is based on 466 western consumers of India collected via convenience sampling method through an online survey and social media. The structured questionnaire was designed in the form of a Google form and a link for the same shared online. The Collected data were analyzed using CFA and SEM. Findings suggest that trust, organic certification, and attitude towards organic food significantly influence purchase intention, whereas subjective norm and perceived behavioural control do not. It empirically confirms the mediating effect of attitude between organic certification and intention to buy. Organic certification and trust both have more of a direct effect on purchase intention than an indirect effect via attitude as a mediator. This study is based on organic food in general and not a for specific product class where the result can be different. The limitation of convenience sampling may affect the result where the future studies can be directed. This paper explores the role of 'organic certification' and 'trust' in getting insights into Indian consumers' organic food purchase intention that is rare in nature. Moreover, the mediating role of 'attitude' in organic food is examined as a novel contribution in India.

Keywords: Organic food product, Organic certification, Purchase intention, Theory of Planned Behaviour (TPB), Structural equation modeling

1 Introduction

A major part of the world population realized the risk posited by food product consumption due to the excessive use of pesticides, artificial chemicals, and fertilizers to increase agriculture yield. One of the alternatives that has gained much attention in today's time is organic farming. The research community has differences in opinion about gaining benefits of consumption of organic food over conventional food. Empirical research has confirmed that food grown organically is more nutritional and healthier than conventional food products. Also, it is not only beneficial to human beings but also helpful in sustaining the ecosystem. There is no doubt that farming uses artificial chemicals, and fertilizers have adversely affected soil fertility, groundwater, and other live ecosystems. So, organic farming has a significant contribution

to sustainable consumption for upcoming generations. The slow growth in demand of significant part is due to the credence attributes possessed by organic food makes it more difficult for consumers to believe that they are organic in its true sense. So, consumers lack trust in organic food resulting in one of the substantial barriers to its consumption. Also, consumers with low awareness and less confidence in organic labeling make them skeptical. India is experiencing the lowest domestic consumption but then doing great in exporting foods grown organically. It rationalizes addressing this issue by inspecting its role in driving organic food consumption. In the case of organic food products, consumers in developed and developing countries such as India respond differently Pacho (2020). Taste, freshness, and nutritional value are motivational drivers for consumers in developing countries to buy organic food (Shrestha and Baral, 2019; Saba and Messina, 2003), whereas health concerns, food safety, and environmental concerns are major influences for consumers in developed countries (Vukasovic, 2015; Cabuk et al., 2014; Voon et al., 2011). The majority of studies were conducted in developed countries, hence the findings of the study cannot be taken blindly in the Indian context, according to the literature review. As a result, the present study's contribution to the need for exploration in the Indian setting, particularly in the case of organic food, is critical. Previous literature among developed countries, especially "organic food consumption", has found 'trust' as a major determinant in intent to buy (Nuttavuthisit and Thogersen, 2017; Anisimova, 2016). It may be the case because of the high literacy among developed countries' consumers regarding the organic matter. Very few studies have investigated the role of trust as a predictor in developing countries. Ashraf et al. (2019) empirically prove that organic food's trustworthiness is a key driver of organic food consumption in Bangladesh. Against that inconsistent result found by the study conducted in India, trust was found insignificant to influence purchase intention (Basha and Lal, 2019). Misra and Singh (2016) reported trust plays a vital aspect in knowing the buying intention. It impels researchers to investigate the role of "trust" on purchase intention in the case of organic food. In developing nations, "Revealed information" and/or "labeling" has found a significant impact on the purchase intention of organic food products (Pandey et al., 2019; Prentice et al., 2019). Transparency in the organic certification process and high awareness of organic labeling may lead to developing consumers' trust in organic food. It can act as a catalyst in organic food consumption. Previous studies have not inspected much of the role of consumers' confidence in organic certification affecting their buying behaviour. The present study examines the effect of trust and organic certification on purchase intention in an organic food setting. Investigating the role of 'organic certification' in this context of study in developing countries like India is a major contribution. Investigating the mediating role of attitude between organic certification, trust, and purchase intention is a novel contribution. The findings of the present study will shape strategic planning in the marketing of organic food. Implications of the study will help develop effective strategies that will assist in stimulating the sale of organic food.

2 Theoretical Background and hypotheses development

2.1 Theory of Planned Behaviour (TPB) Framework

Ajzen and Fishbein (1980) developed the theory of reasoned action as a pioneer in understanding consumers' intention to purchase. This theory was having the limitation that it assumes people were free to act without any constraint. Ajzen (1991) developed a Theory of Planned Behaviour (TPB), adding one more construct of 'perceived behavioural control'. According to this TPB model, "behavioural intention is the outcome of attitude, subjective norm, and perceived behavioural control". This model is particularly good at predicting green and environmentally conscious consumer behaviour (Qi and Ploeger, 2021; Yadav and Pathak, 2016). Several authors have proved the effectiveness of the TPB model's components in predicting purchase intent. In addition, various research has expanded on this model by introducing other independent variables Le (2022); Teixeira and Oliveira (2022); Yadav and Pathak (2016), demonstrating TPB's general resilience and relevancy in the recent time. The TPB model has been applied extensively to food studies and has been shown to have good predictive power to explain behavioural intention (Talwar and Dhir, 2021; Ashraf et al., 2019; Basha and Lal, 2019; Ham et al., 2018; Maichum and Parichatnon, 2016; Onel, 2017). Therefore, the present study decided to take the TPB framework as the basis of the study.

2.1.1 Attitude towards Organic Food

According to (Ajzen, 1991), it can be defined as "the degree to which a person has a favourable or unfavourable evaluation of the behaviour in question shown by the consumer" In other words, attitude is the way people think, feel, and behave about organic food products. It is an individual's enduring beliefs, emotions, and tendency to act in a certain way. The TPB states that a more positive attitude of consumers may lead to stronger intent to buy. Literature in the domain of eco-friendly, green products, and sustainable consumption have supported the same. In organic food, past studies have empirically confirmed the positive association between attitude and purchase intention (Onel, 2017; Mhlophe, 2016; Maichum and Parichatnon, 2016). However, in contrast to this finding study by Tung et al. (2012), there is an inconsistency in influencing the role of attitude in purchase intention. Therefore, it becomes important to investigate the role of attitude in predicting the intention to buy in the study context. Hence, the arguments presented here lead to the development of the following hypothesis:

H₁: Consumers' attitude towards organic food product significantly influences purchase intention.

2.1.2 Subjective norm

Subjective norm refers “to the belief that a person or group of people has to approve or support specific behaviour” (Ham et al., 2018). It is about how individuals feel social pressure from friends, family members, peer groups, neighbours, and relatives to perform specific behaviours. It is also regarded as perceived pressure to act in such a way (Ajzen, 1991). The TPB posited that the higher the social group members feel favour for a particular action leads to performing a specific behaviour. Empirical evidence confirms that subjective norms influence purchase intention for organic food (Basha and Lal, 2019; Ham et al., 2018; Onel, 2017). However, studies have also empirical evidence that subjective norms act as the weakest predictor among the TPB model. Moreover, studies have reported that subjective norm does not significantly influence the intent to purchase organic food products (Ashraf et al., 2019; Maichum and Parichatnon, 2016). Hence, it becomes vital to investigate subjective norms in the Indian context and specifically in organic food products. Therefore, the following hypothesis is formulated:

H₂: Subjective norm significantly influences organic food product purchase intention.

2.1.3 Perceived behavioural control

Perceived behavioural control relates “to an individual’s perception of difficulty in performing particular behaviours” (Ajzen, 1991). It is perceived as internal control and perceived external difficulty in performing any behaviour. Consumers from the developed nation who have more knowledge about organic food than developing nations perceived more confidence and more control in the study context. However, the TPB model finds that if an individual feels that buying organic food products is more in their control result, they react favorably towards it. Different studies in different contexts have different results. Literature supports the fact among developed nations, this construct positively influences purchase intention (Maichum and Parichatnon, 2016). Moreover, the impact of PBC in the Asian context was inconsistent; it affected positively purchase intention in Bangladesh (Ashraf et al., 2019), and there was no effect of PBC on the intention to buy in Pakistan (Al-Swidi et al., 2014). Hence, it will be an essential finding of the study in the Indian context. Henceforth, the subsequent hypothesis is:

H₃: Perceived behavioral control significantly influences organic food product purchase intention.

3 Extended TPB Framework

In social science literature, adding additional constructs to enhance the model is predicting effectiveness (Read et al., 2013). Moreover, Ajzen (1991) recommended that the TPB model can be widened by including additional variables. Based on the literature, the present study aimed to investigate the role of organic certification and trust as an additional construct in the TPB model.

3.0.1 Organic certification

It is an initiative intended to ensure quality, protect from fraudulent practices, and maintain standards for its true sense of organic. In India, the Agricultural and Processed Food Products Export Development Authority (APEDA) defines “Certification mark ensured that raw materials used in the product were grown through organic farming, without chemical fertilizers, pesticides, or induced hormones”. This certification is in the form of labeling, an essential indicator for a synonym for quality in the consumer’s mind. According to Kapoor and Garyali (2012), significant hindrances in accepting organic food are a lack of trust and a lack of confidence in quality. As said earlier, organic food products have credence attributes that make it more difficult to verify the claim before buying and almost impossible to evaluate even after its consumption. Hence, the certification process builds a positive attitude toward organic food products (Kai et al., 2013; Chen, 2009, 2007). At the same time, certified bodies also have to earn that trust by maintaining transparency and/or authenticity of certification. The integrity of producers and their ethical practices of certification is key to organic food’s sustainable growth. Thus, the above discussion inspires us to formulate the following hypotheses:

H₄: Organic certification significantly influences attitudes toward organic food.

H₅: Organic certification significantly influences organic food intention to buy.

3.0.2 Trust

Misra and Singh (1994) define trust as “the perception of confidence in the exchange partner’s reliability and integrity”. In this context, a partner can be seen as a retailer, supplier, and firm engaging in offering organic food. People perceive honesty and the ability to deliver food as organic in the true sense will increase partners’ confidence in trust development. Trust is a major determinant in buying organic food products, and the type of channel preferred to buy it. Over the decades, empirical results have confirmed that distrust acted as a major barrier in adopting organic food due to its credence attributes (Vindigni and Jager, 2002). Somehow if marketers win customers’ trust towards “genuineness”, the adoption can be faster, and it boosts sales. Previous literature has confirmed the direct impact of trust on consumers’ intention to buy organic food (Nuttavuthisit and Thogersen, 2017; Anisimova, 2016; Misra and Singh, 2016; Leong and Ng, 2014). Thus, the above discussion inspires us to formulate the following hypotheses:

H₆: Consumers’ trust in organic food significantly influences attitude.

H₇: Consumers’ trust in organic food significantly influences the intention to buy.

The role of the mediator is vital in the understanding relationship among social sciences. Hence, the present study attempts to examine the role of the mediator as 'attitude'. Revealed information on the packaging of organic food products may drive consumers' positive attitudes toward its claim. Hence, organic certification must be transparent, standard, ethical, and executed with the utmost integrity and can be crucial for winning confidence over the organic mark or organic labeling. In turn, this confidence in organic certification can act as a catalyst and help enforce a positive attitude toward organic food. Hence, organic certification can influence the intention to buy organic food via attitude towards organic food. At the same time, trust in organic food leads to developing a positive attitude toward organic food. Literature supported the evidence concluding trust is an important predictor of consumer attitude, and it is identified as an essential determinant of consumers' attitude as per the TPB framework (Ricci and Stranieri, 2018; Teng and Wang, 2015). Therefore, the study aims to investigate attitudes towards organic food have a mediation effect between organic certification, trust, and the intention to buy. Based on the above discussion following research model is proposed (Figure 1):

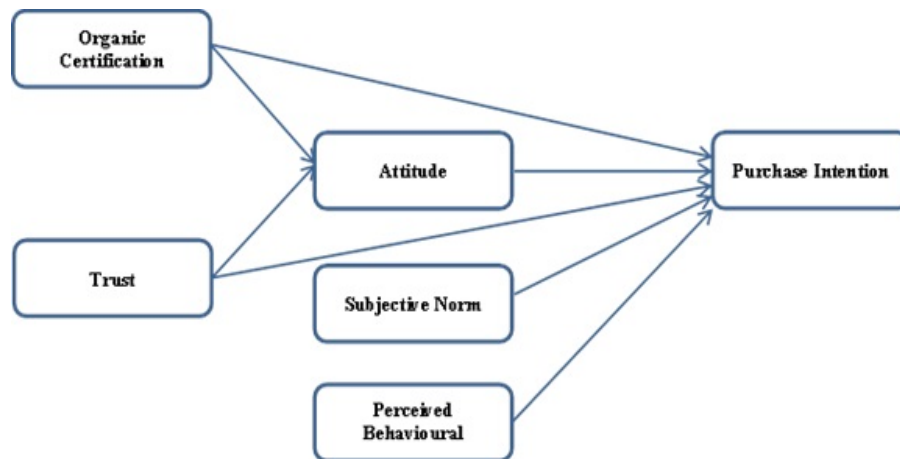


Figure 1 : Proposed Research Model

4 Research Methodology

4.1 Survey instrument

In the process of operationalizing the construct, various literature was reviewed and adopted for the present study (refer to Table 1). Seven item scale was adopted from (Ajzen, 2002; Chen, 2009; Taylor and Todd, 1995) to measure attitude, the seven-item scale was adopted from (Ajzen, 1980; Al-Swidi et al., 2014; Pandey et al., 2019; Ajzen, 2002; Vermeir and Verbeke, 2008) to measure subjective norm, and seven items scale adopted from (Ajzen, 2002; Al-Swidi et al., 2014; Taylor and Todd, 1995; Bredahl, 2001) to measure PBC. A Five-item scale was adopted from (Michaelidou and Hassan, 2008; Gould, 1988; Bower, 2001; Pandey et al., 2019; Bredahl, 2001) to measure purchase intention. Five items scale was adopted from (Jarvenpaa, 1998; Krystallis and Chrysohoidis, 2005; Siegrist, 2000; Chaudhuri and Holbrook, 2001) to measure trust. Organic certification was measured using the five-item scale (Leong and Ng, 2014; Prentice et al., 2019). A five-point Likert scale (1 indicates "strongly disagree", 5 indicates "strongly agree") was implemented to operationalize the discussed constructs.

4.2 Sample selection

The size of the sample needed to achieve a reasonable estimate (with accepted precision and accuracy) of the characteristics of the population will be determined by the statistical method, Structural equation modeling (SEM), that will be used in this study. The absolute minimum sample size must be at least greater than the number of correlations in the input data matrix, with a ratio of 5 respondents per parameter considered as a minimum and a ratio of 10 respondents per parameter considered most appropriate (Hair and Black, 1998). Since there are 36 estimated parameters (7 items of attitude, 7 items of subjective norm, 7 items of perceived behavioural control, 5 items of organic certification, 5 items of trust in organic food, and 5 items of purchase intention), the sample size to ensure the appropriate use of SEM is 180 to 360 respondents. According to Hair and Black (1998), structural equation modeling is used when a large sample size of 200 or more. The present study uses a convenience sampling technique to collect a total of 505 samples. Samples were collected using online (Google form) and offline methods from Surat and Ahmedabad. After careful evaluation of samples (eliminating missing

Study measures	Measurement variable	Measurement items
Ajzen (2002); Chen (2009) Taylor and Todd (1995)	Attitude	I think that purchasing organic food products is important. I think that purchasing organic food products is beneficial. I like the presence of organic food products in the market. I like to purchase organic food products. Purchasing organic food products would be pleasant for me. Purchasing organic food products is a good idea. I am in favour of buying organic food products. Most people, who influence me, think that I should buy organic food products. My family recommends I buy organic food products.
Adjzen (1980) Al-Swidi et al. (2014) Pandey et al. (2019) Ajzen (2002) Vermeir and Verbeke (2008)	Subjective norms	Most of my friends think that act of buying organic food products is right. Society expects me to engage in buying organic food products. Most of my colleagues think that buying organic products is the right thing to do. People that are important to me would like me to consider buying organic food. Most people I value would buy organic food rather than non-organic food. Most people, who influence me, think that I should buy organic food products. I can afford the time to purchase organic food products. I can afford money to purchase organic food products.
Ajzen (2002) Al-Swidi et al. (2014) Taylor and Todd (1995) Bredahl (2001)	Perceived behavioural control	Purchasing organic food products is within my control. I am able to buy desired pack size of organic food products. Organic food products are easily available where I live. I am able to buy a variety of organic food products. It is mostly up to me to buy organic food products. I plan to buy organic food products.
Michaelidou and Hassan (2008) Gould (1988); Bower (2001) Pandey et al. (2019) Bredahl (2001)	Purchase intention	The likelihood that I purchase organic food products is high. I am interested in experiencing the benefits of using organic food products. I intend to buy organic food products for the long term. In the future, I will purchase organic food products. Keeping trust in organic food products is a good idea.
Jarvenpaa (1998) Krystallis and Chryssohoidis (2005) Siegrist (2000) Chaudhuri and Holbrook (2001)	Trust in organic food products	Organic food products are trustworthy. I trust the quality of organic food products. Organic food products are reliable. Overall, I trust organic food products.
Leong and Ng (2014) Prentice et al. (2019)	Organic certification	Organic certification is important for me to recognize organic food products. I have confidence in the organic certification logo on the organic food labels. I am confident about the process of organic certification for organic food. I will only purchase organic food products with organic certification. I have confidence in organic food certification bodies.

Table 1: Measurement of the study variables (Source: Developed by researcher)

values and/or partial, incomplete survey), a total of 466 usable samples were filtered and considered for further data analysis, which was higher than recommended (Hair and Black, 1998).

4.3 Sample description

Descriptive Sample analysis of organic food products reveals that 58% of buyers were male (n=272) and 42% were female (n=194). In terms of age groups, 40% of respondents were aged 18 to 24 years (n=188). As per the educational qualification, 44% of respondents (n=203) had a bachelor's degree, and 26% had schooling until high school (n=122). As per their profession, 40% were salaried (n=184), and 17% were housewives (n=81). As per the monthly family income, 42% of respondents have a monthly income between Rs. 25,001 - Rs. 50,000 (n=195), and 26% of them have Rs. 50,001 - Rs. 75,000 (n=120).

5 Data analysis

The widely used approach to study the relationship among latent variables in the proposed research framework is structural equation modeling (SEM). Hypotheses established in the current study were statistically tested by using the approach of SEM.

5.1 Reliability and validity measurement

Kline (2005) defines reliability as "the degree to which responses are consistent across the items within a single measure". The calculated value of Cronbach alpha ≥ 0.7 is adopted in most of the literature to establish the instrument's reliability. Cooper and Blumberg (2014) defined validity as "the extent to which a measuring instrument measures what it is intended to measure". According to Hair and Black (1998), standardized factor loading value (≥ 0.7), average variance explained (AVE ≥ 0.5), and composite reliability (CR ≥ 0.7) confirm the convergent validity and internal consistency. Calculated

squared values of AVE must be greater than correlation coefficients to prove that the latent variable is unique. It confirms the discriminant validity present in the instrument. Table 2 indicates that the instrument used in this study fulfills the requirement to establish reliability and validity (convergent and discriminant validity). According to Hair and Black (1998), the measurement model (CFA) and structural model (SEM) are said to be a good fit if it has a value of χ^2/df = between 2 to 5; Goodness of Fit Index (GFI) > 0.900; Tucker-Lewis Index (TLI) > 0.900; Comparative Fit Index (CFI) > 0.900; and the Root Mean Square Error of Approximation between 0.05 to 0.08; Parsimonious Normed Fit Index (PNFI) > 0.5; Parsimony Goodness-of-Fit Index (PGFI) > 0.5. The overall measurement model was good to fit as all the indices for the measurement model are within the threshold limit ($\chi^2 = 595.326, df = 237; P < 0.05; \chi^2/df = 2.512; GFI = 0.907; TLI = 0.941; CFI = 0.950; RMSEA = 0.057; PNFI = 0.789; PGFI = 0.716$).

Constructs	No. of Items+	Cronbach Alpha	CR	AVE	OC	T	PI	PBC	SN	ATT
OC	4	0.897	0.866	0.620	0.787					
T	5	0.903	0.888	0.614	0.696*	0.784				
PI	3	0.901	0.842	0.640	0.621*	0.633*	0.8			
PBC	3	0.912	0.822	0.606	0.249*	0.261*	0.339*	0.778		
SN	4	0.927	0.891	0.672	0.381*	0.328*	0.433*	0.617*	0.820	
ATT	5	0.939	0.918	0.692	0.470*	0.459*	0.532*	0.609*	0.667*	0.832

Table 2: Measurement of Reliability and Validity (Source: Developed by researcher)

Note: OC-organic certification, T-trust, PI-purchase intention, PBC-Perceived behavioural control, SN-Subjective norm, ATT-Attitude, CR-composite reliability, AVE-average variance explained, * $p < 0.001$, *items deleted due to lower factor loading value

5.2 Structural model

In the final analysis stage, the structural model was validated based on the proposed research model. Figure 2 shows the simplified relationship between the constructs of the proposed theoretical model. The SEM results revealed that the

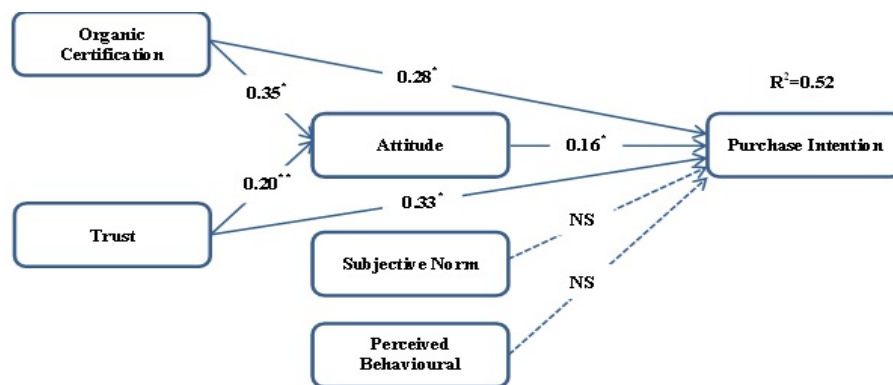


Figure 1 : Simplified Structural Model

Note: * $p < 0.001$, ** $p < 0.05$, NS - - -> not significant

model was over-identified and all the goodness-of-fit statistics met all acceptable criteria ($\chi^2 = 554.612, df = 173; P < 0.05; \chi^2/df = 3.206; GFI = 0.903; TLI = 0.922; CFI = 0.935; RMSEA = 0.069; PNFI = 0.749; PGFI = 0.677$). From Table 3, it can be inferred that consumers' confidence in organic certification posited a significant positive relationship to trust organic food ($t = 13.800, \beta = 0.69, p < 0.001$) and consumer's intention to buy ($t = 5.253, \beta = 0.34, p < 0.001$). Also, it empirically confirms that trust in organic food is a significant determinant of purchase intention ($t = 5.887, \beta = 0.39, p < 0.001$).

6 Discussion and Conclusion

This study evaluates the application of the theory of planned behaviour in the context of organic food. Table 3 shows that attitude towards organic food positively influences consumers intent to buy ($\beta = 0.15, p < 0.001$). It implies that the greater the positive attitude consumers instill in organic food, the greater the intention to buy (H1). This finding is consistent with several studies (Onel, 2017; Mhlophe, 2016; Maichum and Parichatnon, 2016). However, the result of the subjective norm ($\beta = 0.06, p > 0.05$) and perceived behavioural control ($\beta = 0.04, p > 0.05$) does not influence purchase intention for

Hypotheses	Relationship	β	S.E.	t-value	Indirect effect	Total effect	Sig. (p-value)	Result	SN	ATT
H1	ATT → PI	0.15	0.043	3.369	—	—	***	Supported		
H2	SN PI	0.06	0.046	1.220	—	—	NS	Rejected		
H3	PBC → PI	0.04	0.051	0.707	—	—	NS	Rejected		
H4	OC → ATT	0.32	0.078	4.091	—	—	***	Supported		
H5	OC → PI	0.23	0.067	3.403	0.057#	0.339#	***	Supported	0.820	
H6	T → ATT	0.17	0.072	2.414	—	—	0.016	Supported	0.667 *	0.832
H7	T → PI	0.26	0.060	4.266	0.033NS	0.365#	***	Supported		

Table 3: Results of Testing Hypotheses

Note: * $p < 0.05$, ** $p < 0.001$, # $p < 0.10$, NS =not significant (Source: Developed by researcher)

organic food products (H2 & H3). This result is consistent with past studies in the Asian country context (Ashraf et al., 2019; Maichum and Parichatnon, 2016) and (Nuttavuthisit and Thogersen, 2017; Al-Swidi et al., 2014), respectively. It further aimed to assess the role of organic certification and trust in building attitudes toward organic food. The result confirms that the attitude towards organic food positively influences by an important determinant of organic certification and ($\beta = 0.32, p < 0.001$) trust ($\beta = 0.17, p < 0.05$). It concludes that the greater the consumers' awareness about organic labeling, the higher the trust in its genuineness of being "organic" which leads to a positive attitude (H4 & H6). Past studies have also confirmed the stated relationship (Canova et al., 2020; Ibrahim, 2020). Moreover, It has also investigated the impact of organic certification and trust in influencing organic food intention to buy. The result of Table 3 shows that organic certification ($\beta = 0.23, p < 0.001$) and trust ($\beta = 0.26, p < 0.001$) affects positively organic food purchase intention respectively. It implies that more transparency maintained in organic certification and greater trust leads to positive intent to buy organic food (H5 & H7). Stated results have empirical evidence from past studies (Chen et al., 2014; Misra and Singh, 2016; Prentice et al., 2019) and (Konuk, 2018; Anisimova, 2016), respectively. This study used inferential methods to determine standard error, and carry out mediation analysis bootstrapping; then, it used t statistics to test hypotheses (Preacher and Hayes, 2004). Specifically, according to the recommendations of hai, a bootstrapping technique, a re-sampling procedure, was carried out using 2000 re-samples and bias-corrected 95% confidence intervals. First, trust, the present study measures trust in the context of to what extent consumers have a strong belief in being truly organic. However, the literature stated that organic food's credence attributes and benefits are difficult to perceive (Fernqvist and Ekelund, 2014), resulting in a lack of trust (Macready and Grunert, 2020), which in turn failed to frame buying intention (Watanabe et al., 2020). In addition, it may be noted that marketing communication, having information on labeling and certification marks does help in shaping consumers' attitudes favorably, affecting thereby consumers' buying intention (Watanabe et al., 2020). Therefore, this study evaluated the mediating effect of attitude between trust and organic food buying intention, supported by past studies (Canova et al., 2020). Second, organic certification (OC) is added as a novel variable in the extended TPB model of purchasing intention of organic food. Past studies have empirically confirmed its influence on attitude and buying intention (Chen, 2007, 2009). However, the literature states that consumers belonging to a different part of the world with a different cultural context do lack confidence that labeling issued by a certified institution does not necessarily influence the intention to buy (Lian, 2017). Therefore, endorsing spokespersons (celebrities) could result in a shift in attitude towards its benefits, which in turn, goes on to influence the intention to buy. As a result, it was determined that there was a need for more research into how attitudes mediated both OC and PI. In the absence of a mediator variable (attitude), the direct effect of organic certification ($\beta = 0.27$) was positive. After adding the mediator variable (attitude), the relationship between organic certification on purchase intention was positive ($\beta = 0.28, p < 0.05$) and besides that, the attitude was also significantly influencing purchase intention ($\beta = 0.16$). So, it implies that there is a presence of partial mediation. It confirms the attitude to act as a mediator between organic certification and the intention to buy. One exciting finding was organic certification has a more direct effect (0.28) than an indirect effect (0.057) on the intention to buy organic food. Furthermore, in the case of trust, the absence of a mediator (attitude), the direct effect of trust ($\beta = 0.33$) was positive. After adding a mediator (attitude), the relationship between trust in buying intention was positive ($\beta = 0.33$) and attitude significantly affecting intention ($\beta = 0.28$). Nevertheless, the direct effect of trust ($\beta = 0.33, p < 0.05$) on purchase intention was more than the indirect effect ($\beta = 0.033, p > 0.05$) and was statistically not significant. Hence, it concludes that attitude does not mediate the relationship between trust and purchase intention.

7 Implications of study

Organic food marketers can get valuable insights from the present study that attitude is a significant predictor of consumers' purchase intention. Hence, marketers can design their strategic marketing strategies to enhance consumers' positive attitudes toward organic food. In the specific area of promotion, marketers must develop advertising strategies to attain learn-feel-do responses from consumers. Under initial campaigns, a series of advertisements must aim to build high awareness about its rational arguments, such as the benefits of conventional food products. Also, point of differentiation can help to learn about organic food products' functional utility rationally. Next, a series of ads must emphasize how the consumption of organic food products may contribute towards sustainable developments and/or protection of the overall ecosystem and sensitize their moral responsibility. Finally, a series of advertisements can document the benefit of

stakeholders in promoting sharing their positive experiences of consuming organic food products, which triggers them to favor it. Also, marketers recommended using the peripheral route to persuasion where a spoke person could play the role of catalyst in easy acceptance of organic food products because consumers cannot process information and/or motivation to buy. It will be a path breaker for organic food marketers in creating a place in the mind and consumers' lives. It becomes very much essential for marketers to increase consumer awareness of organic labeling may help in designing advertising campaigns for mass audiences that educate them about organic as a term. Also, developing advertising emphasizing companies' ethical standards, transparency in procedures, and the integrity of business activities makes them learn, feel and act (shaping a positive attitude) toward their organic food. Packaged food products must be marked with organic labeling; the same has to be used as unique selling attributes of organic products. These efforts will increase consumers' overall confidence in the certified institution for organic, and affect their trust may lead to intention to buy.

8 Limitations and future scope of the Study

The convenience sampling method used in this study for data collection has its limitation. Therefore, a sample collected randomly based on representing population helps in generalized findings directs for future studies. The present study is limited to urban cities only; hence, rural areas could be included in the study's future scope. Further, future studies can be conducted, including demographical factors (age, gender, occupation, income, etc.) as moderating variables to get valuable insights in developing effective strategic marketing planning activities.

References

- Adjzen, I. and Fishbein, M., 1980. *Understanding attitudes and predicting social behaviour*. Englewood Cliffs NJ: Prentice Hall.
- Ajzen, I., 1991. The theory of planned behavior. *Organizational behavior and human decision processes* 50, 179–211.
- Ajzen, I., 2002. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of applied social psychology* 32, 665–683.
- Ajzen, I., Fishbein, M., 1980. Theory of reasoned action in understanding attitudes and predicting social behaviour. *Journal of Social Psychology*.
- Al-Swidi, A., Mohammed Rafiul Huque, S., Haroon Hafeez, M., Noor Mohd Shariff, M., 2014. The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British food journal* 116, 1561–1580.
- 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, 809–823.
- Ashraf, M., Joarder, M., Ratan, S., 2019. Consumers' anti-consumption behavior toward organic food purchase: An analysis using sem. *British Food Journal* 121, 104–122.
- Basha, M., Lal, D., 2019. Indian consumers' attitudes towards purchasing organically produced foods: An empirical study. *Journal of cleaner production* 215, 99–111.
- Bower, A., 2001. Highly attractive models in advertising and the women who loathe them: The implications of negative affect for spokesperson effectiveness. *Journal of advertising* 30, 51–63.
- Bredahl, L., 2001. Determinants of consumer attitudes and purchase intentions with regard to genetically modified food—results of a cross-national survey. *Journal of consumer policy* 24, 23–61.
- Cabuk, S., Tanrikulu, C., Gelibolu, L., 2014. Understanding organic food consumption: attitude as a mediator. *International Journal of consumer studies* 38, 337–345.
- Canova, L., Bobbio, A., Manganelli, A., 2020. Buying organic food products: the role of trust in the theory of planned behavior. *Frontiers in Psychology* 11, 575820.
- Chaudhuri, A., Holbrook, M.B., 2001. The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of marketing* 65, 81–93.
- Chen, J., Lobo, A., Rajendran, N., 2014. Drivers of organic food purchase intentions in mainland china—evaluating potential customers' attitudes, demographics and segmentation. *International Journal of Consumer Studies* 38, 346–356.
- Chen, M., 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, 1008–1021.
- Chen, M., 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, 165–178.
- Cooper, D., S.P., Blumberg, B., 2014. *Business Research Methods*. 4 ed., McGraw Hill Higher Education, Maidenhead, England.
- Fernqvist, F., Ekelund, L., 2014. Credence and the effect on consumer liking of food—a review. *Food Quality and Preference* 32, 340–353.
- Gould, S., 1988. Consumer attitudes toward health and health care: A differential perspective. *Journal of Consumer Affairs* 22, 96–118.
- Hair, J.F., A.R.T.R., Black, W., 1998. *Multivariate data analysis*. 5th edn prentice hall international. Upper Saddle River, NJ.
- Ham, M., Pap, A., Stanic, M., 2018. What drives organic food purchasing?—evidence from croatia. *British Food Journal*.

- Ibrahim, A. and Borhan, M.R.R., 2020. Understanding users' intention to use park-and-ride facilities in malaysia: The role of trust as a novel construct in the theory of planned behaviour. *Sustainability* 12, 2484.
- Jarvenpaa, S. and Shaw, T., 1998. Global virtual teams: Integrating models of trust. *Organizational virtualness*, 35–52.
- Kai, S. and Chen, O., Chuan, C., Seong, L., Kevin, L., 2013. Determinants of willingness to pay of organic products. *Middle-East Journal of Scientific Research* 14, 1171–1179.
- Kapoor, P., Garyali, S., 2012. Organic food market in india. Case in point: Organic fruits & dairy products. New Delhi: Technopak Advisors Pvt. Ltd.
- Konuk, F., 2018. Price fairness, satisfaction, and trust as antecedents of purchase intentions towards organic food. *Journal of Consumer Behaviour* 17, 141–148.
- Krystallis, A., Chrysosoidis, G., 2005. Consumers' willingness to pay for organic food: Factors that affect it and variation per organic product type. *British food journal* 107, 320–343.
- Le, M. and Nguyen, P., 2022. Integrating the theory of planned behavior and the norm activation model to investigate organic food purchase intention: evidence from vietnam. *Sustainability* 14, 816.
- Leong, G., Ng, Y., 2014. The factors influence consumer behaviour on the purchase of organic products. Ph.D. thesis. UTAR.
- Lian, S., 2017. The effectiveness of organic certification logos in influencing consumer's attitudes to purchase organic food. *Journal of Engineering and Applied Sciences* 12, 301–306.
- Macready, A., H.S.K.K.M.S.S.V.L., Grunert, K., 2020. Consumer trust in the food value chain and its impact on consumer confidence: A model for assessing consumer trust and evidence from a 5-country study in europe. *Food Policy* 92, 101880.
- Maichum, K., Parichatnon, S. and Peng, K., 2016. Application of the extended theory of planned behavior model to investigate purchase intention of green products among thai consumers. *Sustainability* 8, 1077.
- Mhlophe, B., 2016. Consumer purchase intentions towards organic food: insights from south africa. *Business & Social Sciences Journal* 1, 1–32.
- Michaelidou, N., 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, 163–170.
- Misra, R., Singh, D., 1994. The commitment-trust theory of relationship marketing. *Journal of marketing* 58, 20–38.
- Misra, R., Singh, D., 2016. An analysis of factors affecting growth of organic food: Perception of consumers in delhi-ncr (india). *British Food Journal* 118, 2308–2325.
- Nuttavuthisit, K., Thøgersen, J., 2017. The importance of consumer trust for the emergence of a market for green products: The case of organic food. *Journal of business ethics* 140, 323–337.
- Onel, N., 2017. Pro-environmental purchasing behavior of consumers: The role of norms. *Social Marketing Quarterly* 23, 103–121.
- Pacho, F., 2020. What influences consumers to purchase organic food in developing countries? *British food journal* 122, 3695–3709.
- Pandey, D., Kakkar, A., Farhan, M., Khan, T., 2019. Factors influencing organic foods purchase intention of indian customers. *Organic Agriculture* 9, 357–364.
- Preacher, K., Hayes, A., 2004. Spss and sas procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers* 36, 717–731.
- Prentice, C., Chen, J., Wang, X., 2019. The influence of product and personal attributes on organic food marketing. *Journal of Retailing and Consumer Services* 46, 70–78.
- Qi, X., Ploeger, A., 2021. Explaining chinese consumers' green food purchase intentions during the covid-19 pandemic: An extended theory of planned behaviour. *Foods* 10, 1200.
- Read, D.L., Brown, R.F., Thorsteinsson, E.B., Morgan, M., Price, I., 2013. The theory of planned behaviour as a model for predicting public opposition to wind farm developments. *Journal of Environmental Psychology* 36, 70–76.
- Ricci, E. C., B.A., Stranieri, S., 2018. Trust to go green: an exploration of consumer intentions for eco-friendly convenience food. *Ecological economics* 148, 54–65.
- Saba, A., Messina, F., 2003. Attitudes towards organic foods and risk/benefit perception associated with pesticides. *Food quality and preference* 14, 637–645.
- Shrestha, A., Baral, S., 2019. Consumers' willingness to pay for organic agriculture products: a case study of nepalgunj city, banke. *International Journal of Agriculture Environment and Food Sciences* 3, 58–61.
- Siegrist, M., 2000. The influence of trust and perceptions of risks and benefits on the acceptance of gene technology. *Risk analysis* 20, 195–204.
- Talwar, S., J.F.T.A.S.M., Dhir, A., 2021. What drives willingness to purchase and stated buying behavior toward organic food? a stimulus-organism-behavior-consequence (sobc) perspective. *Journal of Cleaner Production* 293, 125882.
- Taylor, S., Todd, P.A., 1995. Understanding information technology usage: A test of competing models. *Information systems research* 6, 144–176.
- Teixeira, S. F., B.B.C.H., Oliveira, Z., 2022. Exploring the antecedents of organic food purchase intention: An extension of the theory of planned behavior. *Sustainability* 14, 242.
- Teng, C., Wang, Y., 2015. Decisional factors driving organic food consumption: Generation of consumer purchase intentions. *British Food Journal*.
- Tung, S., Shih, C. C., W.S., Chen, Y.H., 2012. Attitudinal inconsistency toward organic food in relation to purchasing intention and behavior: An illustration of taiwan consumers. *British Food Journal* 114, 997–1015.

- Vermeir, I., Verbeke, W., 2008. Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics* 64, 542–553.
- Vindigni, G., J.M.A., Jager, W., 2002. Organic food consumption: A multi-theoretical framework of consumer decision making. *British Food Journal* .
- Voon, J.P., Ngui, K.S., Agrawal, A., 2011. Determinants of willingness to purchase organic food: An exploratory study using structural equation modeling. *International Food and Agribusiness Management Review* 14, 103–120.
- Vukasovic, T., 2015. Attitudes towards organic fruits and vegetables. *Agricultural Economics Review* 16, 20–34.
- Watanabe, E., Alfinito, S., Curvelo, I., Hamza, K., 2020. Perceived value, trust and purchase intention of organic food: a study with Brazilian consumers. *British Food Journal* 122, 1070–1184.
- Yadav, R., 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.