

Organic Foods in Thailand: The Study of Attitude, Perception, and Purchasing Intention Among Generation-Z



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ABSTRACT: The COVID-19 pandemic has contributed to the growth in organic food consumption by 50%. In particular, the Generation-Z cohort have had recognized the importance and relevance of organic food consumption. Considering such, this study aimed to investigate the Thai Generation-Z consumers' attitude, perception, and purchasing intention towards organic food. Generation-Z were the main target respondents for this paper, in particular – those from Thailand. The health-belief model was adopted by the researcher, with the independent variables comprising perceived risks, perceived benefits, and personal values, and the dependent variable being purchasing intention of organic food. It is presumed that the attitude towards organic food is the mediating variable between the independent and dependent variables. The research results were statistically analysed using the ANOVA regression. The analysis revealed that, perceived risks, perceived benefits, and personal values had a significant influence on attitude towards organic product, wherein, perceived risks and perceived benefits held a negative influence, with personal values holding a positive influence. Simultaneously, the attitude towards organic product was found to have no significant relationship with purchasing intention of organic food. These findings contribute to the understanding of marketers on promulgating the promotion for organic food.

KEYWORDS: Generation Z, Organic Food, Perception, Attitude, Purchase Intention

I. INTRODUCTION

The COVID-19 pandemic has contributed to an explosive growth of organic food consumption, with reports like IFT (2020) addressing an increase of 50% in organic food consumption from 2019. In 2019, the organic food market was a market of USD 106 billion (Statista, 2021), a choice of relevance for consumers that are concerned with attributes like "healthiness, food safety, environmental protection, animal welfare, and support of local economy" (Rizzo et al., 2020, p. 2). Hence, a plethora of research papers has contributed to examine a non-generational relationship (generic research) between organic food consumption, sustainability, and organic food purchase. However, a study that has adopted the 'generational cohort theory' in differentiating the consumption pattern of organic products for Generation-Z amid the pandemic environment has not been published (in the researchers' knowledge).

Generation-Z are recognized as an attractive group of cohorts, particularly attributed to their challenging nature of displaying minimal loyalty (Tunsakul, 2020), yet being highly digitized and technologically savvy (Tunsakul, 2020). In addition to these attributes, Cision (2020) reports on Packaged Facts that Generation-Zers naturally favour the consumption of organic food and beverages, and thus, have emerged as among the top consumers of the organic food product. Several studies have also identified Generation-Z to be amid a highly digitized group of consumers, easily persuaded by digital advertisement and media. Yet, Tunsakul (2020) clarifies that advertising or marketing to Generation-Zers is challenging, as these cohorts are well knowledgeable, have selective exposure, and avoid any advertisements that risk privacy intrusion. In simple terms, Generation-Z'ers are not interested or are not influenced by any advertisement that is of no relevance to their needs. As this study persuades analysing the behaviour of Generation-Z consumers, this paper contributes to add empirical evidence surrounding the organic consumption behaviour of Generation-Z and have theoretical and practical benefits and implications.

This study aims to investigate the Thai Generation-Z consumers' attitude, perception, and purchasing intention towards organic food. The objectives of this study consist of the following three parts:

- To investigate whether personal values have a significant influence on attitude to purchase organic food.

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- To investigate whether perceived benefits and perceived risks towards organic products have a positive influence on attitude towards organic food.
- To investigate whether attitude towards organic food has a positive influence on purchasing intention of organic food products.

From the academic perspective, this research is expected to contribute to the application and understanding of the attitude-intention relationship of south-east Asian Generation-Z, and their organic food consumption behaviour. The research implication will add more academic knowledge concerning marketing to Generation Z. The application could be broadened to the context of general organic products. Similarly, this study provides significance for organic businesses to formulate marketing and advertisement strategies to target and motivate Generation-Z consumers, to satisfy the organic food consumption needs that align with their values. Additionally, the findings of this paper are expected to contribute a corporate comprehension of Generation-Z characteristics, which can eventually contribute to corporate financial profitability by increasing demand and contributing to developing marketing tactics.

II. LITERATURE REVIEW

A. Theoretical Review

Two fundamental theories are employed in this paper, to explore the generational cohort theory and the health belief model, underpinning the key concepts of how generational differences invites variances and alterations in consumption behaviour. Similarly, the concept of the health belief model, integrating factors of perception (risks and benefits), attitude, and intention to purchase is explored in the following section of the report.

1) Generational Cohort Theory

The concept of Generational Cohort Theory (GCT) was first popularized by Strauss & Howe (1991) in their book: “*Generations: The History of America’s Future*”. The hypothesized notion of Strauss & Howe (1991) was that the age cycle repeated every 4 generations, thus forming 4 unique cohorts experiencing similar and/or same events during a time interval. While in 1990 (during the time of writing for Strauss & Howe, 1991), the dominant generation was Generation-Y or referred to as the millennials. Following are the Generation-Y’s children, or termed as Generation-Z, the digital natives (the scope of this paper). Under the GCT, since each generation shares the same political, economic, and social events, purchasing intention would be shaped accordingly, and thus, marketers must comprehend the set of beliefs, values, and behaviour differences to advocate the correct strategy. Amidst the adopted behaviours of Generation Z, one key attribute suggested by Kymalainen & Malila (2021) and Kamednidou et al., (2020) is the organic food consumption habit. As results unveil the characteristics of Generation-Z to consume organic food, marketers must create tactics and strategies that can advocate a favourable attitude towards specific organic food brands.

2) Health-Belief Model

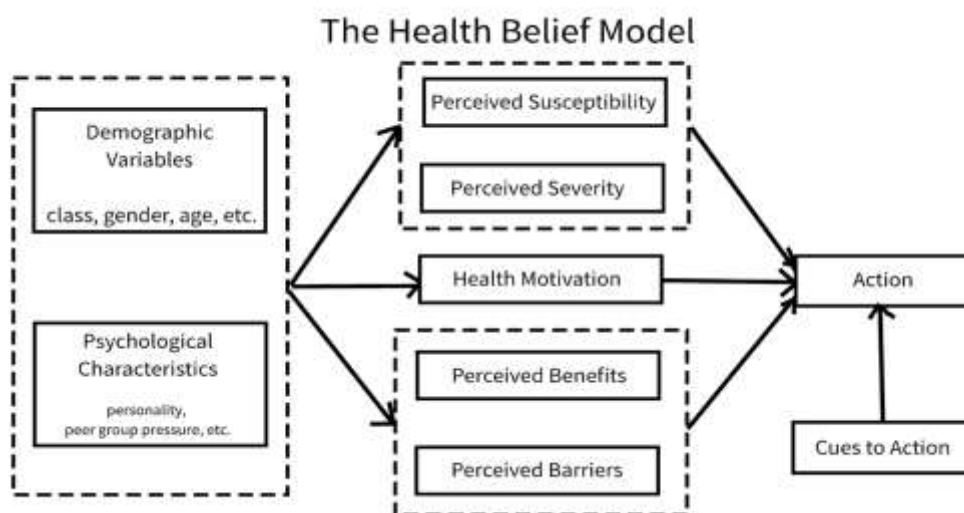


Figure 1: Health Belief Model
Source: Yazdanpanah et al., (2015)

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The health-belief Model (HBM) was first established as a socio-psychological framework, introduced in the early 1950s to study the role of an individual or patient's perception towards risks and barriers towards conducting and approaching a certain behavioural action (UPENN, 2021). While, in the early 1950s the HBM was regarded as a crucial factor in defining the action of an individual and triggers (antecedents) of such actions, in the present date, the HBM has been utilized to hypothesize and predict several other elements of purchasing intention in the field of social science. In a study by Yazdanpanah et al., (2015), the health belief model was employed in studying organic food consumption behaviour. The quantitative research found that, while perceived benefits were the most important factor, the perceived risks had only a minor degree of variance in predicting the organic food consumption behaviour among young adults. In contradiction to Yazdanpanah et al., (2015), the study by Pribadi & Devy (2020) showed that perceived risks factor (susceptibility and severity) had a higher impact on consumers' willingness to adopt or quit a behaviour. In contrast, while one study aimed to study the adoption of behaviour, the other evaluated the behaviour to quit. Therefore, both perceived risks and perceived benefits have been conventionally found to have an impact on purchasing intention change. Considering such, this study follows the use of perceived risk factors and perceived benefits factors of adopting organic food products amid Generation-Z.

2.1. Construct and Dimensions

2.1.1. Personal Value

In the study by (Weng and Run, 2013, p.73), it is stated that "values are held in common by both the individual and society". While communal values are often institutional or derive from a carried belief, culture, or concept of how particular events should unravel, the concept of personal value is beliefs and concepts held to oneself. The guiding beliefs are also defined as the principle or code that guides the attitude and behaviour of an individual (Kropp et al., 2005). In theory, the value-attitude-behaviour hierarchy model has shown a strong inference on how personal values that derive from cross-cultural manifestation, domestic environment, and abstract cognition influences the perception and attitude of consumers and how they respond to a specific stimulus (Homer and Kahle, 1988).

2.1.2. Perceived Benefits

Perceived benefits, a key construct of the HBM, infers to the "belief about the potential positive aspects of a health action" (UPENN, 2021). In the study by Leung (2013), the *Encyclopaedia of Behavioural Medicine* infers the concept of perceived benefits as "the positive consequences that are caused by a specific action". In an early paper by Becker (1974), the concept of *Perceived Benefit* was attributed as a major predictor of health-behaviour adoption. For instance, considering *behaviour to quit smoking* could be guided by the perceived benefit of quitting cigarettes (health improvement) with a declining risk of cancer. Leung (2013) reports that there are researchers that consider *perceived benefits* as a positive perception that can positively drive a specific behaviour.

2.1.3. Perceived Risks

Perceived Risks or *risk perception* infers to the "potential harm or the possibility of a loss" in a generalized understanding (Darker, 2013). The author Darker (2013) in *Encyclopaedia of Behavioural Medicine* states that the judgement of each independent individual tends to be subjective, and thus, influence their perception of the *severity of a risk*. The *severity of risk* in the case of smoking prevention could derive from, for instance, the risk of cancer. Rosenstock (1966) further employed the health-behaviour model in further predicting the negative relationship between perceived risks from adopting and/or rejecting a behaviour and thus, influencing the behaviour of an individual.

2.1.4. Attitude

Although the definition of *attitude* has been used in a myriad of contexts and themes, Altmann (2008) affirms the definition of *attitude* to remain vague. The definition of *attitude*, however, has been commonly defined as "an object of thought", and can comprise any form of mental understanding about a subject, group, and/or an idea (Bohner & Dickel, 2011). Reviewing the study by Bohner & Dickel (2011), attitude towards a specific subject tend to alter the behaviour of the consumer. For instance, a positive attitude towards a specific subject tend to develop a positive behaviour towards a purchase, while a negative attitude creates a contradictory influence on purchase.

2.1.5. Purchasing Intention

In the marketing context, the understanding of consumer intention/motive is a significant factor (Putit & Johan, 2015). Researchers have identified a myriad of methods and processes to understand the purchasing intention of consumers. Herein, the *purchasing intention* can be defined as factors that motivate one individual to perform a certain action psychologically. In research by Salisbury et al., (2001) and Teo and Liu (2007), the concept of purchasing intention has been claimed to be an appropriate measure of comprehending purchasing intention. In addition to that, a research study by Teo and Liu (2007) further

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stated that the benefits of conducting a specific transaction tend to enact as a strong reference to the actual behaviour of purchase.

2.2. Conceptual Framework and Hypothesis Development

2.2.1. Personal Values and Attitude towards Organic Food

The impact of personal values on consumers tend to influence their behaviour to purchase, behavioural intention, and consumers' willingness to pay (Kottala & Singh, 2015). Stolz et al., (2011) and Urban et al., (2012) have explained the rise in consumption in organic food to be supported by personal values including supporting the local economy, health benefits from natural product consumption, prevention of susceptibility to diseases from non-organic (synthetic) food consumption, better taste and quality of organic products. These local support factors were further affirmed by Urban et al., (2012) in their research on organic product consumption. In addition to that, research by Vieira et al., (2013) further affirmed that strong personal values like environmental preservation factors and sustainability elements tend to positively affect consumer attitude, as it creates a belief system that, organic food products are "virtually free from hazards" (Kottala & Singh, 2015). The study by Annunziata & Vecchio (2016) further advocated those perceived benefits from consuming organic foods like health benefits, natural ingredients, and enhanced taste/quality further improves consumer attitude towards consuming organic food. From the above review, the following hypotheses can be postulated:

H1: Personal values are positively associated with customers' attitudes towards organic foods

2.2.2. Perception and Attitude towards Organic Foods

According to a study done by Padel and Foster (2005), the consumers of organic food tended to be from a wealthier background with some formal education. Consumers are usually seen to be sceptical about additives found in vegetables and fruits or medicines used in animal products as shown by the study done by Naspetti and Zanolli (2006). This makes more consumers drawn towards organic food as organic foods are seen to be free of pesticides or additives. The study by Baker et al (2002) showed that compared to non-organic food, organic food had one third the number of pesticides. Organic foods are also believed to have a higher nutritional content compared to non-organic foods. Consumers link these nutritional contents to their health which causes more consumers to be drawn towards organic foods (Naspetti & Zanolli, 2006). Moreover, organic foods and products are seen as being good for animal welfare and being environmentally friendly. Different studies have shown that consumers who had more awareness of sustainability and ethical behaviour were more likely to purchase organic food. This was shown by the study done by Lockie et al (2004), Harper and Makatouni (2006) and Chen (2007). Therefore, it can be stated that:

H2: Perceived benefits of organic food are positively associated with customers' attitudes towards organic foods

A study done by Eom (1994) showed that consumers believed that compared to organic produce, commercially grown food had some health-related risks. Another study done by Huang in 1993 suggested that consumers who were employed and had kids had greater perceived health risks due to pesticides compared to other consumers. Hence these perceived health risks of non-organic produce led to an increased demand for organic produce. Another study done by Dreezen et al (2005) showed that commercially grown food may be genetically modified which can be perceived by the consumers as being unnatural whereas organic food is seen as natural which may lead consumers to be drawn more towards organic food. However, compared to non-organic products, the price of organic food products is higher. Another study was done by Hamm et al., (2002) also showed that the market transparency of organic products is below standard. This causes some consumers to have a negative attitude towards buying organic food regularly (Vindigni et al, 2002; Pellegrini & Farinello, 2009). Despite all this, a study done by Gifford and Bernard in 2005 found that positive framing of organic produce is more efficient in promoting organic produce rather than negative framing of non-organic produce.

H3: Perceived risks of non-organic food are negatively associated with customers' attitudes towards organic foods

2.2.3. Attitude towards Organic Foods and Intention to Consume Organic Foods

Attitude has been ascribed as the "latent disposition to respond favourably or unfavourably to a psychological object" (Tunsakul, 2020, p. 8). The degree of favorability towards a specific product/service tends to have a significant degree of influence on whether a consumer prefers to adopt a behaviour or not. In a date study by Fishbein & Ajzen (1975), the concept of 'attitude' was linked to purchasing intention, clarifying that, any available information to a consumer tends to shape consumer attitude, and thus, be reflected in the intention to purchase. In past research, for instance, by Lin et al., (2018), the concept of attitude was discussed against the intention towards consuming a specific product/service, which found a positive association between the factors. On the other hand, the study by Tajeddini & Nikdavoodi (2014) found that attitude and intention were two inter-relation co-effective factors and tend to complement each other. Stating such, the following hypothesis can be postulated:

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H4: Attitude towards organic foods and Intention to consume organic foods is positive related.

2.2.4. Conceptual Framework

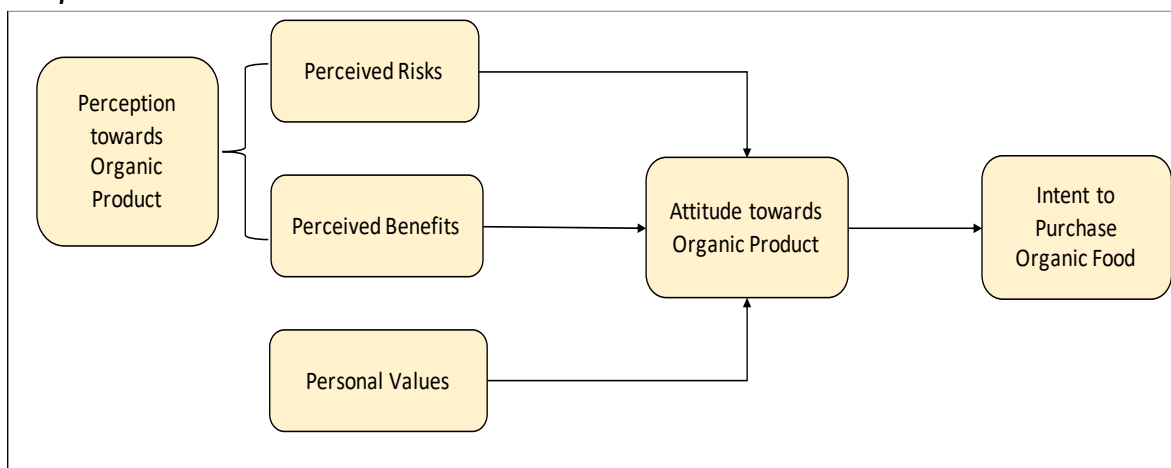


Figure 2: Conceptual Framework for the Research

III. METHODOLOGY

B. Study Respondents and Sampling Procedure

In this research, the target population were Generation-Z consumers, aged between 18 – 24 years old in 2021 (at the time of writing). The target respondents attribute primarily encompassed those of the college and university students, who had previously bought and used organic products, specifically consumed organic food. The selection of the key samples was based on the convenience (non-random) sampling technique, which allowed the researcher to adopt samples who resembled the key sample population. Herein, the target respondents were primarily the colleagues and friends of the researcher, approached via social media applications like Line and Facebook. Each selected colleague and friend were requested to complete the questionnaire. To decide the minimum sample respondents, Yamane’s technique for minimum sample size calculation was used.

$$\text{Yamane's Method } (n) = \frac{N}{1+N(e)^2}$$

Yamane’s Method acquired from Israel (1992).

Where, N = population of Thai Generation-Z that is 39% of 69.63 million (Farrell & Phungsoonthorn, 2020). Herein, the total population of Generation-Z amounts to 27.15 million representing Generation-Z. Herein, the minimum sample size can, therefore, be calculated as follows:

$$n = \frac{27155700}{1+27155700(0.05)^2}$$

Therefore, n (minimum sample size) = 399.994 \approx 400 minimum respondents

C. Research Instrument/Questionnaire

In this paper, each of the key research instrument scales was acquired from a validated research paper and credible handbook/scale. A pre-test with 30 minimum sample size was performed. For the independent variable, the measurements of perceived benefits (3 items, Cronbach’s alpha = 0.740) were acquired from the research paper Kown and Ahn (2019), perceived risks (3 items, Cronbach’s alpha = 0.692) were acquired from the research paper Saunders et al., (2013), personal value (4 items, Cronbach’s alpha = 0.799) were acquired from Ghazali et al. (2017). For the mediating variable, Attitude (4 items, Cronbach alpha’s = 0.802) were acquired from Ghazali et al., (2017) and the dependent variable purchasing intention (3 items, Cronbach’s alpha = 0.761) were acquired from Mohamad et al. (2014).

Table 1: Cronbach’s Alpha Reliability Test of Responses

Number	Measures	Items	Cronbach’s Alpha (n=30)
	Perceived Benefits		
PB1	I feel I am doing something good for my body when I choose organic food.	3	0.740
PB2	I feel my quality of life will be better if I choose organic skincare food.		
PB3	I feel I can decrease medical expenses if I choose organic skincare food.		
	Perceived Risks		

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PR1	If I get a disease/illness because of non-organic food, it will have a severe negative influence on my quality of life.	3	0.692
PR2	I think organic food is too expensive compared to other general food		
PR3	Because of a lack of information, it is hard to select organic food.		
Personal Value			
PV1	I believe that organic food enables me to live healthily.	4	0.799
PV2	I believe that organic food features high product safety.		
PV3	Buying organic food would make people appreciate me more.		
PV4	I would feel relaxed using organic food.		
Attitude			
ATT1	For me, buying organic food would be good.	4	0.802
ATT2	For me, buying organic food would be beneficial.		
ATT3	For me, buying organic food would be desirable.		
ATT4	For me, buying organic food would be wise.		
Purchasing Intention			
PI1	I would pay a higher price for organic food products	3	0.761
PI2	I would buy organic food products because of their high quality		
PI3	I would buy organic food products to be consumed by my family		
PI4	I would consume more if organic food products were readily available		

The respondents for the statements above were asked to indicate their responses in a Likert Scale format. The Likert scale format consisted of a scale 1 to 5, 1 = *strongly agree*, 2 = *agree*, 3 = *neutral*, 4 = *disagree*, and 5 = *strongly disagree*. Table 1 indicates the Cronbach variables for 30 pilot data, and all alpha values ranged from 0.692 to 0.802, which according to Malhotra (2007) is acceptable.

D. Data Gathering and Analysis Procedure

In this study, the primary data was gathered via the scholar-administered questionnaire from the Generation-Z respondents who are organic food consumers. Google form was used to develop an online questionnaire and was sent to all respondents through Line and Messenger. The process of data gathering took a total of 4 days (from 13th June 2021 to 16th June 2021). In total, 407 data were collected, which was higher than the minimum requirement calculated based on the Yamane calculation. All questions were answered by the respondents, as the option to skip the question was not made available. Simultaneously, for the purpose of analysing the data, this research approached statistical test, utilising SPSS. In this study, the descriptive analysis test, regression analysis, and correlation analysis has been performed to test the hypotheses and present the findings.

IV. FINDINGS

The following chapter of this research centres around presenting the key findings of the paper summarized to interpret the hypothesis adopted in this paper.

4.1. Demographic Profile of Respondents

In this study, the demographic profiles adopted and assessed in this paper included gender, household income, and marital status. The frequency and percentage of the demographic profile are assessed and presented as follows.

Table 0.2: Demographic Profile of Respondents

Demographic Profile		Descriptive Statistics	
		Frequency	Percentage
Gender	Male	195	47.9%
	Female	212	52.1%
Annual Household Income	Below THB 600,000	54	13.3%
	600,001 – 1,850,000	226	55.5%
	1,850,001 – 2,500,000	126	31.0%
	2,500,001 – 3,110,000	1	0.2%
	Above 3,110,001	0	0%
Marital Status	Single	160	39.3%
	Unmarried Relationship	236	58.0%
	Married, without children	11	2.7%
	Married, with children	0	0%

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Divorced/Widowed	0	0%
Separated	0	0%

According to the table above, out of the total 403 respondents, most of the respondents were females (ranging from 212 female responses, equivalent to 52.1%). Contrary to this, the male respondents were 195 respondents (equivalent to 47.9%). Similarly, most of the respondents had THB 600,001 to 1,850,000 THB annually, which comprised 55.5%. Similarly, the minority of the respondents had a monthly income of 2,500,001 – 3,110,000 THB annually, which was 0.2% of the total respondents. Similarly, the marital status indicated that the majority of the respondents were in an unmarried relationship with 236 responses of 58%. Similarly, the single and married, without children comprised 39.3% and 2.7% of the total response.

Table 0.3: Means and Standard Deviation of Survey Statements

Number	Measures	Mean	Standard Deviation	Remarks
Perceived Benefits				
PB1	I feel I am doing something good for my body when I choose organic food.	3.91	1.172	Agree
PB2	I feel my quality of life will be better if I choose organic skincare food.	3.67	.745	Agree
PB3	I feel I can decrease medical expenses if I choose organic skincare food.	3.15	.989	Agree
Average scores of Perceived Benefits		3.34	0.507	Agree
Perceived Risks				
PR1	If I get a disease/illness because of non-organic food, it will have a severe negative influence on my quality of life.	1.65	1.069	Disagree
PR2	I think organic food is too expensive compared to other general food	2.56	.952	Neutral
PR3	Because of a lack of information, it is hard to select organic food.	3.61	.840	Agree
Average scores of Perceived Risks		2.61	0.526	Neutral
Personal Value				
PV1	I believe that organic food enables me to live healthily.	2.77	.982	Neutral
PV2	I believe that organic food features high product safety.	3.81	.595	Agree
PV3	Buying organic food would make people appreciate me more.	3.63	.802	Agree
PV4	I would feel relaxed using organic food.	2.96	1.037	Neutral
Average scores of Personal Values		3.29	0.304	Agree
Attitude				
ATT1	For me, buying organic food would be good.	2.79	1.072	Neutral
ATT2	For me, buying organic food would be beneficial.	3.68	.744	Agree
ATT3	For me, buying organic food would be desirable.	3.54	.865	Agree
ATT4	For me, buying organic food would be wise.	3.65	.774	Agree
Average scores of Attitudes		3.41	0.324	Agree
Purchasing Intention				
PI1	I would pay a higher price for organic food products	3.08	1.194	Agree
PI2	I would buy organic food products because of their high quality	3.46	.895	Agree
PI3	I would buy organic food products to be consumed by my family	3.23	1.022	Agree
PI4	I would consume more if organic food products were readily available	3.64	.792	Agree
Average scores of Purchasing Intention		3.35	0.379	Agree

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Additionally, the above table indicated the means and standard deviation of the variables of the conceptual framework were assessed. In the above analysis, the average scores indicated the mean value based on strongly disagree being 1 to strongly agree to be 5. It was seen that, the attitude had a strongly agree representing (mean = 3.41), followed by purchasing intention (mean = 1.65), perceived benefits (mean = 3.64), personal values (mean = 3.29), and perceived risks (mean = 2.61). The results indicated that, the average score on perceived benefits influencing health-behaviour was 3.34 (Agree), perceived risks influencing health behaviour was 2.61 (Neutral), personal values influencing health behaviour was 3.29 (Agree), and attitude influencing health behaviour was 3.41 (Agree).

4.2. Hypothesis Testing

5. Table 0.4: Relationship Between Personal Value, Perceived Risk, Perceived Benefit, and Attitude

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.298 ^a	.089	.082	.309147327961754		
a. Predictors: (Constant), Perceived Benefits, Personal Value, Perceived Risks						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.743	3	1.248	13.054	.000 ^b
	Residual	38.516	403	.096		
	Total	42.258	406			
a. Dependent Variable: Attitude						
b. Predictors: (Constant), Perceived Benefits, Personal Value, Perceived Risks						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.089	.163		12.803	.000
	Personal Value	.129	.051	.122	2.552	.011
	Perceived Risks	-.191	.036	-.312	-5.334	.000
	Perceived Benefits	-.160	.037	-.251	-4.290	.000
a. Dependent Variable: Attitude						

The above findings address two key objectives of this paper. The objectives addressed in this paper are to investigate the role of personal values, perceived risk, and perceived benefit on the attitude towards the organic product (food). The result above indicated that the R-squared was 0.089 which indicates that the proportion of 'attitude' explained by personal value, perceived risks, and perceived benefits was 8.9%. Similarly, the significance of ANOVA regression indicated that the value was within the standard error perimeter at 0.000 (Sig value < 0.05). Therefore, the model is deemed significant. Simultaneously, it was seen that, for each independent variable, i.e., personal value, perceived risks, and perceived benefit, the significance value was 0.011, 0.000, and 0.000 respectively – indicating a significant relationship. However, the standardized coefficient indicated that only personal value had a positive relationship with attitude, while perceived risks and perceived benefits indicated a negative relationship with attitude towards organic food.

Table 0.5: Relationship between Attitude and Purchasing Intention

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.023 ^a	.001	-.002	.379207266793102		
a. Predictors: (Constant), Attitude						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.031	1	.031	.218	.641 ^b
	Residual	58.238	405	.144		
	Total	58.270	406			
a. Dependent Variable: Purchasing Intention						
b. Predictors: (Constant), Attitude						
Coefficients ^a						

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Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	1.690	.094		17.895	.000
	Attitude	-.027	.058	-.023	-.467	.641

a. Dependent Variable: Purchasing Intention

The second regression model was developed to define the relationship between the attitude of consumers towards organic food and intention to purchase (which corresponds to the third objective of this paper). The study found that, the R-squared value that attitude has only 0.1% explanatory power for purchasing intention. Furthermore, the overall regression factor indicated that the significance was 0.641, indicating the value to be higher than the error margin of 0.05. Therefore, no significant relationship is found between attitude and purchasing intention for organic food. Based on the above findings, the conceptual model can be revised and presented as follows:

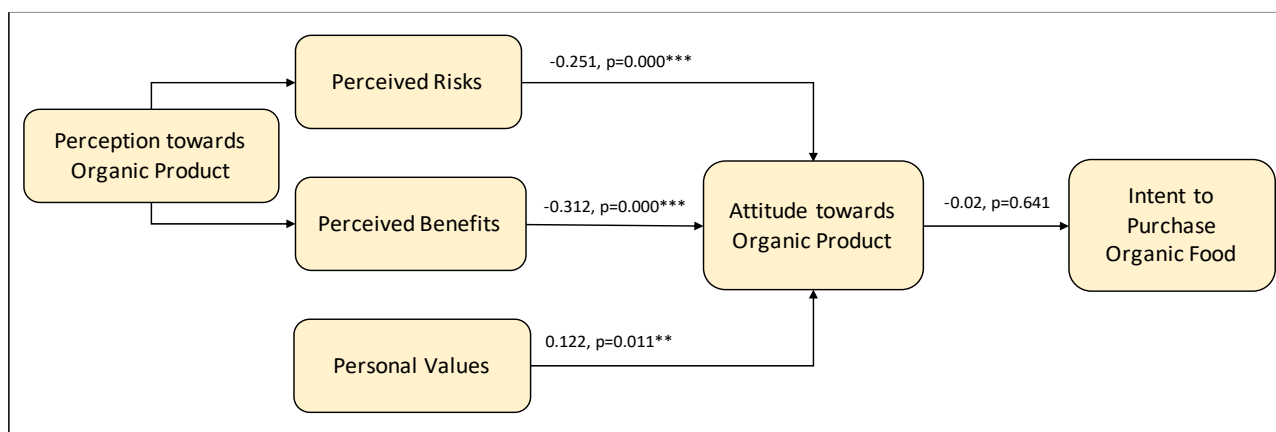


Figure 0.3: Framework with Standardized Coefficient

Note: *** = significant at 99%, ** = significant at 95%, * = significant at 90%.

Summarizing the overall framework, it was seen that, perceived risks, perceived benefits, and personal values had a significant relationship with attitude towards the organic product. Similarly, attitude towards organic products was found to have no significant relationship with purchasing intention of organic food.

V. DISCUSSION

In this research paper, all three initially proposed research objectives, that is, 'To investigate whether personal values have a significant influence on attitude to purchase organic food', 'To investigate whether perceived benefits and perceived risks towards organic products have a positive influence on attitude towards organic food', and 'To investigate whether attitude towards organic food has a positive influence on purchasing intention of organic food products has been addressed. Firstly, it was seen that personal values had a positive and significant relationship with attitude towards organic products. This was found to be significant with research papers proposed by Urban et al., (2012) and Vieira et al., (2013). The personal values and belief system that, organic food products tend to support the local community, have better taste and quality and incur a lower susceptibility to diseases. Furthermore, the findings from Kottala & Singh (2015) also supports this notion, indicating the positively established relationship to be a result of the perception that organic food products are "virtually free from hazards". Previous studies like the study done by Napetti and Zanolli (2006) or the study done by Chen (2007) showed that there is a positive relationship between perceived benefits of organic food and its influence on the consumer's attitude towards organic food. The results of this paper show that just like previous studies have stated, there is a significant influence of perceived benefits on influencing consumers towards organic food. However, the results of this study also showed that perceived benefits negatively influence the attitude towards organic food. Therefore, this study contradicts the results of past studies done on the relationship between perceived benefits and their influence on organic food. As mentioned above, past studies on the relationship between perceived risks and attitude towards organic food showed that perceived risks may significantly affect the attitude of consumers. This was shown by studies such as the study done by Eom (1994) or Dreezen et al., (2005) where the consumer's perceived risks of non-organic produce made their attitude positive towards organic produce. Although this study

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posited a significant relationship, it was seen that perceived risks from synthetic and inorganic food created a negative intent to consume inorganic food. Hence, the result of this study affirms the results of past studies.

VI. CONCLUSIONS

The findings of this study provide useful implications for firms and marketers in the organic food industry. The research results tend to be both, consistent (in the context of personal values and perceived risks) and contradictory (in the context of perceived benefits and attitude) from the initially proposed Health-Belief model. The study indicates that, despite having a significant relationship between perceived benefits of organic food on health, it tends to be negative, and attitude is shown to have no significant relationship with purchasing intention. Albeit to this finding, it is strongly recommended that marketers and organic food brands should consistently invest in developing a favourable attitude towards the brand and market the benefits of organic food products to non-organic and synthetic food products. Several consumer groups in today's period could still be unaware of the health-benefits of organic food, or there exists a high probability that, the consumers have established the habit of non-organic food consumption and are unwilling to risk the change due to fear of uncertainty. This fear of uncertainty can be established because of being 'uninformed' about organic food products and their benefits. Therefore, marketing messages surrounding the perceived benefits for Generation-Z consumers could eventually produce a positive attitude established towards organic food products. In addition to that, marketers and organic food brands should also display the risks of synthetic food consumption as a means of fear marketing. As it was found that, perceived risks had a significant relationship with attitude, this could imply that, inducing fear marketing on risks exposed by consuming synthetic food (like consumption of pesticides and insecticides and long-term susceptibility to chronic diseases) could have a long-term influence on consumer attitude. Finally, the marketers and organic food brands are recommended to develop marketing messages that are key trigger for personal values, for instance, organic food consumption and local community support. This can provide a fulfilling experience for the consumers of organic food and influence the consumer attitude positively. One of the key limitations of this study was that it was conducted within the premises of high-school and university-level students due to the convenient reach of the researcher. At this level, many of the students have a stronger desire to "fit-in" the society, and thus, can consume organic food as a trend, rather than seeking benefits or weighing the risks of non-organic food products. Furthermore, the population, at majority, encompasses those who were Thai nationality, and therefore, limits the generalization of the research. Based on this, future researchers are recommended to expand their sample composition, for instance, Generation-Y (millennial) and Generation-X (Baby Boomers) and perform comparative research. Following the generational cohort theory, comparative research can produce insightful findings between Generation-Y and Generation-Z, and differences in their behaviour towards the consumption of organic food.

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REFERENCES

- 1) Baker, B. P., Benbrook, C. M., Groth, E. & Benbrook, K. L. (2002) Pesticide residues in conventional, IPM-grown and organic foods: Insights from three U.S. data sets, *Food Additives and Contaminants*, 19, 427-446.
- 2) Becker, M. H. (1974). The health belief model and personal health behavior. *Health Education Monographs*, 2, 324–473.
- 3) Chen, M.F. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: moderating effects of food-related personality traits. *Food Quality and preference*, 18(7), 1008-1021.
- 4) Cision (2020). Gen Z & millennial consumers naturally favour organic foods & beverages, reports packaged facts. Retrieved from: <https://www.prnewswire.com/news-releases/Generation-z-and-millennial-consumers-naturally-favor-organic-foods-and-beverages-reports-packaged-facts-300982951.html>
- 5) Darker, C., (2013). Risk perception. *Encyclopedia of Behavioral Medicine*. New York: Springer.
- 6) Dreezens, E., Martijin, C., Tenbult, P., Kok, G. & Vries, N. K. (2005) Food and values: an examination of values underlying attitudes toward genetically modified and organically grown food products, *Appetite*, 44, 115-122
- 7) Emese, C. Z., (2016). The Z generation. *Acta Technologica Dubnicae*, 6(2), 63-76.

Organic Foods in Thailand: The Study of Attitude, Perception, and Purchasing Intention Among Generation-Z

- 8) Eom, Y. S. (1994). Pesticide residue risk and food safety valuation: A random utility approach. *American Journal of Agricultural Economics*, 76, 760-771.
- 9) Fam, K. S., de Run, E. C., Shukla, P., & Weng, J. T. (2013). Consumers' personal values and sales promotion preferences effect on behavioural intention and purchase satisfaction for consumer product. *Asia Pacific Journal of Marketing and Logistics*, 25(1), 70-101.
- 10) Farrell, W. C., & Phungsoonthorn, T. (2020). Generation Z in Thailand. *International Journal of Cross-Cultural Management*, 20(1), 25-51.
- 11) FSA (2020). The future consumer – Food & Generation Z. Retrieved from: <https://www.food.gov.uk/sites/default/files/media/document/generation-z-full-report-final.pdf>
- 12) Gifford, K. & Bernard, J.C. (2005) Influencing consumer purchase likelihood of organic food, *International Journal of Consumer Studies*, 30(2), 156-163
- 13) Hamm, U., Gronefeld, F. & Halpin, D. (2002). Analysis of the European market for organic food: Organic marketing initiatives and rural development. PDF.
- 14) Harper, G. C., & Makatouni, A. (2002). Consumer Perception of Organic Food Production and Farm Animal Welfare. *British Food Journal*, 104(3), 287-299.
- 15) Homer, P. M., & Kahle, L. R. (1988). A structural equation test of the value-attitude-behavior hierarchy. *Journal of Personality and social Psychology*, 54(4), 638.
- 16) Huang, C. L. (1993). Simultaneous-equation model for estimating consumer risk perceptions, attitudes, and willingness-to-pay for residue-free produce. *The Journal of Consumer Affairs*, 27, 377-396
- 17) IFT (2020). Organic food sales hit \$50 billion in 2019. Retrieved from: [https://www.ift.org/news-and-publications/news/2020/june/10/organic-food-sales-hit-\\$50-billion-in-2019](https://www.ift.org/news-and-publications/news/2020/june/10/organic-food-sales-hit-$50-billion-in-2019)
- 18) Israel, G. D. (1992). Determining sample size.
- 19) Kamenidou, I. E., Stavrianea, A., & Bara, E. Z. (2020). Generational differences toward organic food behaviour: Insights from five generational cohorts. *Sustainability*, 12(6), 2299.
- 20) Kottala, S. Y., & Singh, R. (2015). A review of sustainability, deterrents, personal values, attitudes & purchase intentions in the organic food supply chain. *Pacific Science Review B: Humanities & Social Sciences*, 1(3), 114-123.
- 21) Kropp, F., Lavack, A. M., & Silvera, D. H. (2005). Values and collective self-esteem as predictors of consumer susceptibility to interpersonal influence among university students. *International Marketing Review*, 22(1), 7-33.
- 22) Kymäläinen, T., Seisto, A., & Malila, R. (2021). Generation Z Food Waste, Diet & Consumption Habits: A Finnish Social Design Study with Future Consumers. *Sustainability*, 13(4), 2124.
- 23) Leung, Y., 2013. Perceived benefits. *Encyclopedia of Behavioral Medicine*. New York: Springer.
- 24) Lim, P., & Parker, A. (2020). *Mentoring Millennials in an Asian Context*. Emerald Publishing Limited.
- 25) Lin, Y., Yang, S., Hanifah, H., & Iqbal, Q. (2018). An exploratory study of consumer attitudes toward green cosmetics in the UK market. *Administrative Sciences*, 8(4), 71.
- 26) Lockie, S., Lyons, K., Lawrence, G., & Grice, J. (2004). Choosing Organics: A Path Analysis of Factors underlying the Selection of Organic food among Australian Consumers. *Appetite*, 43(2), 135-146.
- 27) Naspetti, S. & Zanolli, R. (2006) Organic food quality and safety perception throughout Europe, EAAE Seminar. PDF.
- 28) Padel, S. & Foster, C. (2005) Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food. *British Food Journal*, 107(8), 606-625.
- 29) Pellegrini, G. & Farinello, F. (2009). Organic consumers and new lifestyles. An Italian country survey on consumption patterns. *British Food Journal*, 111(9), 948-974.
- 30) Pribadi, E. T., & Devy, S. R. (2020). Application of the Health Belief Model on the intention to stop smoking behavior among young adult women. *Journal of Public Health Research*, 9(2), 21-37.
- 31) Rizzo, G., Borrello, M., Dara Guccione, G., Schifani, G., & Cembalo, L. (2020). Organic food consumption: The relevance of the health attribute. *Sustainability*, 12(2), 595.
- 32) Rosenstock, I. M. (1966). Why people use health services. *Milbank Memorial Fund Quarterly*, 44, 94–127.
- 33) Statista (2021). Share of consumers who purchased organic or natural beauty & personal care products in the United States in 2018, by generation. Retrieved from: <https://www.statista.com/statistics/1077900/natural-organic-beauty-product-consumers-by-generation-in-the-us/>
- 34) Statista (2021). Worldwide sales of organic food from 1999 to 2019. Retrieved from: <https://www.statista.com/statistics/273090/worldwide-sales-of-organic-foods-since-1999/>

Organic Foods in Thailand: The Study of Attitude, Perception, and Purchasing Intention Among Generation-Z

- 35) Tajeddini, K., & Nikdavoodi, J. N. (2014). Cosmetic buying behavior: examining the effective factors. *Journal of Global Scholars of Marketing Science*, 24(4), 395-410.
- 36) Upenn (2021). HBM – Main Constructs. Retrieved from: <https://www.med.upenn.edu/hbhe4/part2-ch3-main-constructs.shtml>
- 37) Vindigni, G., Janssen, M.A. & Jager, W. (2002). Organic food consumption: A multi-theoretical framework of consumer decision making, *British Food Journal*, 104(8), 624-642.
- 38) Yazdanpanah, M., Forouzani, M., & Hojjati, M. (2015). Willingness of Iranian young adults to eat organic foods: Application of the Health Belief Model. *Food quality & preference*, 41, 75-83.



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