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EXTENDED FACTORS FOR THEORY OF PLANNED BEHAVIOR ON ORGANIC FOOD CONSUMPTION: A REVIEW



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Abstract

Damage to land caused by conventional farming, as a result of the use of synthetic fertilizers and pesticides, threatens future food availability. Organic farming is considered one of the efforts to implement sustainable agriculture. Consumer preferences need to be directed towards consuming organic agricultural products, but there are still many other factors influencing this behavior. Numerous studies have been conducted to assess consumer behavior. Some of these studies use the Theory of Planned Behavior (TPB) model to determine whether or not a specific behavior is performed. The Theory of Planned Behavior (TPB) model still needs to be integrated with other factors that also influence the adoption of a particular behavior. This study aims to propose an alternative model based on the Theory of Planned Behavior (TPB) to understand consumer behavioral intentions regarding the consumption of organic food. A descriptive method with a systematic review approach was used in this study based on a review of articles related to consumer behavior in the organic food domain. An alternative model of the Theory of Planned Behavior (TPB), with several additional influencing factors such as Religiosity, Health Consciousness, Environmental Consciousness, Price Barrier, Trust, Availability, and Knowledge, is provided as input for researchers, practitioners, and policy makers.

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Kerusakan lahan yang disebabkan oleh pertanian konvensional, sebagai akibat dari penggunaan pupuk dan pestisida sintetis, mengancam ketersediaan pangan di masa depan. Pertanian organik dianggap sebagai salah satu upaya untuk menerapkan pertanian berkelanjutan. Preferensi konsumen perlu diarahkan untuk mengkonsumsi produk pertanian organik, namun masih banyak faktor lain yang mempengaruhi perilaku ini. Beberapa penelitian telah dilakukan untuk mengkaji perilaku konsumen. Beberapa penelitian tersebut menggunakan model Theory of Planned Behavior (TPB) untuk menentukan apakah suatu perilaku tertentu dilakukan atau tidak. Model Theory of Planned Behavior (TPB) masih perlu diintegrasikan dengan faktor-faktor lain yang juga mempengaruhi adopsi suatu perilaku tertentu. Penelitian ini bertujuan untuk mengajukan model alternatif berdasarkan Theory of Planned Behavior (TPB) untuk memahami niat perilaku konsumen mengenai konsumsi makanan organik. Metode deskriptif dengan pendekatan tinjauan sistematis digunakan dalam penelitian ini berdasarkan tinjauan terhadap artikel-artikel yang berkaitan dengan perilaku konsumen dalam ranah makanan organik. Sebuah model alternatif dari Theory of Planned Behavior (TPB), dengan beberapa faktor tambahan yang mempengaruhi seperti Religiosity, Health Consciousness, Environmental Consciousness, Price Barrier, Trust, Availability, dan Knowledge, diberikan sebagai masukan bagi para peneliti, praktisi, dan pengambil kebijakan.

INTRODUCTION

Humans are inherently reliant on the environment for their survival and well-being. Therefore, it is a fundamental duty of humanity to safeguard the environment from harm, as mandated by Allah SWT. In QS Al A'raf verse 56, Allah SWT says, "And do not make corruption on earth, after Allah has repaired it". In this verse Allah SWT tells us to protect the environment from damage. While in another verse, QS Al Baqarah verse 205 Allah SWT says "*Allah does not like damage*". The damage done to the environment is also a result of human consumption patterns. The consumption of unsustainable food has a significant impact on the environment, individuals, and public health (Dangi et al., 2020). Synthetic fertilizers and insecticides are employed in contemporary agriculture to increase agricultural yield efficiency and plant protection (Mie et al., 2017). The negative consequences of synthetic fertilizers and pesticides on the environment and humans include soil deterioration, nutrient runoff, greenhouse gas emissions, biodiversity loss, and many chronic illnesses in humans (Bai et al., 2019). Sustainable agriculture is required to solve environmental harm, rising global population, urbanization, and resource depletion



(Bosona & Gebresenbet, 2018). There is currently no practical and impartial agricultural transformation to tackle these difficulties (Rahmann et al., 2020). One practical and widely adopted effort in many countries is organic farming. To mitigate environmental degradation, organic agricultural products represent the optimal choice for sustainable human consumption (Ashraf et al., 2019).

The consumption of organic food is on the rise in many countries around the world (Chekima et al., 2019). Consumers in developing countries are keen to purchase organic food, which is quite popular in developed countries. However, organic food consumption in developing countries is still relatively low (P. M. Nguyen & Vo, 2023). Indonesia, as a developing country, has demonstrated growing awareness of organic food among its population. The following data highlights the organic products that are most commonly consumed by Indonesians.

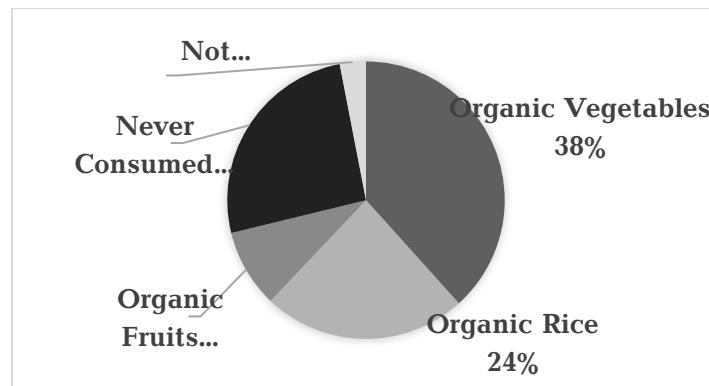


Figure 1. Organic products frequently consumed by the Indonesian population
(Source: Kompas, 2017)

Many barriers are still perceived that affect consumers' intention to consume more organic food. Consumer behavior intention is influenced by price, lack of product information, and product availability (Siahaan & Thiodore, 2022). While organic food is considered beneficial for both health and the environment, pricing remains a significant barrier to making organic food purchases (Bryt, 2018; Vermeir & Verbeke, 2006; H. V. Nguyen et al., 2019). In general, consumers tend to buy food products that taste good and are reasonably priced, easily available, convenient to purchase, and environmentally friendly (Bosona & Gebresenbet, 2018).

Numerous studies have examined consumer behavioral intentions regarding organic food consumption. Among these, the Theory of Planned Behavior (TPB) has emerged as the most widely utilized research model for understanding consumer behavioral intentions (Carfora et al., 2019). This theory is also widely used in the context of green consumption and organic food (Bai et al., 2019; Carriyn Bysquez et al., 2023). Despite its widespread use, there are still some limitations to the TPB model (T. T. M. Nguyen et al., 2019; Qin & Song, 2022; Saleki et al., 2020; Yadav & Pathak, 2016). To enhance the analysis of behavioral intentions, additional external factors influencing the constructs of the Theory of Planned Behavior (TPB)—such as personal abilities and beliefs that shape attitudes—should be incorporated. A comprehensive understanding of consumers' perspectives and the factors influencing these viewpoints is essential for effectively identifying and targeting organic food consumers (Rana & Paul, 2017). This article explores several additional factors influencing consumer behavioral intentions, as identified in existing research. These factors are contextualized to reflect the conditions in Indonesia, a developing country where organic food consumption is less prevalent compared to developed nations. The aim of this research is:

1. Offering an alternative extension model of the Theory of Planned Behavior, especially for research in developing countries.
2. Providing input on additional factors that would influence consumer behavioral intentions in the context of organic food consumption.

Organic Food

Organic food is defined as natural food that is cultivated, stored, or processed without the use of artificial chemicals such as fertilizers, herbicides, pesticides, fungicides, antibiotics, and genetically modified organisms to enhance a sustainable agricultural system and prevent environmental degradation (Rana & Paul, 2017). Organic food is produced without using pesticides and other crop-preserving chemicals, which are harmful for human health (Rana & Paul, 2017). The adverse effects of using synthetic fertilizers and synthetic pesticides are evident in environmental harm and human illnesses. Organic food offers significant benefits for health, safety, and environmental sustainability, particularly in terms of its production processes. Organic food production uses a system that combines the best environmental practices, preserves natural resources, and applies high standards of animal welfare (X. Wang et al., 2019). In short, organic food is produced in a controlled and verified environment. Organic food production can be the answer to issues related to the environment and be more sustainable (Ashraf et al., 2019).

Islamic Consumption Behavior

One of the principles of consumption in Islam is conveyed by Allah SWT in QS Al A'raf verse 31, "O son of Adam, wear your beautiful clothes at Every (entering) the mosque, Eat and drink, and do not overdo it. Verily, Allah dislikes those who exaggerate". This verse shows the principle of moderation in Islamic consumption patterns. Consumption patterns in Islam prioritize morals and balance between individuals and society and also balance between the world and the hereafter (Pujiyono, 2006). This principle of moderation encourages humans to ensure environmental sustainability (Khan, 2020). In addition to this principle of moderation, another key consumption principle in Islam is halalan thayyiban. Halal food is food that is guaranteed to be clean and hygienic, and has the right nutritional content for the body and soul (Uddin, 2022). The command to consume halal food is found in QS Al Baqarah verse 168, "Allah commands people to eat halal and good food, and not to follow the steps of the devil". The laws in Islamic consumption are very strict and have a basis in practice so that this greatly affects consumer behavior (Arauf, 2021). In addition, food selection in Islam is also very much related to the environment and ecosystem (Arauf, 2021).

Consumption in Islam is very notable, in order to maintain the sustainability of human life through restrictions and prudence in consumption (Pujiyono, 2006). In Islam, consumption is always linked to the purpose of human creation (Furqon, 2018), by practicing responsible consumption, humans can exercise self-restraint, distinguishing themselves from animals driven solely by instinct. Such mindful behavior helps preserve the environment, ensuring the sustainability of resources that fulfill basic human needs.

Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is a fundamental social psychology theory that explains personal behavioral intentions from a micro perspective (Shen et al., 2022). This theory is employed in numerous studies within the context of sustainable or green consumption and the consumption of organic food (Carriyn Bysquez et al., 2023). TPB suggests that the direct antecedent of actual behavior is a person's intention to engage in that behavior (Ashraf et al., 2019). Whether a behavior is carried out or not is determined by intention. The main factor in the theory of planned behavior is the individual's intention

to carry out certain behavior (Ajzen, 1991). Intentions are a product of attitudes, perceived behavioral control, and subjective norms (Jiang & Wu, 2022).

Attitude depends on expectations and beliefs in the personal impacts on the outcomes resulting from that behavior coupled with attributes attached to that object (Ham et al., 2018; Wong & Aini, 2017). In the context of purchasing organic food, attitude refers to the consumer's positive or negative assessment of the act of buying organic food (Carfora et al., 2019). Customers' positive attitude toward purchasing organic food stems from their perception of organic food as a healthier choice compared to conventional alternatives (Sultan et al., 2020). Attitude has a consistently positive impact on the intention to purchase organic food in most literature and plays a central role as the primary determinant in the Theory of Planned Behavior (TPB) model (Chiew et al., 2023). When organic foods are considered safer and more environmentally friendly, consumers will be more willing to buy organic foods; this is because they believe that organic food is better than conventional food, based on the attitude of the important people around them (Hoang et al., 2020). Subjective norm is defined as any social influence that may determine if the individual performs or does not perform the behavior which is influenced by the judgment of significant others (e.g., parents, spouse, friends, teachers) (Siahaan & Thiodore, 2022). In specific cases, like with organic food, subjective norms may not significantly influence customer purchasing intentions (Kabir & Islam, 2022).

Perceived behavioral control can be defined as a measure of an individual's perception of how easy or difficult it is to perform a desired behavior (Ajzen, 1991; Llauger et al., 2021; Inthong et al., 2022). This is an individual's verdict related to their abilities either to engage in specific behavior or not (Ahmed et al., 2021). The stronger the subject norms and perceived behavior control, the greater the likelihood of purchasing (J. Wang et al., 2020). Examples of perceived control over purchasing behavior include the availability of products or the affordability of the additional cost associated with organic items (Loera et al., 2022; Nuttavuthisit & Thøgersen, 2017). Furthermore, perceived control is linked to product trust, and if trust in the product diminishes, it may indicate a perceived lack of control over the item being purchased. Perceived behavioral control consistently has a positive impact on purchase intention for organic food in numerous studies (Ahmed et al., 2021; Imani et al., 2021).

METHOD

Additional factors for the expansion of the Theory of Planned Behavior (TPB) model were obtained through a review of articles using the Scopus database. We adopted the method used by Rana & Paul (2017) and Terjesen et al. (2016) with modifications to fit our needs. The keywords used were "organic food" and "Theory of Planned Behavior" or "TPB." The selected range for research articles was between 2016 and 2023, chosen to identify the latest research trends in the context of organic food. Manual screening of articles based on titles and themes was conducted to identify articles related to TPB and organic food. A total of 70 articles related to the TPB and organic food were obtained. Here are some important studies that add other determinants to the TPB constructs that are related to this study, we summarize in table 1.

Table 1. Notable research for adding factor on Theory of Planned Behavior (TPB) framework

Author	Factor Added	Result
Yadav & Pathak (2016)	Moral Attitude, Health Consciousness, Environmental Concern	The findings reported that the TPB partially supported the organic food purchase intention. Among the additional framework incorporated, moral attitude and health consciousness positively influenced the consumer's intention to purchase organic food.
Carfora, Cavallo, Caso, Del Giudice, De Devitiis, Viscecchia, Nardone & Cicia (2019)	Past Behavior, Self-identity, Trust (Government, Farmers, Manufactures, Retailers)	All TPB framework and self-identity show significant path on intention. Among all the dimensions of trust in the different actors of the supply chain, only trust in farmers was supported by our results.
Kusumaningsih, Irianto & Antriayandarti (2019)	Health Consciousness, Environmental Attitude, Availability	Health Consciousness (HC) and Environmental Attitude (EA) have positive effect to the attitude of organic food purchase (AT), while availability (AV) does not influence it.
Canova, Bobbio & Manganelli (2020)	Trust	Consumer trust had significant effects on organic food purchasing via the antecedent variables of the TPB, and it turned out to be crucial for promoting intentional behaviors.
Wang, Liu & Zhang (2020)	Value, Price Sensitivity	Value and price sensitivity have a significant positive influence on consumer purchase intention.
Ahmed, Li, Qalati, Naz & Rana (2021)	Environmental Concerns, Environmental Awareness	EC has a positive effect on young consumers' purchase intentions for organic food. The relationship between all latent variables (A, SNs, PBC) and purchase intention by young consumers is positively moderated by environmental awareness.
Budhathoki & Pandey (2021)	Knowledge, Environmental Concerns, Health Consciousness	Knowledge and environmental concern are a significant determinant of intention to purchase organic food among Nepalese consumers. Health-consciousness showed no significant influence on organic food purchasing intentions.
Carriyn Bysquez, Arias-Bolzmann & Quiroz (2022)	Price, Availability	Price is a determining factor for purchase intention, but perceived behavioural control does not mediate the relationship between availability and university millennials' organic product purchase intention.
Le & Nguyen (2022)	Environmental Awareness, Knowledge of Organic Food, Social Norms	Attitude mediated the impact of environmental awareness and knowledge of organic food on purchase intention. Personal norms mediating role in the NAM that intervene the connection between social norms and purchase intention.
Nordin & Ruslan (2022)	Knowledge, Environmental Concern, Availability, Health Concern	Knowledge, availability, and health concern of organic foods affects consumer intentions in the context organic food.
Xing, Li & Liao (2022)	Trust in Producers, Trust in Retailers, Personal Norms dan Price Sensitivity	The results show that the two types of trust play essential roles in OFP. Price sensitivity acts as a negative moderator on

Author	Factor Added	Result
Ferreira & Pereira (2023)	Environmental Concern, Health Consciousness	the relationships between perceived behaviour control and OFP.
Suleman, Sibghatullah & Azam (2021)	Religiosity	Environmental concern and health consciousness has a significantly positive effect on purchasing attitude and on purchase intention organic food in Portugal.

Source: Processed Data, 2024

RESULTS AND DISCUSSION

Proposed Framework

Religiosity

Previously in research by Arauf (2021), it was stated that the laws in Islamic consumption are very strict and have a great influence on consumer behavior. However, the level of individual compliance will depend on faith or how religious the person is. Vanany et al. (2020) in his research used the term religious self-identity (RSI) and found that Halal food consumption in Indonesia is strongly influenced by RSI. In the context of green food, Alotaibi & Abbas (2023) found that Islamic religiosity strongly influences green food purchase intention. Positive results were also found in several other studies (Hasan et al., 2024; Mohd Suki & Mohd Suki, 2015; Sherwani et al., 2018).

Health Consciousness

The evolving trend in food consumption worldwide indicates that consumers are becoming increasingly interested in buying organic food because of its nutritional value and growing personal health awareness. Health consciousness refers to the belief that organic food is a healthy choice, and it is closely linked to positive consumer purchasing behavior and attitude towards organic products. More frequent consumers of organic food were also more health concerned, while perceiving that their nutrition was healthier (Apaolaza et al., 2018). Bryta (2016) contends that Polish consumers consider healthiness to be the most crucial attribute of organic food. Consumers are also increasingly more conscious about their health since the health effects of the use of pesticides and fertilizers in conventional food production have been established to be detrimental (Bhavsar et al., 2018). In research by Ditlevsen et al. (2019), health consciousness is categorized as "health as purity," which is the primary motivating factor for consumers to choose organic food in Denmark. Numerous other studies also demonstrate the substantial impact of health consciousness on consumer behavioral intentions (Aungatichart et al., 2020).

Price Barrier

The purchase of organic products is influenced by price, making it essential to evaluate consumer perceptions regarding the cost of organic food (Carfora et al., 2019; Tareq et al., 2019). People have a negative attitude towards organic food because they think organic products are expensive and have a negative impact on their income (Jiang & Wu, 2022). Price barriers pose a significant obstacle to increasing consumer demand for organic food (Xing et al., 2022). In research by Bryta (2018), it is evident that price is the most significant barrier in purchasing organic food. Guarantees are an important

feature to meet consumer requirements regarding organic food and ensure premium prices (Cavaliere et al., 2016).

Price is the main barrier to organic food consumption in many developing countries. In research conducted by Carriyn Bysquez et al. (2023), it is found that price significantly influences perceived behavioral control, which in turn weakens consumers' purchasing intentions. On the other hand, in other research, price awareness and convenience orientation have a notable negative impact on purchasing organic food in Germany (Janssen, 2018). Customer perceptions regarding price can indeed vary from one country to another. In developed countries like Germany, the influence of price may differ from that in developing countries. Additionally, prices are also influenced by people's income levels. The income of urban residents in big cities is much higher than that of residents living in rural areas, so the cost of organic food is affordable for city residents (Hoang et al., 2020).

Availability

On the supply side, despite the potential premium price, organic producers usually face lower yields and higher production costs than conventional (non-organic) (Y. Wang et al., 2017). Availability will affect the purchase intention of organic food (Kusumaningsih et al., 2019). Despite a strong intention to consume organic food, the limited availability of such products and their higher prices often make purchasing organic food less popular and discourage the practice (Chekima et al., 2019). Consumers typically have limited control over the price and availability of organic food items because these factors are determined by the supply chain. As a result, they are often perceived as significant barriers to organic food consumption (Chekima et al., 2019; Hoang et al., 2020).

The additional effort required to obtain organic food can indeed influence consumer purchasing intentions (Chekima et al., 2019). The convenience and accessibility of organic products play a role in consumers' decisions to buy them. In the research conducted by Kusumaningsih et al. (2019), it was found that availability does not have an influence on the attitude towards the purchase of organic food, even though several outlets already provide organic food. In contrast, a research by Carriyn Bysquez et al. (2023) discovered that the availability of organic products on the market is not a barrier that limits the purchase intention of university millennials. These findings suggest that the impact of availability on consumer attitudes and intentions regarding organic food can vary depending on the specific context and demographic. Consumers will have the intention to purchase organic food when the product is easy to reach by its target consumer and available at a convenient place and location (Nordin & Ruslan, 2022).

Environmental Consciousness

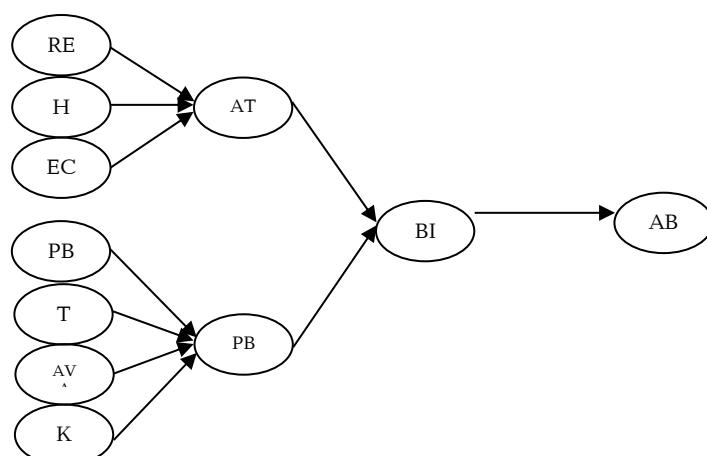
The indiscriminate use of chemicals led to environmental deterioration (Rana & Paul, 2017). Consumers are nowadays interested in finding food products which are not produced using destructive chemicals but are certified as being grown naturally (Tareq et al., 2019). This trend encourages consumers to adopt green consumption practices as a means of reducing the impact of environmental damage. Buying organic food is a typical green consumption behavior (Le & Nguyen, 2022). As a result, several researchers have explored the influence of environmental consciousness on the intention to consume organic food.

The impact of environmental consciousness may vary in developing countries. In the research conducted by Yadav & Pathak (2016), it was found that environmental consciousness had no significant effect. This suggests that respondents in developing countries may exhibit less altruistic behavior compared to individuals in developed nations

when it comes to environmental concerns. Thus, the health and environmental – related issues are important attributes for Portuguese consumers regarding the intention to buy organic food (Ferreira & Pereira, 2023). Many other studies have identified various influences of environmental consciousness on behavioral intention (Ahmed et al., 2021). The relationship between environmental consciousness and behavioral intentions can be complex and context – dependent, and research in this area continues to uncover valuable insights.

Trust

Consumer trust is a significant issue in the organic food industry (Canova et al., 2020). Consumer perceptions regarding the trustworthiness of organic food are indeed likely to influence their purchasing decisions, and this aspect has garnered increased attention in research and among consumers (Ashraf et al., 2019; Xing et al., 2022). Trust plays a significant role in consumer choices, especially when it comes to products like organic food that are associated with specific claims about health, safety, and environmental impact. It is necessary to investigate more thoroughly the role of consumer confidence as regards organic food and to analyze the strength of its influence on intention and purchase behavior (Canova et al., 2020). In the research conducted by Carfora et al. (2019), trust was divided into categories such as trust in government, farmers, manufacturers, and retailers to specifically assess customer trust in the organic food supply chain. Similarly, in research by Xing et al. (2022), trust was divided into trust in producers and trust in retailers, serving as a moderating variable between intention and actual behavior, with both types of trust having a positive influence on actual consumer behavior. These studies emphasize the significance of trust in the context of organic food, as it encompasses trust in various aspects of production, regulation, and distribution of organic food. Trust plays a crucial role in building consumer confidence and encouraging organic food consumption.



REL: Religiosity, HC: Health Consciousness, EC: Environmental Consciousness, PB: Price Barrier, T: Trust, AVA: Availability, KN: Knowledge, ATT: Attitude, PBC: Perceived Behavioral Control, BI: Behavioral Intention, AB: Actual Behavior

Figure 2. Alternative Theory of Planned Behavior (TPB) framework

Knowledge

Having sufficient knowledge about organic food, including the processes involved in organic production, supply chain practices, and certification standards, can indeed increase awareness and trust among consumers and it can help reduce doubts and uncertainties about organic food purchases (Rehman et al., 2023). This knowledge can provide consumers with a clearer understanding of how organic products are produced, verified, and regulated. It can be said that knowledge can influence consumer behavioral

intentions in a manner like trust. Both knowledge and trust are important factors that can shape consumer attitudes and intentions, especially in the context of organic food and other products with specific claims and certifications. Consumer knowledge toward organic food has a strong influence on consumer identity, that is, consumers who are knowledgeable in organic food tend to identify themselves more as a green consumer (Aungatichart et al., 2020). Indeed, the significant influence of knowledge on organic food consumption has been observed in many studies (Aungatichart et al., 2020)

Disscusion

The intention is a product of attitude, perceived behavioral control, and subjective norms (Jiang & Wu, 2022). Attitude is one of the main determinants of the Theory of Planned Behavior (TPB) framework, and most studies have found a positive relationship between attitude and behavioral intentions. We excluding subjective norms from the Theory of Planned Behavior (TPB) framework for several reasons, such as, buying organic food is not yet a social norm in a developing nation such as India (Yadav & Pathak, 2016), and consumers feel that approval of "significant others" is not that important factor for buying green products (Paul et al., 2016). With the low consumption of organic food in Indonesia, this argument is a good justification not to add subjective norms. The strong influence of perceived behavioral control and attitude on consumer behavioral intentions is found in many previous studies (Ahmed et al., 2021). This is why Perceived Behavioral Control (PBC) and attitude remains an important component within the Theory of Planned Behavior (TPB) framework.

Health consciousness and environmental consciousness was found to influence behavioral intentions in several previous studies (Ferreira & Pereira, 2023). However, health consciousness and environmental consciousness should be included as background factors, and their impacts on intention are expected to be mediated by attitude (Dorce et al., 2021). Based on the research results of Le & Nguyen (2022), it is proven that attitude plays the role of a strong mediator in the relationship between environmental awareness and purchase intention. This explanation strengthens the reason that attitude is influenced by health consciousness and environmental consciousness. So, it would be better if health consciousness and environmental consciousness did not directly influence behavioral intention in the TPB framework but were mediated by attitude. The difference in the influence of environmental consciousness on attitude and behavioral intention is influenced by several factors. Among these factors is the knowledge possessed by respondents, as research conducted by P. M. Nguyen & Vo (2023) who conducted research on Gen Z who were assumed to have more knowledge regarding environmental issues.

Religiosity is often cited as a factor that can be added to the TPB model. Most research results that can be found, religiosity affects behavioral intentions directly (Hasan et al., 2024; Suleman et al., 2021). However, if examined further, religiosity will be closely related to attitude. Alotaibi & Abbas (2023) revealed in his research that Islamic religiosity influences green food purchase intention in the millennial generation. Religiosity is mediated by other variables related to one's attitude such as spiritual well-being and green skepticism (Alotaibi & Abbas, 2023). Whereas in research by Asyari et al. (2024), in the context of food waste behavioral intention, religious teachings influence their views on food waste behavioral as a negative attitude.

Despite variations in consumer perceptions of availability observed in previous research (Nordin & Ruslan, 2022), adding the availability factor in the Theory of Planned Behavior (TPB) model still can be justified. The limited availability of organic food will indirectly hinder consumers' purchase intentions. This limited availability will also directly affect prices, these two determinants are linked. The effect of price variables on the

behavioral intention of organic food consumption directly or indirectly can be found in previous studies (Carriyn Bysquez et al., 2023). Price, availability and knowledge variables considered under PBC because we believe that they refer to the individual control and confidence level (Dangi et al., 2020).

Consumer trust is a critical problem in the organic food sector (Canova et al., 2020; Carfora et al., 2019). Knowledge and trust in practice will be interconnected as explained in previous research (Dangi et al., 2020). The views contained in research by Carfora et al. (2019) which include trust in the government as a regulator would be suitable for use in the context of organic food consumption in Indonesia. Socialization regarding organic food products and regulations must be the attention of related parties to increase public knowledge about organic food. In terms of the TPB framework, trust and knowledge are considered to have an influence on attitude and Perceived Behavioral Control (PBC). It may influence attitudes toward organic food purchase because they summarize various prior cognitions that contribute to the development of the belief system or together with prior behaviors, might influence perceptions of the control one can exert when making a purchase (Loera et al., 2022). In other words, trust and knowledge play a role in shaping how individuals feel about organic food, and to what extent they perceive they have control or influence over the purchasing process. This highlights the importance of these factors in understanding consumer behavior related to organic food within the TPB framework.

CONCLUSION

An alternative model of the Theory of Planned Behavior (TPB), with some additional influencing factors in the context of organic food consumption such as Religiosity, Health Awareness, Environmental Awareness, Price Barriers, Trust, Availability, and Knowledge, is derived in this article. These additional factors can help assess consumers' behavioral intention to consume organic food more accurately, especially in the case of developing countries. This can help researchers to find other factors that influence or inhibit consumers so that organic food can be chosen by consumers. For the case of organic food in Indonesia, it is recommended to dig more deeply, especially in the aspects of price and availability of organic food considering that these two factors will be interrelated.

REFERENCES

Ahmed, N., Li, C., Khan, A., Qalati, S. A., Naz, S., & Rana, F. (2021). Purchase intention toward organic food among young consumers using theory of planned behavior: role of environmental concerns and environmental awareness. *Journal of Environmental Planning and Management*, 64(5), 796 – 822. <https://doi.org/10.1080/09640568.2020.1785404>

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179 – 211.

Alotaibi, A., & Abbas, A. (2023). Islamic religiosity and green purchase intention: a perspective of food selection in millennials. *Journal of Islamic Marketing*, 14(9). <https://doi.org/10.1108/JIMA-06-2021-0189>

Apaolaza, V., Hartmann, P., D'Souza, C., & Lypez, C. M. (2018). Eat organic – Feel good? The relationship between organic food consumption, health concern and subjective wellbeing. *Food Quality and Preference*, 63, 51 – 62. <https://doi.org/10.1016/j.foodqual.2017.07.011>

Arauf, M. A. (2021). Ecological View From The Perspective of Quranic Verses. *International Journal of Social Science and Religion (IJSSR)*. <https://doi.org/10.53639/ijssr.v2i2.45>

Ashraf, M. A., Joarder, M. H. R., & Ratan, S. R. A. (2019). Consumers' anti-consumption

behavior toward organic food purchase: an analysis using SEM. *British Food Journal*, 121(1), 104 – 122. <https://doi.org/10.1108/BFJ-02-2018-0072>

Aungatichart, N., Fukushige, A., & Aryupong, M. (2020). Mediating role of consumer identity between factors influencing purchase intention and actual behavior in organic food consumption in Thailand. *Pakistan Journal of Commerce and Social Science*, 14(2).

Bai, L., Wang, M., & Gong, S. (2019). Understanding the antecedents of organic food purchases: The important roles of beliefs, subjective norms, and identity expressiveness. *Sustainability (Switzerland)*, 11(11). <https://doi.org/10.3390/su11113045>

Bhavsar, H., Tegegne, F., Baryeh, K., & Illukpitiya, P. (2018). Attitudes and Willingness to Pay More for Organic Foods by Tennessee Consumers. *Journal of Agricultural Science*, 10(6), 33. <https://doi.org/10.5539/jas.v10n6p33>

Bosona, T., & Gebresenbet, G. (2018). Swedish consumers' perception of food quality and sustainability in relation to organic food production. *Foods*, 7(4). <https://doi.org/10.3390/foods7040054>

Bryt, P. (2018). Organic food online shopping in Poland. *British Food Journal*, 120(5), 1015 – 1027. <https://doi.org/10.1108/BFJ-09-2017-0517>

Bryta, P. (2016). Organic food consumption in Poland: Motives and barriers. *Appetite*, 105, 737 – 746. <https://doi.org/10.1016/j.appet.2016.07.012>

Canova, L., Bobbio, A., & Manganelli, A. M. (2020). Buying Organic Food Products: The Role of Trust in the Theory of Planned Behavior. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.575820>

Carfora, V., Cavallo, C., Caso, D., Del Giudice, T., De Devitiis, B., Visceccchia, R., Nardone, G., & Ciccia, G. (2019). Explaining consumer purchase behavior for organic milk: Including trust and green self-identity within the theory of planned behavior. *Food Quality and Preference*, 76, 1 – 9. <https://doi.org/10.1016/j.foodqual.2019.03.006>

Carriyn Bysquez, N. G., Arias-Bolzmann, L. G., & Martínez Quiroz, A. K. (2023). The influence of price and availability on university millennials' organic food product purchase intention. *British Food Journal*, 125(2), 536 – 550. <https://doi.org/10.1108/BFJ-12-2021-1340>

Cavaliere, A., Peri, M., & Banterle, A. (2016). Vertical coordination in organic food chains: A survey based analysis in France, Italy and Spain. *Sustainability (Switzerland)*, 8(6). <https://doi.org/10.3390/su8060569>

Chekima, B., Chekima, K., & Chekima, K. (2019). Understanding factors underlying actual consumption of organic food: The moderating effect of future orientation. *Food Quality and Preference*, 74, 49 – 58. <https://doi.org/10.1016/j.foodqual.2018.12.010>

Chiew, D. K. Y., Zainal, D., & Sultana, S. (2023). Understanding organic food purchase behaviour: using the extended theory of planned behaviour. *International Journal of Business Innovation and Research*, 31(2). <https://doi.org/10.1504/ijbir.2023.131433>

Dangi, N., Narula, S. A., & Gupta, S. K. (2020). Influences on purchase intentions of organic food consumers in an emerging economy. *Journal of Asia Business Studies*, 14(5), 599 – 620. <https://doi.org/10.1108/JABS-12-2019-0364>

Ditlevsen, K., Sandøe, P., & Lassen, J. (2019). Healthy food is nutritious, but organic food is healthy because it is pure: The negotiation of healthy food choices by Danish consumers of organic food. *Food Quality and Preference*, 71, 46 – 53. <https://doi.org/10.1016/j.foodqual.2018.06.001>

Dorce, L. C., da Silva, M. C., Mauad, J. R. C., de Faria Domingues, C. H., & Borges, J. A. R. (2021). Extending the theory of planned behavior to understand consumer purchase behavior for organic vegetables in Brazil: The role of perceived health benefits, perceived sustainability benefits and perceived price. *Food Quality and Preference*, 91. <https://doi.org/10.1016/j.foodqual.2021.104191>

Eyinade, G. A., Mushunje, A., & Yusuf, S. F. G. (2021). The willingness to consume organic food: A review. In *Food and Agricultural Immunology* (Vol. 32, Issue 1, pp. 78 – 104). Taylor and Francis Ltd. <https://doi.org/10.1080/09540105.2021.1874885>

Ferreira, S., & Pereira, O. (2023). Antecedents of Consumers' Intention and Behavior to Purchase Organic Food in the Portuguese Context. *Sustainability (Switzerland)*, 15(12). <https://doi.org/10.3390/su15129670>

Furqon, I. K. (2018). Teori konsumsi dalam islam. *Adzkiya: Jurnal Hukum Dan Ekonomi Syariah*, 6(1).

Ham, M., Pap, A., & Stanic, M. (2018). What drives organic food purchasing? – evidence from Croatia. *British Food Journal*, 120(4), 734 – 748. <https://doi.org/10.1108/BFJ-02-2017-0090>

Hasan, M. M., Al Amin, M., Arefin, M. S., & Mostafa, T. (2024). Green consumers' behavioral intention and loyalty to use mobile organic food delivery applications: the role of social supports, sustainability perceptions, and religious consciousness. *Environment, Development and Sustainability*, 26(6). <https://doi.org/10.1007/s10668-023-03284-z>

Hoang, H. C., Chovancova, M., & Hoang, T. Q. H. (2020). The interactive effect of level of education and environmental concern toward organic food in Vietnam. *Journal of Distribution Science*, 18(9), 19 – 30. <https://doi.org/10.15722/jds.18.9.202009.19>

Imani, B., Allahyari, M. S., Bondori, A., Surujlal, J., & Sawicka, B. (2021). Determinants of organic food purchases intention: The application of an extended theory of planned behaviour. *Future of Food: Journal on Food, Agriculture and Society*, 9(1), 1 – 12. <https://doi.org/10.17170/kobra-202011192216>

Inthong, C., Champahom, T., Jomnonkwa, S., Chatpattananan, V., & Ratanavaraha, V. (2022). Exploring Factors Affecting Consumer Behavioral Intentions toward Online Food Ordering in Thailand. *Sustainability (Switzerland)*, 14(14). <https://doi.org/10.3390/su14148493>

Janssen, M. (2018). Determinants of organic food purchases: Evidence from household panel data. *Food Quality and Preference*, 68, 19 – 28. <https://doi.org/10.1016/j.foodqual.2018.02.002>

Jiang, M. M., & Wu, Q. (2022). Employees buying organic food intention: An extension of the theory of planned behavior. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1054166>

Kabir, M. R., & Islam, S. (2022). Behavioural intention to purchase organic food: Bangladeshi consumers' perspective. *British Food Journal*, 124(3). <https://doi.org/10.1108/BFJ-05-2021-0472>

Khan, M. A. (2020). Theory of Consumer Behavior : An Islamic Perspective. *MPRA Paper*, 104208.

Kusumaningsih, D., Irianto, H., & Antriyanandarti, E. (2019). Effects of health consciousness and environmental attitude on intention towards organic food purchase. *IOP Conference Series: Materials Science and Engineering*, 633(1). <https://doi.org/10.1088/1757-899X/633/1/012052>

Le, M. H., & Nguyen, P. M. (2022). Integrating the Theory of Planned Behavior and the Norm Activation Model to Investigate Organic Food Purchase Intention: Evidence from Vietnam. *Sustainability (Switzerland)*, 14(2). <https://doi.org/10.3390/su14020816>

Llauger, M., Claret, A., Bou, R., Lypez – Mas, L., & Guerrero, L. (2021). Consumer attitudes toward consumption of meat products containing offal and offal extracts. *Foods*, 10(7). <https://doi.org/10.3390/foods10071454>

Loera, B., Murphy, B., Fedi, A., Martini, M., Tecco, N., & Dean, M. (2022). Understanding the purchase intentions for organic vegetables across EU: a proposal to extend the TPB model. *British Food Journal*, 124(12), 4736 – 4754. <https://doi.org/10.1108/BFJ-08-2021-0875>

Mie, A., Andersen, H. R., Gunnarsson, S., Kahl, J., Kesse – Guyot, E., Rembiałkowska, E., Quaglio, G., & Grandjean, P. (2017). Human health implications of organic food and organic agriculture: A comprehensive review. In *Environmental Health: A Global Access Science Source* (Vol. 16, Issue 1). BioMed Central Ltd. <https://doi.org/10.1186/s12940-017-0315-4>

Mohd Suki, N., & Mohd Suki, N. (2015). Does religion influence consumers' green food

consumption? Some insights from Malaysia. *Journal of Consumer Marketing*, 32(7). <https://doi.org/10.1108/JCM-02-2014-0877>

Nguyen, H. V., Nguyen, N., Nguyen, B. K., Lobo, A., & Vu, P. A. (2019). Organic food purchases in an emerging market: The influence of consumers' personal factors and green marketing practices of food stores. *International Journal of Environmental Research and Public Health*, 16(6). <https://doi.org/10.3390/ijerph16061037>

Nguyen, P. M., & Vo, N. D. (2023). Exploring Organic Food Purchase Behaviors of Gen Z: An Application of TPB and MOA Model in a Transition Country. *Foundations of Management*, 15(1), 35 – 50. <https://doi.org/10.2478/fman-2023-0003>

Nguyen, T. T. M., Phan, T. H., Nguyen, H. L., Dang, T. K. T., & Nguyen, N. D. (2019). Antecedents of purchase intention toward organic food in an Asian emerging market: A study of urban Vietnamese consumers. *Sustainability (Switzerland)*, 11(17). <https://doi.org/10.3390/su11174773>

Nordin, N. S. A., & Ruslan, N. A. (2022). A Study on Consumers Intention in Purchasing Organic Food: Case Study at Kuantan, Pahang. *IOP Conference Series: Earth and Environmental Science*, 1059(1). <https://doi.org/10.1088/1755-1315/1059/1/012007>

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(2), 323 – 337. <https://doi.org/10.1007/s10551-015-2690-5>

Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29, 123 – 134. <https://doi.org/10.1016/j.jretconser.2015.11.006>

Pujiyono, A. (2006). Teori Konsumsi Islami. *Dinamikan Pembangunan*, 3.

Qin, B., & Song, G. (2022). Internal Motivations, External Contexts, and Sustainable Consumption Behavior in China—Based on the TPB—ABC Integration Model. *Sustainability (Switzerland)*, 14(13). <https://doi.org/10.3390/su14137677>

Rahmann, G., Grimm, D., Kuenz, A., & Hessel, E. (2020). Combining land – based organic and landless food production: a concept for a circular and sustainable food chain for Africa in 2100. *Organic Agriculture*, 10(1), 9 – 21. <https://doi.org/10.1007/s13165-019-00247-5>

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

Rehman, S. U., Zhang, Q., Kubalek, J., & Al – Okaily, M. (2023). Beggars can't be choosers: factors influencing intention to purchase organic food in pandemic with the moderating role of perceived barriers. *British Food Journal*, 125(9), 3249 – 3271. <https://doi.org/10.1108/BFJ-12-2022-1095>

Saleki, R., Quoqab, F., & Mohammad, J. (2020). Business and Management Research. In *Asia Pacific Journal of Marketing and Logistics and Asian Academy of Management Journal., Journal of Islamic Marketing* (Vol. 23, Issue 2).

Shen, X., Cao, X., Esfahani, S. S., & Saleem, T. (2022). Factors Influencing Consumers' Purchase Intention on Cold Chain Aquatic Products under COVID – 19: An Investigation in China. *International Journal of Environmental Research and Public Health*, 19(8). <https://doi.org/10.3390/ijerph19084903>

Sherwani, M., Ali, A., Ali, A., & Hussain, S. (2018). Determinants of halal meat consumption in Germany. *Journal of Islamic Marketing*, 9(4), 863 – 883. <https://doi.org/10.1108/JIMA-01-2018-0009>

Siahaan, A., & Thiodore, J. (2022). *Analysis Influence of Consumer Behavior to Purchase Organic Foods in Jakarta*.

Suleman, S., Sibghatullah, A., & Azam, M. (2021). Religiosity, halal food consumption, and physical well – being:An extension of the TPB. *Cogent Business and Management*, 8(1). <https://doi.org/10.1080/23311975.2020.1860385>

Sultan, P., Tarafder, T., Pearson, D., & Henryks, J. (2020). Intention – behaviour gap and perceived behavioural control – behaviour gap in theory of planned behaviour: moderating roles of communication, satisfaction and trust in organic food

consumption. *Food Quality and Preference*, 81.
<https://doi.org/10.1016/j.foodqual.2019.103838>

Tandon, A., Jabeen, F., Talwar, S., Sakashita, M., & Dhir, A. (2021). Facilitators and inhibitors of organic food buying behavior. *Food Quality and Preference*, 88.
<https://doi.org/10.1016/j.foodqual.2020.104077>

Tareq, M., Hossain, B., Rahman, A., & Techato, K. (2019). Consumer buying behaviour and social responsibility in respect of organic foods: cross – cultural evidence. In *Int. J. Agricultural Resources* (Vol. 15, Issue 2).

Terjesen, S., Hessels, J., & Li, D. (2016). Comparative International Entrepreneurship: A Review and Research Agenda. *Journal of Management*, 42(1), 299 – 344.
<https://doi.org/10.1177/0149206313486259>

Uddin, M. N. (2022). Food controls to build workable human resource in Muslim countries for poverty reduction: An Islamic view. *IIUC Studies*, 18(1).
<https://doi.org/10.3329/iiucs.v18i1.61273>

Vanany, I., Soon, J. M., Maryani, A., & Wibawa, B. M. (2020). Determinants of halal – food consumption in Indonesia. *Journal of Islamic Marketing*, 11(2), 516 – 530.
<https://doi.org/10.1108/JIMA-09-2018-0177>

Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer "attitude – Behavioral intention" gap. *Journal of Agricultural and Environmental Ethics*, 19(2), 169 – 194. <https://doi.org/10.1007/s10806-005-5485-3>

Wang, J., Zhang, Y., & Liu, S. (2020). Analysis of consumers' perception and purchasing intention toward organic food based upon the Theory of Planned Behavior. *Proceedings - 2020 International Conference on Big Data Economy and Information Management, BDEIM 2020*, 29 – 33. <https://doi.org/10.1109/BDEIM52318.2020.00015>

Wang, X., Pacho, F., Liu, J., & Kajungiro, R. (2019). Factors influencing organic food purchase intention in Tanzania and Kenya and the moderating role of knowledge. *Sustainability (Switzerland)*, 11(1). <https://doi.org/10.3390/su11010209>

Wang, Y., Zhu, Z., & Chu, F. (2017). Organic vs. non – organic food products: Credence and price competition. *Sustainability (Switzerland)*, 9(4).
<https://doi.org/10.3390/su9040545>

Wong, S. S., & Aini. (2017). Factors influencing purchase intention of organic meat among consumers in Klang Valley, Malaysia. In *International Food Research Journal* (Vol. 24, Issue 2).

Xing, Y., Li, M., & Liao, Y. (2022). Trust, price sensitivity and consumers' organic food purchasing behaviour in China. In *Food Science and Technology (Brazil)* (Vol. 42). Sociedade Brasileira de Ciencia e Tecnologia de Alimentos, SBCTA.
<https://doi.org/10.1590/fst.42422>

Yadav, R., & Pathak, G. S. (2016). Intention to purchase organic food among young consumers: Evidences from a developing nation. *Appetite*, 96, 122 – 128.
<https://doi.org/10.1016/j.appet.2015.09.017>